

### ENVIRONMENTAL PROTECTION DIVISION

### Richard E. Dunn, Director

**EPD Director's Office** 2 Martin Luther King, Jr. Drive Suite 1456, East Tower Atlanta, Georgia 30334 404-656-4713

December 26, 2019

### **MEMORANDUM**

	Karen Hays, Air Branch Chief KH
To:	Karen Hays, Air Branch Chief

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington November 1 -23, 2019 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of November 1 - 23, 2019 by the Ambient Monitoring Program in the Covington area to characterize the EtO concentration. Each of the samples were sent to Eastern Research Group (ERG) for analysis. The samples listed as X indicate that the sample was not collected properly. The sample listed as QA is a sample taken side by side during the same time period to compare the precision of the measurement. The Qualifier code of "LK" was given by ERG to indicate that the sample may be biased high. The Qualifier code of "2" was given to indicate that the collection deviated from established procedures, but the integrity of the sample was not compromised.

Location	Date	Qualifier	EtO Concentration (ug/m3)
C1	11/1/2019		0.17
C1	11/3/2019		0.20
C1	11/5/2019		0.11
C1	11/8/2019		0.41
C1	11/15/2019		0.66
C2	11/1/2019	LK	0.22
C2	11/3/2019	LK	0.24
C2	11/5/2019	LK	0.17
C2	11/8/2019		0.05
C2	11/13/2019		0.17
C2	11/15/2019		0.25
C2	11/20/2019		1.01
C2	11/23/2019	2	0.42
C3	11/1/2019		0.13
C3	11/3/2019		0.22
C3	11/5/2019		Х

Mrs. Hays August 24, 2021 Page 2 of 2

		1	1 1
C3	11/8/2019		0.37
C3	11/13/2019		0.50
C3	11/15/2019		0.23
C3	11/20/2019		0.58
C3	11/23/2019		0.29
C4	11/1/2019		0.06
C4	11/3/2019		0.18
C4	11/5/2019		0.18
C4	11/8/2019		0.17
C4	11/13/2019		Х
C4	11/15/2019	2	0.15
C4	11/20/2019		1.00
C4	11/23/2019	2	0.48
C5	11/1/2019	LK, 2	0.09
C5	11/3/2019		0.22
C5	11/5/2019		0.09
C5	11/8/2019		0.22
C5	11/13/2019		0.18
C5	11/15/2019		Х
C5	11/20/2019		0.81
C5 QA	11/20/2019		0.76
C5	11/23/2019		0.12
	11/1/2010		0.06
C7	11/1/2019		0.06
<u>C7</u>	11/3/2019		0.35
C7	11/5/2019		0.20
C7	11/8/2019		0.22
C7	11/15/2019		0.12
C8	11/1/2019		0.1
C8	11/3/2019	LK, 2	0.1
		LK, 2 LK	0.22
C8	11/5/2019		
<u>C8</u>	11/8/2019		0.08
C8	11/15/2019		0.08
C9	11/1/2019		X
C9	11/3/2019		0.26
C9	11/5/2019		0.18
C9	11/8/2019		0.06
C9	11/15/2019		0.44
0.9	11/13/2017		0.44

If you have any questions, please let me know.

DGO/do



Eastern Research Group 601 Keystone Park Drive Suite 700 Morrisville, NC 27560

December 12, 2019

Ms. Jaime Gore U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 Project Name: Covington

Dear Ms. Jaime Gore,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 11/27/19 11:45.

The test results in this report are in compliance with NELAC accreditation requirements for the certified parameters. All analyses were performed as described in the US EPA-approved QAPP, under the contract for UATMP, NATTS, CSATAM, PAMS and NMOC support (US EPA Contract No. EP-D-14-030). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift Program Manager julie.swift@erg.com

The information contained in this report and its attachment(s) are intended only for the use of the individual to whom it is addressed and may contain information that is privileged, confidential, or exempt from disclosure. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this report is strictly prohibited. If you have received this report in error, please notify julie.swift@erg.com and delete the report without retaining any copies.

Page 1 of 14

# **NERG**

## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0516 

 FILE #: 4222.00

 REPORTED: 12/12/19 15:06

 SUBMITTED: 11/27/19

 AQS SITE CODE:

 SITE CODE:

 Covington

### ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	LabNumber	<u>Matrix</u>	Sampled	Received
C2	9112711-01	Air	11/20/19 23:59	11/27/19 11:45
C2	9112711-02	Air	11/23/19 23:59	11/27/19 11:45
C3	9112711-03	Air	11/20/19 23:59	11/27/19 11:45
C3	9112711-04	Air	11/23/19 23:59	11/27/19 11:45
C4	9112711-05	Air	11/20/19 23:59	11/27/19 11:45
C4	9112711-06	Air	11/23/19 23:59	11/27/19 11:45
C5	9112711-07	Air	11/20/19 23:59	11/27/19 11:45
C5	9112711-08	Air	11/23/19 23:59	11/27/19 11:45
C5 - QA	9112711-09	Air	11/20/19 23:59	11/27/19 11:45

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

NERG CERTIFICATE OF				ANALYSIS
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120			FILE #: 4222.00	
			REPORTED: 12/12/19 15:06	
Atlanta, GA 30354				SUBMITTED: 11/27/19
ATTN: Ms. Jaime Gore				AQS SITE CODE:
PHONE: (404) 362-4912 FAX:	(919) 541-0516			SITE CODE: Covington
Description: C2		Lab ID:	9112711-01	01 Sampled: 11/20/19 23:59
Pressure @ Receipt: 6.50" Hg		Canister #:	SAT063	Received: 11/27/19 11:45
Comments:				Analyzed: 12/03/19 21:00
• • • • • • • • • • • • • • • • • • •	Air To	xics by EPA	Compend	ndium Method TO-15
	<b>Results</b>	-	MDL	
<u>Analyte</u>	<u>ppbv ug/m³</u>	<u>Flag</u>	<u>ppbv</u>	<u>IV</u>
Ethylene oxide	0.562 1.01		0.0250	iO

