



CONSULTANTS
· ENVIRONMENTAL
· GEOTECHNICAL
· MATERIALS
· FORENSICS

June 25, 2018

Mr. Frank Hunter
Esch Construction Supply, Inc.
561 Phalen Blvd,
St. Paul, MN 55130

RE: Personal Silica Exposure Monitoring
Construction Labors Training Center
2180 Old Hwy 8 NW
New Brighton, MN 55112
AET Project No. 03-20037

Dear Mr. Hunter:

American Engineering Testing, Inc. (AET) has completed the outdoor respirable dust and silica exposure monitoring for workers operating a Metabo 12-125 HD Grinder fitted with Esch Chamfer “Edge Eater” Shroud and attached to a high efficiency particulate air (HEPA) filtered Pulse-Bac 500 Series Vacuum. Our services were conducted on May 17, 2018, and performed in accordance with our Proposal No.03-20037 dated May 10, 2018.

We appreciate your business and the opportunity to have been of service to you. If you have any questions regarding the information in this report or if we can be of additional service, please do not hesitate to contact me.

Sincerely,

Sincerely,
American Engineering Testing, Inc.

A handwritten signature in blue ink that reads 'Todd Lewis'. The signature is stylized with a large, sweeping initial 'T'.

Todd Lewis
Senior Environmental Scientist
Phone: 651-603-6629
Email: tlewis@amengtest.com



CONSULTANTS
· ENVIRONMENTAL
· GEOTECHNICAL
· MATERIALS
· FORENSICS

Silica Exposure Monitoring

Esch Construction Supply, Inc.

561 Phalen Blvd.
Saint Paul, MN 55130

AET Project No. 03-20037

Date:

June 25, 2018



Prepared for:

Esch Construction Supply, Inc.
561 Phalen Blvd,
St. Paul, MN 55130

www.amengtest.com



TABLE OF CONTENTS

	<u>Page</u>
TABLE OF CONTENTS.....	i
EXECUTIVE SUMMARY	ii
1.0 INTRODUCTION	1
1.1 PURPOSE.....	1
1.4 SCOPE OF SERVICES	1
2.0 REGULATORY LIMITS	2
3.0 SAMPLING METHODS AND ANALYSIS	2
4.0 RESULTS AND INTERPRETATION.....	2
5.0 CONCLUSIONS.....	3
6.0 RECOMMENDATIONS	3
7.0 STANDARD OF CARE	3

TABLES

1. Exposure Limits
2. Laboratory Results Compared to Exposure Limits

APPENDICES

- A. Laboratory Analytical Report
- B. Laboratory Accreditation

EXECUTIVE SUMMARY

American Engineering Testing, Inc (AET) was requested by Mr. Frank Hunter from Esch Construction Supply, Inc. to assess an employee's personal exposure to respirable dust and silica while operating a Metabo 12-125 HD Grinder fitted with the Esch Chamfer "Edge Eater" Shroud which is a new product to the construction industry. The testing was conducted to determine if the Esch Chamfer "Edge Eater" met the OSHA Respirable Crystalline Silica in Construction Regulation – 29 CFR 1926.1153 when using the device outdoors. AET monitored for silica (quartz, cristobalite, and tridymite) on May 17, 2018. The monitoring was performed at the Cement Masons, Plasterers and Shophands Local 633 Training Center located at 2180 Old Hwy 8 NW, New Brighton, MN 55112.

OSHA's acceptable methods when working with materials containing silica is outlined in Table 1 – Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica (29 CFR 1926.1153). Monitoring was conducted outdoors while the high efficiency particulate air (HEPA) filtered Pulse-Bac 500 Series Vacuum was used for dust control rather than water. When the controls listed are not "fully and properly" implemented, contractors must conduct exposure assessments for the workers who may be exposed above the Action Level (AL) of 25 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) or 0.025 milligrams per cubic meter (mg/m^3) and ensure they are not exposed to airborne concentrations above the silica permissible exposure limit (PEL) as an 8-hour time-weighted average (TWA) of 50 $\mu\text{g}/\text{m}^3$ (0.050 mg/m^3). Respirable dust should also be below 5.0 mg/m^3 .

AET monitored personal exposure to respirable dust and silica by obtaining the following from SGS Galson Laboratories.:

- An AirChek 52 low flow pump was calibrated to draw 2.5 liters per minute,
- A Galson 37mm, 5 μ , pre-weighted PVC membrane filter cassette, and
- Aluminum Cyclone.

