



GALSON

**Mr. Ben Chandler
GHD Services Inc.
11719 Hinson Road
Suite 100
Little Rock, AR 72212**

June 18, 2019

Account# 29016

Login# L482834

Dear Ben Chandler:

Enclosed are the analytical results for the samples received by our laboratory on June 14, 2019. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

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

Sincerely,

SGS Galson

A handwritten signature in black ink that reads 'Lisa Swab'. The signature is written in a cursive, flowing style.

**Lisa Swab
Laboratory Director**

Enclosure(s)

Terms and Conditions & General Disclaimers

- 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.

Analytical Disclaimers

- Unless otherwise noted within the report, 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, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample’s representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgs.com.
- 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 within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <http://www.sgs.com> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials
Texas	Texas Dept. of Licensing and Regulation	Lab ID: 1042	Mold Analysis Laboratory license

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms



GALSON

LABORATORY ANALYSIS REPORT

LELAP Lab ID #04083

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

Client : GHD Services Inc.
Site : LAKE COUNTY
Project No. : 11197130 11197364
Date Sampled : 12-JUN-19
Date Received : 14-JUN-19

Account No.: 29016
Login No. : L482834
Date Analyzed : 14-JUN-19 - 15-JUN-19
Report ID : 1141470

Ethylene Oxide

Galson ID:	L482834-1	L482834-2	L482834-3
Client ID:	AIR-11197130-DS-15	AIR-11197130-DS-16	AIR-11197130-DS-17

	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Ethylene oxide	0.040	0.072	0.24	0.43	0.23	0.41	0.33	0.60

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : 6L Canister
Submitted by : BLD

Approved by : SAP
Date : 18-JUN-19

Supervisor: SAP



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LABORATORY ANALYSIS REPORT

LELAP Lab ID #04083

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

Client : GHD Services Inc.
Site : LAKE COUNTY
Project No. : 11197130 11197364
Date Sampled : 12-JUN-19
Date Received : 14-JUN-19

Account No.: 29016
Login No. : L482834
Date Analyzed : 14-JUN-19 - 15-JUN-19
Report ID : 1141470

Ethylene Oxide

Galson ID:	L482834-4	L482834-5	L482834-6
Client ID:	AIR-11197130-DS-18	AIR-11197130-DS-19	AIR-11197130-DS-20

	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Ethylene oxide	0.040	0.072	0.17	0.31	0.11	0.19	0.11	0.19

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : 6L Canister
Submitted by : BLD

Supervisor: SAP
Approved by : SAP
Date : 18-JUN-19



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LABORATORY ANALYSIS REPORT

LELAP Lab ID #04083

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

Client : GHD Services Inc.
Site : LAKE COUNTY
Project No. : 11197130 11197364
Date Sampled : 12-JUN-19
Date Received : 14-JUN-19

Account No.: 29016
Login No. : L482834
Date Analyzed : 14-JUN-19 - 15-JUN-19
Report ID : 1141470

Ethylene Oxide

Galson ID:	L482834-7	L482834-8	L482834-9
Client ID:	AIR-11197130-DS-21	AIR-11197130-DS-22	AIR-11197130-DS-23

	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Ethylene oxide	0.040	0.072	0.13	0.24	0.18	0.32	0.053	0.095

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : 6L Canister
Submitted by : BLD

Supervisor: SAP
Approved by : SAP
Date : 18-JUN-19



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LABORATORY ANALYSIS REPORT

LELAP Lab ID #04083

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
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Client : GHD Services Inc.
Site : LAKE COUNTY
Project No. : 11197130 11197364
Date Sampled : 12-JUN-19
Date Received : 14-JUN-19

Account No.: 29016
Login No. : L482834
Date Analyzed : 14-JUN-19 - 15-JUN-19
Report ID : 1141470

Ethylene Oxide

Galson ID: L482834-10
Client ID: AIR-11197130-DS-24

	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3
Ethylene oxide	0.040	0.072	0.065	0.12		

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : 6L Canister
Submitted by : BLD

Approved by : SAP
Date : 18-JUN-19

Supervisor: SAP



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LABORATORY FOOTNOTE REPORT

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

Client Name : GHD Services Inc.
Site : LAKE COUNTY
Project No. : 11197130/11197364

Date Sampled : 12-JUN-19
Date Received: 14-JUN-19
Date Analyzed: 14-JUN-19 - 15-JUN-19

Account No.: 29016
Login No. : L482834

L482834 (Report ID: 1141470):
SOPs: in-vocs(36)

L482834-4,6,10 (Report ID: 1141470):
Sample canisters were received at/near ambient pressure.