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	ERTIFICATE OF	ANALYSIS	
U.S. Environmental Protection Agency, Regior	14	FILE #: 4222.00	
4244 International Pkwy, Suite 120		REPORTED: 12/12/19 15:06	
Allanta, GA 30354		SUBMITTED: 11/27/19	
ATTN: Ms. Jaime Gore		AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 541	-0516	SITE CODE: Covington	
Description: C2	Lab ID: 9112711-02	Sampled: 11/23/19 23:59	
Pressure @ Receipt: 16.50" Hg	Canister #: SAT069	<b>Received:</b> 11/27/19 11:45	
Comments:		Analyzed: 12/03/19 21:56	
	Air Toxics by EPA Compend	dium Method TO-15	
Resu			
Analyte ppby	<u>ug/m<sup>3</sup> Flag ppbv</u>		
Ethylene oxide 0.235	0.42 0.0250		

CER"	TIFICATE OF A	ANALYSIS
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0516		FILE #: 4222.00 REPORTED: 12/12/19 15:06
		SUBMITTED: 11/27/19 AQS SITE CODE: SITE CODE: Covington
Description: C3	Lab ID: 9112711-03	Sampled: 11/20/19 23:59 Received: 11/27/19 11:45
Pressure @ Receipt: 7.00" Hg Comments:	Canister #: 5007	Analyzed: 12/03/19 22:45
Air To Results	xics by EPA Compend MDL	lium Method TO-15
Analyte ppby ug/mi Ethylene oxide 0.319 0.58		

<b>NERG</b> C	ERTIFICATE C	F ANALYSIS
U.S. Environmental Protection Agency, Region 4244 International Pkwy, Suite 120 Atlanta, GA 30354	4	FILE #: 4222.00 REPORTED: 12/12/19 15:06 SUBMITTED: 11/27/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541	-0516	AQS SITE CODE: SITE CODE: Covington
Description: C3 Pressure @ Receipt: 6.50" Hg Comments:	Lab ID: 91127 Canister #: SAT	
Resu	lts ug/m³ Flag I	pendium Method TO-15 MDL ppbv .0250

NERG CER	TIFICATE OF A	ANALYSIS
U.S. Environmental Protection Agency, Region 4		FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/12/19 15:06
Atlanta, GA 30354		SUBMITTED: 11/27/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 541-0516		SITE CODE: Covington
Description: C4	Lab ID: 9112711-05	Sampled: 11/20/19 23:59
Pressure @ Receipt: 3.50" Hg	Canister #: SAT091	Received: 11/27/19 11:45
Comments:		Analyzed: 12/04/19 00:21
	oxics by EPA Compend MDL	lium Method TO-15
Analyte ppby ug/m	-	
Ethylene oxide 0.552 1.00	0.0250	

FILE #: 4222.00 REPORTED: 12/12/19 15:06 SUBMITTED: 11/27/19 AQS SITE CODE:
SITE CODE: Covington 5 Sampled: 11/23/19 23:59
Sampled: 11/23/19 23.39 Received: 11/27/19 11:45 Analyzed: 12/04/19 01:11
dium Method TO-15
1

NERG <sup>(</sup>	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Regic 4244 International Pkwy, Suite 120 Atlanta, GA 30354	n 4	FILE #: 4222.00 REPORTED: 12/12/19 15:06 SUBMITTED: 11/27/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 54	1-0516	AQS SITE CODE: SITE CODE: Covington
Description: C5 Pressure @ Receipt: 2.00" Hg Comments:	Lab ID: 9112711-07 Canister #: 19652	7 Sampled: 11/20/19 23:59 Received: 11/27/19 11:45 Analyzed: 12/04/19 01:59
Res Analyte ppby Ethylene oxide 0.450	Air Toxics by EPA Compen- ults MDL ug/m <sup>3</sup> Flag ppby 0.81 0.0250	- 

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NERG	CERTIFICATE	OF ANALYSIS
U.S. Environmental Protection Agency,	Region 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/12/19 15:06
Atlanta, GA 30354		SUBMITTED: 11/27/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (9	9) 541-0516	SITE CODE: Covington
Description: C5	Lab ID: 9112	2711-08 Sampled: 11/23/19 23:59
Pressure @ Receipt: 7.50" Hg	Canister #: 190	0666 <b>Received:</b> 11/27/19 11:45
Comments:		Analyzed: 12/04/19 22:05
	Air Toxics by EPA Con	mpendium Method TO-15
	Results	MDL
Analyte p	<u>pbv ug/m³ Flag</u>	ppbv
Ethylene oxide 0.	0667 0.12	0.0250

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U.S. Environmental Protection Agency, Region	14	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/12/19 15:06
Atlanta, GA 30354		SUBMITTED: 11/27/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 541	1-0516	SITE CODE: Covington
Description: C5 - QA	Lab ID: 9112711-09	Sampled: 11/20/19 23:59
Pressure @ Receipt: 3.50" Hg	Canister #: 18875	Received: 11/27/19 11:45
Comments: Listed as QA		Analyzed: 12/04/19 22:53
	Air Toxics by EPA Compen	dium Method TO-15
Resu		
Analyte ppbv	ug/m <sup>3</sup> Flag ppbv	1
Ethylene oxide 0.419	0.76 0.0250	i de la construcción de la constru

NERG	CERTIFI	CATE OF	ANALYSIS			
U.S. Environmental Protection A	gency, Region 4		FILE #: 4222.00			
4244 International Pkwy, Suite 1	20		REPORTED: 12/12	2/19 15:06		
Atlanta, GA 30354			SUBMITTED: 11	/27/19		
ATTN: Ms. Jaime Gore			AQS SITE CODE:			
PHONE: (404) 362-4912 F.	<b>AX:</b> (919) 541-0516		SITE CODE:	Covington		
Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compend Batch B9L0307 - Summa Can		uality Control	<u>, , , , , , , , , , , , , , , , , , , </u>			
Blank (B9L0307-BLK1)			Prepared: 11/25/19	Analyzed: 12/03/19		
Ethylene oxide	ND	ppbv				U
Duplicate (B9L0307-DUP1)	Source:	9112711-07	Prepared: 11/20/19	Analyzed: 12/04/19		
Ethylene oxide	0.452	ppbv	0.45	0.377	25	
Batch B9L0408 - Summa Can	ister Prep					
Blank (B9L0408-BLK1)			Prepared: 11/25/19	Analyzed: 12/04/19		
Ethylene oxide	ND	ppbv				U