The assembled sampling train was mounted on the person operating the Metabo 12-125 HD Grinder assemblage with the filter cassette and cyclone located in the operator's breathing zone. Testing occurred while operating the Metabo 12-125 HD Grinder and blade fitted with an Esch Chamfer "Edge Eater" and attached to a HEPA filtered Pulse-Bac 500 Series Vacuum. 600 liters of air were collected over a 240-minute sample duration. The sample cassette was submitted to SGS Galson Laboratories for determining respirable dust and silica content.

The analytical results revealed silica was <25 $\mu\text{g}/\text{m}^3$ (<0.025 mg/m^3) and respirable dust was <5.0 mg/m^3 over the sample duration. Based on these results, silica and respirable dust exposures are below the OSHA ALs and 8-hour TWAs. The dust and silica results are within acceptable concentrations. No further testing is required.

1.0 INTRODUCTION

Esch Construction Supply wanted to know if the Esch Chamfer “Edge Eater” attached to a Metabo HD -125 Grinder and connected a high efficiency particulate air (HEPA) filtered Pulse-Bac 500 Series Vacuum, and used outdoors, met the requirements for the Occupational Safety and Health Administration (OSHA) Table 1 of the Respirable Crystalline Silica in Construction Regulation 29 CFR 1926.1153. Dry grinding concrete outdoors is permitted by OSHA Respirable Crystalline Silica in Construction Regulation when the grinder is attached to a shroud and connected to a HEPA filtered vacuum. However, the Esch Chamfer “Edge Eater” is an atypical shroud used to create or clean a chamfered 45-degree bevel edge. Since the Esch Chamfer “Edge Eater” shroud is a new product to the construction industry, testing was conducted to demonstrate personal exposure to silica is controlled when the shroud is properly attached to the grinder and operated in conjunction with a HEPA filtered Pulse-Bac 500 Series Vacuum. The OSHA Respirable Crystalline Silica in Construction Regulation requires the contractor show that worker exposures will remain below the Action Level (AL) of 25 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) or 0.025 milligrams per cubic meter (mg/m^3) and the 8-hour time-weighted average (TWA) of 50 $\mu\text{g}/\text{m}^3$ (0.050 mg/m^3) under all foreseeable conditions. Otherwise, the operator is required to wear, at a minimum, a respirator with an assigned protection factor (APF) of 10. Respirable dust should also be below 5.0 mg/m^3 .

Quartz or crystalline silica is a natural mineral commonly found in quartzite, granite, sandstone, and sand. When inhaled, silica cannot be extracted from lung tissue; overtime the lung tissue becomes inflamed, which causes scarring and limits the ability of the lungs to take in oxygen. This condition is called silicosis.

Cristobalite and Tridymite are high temperature polymorphs of silica. Cristobalite is a form of crystalline silica that is formed at high temperatures (≤ 1470 °C) in such places as volcanos. Although naturally occurring, Cristobalite is relatively rare. Tridymite is another material formed at high temperatures (≤ 870 °C) and is also associated with volcanic activity. Tridymite is rarely found in nature and rarely reported in the workplace. The vast majority of crystalline silica encountered by employees in the United States is in the quartz form.

1.1 PURPOSE

The purpose for the personal air monitoring is to (1) determine the personal silica and respirable dust exposure levels when using a Esch Chamfer “Edge Eater”, attached to a Metabo 12-125 HD Grinder and connected to a HEPA filtered Pulse-Bac 500 Series Vacuum, (2) compare the results to the ALs and TWAs, and (3) recommend next steps, if the results do not meet the OSHA ALs or TWAs.

1.4 SCOPE OF SERVICES

AET proposed to perform the following tasks to achieve the project purpose:

-
- Acquire personal pumps, cyclone and pre-weighted cassettes from the analyzing laboratory.
 - Perform the monitoring by mounting a low flow pump, cyclone, and PVC Membrane Filter, 5.0 µm, 37 mm pre-weighted filter cassette to the person assigned to operate the Metabo 12-125 HD Grinder with an attached Esch Chamfer “Edge Eater” with a blade and connected to a HEPA filtered Pulse-Bac 500 Series Vacuum. Testing shall occur at the Cement Masons, Plasterers and Shophands Local 633 Training Center located at 2180 Old Hwy 8 NW, New Brighton, MN 55112.
 - Submit the collected sample to an accredited laboratory for silica NIOSH 7500 (silica) and NIOSH 0600 (respirable dust) analytical methods.

2.0 EXPSOURE LIMITS

The regulatory limits by OSHA and non-regulatory limits recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) and National Institute for Occupational Safety and Health (NIOSH) are provided in the Table 1 following this report. The non-regulatory limits are recommended and not enforceable by law.