L482834 (Report ID: 1141470):
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
Ethylene oxide	+/-34.6%	103%

491552810580
 Date: 06/14/19
 Shipper: FEDEX
 Initials: MAK
 Prep: UNKNOWN

491552810558
 Date: 06/14/19
 Shipper: FEDEX
 Initials: MAK
 Prep: UNKNOWN

L482834

CHAIN OF CUSTODY

gray cart

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"/> <i>KMD</i> Standard 0%	Client Acct No.: 29016	Report To: <u>Mr. Ben Chandler</u>
<input type="checkbox"/> 4 Business Days 35%	Company Name: <u>GHD Services Inc.</u>	Invoice To: <u>ACCOUNTS PAYABLE</u>
<input type="checkbox"/> 3 Business Days 50%	Address 1: <u>11719 Hinson Road</u>	Company Name: <u>GHD Services Inc.</u>
<input type="checkbox"/> 2 Business Days 75%	Address 2: <u>Suite 100</u>	Address 1: <u>2055 Niagara Falls Blvd</u>
<input type="checkbox"/> Next Day by 6pm 100%	City, State Zip: <u>Little Rock, AR 72212</u>	Address 2: <u>Suite 3</u>
<input type="checkbox"/> Next Day by Noon 150%	Phone No.: <u>501 - 366 - 3999</u>	City, State Zip: <u>Niagara Falls, NY 14304</u>
<input type="checkbox"/> Same Day 200%	Cell No.: _____	Phone No.: <u>716 - 297 - 6150</u>
<input type="checkbox"/> Samples submitted using the FreePumpLoan™ Program	CS Rep: <u>JTRAINER</u>	Email Address: <u>Jennifer.Devonshire@ghd.com</u>
<input type="checkbox"/> Samples submitted using the FreeSamplingBadges™ Program	Online COC No.: <u>183288</u>	Comments: _____
	Email reports to: <u>benjamin.chandler@ghd.com, dyron.hamlin@ghd.com</u>	P.O. No.: _____
	Email EDD to: <u>benjamin.chandler@ghd.com, dyron.hamlin@ghd.com</u>	Payment info.: <input type="checkbox"/> I will call SGS Galson to provide credit card info
	Comments: _____	<input type="checkbox"/> Card on File (enter the last five digits on the line below)

Comments: Ambient Air Samples - Ethylene Oxide Report Results in ug/m³ and ppb State Sampled: IL

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: Lake County Project: 11197130 / 11197364 Sampled By: Daniel Showalter 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>Air-11197130-DS-15</u>	<u>6-12-2019</u>	<u>6-L Canister</u>	<u>6</u>	<u>L</u>	<u>Ethylene Oxide</u>	<u>mod. OSHA PV2120/mod. EPA TO15; GC/MS</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>Daniel Showalter</u>	<u>6-13-2019</u>	<u>1400</u>	Received By:		
Relinquished By:				<u>Michelle Krause</u>	<u>6/14/19</u>	<u>1140</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.: 183288
 Prep No.: PSY532692
 Account No.: 29016
 Draft: 6/11/2019 4:45:44 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>



GALSON

CHAIN OF CUSTODY

Comments :

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.)
Air-11197130-DS-16	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-17	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-18	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-19	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-20	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-21	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-22	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
Air-11197130-DS-23	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	

^ 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:	Daniel Showalter Dan Sh	6-13-2019	1400	Received By:		
Relinquished By:				Received By: Michelle Krause	6/14/19	1140

* 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. : 183288
 Prep No. : PSY532692
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CHAIN OF CUSTODY

Comments :

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.)
Air-11197130-DS-24	6-12-2019	6-L Canister	6	L	Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
		6-L Canister			Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
		6-L Canister			Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
		6-L Canister			Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
		6-L Canister			Ethylene Oxide	mod. OSHA PV2120/mod. EPA TO15; GC/MS	

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Chain of Custody	Print Name / Signature	Date	Time	Print Name / Signature	Date	Time
Relinquished By:	Daniel Showalter Dan Sh	6-13-2019	1140	Received By:		
Relinquished By:				Received By: Michelle Kreuse	1140	1140

* 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. : 183288
 Prep No. : PSY532692
 Account No. : 29016
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