NERG	CERTIFI	CATE OF	ANALYSI	S	
U.S. Environmental Protecti	on Agency, Region 4		FILE #: 4222	.00	
4244 International Pkwy, Su	iite 120		REPORTED:	12/12/19 15:06	
Atlanta, GA 30354			SUBMITTED:	11/27/19	
ATTN: Ms. Jaime Gore			AQS SITE COL	DE:	
PHONE: (404) 362-4912	FAX: (919) 541-0516		SITE CODE:	Covington	
Analyte	Result	Units	% Difference	Limit (%)	Notes
Air Toxics by EPA Comp Sequence 1912011	endium Method TO-15 - Q	uality Contro	I		
Calibration Check (1912	011-CCV1)		Prepared & Analyzed	1: 12/03/19	
Ethylene oxide	2.66	ppbv	6.5	30.00	
Sequence 1912012					
Calibration Check (1912)	012-CCV1)		Prepared & Analyzed	1: 12/04/19	
Ethylene oxide	2.85	ppbv	14.0	30.00	

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# NERG

## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
ATTN: Ms. Jaime Gore
PHONE: (404) 362-4912
FAX: (919) 541-0516

 FILE #:
 4222.00

 REPORTED:
 12/12/19 15:06

 SUBMITTED:
 11/27/19

 AQS SITE CODE:
 SITE CODE:

 SITE CODE:
 Covington

#### **Notes and Definitions**

U Under Detection Limit

ND Analyte NOT DETECTED

NR Not Reported

MDL Method Detection Limit

RPD Relative Percent Difference

Note: The test results meet all requirements of NELAC; however the following analytes are not accredited: 1,2,4-trimethylbenzene, 1,2-dibromoethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-butadiene, acetylene, acrolein, bromochloromethane, bromodichloromethane, bromoform, carbon disulfide, dibromochloromethane, dichlorodifluoromethane, dichlorotetrafluoroethane, ethyl acrylate, ethyl tert butyl ether, ethylene oxide, hexachloro-1,3-butadiene, n-octane, propylene, tert amyl methyl ether, tetrachloroethylene, trans-1,2-dichloroethylene, trichlorofluoromethane, and trichlorotrufluoroethane.

Eastern Research Group

Page 14 of 14



Eastern Research Group 601 Keystone Park Drive Suite 700 Morrisville, NC 27560

December 10, 2019

Ms. Jaime Gore U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 Project Name: Covington

Dear Ms. Jaime Gore,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 11/01/19 10:56 through 11/20/19 10:39.

The test results in this report are in compliance with NELAC accreditation requirements for the certified parameters. All analyses were performed as described in the US EPA-approved QAPP, under the contract for UATMP, NATTS, CSATAM, PAMS and NMOC support (US EPA Contract No. EP-D-14-030). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift Program Manager julie.swift@erg.com

The information contained in this report and its attachment(s) are intended only for the use of the individual to whom it is addressed and may contain information that is privileged, confidential, or exempt from disclosure. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this report is strictly prohibited. If you have received this report in error, please notify julie.swift@erg.com and delete the report without retaining any copies.

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## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington

#### ANALYTICAL REPORT FOR SAMPLES

SampleName	LabNumber	<u>Matrix</u>	Sampled	<b>Received</b>
Field Blank	9110118-10	Air	10/30/19 23:59	11/01/19 10:56
C1	9110553-01	Air	11/01/19 23:59	11/05/19 10:58
C2	9110553-02	Air	11/01/19 23:59	11/05/19 10:58
C3	9110553-03	Air	11/01/19 23:59	11/05/19 10:58
C4	9110553-04	Air	11/01/19 23:59	11/05/19 10:58
C5	9110553-05	Air	11/01/19 23:59	11/05/19 10:58
C7	9110553-06	Air	11/01/19 23:59	11/05/19 10:58
C8	9110553-07	Air	11/01/19 23:59	11/05/19 10:58
C1	9110635-01	Air	11/03/19 23:59	11/06/19 10:33
C3	9110635-02	Air	11/03/19 23:59	11/06/19 10:33
C4	9110635-03	Air	11/03/19 23:59	11/06/19 10:33
C5	9110635-04	Air	11/03/19 23:59	11/06/19 10:33
C7	9110635-05	Air	11/03/19 23:59	11/06/19 10:33
C8	9110635-06	Air	11/03/19 23:59	11/06/19 10:33
C9	9110635-07	Air	11/03/19 23:59	11/06/19 10:33
C2	9110716-01	Air	11/03/19 23:59	11/07/19 10:44
C1	9110810-01	Air	11/05/19 23:59	11/08/19 10:34
C2	9110810-02	Air	11/05/19 23:59	11/08/19 10:34
C4	9110810-03	Air	11/05/19 23:59	11/08/19 10:34
C5	9110810-04	Air	11/05/19 23:59	11/08/19 10:34
C7	9110810-05	Air	11/05/19 23:59	11/08/19 10:34
C8	9110810-06	Air	11/05/19 23:59	11/08/19 10:34
C9	9110810-07	Air	11/05/19 23:59	11/08/19 10:34

Eastern Research Group

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U.S. Environmental Protection Agency, Region 4			FILE #: 4222.00	
4244 International Pkwy, Su	ite 120		REPORTED: 12/10/19 11	
Atlanta, GA 30354			SUBMITTED: 11/01/19	to 11/20/19
ATTN: Ms. Jaime Gore			AQS SITE CODE:	
PHONE: (404) 362-4912	FAX: (919) 541-0516		SITE CODE: Covir	-
C1	9111412-01	Air	11/08/19 23:59	11/14/19 11:14
C2	9111412-02	Air	11/08/19 23:59	11/14/19 11:14
C3	9111412-03	Air	11/08/19 23:59	11/14/19 11:14
C4	9111412-04	Air	11/08/19 23:59	11/14/19 11:14
C5	9111412-05	Air	11/08/19 23:59	11/14/19 11:14
C7	9111412-06	Air	11/08/19 23:59	11/14/19 11:14
C8	9111412-07	Air	11/08/19 23:59	11/14/19 11:14
C9	9111412-08	Air	11/08/19 23:59	11/14/19 11:14
C2	9111509-01	Air	11/13/19 23:59	11/15/19 10:49
СЗ	9111509-02	Air	11/13/19 23:59	11/15/19 10:49
C5	9111509-03	Air	11/13/19 23:59	11/15/19 10:49
C1	9112026-01	Air	11/15/19 23:59	11/20/19 10:39
C2	9112026-02	Air	11/15/19 23:59	11/20/19 10:39
C3	9112026-03	Air	11/15/19 23:59	11/20/19 10:39
C4	9112026-04	Air	11/15/19 23:59	11/20/19 10:39
C7	9112026-06	Air	11/15/19 23:59	11/20/19 10:39
C8	9112026-07	Air	11/15/19 23:59	11/20/19 10:39
C9	9112026-08	Air	11/15/19 23:59	11/20/19 10:39