3.0 SAMPLING METHODS AND ANALYSIS

SDS Galson Laboratories provided AET with a calibrated GilAir Plus low flow sampling pump, cyclone and a pre-weighed three-piece cassette manufactured by Galson. The GilAir Plus low flow sampling pump was calibrated by SDS Galson Laboratories before and after the sampling activity.

Testing occurred while staff from Esch Construction Supply, Inc. operated the Metabo HD -125 Grinder with the Esch Chamfer “Edge Eater” and attached to a HEPA filtered Pulse-Bac 500 Series Vacuum during the grinding process. Personal exposure monitoring was conducted while grinding cured concrete over a 240-minute sample duration. The testing was performed at the Construction Labors Training Center located at 2180 Old Hwy 8 NW, New Brighton, MN 55112. After sampling was completed, the sample cassette was submitted to SGS Galson Laboratories.

The sample was analyzed for silica (quartz, cristobalite, and tridymite) using the NIOSH 7500/OSHA ID 142 analytical method and for respirable dust using the NIOSH 0600 analytical method.

4.0 RESULTS AND INTERPRETATION

Table 2 summarizes the sample result for personal exposure monitoring for silica and respirable dust which are compared to the OSHA AL and TWA regulatory limit and non-regulatory limits by ACGIH and NIOSH. The laboratory analytical report is available in Appendix A. The laboratory accreditation is found in Appendix B.

5.0 CONCLUSIONS

- The silica personal exposure result for the sampling duration was $<8.3 \mu\text{g}/\text{m}^3$ ($<0.0083 \text{mg}/\text{m}^3$), which is below the action level of $25 \mu\text{g}/\text{m}^3$ ($0.025 \text{mg}/\text{m}^3$) and 8-hour TWA of $50 \mu\text{g}/\text{m}^3$ ($0.05 \text{mg}/\text{m}^3$).
- Respirable dust personal exposure result for the sampling duration was $<0.083 \text{mg}/\text{m}^3$ which is below the 8-hour TWA of $5 \text{mg}/\text{m}^3$.
- Based on the laboratory report, the personal exposure sample results were below the respective OSHA AL, OSHA TWA, ACGIH TLV and NIOSHH REL on the day of the sampling.

6.0 RECOMMENDATIONS

The recommendations provided in this report are based on the available information, our observations, and interpretation of the sample results.

- Since the results were below the regulated PELs, additional sampling to determine exposure is not required.

7.0 STANDARD OF CARE

The Standard of Care for all professional services performed or furnished by AET are at the level and care used ordinarily exercised by members of the profession practicing under similar conditions at the same time, locality, and cost constraints. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during the building survey. The information contained in this report is relevant to the date on which this survey was performed. AET provides no warranty, expressed or implied, in connection with the services.

If you have questions about this report or would like to discuss the assessment methods, findings or recommendations in more detail, please do not hesitate to contact me at 651-603-6629 or at tlewis@amengtest.com.

Sincerely,

American Engineering Testing, Inc.



Todd Lewis
Senior Environmental Scientist
Phone: 651-603-6629
Email: tlewis@amengtest.com

Reviewed by.



Bruce Boehm Carlson
Senior Environmental Project Manager

Tables

**TABLE 1
SUMMARY OF EXPOSURE LIMITES
AET Project No. 03-20037**

Material	OSHA		ACGIH	NIOSH
	AL	TWA	TLV	REL
Respirable Dust	-	5.0 mg/m ³	3.0 mg/m ³	No REL
Silica: Quartz, Cristobalite, Tridymite)	25 µg/m ³ (0.025 mg/m ³)	50 µg/m ³ (0.05 mg/m ³)	0.025 mg/m ³	0.05 mg/m ³

AL – Action Level

TWA – 8-hour time weighted average

TLV – Threshold Limit Value

REL – Recommended Exposure Limit

**TABLE 2
SUMMARY OF LABORATORY RESULT
COMPARED TO EXPOSURE LIMITS
AET Project No. 03-20037**

Material	Sample Result	OSHA		ACGIH (TLV)	NIOSH (REL)
		AL	TWA		
Respirable Dust	<0.083 mg/m ³	-	5.0 mg/m ³	3.0 mg/m ³	No REL
Silica Quartz	<8.3 µg/m ³ (<0.0083 mg/m ³)	25 µg/m ³ (0.025 mg/m ³)	50 µg/m ³ (0.05 mg/m ³)	0.025 mg/m ³	0.05 mg/m ³

AL – Action Level

TWA – 8-hour time weighted average

TLV – Threshold Limit Value

REL – Recommended Exposure Limit

Appendix A

Laboratory Analytical Report

SGS**GALSON**

Mr. Todd Lewis
American Engineering Testing, Inc.
550 Cleveland Avenue North
St. Paul, MN 55114

May 29, 2018

DOH ELAP #11626
AIHA-LAP #100324

Account# 30393

Login# L443868

Dear Mr. Lewis:

Enclosed are the analytical results for the samples received by our laboratory on May 21, 2018. 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. When possible, non-IOM samples will be retained for 14 days following the date of this report (unless an extension is specifically requested). IOM samples are retained for 7 days.