Eastern Research Group

**NERG** 

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<b>ERG</b>	ERTIFICAT	E OF A	ANALYSIS
U.S. Environmental Protection Agency, Region	ı 4	F	FILE #: 4222.00
4244 International Pkwy, Suite 120		I	REPORTED: 12/10/19 11:16
Atlanta, GA 30354		\$	SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore			AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	1-0516	:	SITE CODE: Covington
Description: Field Blank	Lab ID: 9	9110118-10	Sampled: 10/30/19 23:59
Pressure @ Receipt: 30" Hg	Canister #:	A21032	Received: 11/01/19 10:56
Comments: Field Blank			Analyzed: 11/20/19 11:21
	Air Toxics by EPA	Compendi	lium Method TO-15
Resi	<u>ults</u>	<u>MDL</u>	
Analyte ppbv	<u>ug/m³ Flag</u>	<u>ppbv</u>	
Ethylene oxide ND	ND U	0.0250	

ERG	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Rec	ion 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919)	541-0516	SITE CODE: Covington
Description: C1	Lab ID: 9110553-01	Sampled: 11/01/19 23:59
Pressure @ Receipt: 6.50" Hg	Canister #: A21046	Received: 11/05/19 10:58
Comments:		Analyzed: 11/13/19 02:42
	Air Toxics by EPA Compend	dium Method TO-15
<u>R</u> (	esults MDL	
Analyte ppby	ug/m³ Flag ppbv	
Ethylene oxide 0.0919	0.17 0.0250	

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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	RTIFICATE OF	ANAI YSIS
U.S. Environmental Protection Agency, Region 4		FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 541-0	516	SITE CODE: Covington
Description: C2	Lab ID: 9110553-02	Sampled: 11/01/19 23:59
Pressure @ Receipt: 6.00" Hg	Canister #: SAT135	Received: 11/05/19 10:58
Comments:		Analyzed: 11/13/19 15:41
Ai	r Toxics by EPA Compen	dium Method TO-15
Result		
Analyte ppbv ug	<u>a/m³ Flag ppbv</u>	<u>.</u>
Ethylene oxide 0.121	0.22 LK 0.0250	і.

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<b>NERG</b>	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Regio	on 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	11-0516	SITE CODE: Covington
Description: C3	Lab ID: 9110553-03	Sampled: 11/01/19 23:59
Pressure @ Receipt: 5.00" Hg	Canister #: SAT155	Received: 11/05/19 10:58
Comments:		Analyzed: 11/13/19 16:50
	Air Toxics by EPA Compen	dium Method TO-15
Res	Bults MDL	
Anaiyte ppbv	<u>ug/m³ Flag ppbv</u>	
Ethylene oxide 0.0716	0.13 0.0250	

NERG	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agence	cy, Region 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX:	(919) 541-0516	SITE CODE: Covington
Description: C4	Lab ID: 9110553-0	4 Sampled: 11/01/19 23:59
Pressure @ Receipt: 3.00" Hg	<b>Canister #:</b> 19642	Received: 11/05/19 10:58
Comments:		Analyzed: 11/13/19 17:38
	Air Toxics by EPA Compen	dium Method TO-15
	Results MDI	
Analyte	<u>ppbv ug/m³ Flag ppb</u>	Ł
Ethylene oxide	0.0338 0.06 0.025	0

CERG CE	RTIFICAT	E OF A	ANALYSIS	
U.S. Environmental Protection Agency, Region 4			FILE #: 4222.00	
4244 International Pkwy, Suite 120			REPORTED: 12/10/19 11:16	
Atlanta, GA 30354			SUBMITTED: 11/01/19 to 11/20/19	
ATTN: Ms. Jaime Gore			AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 541-05	516		SITE CODE: Covington	
Description: C5	Lab ID:	9110553-05	5 Sampled: 11/01/19 23:59	9
Pressure @ Receipt: 0 psig	Canister #:	19650	Received: 11/05/19 10:58	8
Comments: Received at ambient			Analyzed: 11/13/19 18:2	7
Air	Toxics by EPA	Compend	idium Method TO-15	
Results	-	<u>MDL</u>		
Analyte ppbv ug	<u>/m³ Flag</u>	<u>ppbv</u>	<u>r</u>	

0.0250

LK

0.0514

0,09

Ethylene oxide

	IFIGATE OF F	ANALYSIS
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120		FILE #: 4222.00 REPORTED: 12/10/19 11:16
Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0516		SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington
Description: C7	Lab ID: 9110553-06 Canister #: 18879	Sampled: 11/01/19 23:59 Received: 11/05/19 10:58 Analyzed: 11/13/19 19:15
Air Tox Results Analyte ppbv ug/m <sup>3</sup> Ethylene oxide 0.0331 0.06	tics by EPA Compend MDL Flag ppby 0.0250	ium Method TO-15

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CE	RTIFICAT	E OF A	NALYSIS	
U.S. Environmental Protection Agency, Region 4			FILE #: 4222.00	
4244 International Pkwy, Suite 120			REPORTED: 12/10/19 11:16	/10/19 11:16
Atlanta, GA 30354			SUBMITTED: 11/0	1/01/19 to 11/20/19
ATTN: Ms. Jaime Gore			AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 541-0	516		SITE CODE:	Covington
Description: C8	Lab ID: 9	110553-07		Sampled: 11/01/19 23:59
Pressure @ Receipt: 6.50" Hg	Canister #:	SAT100		Received: 11/05/19 10:58
Comments:				Analyzed: 11/13/19 20:03
Ai	r Toxics by EPA (	Compend	ium Method TO	-15
Result	=	MDL		
<u>Anaiyte ppbv uc</u>	<u>1/m³ Flag</u>	ppbv		

0.0250

0.0570

0.10

Ethylene oxide

NERG CE	RTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120		FILE #: 4222.00 REPORTED: 12/10/19 11:16
Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0	516	SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington
Description: C1 Pressure @ Receipt: 7.50" Hg Comments:	Lab ID: 9110635- Canister #: 5145	01 Sampled: 11/03/19 23:59 Received: 11/06/19 10:33 Analyzed: 11/14/19 19:16
Results Analyte ppbv ug	Toxics by EPA Compe <u>MD</u> /m <sup>3</sup> Flag ppt .20 0.02	

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NERG	CERTIFICATE OF	ANALIJIJ	
U.S. Environmental Protection Agency, Regi	on 4	FILE #: 4222.00	
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16	
Atlanta, GA 30354 ATTN: Ms. Jaime Gore		SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE:	
Description: C3	Lab ID: 9110635-	02 Sampled: 11/03/19 23:59	
Pressure @ Receipt: 6.00" Hg	Canister #: 0044	Received: 11/06/19 10:33	
Comments:		Analyzed: 11/14/19 20:05	
adamanan	Air Toxics by EPA Compe	ndium Method TO-15	
Re	sults <u>MD</u>		
<u>Analyte</u> <u>ppbv</u>	<u>ug/m³ Flag ppl</u>	<u>vc</u>	
Ethylene oxide 0.120	0.22 0.02	50	

	ERTIFICATE OF	ANALYSIS		
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354		FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19		
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0	9516	AQS SITE CODE: SITE CODE: Covington		
Description: C4 Pressure @ Receipt: 4.00" Hg Comments:	Lab ID: 9110635-03 Canister #: A21101	Sampled: 11/03/19 23:59 Received: 11/06/19 10:33 Analyzed: 11/14/19 20:53		
Result Analyte ppbv us	r Toxics by EPA Compensions <u>s MDL</u> <u>g/m<sup>3</sup> Flag ppbv</u> 0.18 0.0250			

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C C	ERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Region	4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 541	0516	SITE CODE: Covington
Description: C5	Lab ID: 9110635-04	Sampled: 11/03/19 23:59
Pressure @ Receipt: 2.00" Hg	Canister #: A21045	Received: 11/06/19 10:33
Comments: Received without brass cap		Analyzed: 11/14/19 21:41
	Air Toxics by EPA Compen	dium Method TO-15
Resu	its MDL	
Analyte ppbv y	ug/m <sup>3</sup> Flag ppbv	
Ethylene oxide 0.123	0.22 0.0250	

NERG	CERT	IFICAT	E OF A	ANALYSIS		
U.S. Environmental Protection Agence 4244 International Pkwy, Suite 120	y, Region 4			FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19		
Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX:	(919) 541-0516			AQS SITE CODE: SITE CODE: Covington		
Description: C7 Pressure @ Receipt: 4.00" Hg Comments:	· · · · · · · · · · · · · · · · · · ·	Lab ID: Canister #:	9110635-05 5086	Sampled: 11/03/19 23:59 Received: 11/06/19 10:33 Analyzed: 11/14/19 22:30		
Analyte Ethylene oxide	Air Tox <u>Results</u> ppby ug/m <sup>3</sup> 0,194 0.35	-	Compend <u>MDL</u> ppbv 0.0250	lium Method TO-15		

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U.S. Environmental Protection Agency, F 4244 International Pkwy, Suite 120	legion 4			FILE #: 4222.00 REPORTED: 12/10/19 11:16
Atlanta, GA 30354				SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (915	9) 541-0516			AQS SITE CODE: SITE CODE: Covington
Description: C8		Lab ID:	9110635-06	Sampled:         11/03/19         23:59
Pressure @ Receipt: 4.50" Hg	Ċ	Canister #:	SAT059	Received: 11/06/19 10:33
Comments:				Analyzed: 11/14/19 23:18
	Air Tox	ics by EPA	Compend	ndium Method TO-15
	<u>Results</u>	-	MDL	
Analyte pp	<u>bv ug/m³</u>	<u>Flag</u>	ppbv	<u>v</u>
Ethylene oxide 0.1	23 0.22	цк	0.0250	0

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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	CERTIFICATE O		
NERG	UERTIFICATE O	IT ANAL 1010	
U.S. Environmental Protection Agency, Reg	ion 4	FILE #: 4222.00	
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16	
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19	
ATTN: Ms. Jaime Gore		AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 5	41-0516	SITE CODE: Covington	
Description: C9	Lab ID: 911063	35-07 Sampled: 11/03/19 23:59	
Pressure @ Receipt: 4.00" Hg	<b>Canister #:</b> 5034	Received: 11/06/19 10:33	
Comments:		Analyzed: 11/15/19 00:06	
	Air Toxics by EPA Com	pendium Method TO-15	
Re		MDL	
Analyte ppbv	ug/m³ Flag B	<u>ppbv</u>	
Ethylene oxide 0.146	0.26 0.	,0250	

NERG	CERTIF	ICAT	E OF A	ANALYSIS	
U.S. Environmental Protection Agency, Re 4244 International Pkwy, Suite 120 Atlanta, GA 30354	egion 4			FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19	
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919	) 541-0516			AQS SITE CODE: SITE CODE: Covington	
Description: C2 Pressure @ Receipt: 6.50" Hg Comments:		ID: ister #:	9110716-01 A21096	Sampled: 11/03/19 23:59 Received: 11/07/19 10:44 Analyzed: 11/15/19 03:22	
	<u>Results</u> ov ug/m³	by EPA <u>Flag</u> к	Compend MDL ppbv 0.0250	L Contraction of the second seco	