Current Scopes of Accreditation can be viewed at www.sgsgalson.com in the accreditations section of the "About" page.

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

Sincerely,

SGS Galson



Lisa Swab
Laboratory Director

Enclosure(s)



GALSON

LABORATORY ANALYSIS REPORT

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

Client	: American Engineering Testing,	Account No.:	30393
Site	: ESCH	Login No. :	L443868
Project No.	: 03-20037		
Date Sampled	: 17-MAY-18	Date Analyzed	: 23-MAY-18
Date Received	: 21-MAY-18	Report ID	: 1066995

Respirable Dust

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> liter	<u>Total</u> mg	<u>Conc</u> mg/m3
1SD 8253	L443868-1	600	<0.050	<0.083

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

Level of quantitation: 0.050 mg	Submitted by: KPB	
Analytical Method : mod. NIOSH 0600; Gravimetric	Approved by : NRH	
OSHA PEL : PNOR 5 mg/m3 (TWA)	Date : 23-MAY-18	NYS DOH # : 11626
Collection Media : PVC PW 37mm	Supervisor: KRK	QC by: AMD

< -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	



GALSON

LABORATORY ANALYSIS REPORT

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

Client : American Engineering Testing, Account No.: 30393
 Site : ESCH Login No. : L443868
 Project No. : 03-20037
 Date Sampled : 17-MAY-18 Date Analyzed : 23-MAY-18 - 28-MAY-18
 Date Received : 21-MAY-18 Report ID : 1067853

Respirable Crystalline Silica (RCS): Quartz, Cristobalite, Tridymite

Sample ID	Lab ID	Analyte	Air Vol		
			l	ug	ug/m3
1SD 8253	L443868-1	Quartz	600	<5.0	<8.3
		Cristobalite	600	<5.0	<8.3
		Tridymite	600	<20	<33
		RCS	600	<5.0	<8.3

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

Level of quantitation: Q:5.0ug C:5.0ug T:20.ug Submitted: AJD
 Analytical Method : mod. NIOSH 7500/mod. OSHA ID-142; XRD Approved: CMR
 OSHA PEL : 50 ug/m3 RCS Date : 29-MAY-18 NYS DOH # : 11626
 Collection Media : PVC PW 37mm Supervisor: KRK QC by: AMD

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



GALSON

LABORATORY FOOTNOTE REPORT

Client Name : American Engineering Testing, Inc.
 Site : ESCH
 Project No. : 03-20037

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

Date Sampled : 17-MAY-18 Account No.: 30393
 Date Received: 21-MAY-18 Login No. : L443868
 Date Analyzed: 23-MAY-18 - 28-MAY-18

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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

Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process. The findings herein constitute no warranty of the samples' representativeness of any sampled environment and strictly relate to the samples as they were presented to the laboratory.

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 preceding the final result column may have been rounded and therefore, if carried through the calculations, 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.

L443868 (Report ID: 1066995):
 SOPs: GRAV-SOP-5(18), GRAV-SOP-6(17)
 Gravimetric analytical accuracy of the sampling media is 0.002 +/- 0.018 mg (average blank weight change +/- 95% confidence interval or k=2). The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.
 PNOR = Particulates Not Otherwise Regulated.

L443868 (Report ID: 1067853):
 SOPs: ix-xrdreview(13), ix-xrdashprep(30), ix-calibrate(12), ix-xrdstdprep(26)

<	-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


GALSON

LABORATORY FOOTNOTE REPORT

Client Name : American Engineering Testing, Inc.
 Site : ESCH
 Project No. : 03-20037

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

Date Sampled : 17-MAY-18 Account No.: 30393
 Date Received: 21-MAY-18 Login No. : L443868
 Date Analyzed: 23-MAY-18 - 28-MAY-18

L443868 (Report ID: 1067853):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Cristobalite	+/-16.6%	96.2%
Quartz	+/-12%	93%
Tridymite	+/-19.5%	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