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	ERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Region	14	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	1-0516	SITE CODE: Covington
Description: C1	Lab ID: 9110810-01	Sampled: 11/05/19 23:59
Pressure @ Receipt: 8.50" Hg	Canister #: SAT072	Received: 11/08/19 10:34
Comments:		Analyzed: 11/15/19 04:11
	Air Toxics by EPA Compend	lium Method TO-15
Resi		
Analyte ppbv	<u>ug/m³ Flag ppbv</u>	
Ethylene oxide 0.0623	0.11 0.0250	

	CERTIFICAT		ANALYSIS
<b>LERG</b>			
U.S. Environmental Protection Agency, Region 4		FILE #: 4222.00	
4244 International Pkwy, Suite 120			REPORTED: 12/10/19 11:16
Atlanta, GA 30354			SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore			AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	1-0516		SITE CODE: Covington
Description: C2	Lab ID:	9110810-02	Sampled: 11/05/19 23:59
Pressure @ Receipt: 7.50" Hg	Canister #:	SAT176	Received: 11/08/19 10:34
Comments:			Analyzed: 11/15/19 16:25
	Air Toxics by EPA	Compend	lium Method TO-15
Res		MDL	
Analyte ppbv	<u>ug/m³</u> <u>Flag</u>	ppbv	
Ethylene oxide 0.0953	0.17 LK	0.0250	

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	ERTIFICATE OF		
U.S. Environmental Protection Agency, Region 4		FILE #: 4222.00	
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19	
Atlanta, GA 30354			
ATTN: Ms. Jaime Gore		AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 541-	-0516	SITE CODE: Covington	
Description: C4	Lab ID: 9110810-03	Sampled: 11/05/19 23:59	
Pressure @ Receipt: 4.50" Hg	Canister #: SAT074	Received: 11/08/19 10:34	
Comments:		Analyzed: 11/15/19 17:13	
	Air Toxics by EPA Compend	dium Method TO-15	
Resu			
Analyte ppby u	ug/m <sup>3</sup> Flag ppbv		
Ethylene oxide 0.102	0.18 0.0250		

	CERTIFICATE OF	ANAI VSIS
<b>ERG</b>		
U.S. Environmental Protection Agency, Region 4		FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	1-0516	SITE CODE: Covington
Description: C5	Lab ID: 9110810-04	Sampled: 11/05/19 23:59
Pressure @ Receipt: 3.50" Hg	<b>Canister #:</b> 18822	Received: 11/08/19 10:34
Comments:		Analyzed: 11/15/19 18:01
	Air Toxics by EPA Compend	lium Method TO-15
Res		
Analyte ppbv	<u>ug/m³ Flag ppbv</u>	
Ethylene oxide 0.0512	0.09 0.0250	

CERTIFICATE OF ANALYSIS				
U.S. Environmental Protection Agenc 4244 International Pkwy, Suite 120 Atlanta, GA 30354	y, Region 4	FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE:		
	(919) 541-0516	SITE CODE: Covington		
Description: C7 Pressure @ Receipt: 4.50" Hg Comments:	Lab ID: Canister #	9110810-05         Sampled: 11/05/19 23:59           #:         SAT071         Received: 11/08/19 10:34           Analyzed:         11/15/19 18:49		
<u>Analyte</u> Ethylene oxide	Air Toxics by EP <u>Results</u> <u>ppbv ug/m<sup>3</sup> Flag</u> 0.111 0.20	PA Compendium Method TO-15 MDL g ppbv 0.0250		

CERTIFICATE OF ANALYSIS					
U.S. Environmental Protection Agence	y, Region 4			FILE #: 4222.0	0 2/10/19 11:16
4244 International Pkwy, Suite 120 Atlanta, GA 30354				SUBMITTED:	11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX:	(919) 541-0516			AQS SITE CODE SITE CODE:	E: Covington
Description: C8		Lab ID:	9110810-06		Sampled: 11/05/19 23:59
Pressure @ Receipt: 9.00" Hg Comments:		Canister #:	5089		Received: 11/08/19 10:34 Analyzed: 11/15/19 19:38
	Air To Results	xics by EPA	Compend	ium Method T	0-15
Analyte	ppbv ug/m <sup>3</sup>	<u>Flag</u>	ppby		
Ethylene oxide	0.124 0.22	LK	0.0250		

	ERTIFICATE OF	ANALYSIS			
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore		FILE #: 4222.00			
		REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE:			
			PHONE: (404) 362-4912 FAX: (919) 541	-0516	SITE CODE: Covington
			Description: C9	Lab ID: 9110810-07	Sampled: 11/05/19 23:59
Pressure @ Receipt: 4.50" Hg	Canister #: SAT152	Received: 11/08/19 10:34			
Comments:		Analyzed: 11/15/19 20:26			
	Air Toxics by EPA Compend	dium Method TO-15			
Resu	-				
Analyte ppbv	ug/m <sup>3</sup> Flag ppbv				
Ethylene oxide 0.0991	0.18 0.0250				

NERG <sup>(</sup>	CERTIFICATE OF	ANALYSIS	
U.S. Environmental Protection Agency, Regio 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore		FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington	
PHONE: (404) 362-4912 FAX: (919) 54	1-0516 Lab ID: 9111412-01		
Description: C1 Pressure @ Receipt: 7.50" Hg Comments:	<b>Canister #:</b> 19664	<b>Received:</b> 11/14/19 11:14 <b>Analyzed:</b> 11/20/19 13:46	
	Air Toxics by EPA Compen- uits MDL ug/m <sup>3</sup> Flag ppby 0.41 0.0250		

NFRG	CERTIFICAT	E OF ANALYSI	S
U.S. Environmental Protection Agency,	Region 4	FILE #: 4222	.00 12/10/19 11:16
4244 International Pkwy, Suite 120 Atlanta, GA 30354		SUBMITTED:	11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (91	9) 541-0516	AQS SITE CO SITE CODE:	DE: Covington
Description: C2	Lab ID:	9111412-02	Sampled: 11/08/19 23:59
Pressure @ Receipt: 7.00" Hg	Canister #:	110335	Received: 11/14/19 11:14
Comments:			Analyzed: 11/20/19 14:34
	Air Toxics by EPA Results	A Compendium Method MDL	TO-15
Analyte p	pbv ug/m <sup>3</sup> Flag	ppbv	
Ethylene oxide 0.	0.05	0.0250	

C C	ERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Region 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore	4	FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 541	-0516 Lab ID: 9111412-03	SITE CODE: Covington Sampled: 11/08/19 23:59
Description: C3 Pressure @ Receipt: 6.00" Hg Comments:	Canister #: SAT161	<b>Received:</b> 11/14/19 11:14 <b>Analyzed:</b> 11/20/19 15:23
<u>Resu</u>	Air Toxics by EPA Compend <u>Its MDL</u> ug/m <sup>3</sup> Flag ppbv 0.37 0.0250	1

	ANALYSIS	
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120		FILE #: 4222.00 REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0516		AQS SITE CODE: SITE CODE: Covington
Description: C4	Lab ID: 9111412-04	Sampled: 11/08/19 23:59
Pressure @ Receipt: 4.50" Hg	Canister #: SAT138	Received: 11/14/19 11:14
Comments:		Analyzed: 11/20/19 16:11
<u>Results</u>	xics by EPA Compend MDL	
Analyte ppbv ug/m <sup>3</sup>	Flag ppby	

	TIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-051	6	FILE #: 4222.00         REPORTED: 12/10/19 11:16         SUBMITTED: 11/01/19 to 11/20/19         AQS SITE CODE:         SITE CODE:         Covington
Description: C5 Pressure @ Receipt: 2.50" Hg Comments:	Lab ID: 9111412-05 Canister #: 19643	Sampled: 11/08/19 23:59 Received: 11/14/19 11:14 Analyzed: 11/20/19 17:00
Air 7 Results Analyte ppbv ug/r Ethylene oxide 0.124 0.2		lium Method TO-15

NERG <sup>C</sup>	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Region 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 54		FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington
Description: C7	Lab ID: 9111412-06	Sampled: 11/08/19 23:59
Pressure @ Receipt: 3.50" Hg	Canister #: SAT106	Received: 11/14/19 11:14
Comments:		Analyzed: 11/20/19 17:48
	Air Toxics by EPA Compen	dium Method TO-15
Res		
Analyte ppby	<u>ug/m³ Flag ppbv</u>	
Ethylene oxide 0.120	0.22 0.0250	

ERG	CERTIFICA	TE OF ANALY	SIS
U.S. Environmental Protection Agency 4244 International Pkwy, Suite 120 Atlanta, GA 30354	y, Region 4	SUBMITTE	D: 12/10/19 11:16 D: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (	(919) 541-0516	AQS SITE SITE CODE	E: Covington
Description: C8 Pressure @ Receipt: 7.50" Hg Comments:	Lab ID: Canister #	9111412-07 #: 19284	Sampled: 11/08/19 23:59 Received: 11/14/19 11:14 Analyzed: 11/20/19 18:36
Analyte Ethylene oxide	Air Toxics by EP Results ppbv ug/m <sup>3</sup> Flag 0.0442 0.08	PA Compendium Metho MDL 1 ppbv 0.0250	od TO-15

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	CERTIFICATE OF		
<b>NERG</b>		ANALISIS	
U.S. Environmental Protection Agency, Regi	on 4	FILE #: 4222.00	
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16	
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19	
ATTN: Ms. Jaime Gore		AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 5	41-0516	SITE CODE: Covington	
Description: C9	Lab ID: 9111412-08	<b>Sampled:</b> 11/08/19 23:59	
Pressure @ Receipt: 4.00" Hg	<b>Canister #:</b> 19641	Received: 11/14/19 11:14	
Comments:		Analyzed: 11/20/19 19:24	
	Air Toxics by EPA Compen	dium Method TO-15	
Re	sults MDL		
Analyte ppbv	<u>ug/m³ Flag ppbv</u>	<u>!</u>	
Ethylene oxide 0.0336	0.06 0.0250		

NERG	CERTIF	FICAT	EOFA	NALYSI	6
U.S. Environmental Protection Agency 4244 International Pkwy, Suite 120 Atlanta, GA 30354	y, Region 4			SUBMITTED:	2/10/19 11:16 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (	(919) 541-0516			AQS SITE COD	Covington
Description: C2 Pressure @ Receipt: 6.50" Hg Comments:		b ID: nister #:	9111509-01 5082		Sampled: 11/13/19 23:59 Received: 11/15/19 10:49 Analyzed: 11/20/19 20:13
<u>Analyte</u> Ethylene oxide	Air Toxic <u>Results</u> <u>ppbv ug/m<sup>3</sup></u> 0.0963 0.17	s by EPA <u>Flag</u>	Compend MDL ppbv 0.0250	ium Method 1	70-15

NFRG	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Regine 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 5-		FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington
Description: C3 Pressure @ Receipt: 5.50" Hg	Lab ID: 9111509-0 Canister #: 5132	Sampled: 11/13/19 23:59           Received: 11/15/19 10:49
Comments:		Analyzed: 11/20/19 21:01
ReAnalyteppbvEthylene oxide0.278	Air Toxics by EPA Compensuits MD ug/m <sup>3</sup> Flag ppb 0.50 0.025	

NERG	CERTIFI	CATE OF	ANALYSIS	
U.S. Environmental Protection Agen	cy, Region 4		FILE #: 4222.00	
4244 International Pkwy, Suite 120			REPORTED: 12/10/19 11:16	
Atlanta, GA 30354			SUBMITTED: 11/01/19 to 11/20/19	
ATTN: Ms. Jaime Gore			AQS SITE CODE:	
PHONE: (404) 362-4912 FAX:	(919) 541-0516		SITE CODE: Covington	
Description: C5	Lab I	<b>D:</b> 9111509-03	Sam	npled: 11/13/19 23:59
Pressure @ Receipt: 2.00" Hg	Canis	ter #: 19276	Rece	eived: 11/15/19 10:49
Comments:			Anal	lyzed: 11/20/19 21:49
	Air Toxics b	y EPA Compen	dium Method TO-15	Among A
	<u>Results</u>	MDL		
<u>Analyte</u>	<u>ppbv ug/m³</u>	Flag ppby		
Ethylene oxide	0,101 0,18	0.0250		