L443828

99

GALSON

CHAIN OF CUSTODY

Turn Around Time (TAT):	(surcharge)	You may edit and complete this COC electronically by logging in to your Client Portal account at https://portal.galsonlabs.com/			
<input checked="" type="checkbox"/> Standard	0%	Client Acct No.:	Report To: <u>Mr. Todd Lewis</u>	Invoice To: <u>Ms. Michelle Heutmaker</u>	
<input type="checkbox"/> 4 Business Days	35%	30393	Company Name: <u>American Engineering Testing, Inc.</u>	Company Name: <u>American Engineering Testing, Inc.</u>	
<input type="checkbox"/> 3 Business Days	50%	Original Prep No.:	Address 1: <u>550 Cleveland Avenue North</u>	Address 1: <u>550 Cleveland Avenue North</u>	
<input type="checkbox"/> 2 Business Days	75%	PSY478253	Address 2:	Address 2:	
<input type="checkbox"/> Next Day by 6pm	100%	CS Rep: <u>KARCHONG</u>	City, State Zip: <u>St. Paul, MN 55114</u>	City, State Zip: <u>St. Paul, MN 55114</u>	
<input type="checkbox"/> Next Day by Noon	150%	Online COC No.:	Phone No.: <u>651 - 603 - 6629</u>	Phone No.: <u>651 - 659 - 9001</u>	
<input type="checkbox"/> Same Day	200%	153342	Cell No.:	Email Address: <u>mheutmaker@amengtest.com</u>	
<input checked="" type="checkbox"/> Samples submitted using the FreePumpLoan™ Program			Email reports to: <u>tlewis@amengtest.com</u>	Comments:	
<input type="checkbox"/> Samples submitted using the FreeSamplingBadges™ Program			Comments:	P.O. No.:	
				Payment info.:	<input type="checkbox"/> I will call SGS Galson to provide credit card info <input type="checkbox"/> Card on File (enter the last five digits on the line below)

Comments: Sample volume 600L
Pump BW2911

State Sampled: MN

Please indicate which OEL(s) this data will be used for:
 OSHA PEL ACGIH TLV MSHA Cal OSHA
 IAQ: _____ Other: _____
 Specify Limit(s) Specify Other

Site Name: ESCH Project: 03-20027
03-20037 Sampled By: Todd Lewis

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

Sample ID * (Maximum of 20 Characters)	Date Sampled *	Collection Medium	Sample Volume Sample Time Sample Area *	Liters Minutes in ² , cm ² , ft ² *	Analysis Requested	Method Reference ^	Hexavalent Chromium Process (e.g., welding, plating, painting, etc.)
<u>1SD 8253</u>	<u>5-17-18</u>	<u>3pc 37mm PW PVC</u>	<u>240min</u>	<u>2.5 1/4</u>	<u>Silica, crystalline quartz, cristobalite, & tridymite (with respirable dust)</u>	<u>mod. NIOSH 0600/7500/mod. OSHA ID-142; Grav./XRD</u>	

^ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature	Date	Time	Print Name / Signature	Date	Time
Relinquished By:	<u>Todd Lewis</u>	<u>5-18-18</u>		Received By:		
Relinquished By:	<u>[Signature]</u>			Received By:	<u>[Signature]</u>	<u>5/21/18 12:47</u>

* You must fill in these columns for any samples which you are submitting.
 Samples received after 3pm will be considered as next day's business.
 Online COC No.: 153342 Prep No.: PSY478253
 Account No.: 30393 Draft: 5/11/2018 4:42:18 PM

All services are rendered in accordance with the applicable SGS General Conditions of Service accessible via: <http://www.sgs.com/en/Terms-and-Conditions.aspx>

Appendix B

Laboratory Accreditation



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

SGS Galson Laboratories, Inc.

6601 Kirkville Road, East Syracuse, NY 13057

Laboratory ID: 100324

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- | | |
|---|---|
| <input checked="" type="checkbox"/> INDUSTRIAL HYGIENE | Accreditation Expires: October 01, 2018 |
| <input checked="" type="checkbox"/> ENVIRONMENTAL LEAD | Accreditation Expires: October 01, 2018 |
| <input checked="" type="checkbox"/> ENVIRONMENTAL MICROBIOLOGY | Accreditation Expires: October 01, 2018 |
| <input type="checkbox"/> FOOD | Accreditation Expires: |
| <input type="checkbox"/> UNIQUE SCOPES | Accreditation Expires: |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

William Walsh, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 15: 03/30/2016

Date Issued: 08/31/2016