<b>NERG</b> CER	TIFICATE OF ANALYS	SIS
U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354	FILE #: 42 REPORTED SUBMITTEI	0: 12/10/19 11:16
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX: (919) 541-0516	AQS SITE C SITE CODE	
Description: C1 Pressure @ Receipt: 7.00" Hg	Lab ID: 9112026-01 Canister #: AZ50	Sampled: 11/15/19 23:59 Received: 11/20/19 10:39 Analyzed: 11/26/19 19:31
Comments: Air To Results Analyte ppbv ug/m	Dxics by EPA Compendium Metho MDL 1 <sup>3</sup> Flag ppby	

	CERTIFICATE OF	
<b>ERG</b> <sup>(</sup>		
U.S. Environmental Protection Agency, Regio	n 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	1-0516	SITE CODE: Covington
Description: C2	Lab ID: 9112026-02	<b>Sampled:</b> 11/15/19 23:59
Pressure @ Receipt: 7.00" Hg	<b>Canister #:</b> 5069	Received: 11/20/19 10:39
Comments:		Analyzed: 11/26/19 20:20
	Air Toxics by EPA Compen	dium Method TO-15
Res	1451	
Analyte ppbv	<u>ug/m³ Flag ppbv</u>	<u>/</u>
Ethylene oxide 0.137	0.25 0.0250	I

	CERTIFICATE OF	ANALYSIS
<b>N</b> EKG		
U.S. Environmental Protection Agency, Reg	ion 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 5	541-0516	SITE CODE: Covington
Description: C3	Lab ID: 9112026-0	<b>Sampled:</b> 11/15/19 23:59
Pressure @ Receipt: 5.50" Hg	Canister #: 19283	Received: 11/20/19 10:39
Comments:		Analyzed: 11/26/19 21:08
	Air Toxics by EPA Compen	dium Method TO-15
Re	sults MDI	
Analyte ppbv	ug/m³ Flag ppby	4
Ethylene oxide 0.128	0.23 0.025	)

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	ERTIFICATE C	JF ANALYSIS
U.S. Environmental Protection Agency, Region	า 4	FILE #: 4222.00
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19
ATTN: Ms. Jaime Gore		AQS SITE CODE:
PHONE: (404) 362-4912 FAX: (919) 54	1-0516	SITE CODE: Covington
Description: C4	Lab ID: 91120	26-04 Sampled: 11/15/19 23:59
Pressure @ Receipt: 0" Hg	<b>Canister #:</b> 1887	77 <b>Received:</b> 11/20/19 10:39
Comments: Received at ambient		Analyzed: 11/26/19 21:56
	Air Toxics by EPA Com	pendium Method TO-15
Res	-	MDL
Analyte ppbv	ug/m³ Flag l	ppbv
Ethylene oxide 0.0848	0.15 0	),0250

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	CERTIFICATE OF		
NERG		ANALISIS	
U.S. Environmental Protection Agency, Regi	ion 4	FILE #: 4222.00	
4244 International Pkwy, Suite 120		REPORTED: 12/10/19 11:16	
Atlanta, GA 30354		SUBMITTED: 11/01/19 to 11/20/19	
ATTN: Ms. Jaime Gore		AQS SITE CODE:	
PHONE: (404) 362-4912 FAX: (919) 5	41-0516	SITE CODE: Covington	
Description: C7	Lab ID: 9112026-06	5 Sampled: 11/15/19 23:59	
Pressure @ Receipt: 2.50" Hg	<b>Canister #:</b> 18821	Received: 11/20/19 10:39	
Comments:		Analyzed: 11/26/19 22:44	
	Air Toxics by EPA Compen	dium Method TO-15	
Re	sults MDL		
Analyte ppbv	ug/m³ Flag ppby	1	
Ethylene oxide 0.0683	0.12 0.0250		

	CERTIFICATE OF	ANALYSIS
U.S. Environmental Protection Agency, Regio 4244 International Pkwy, Suite 120 Atlanta, GA 30354 ATTN: Ms. Jaime Gore		FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE: SITE CODE: Covington
PHONE: (404) 362-4912 FAX: (919) 54 Description: C8	Lab ID: 9112026-0	
Pressure @ Receipt: 6.50" Hg	Canister #: 19288	Received: 11/20/19 10:39
Comments:		Analyzed: 11/26/19 23:33
	Air Toxics by EPA Compen	dium Method TO-15
Res	ults <u>MDL</u>	
Analyte ppbv	ug/m <sup>3</sup> Flag ppby	L
Ethylene oxide 0.0462	0.08 0.0250	J

	CERT	IFICAT	E OF A	ANALYSIS	
U.S. Environmental Protection Agence 4244 International Pkwy, Suite 120 Atlanta, GA 30354	y, Region 4			FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19 AQS SITE CODE:	
ATTN: Ms. Jaime Gore PHONE: (404) 362-4912 FAX:	(919) 541-0516			SITE CODE: Covington	<u></u>
Description: C9 Pressure @ Receipt: 2.50" Hg Comments:	, <u>, , , , , , , , , , , , , , , , , , </u>	Lab ID: Canister #:	9112026-08 SAT159	8 Sampled: 11/15/1 Received: 11/20/1 Analyzed: 11/27/1	L9 10:39
Analyte Ethylene oxide	Air To: <u>Results</u> ppbv ug/m <sup>3</sup> 0.242 0.44		A Compend MDL ppbv 0.0250	<u>v</u>	

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NERG	CERTIF	ICATE OF	ANALYSIS				
U.S. Environmental Protection Agency, Region 4			FILE #: 4222.00				
4244 International Pkwy, Suite 120			REPORTED: 12/10/19 11:16				
Atlanta, GA 30354			SUBMITTED: 11/01/19 to 11/20/19				
ATTN: Ms. Jaime Gore			AQS SITE CODE:				
PHONE: (404) 362-4912 FAX: (919	541-0516		SITE CODE:	Covington			
FROME: (404) 302-4912 TAX. (919	1041-0010						
Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes	
Air Toxics by EPA Compendium Me Batch B9K0707 - Summa Canister Prep		Quality Control					
Blank (B9K0707-BLK1)			Prepared: 10/21/19	Analyzed: 11/12/19			
Ethylene oxide	ND	ppbv				U	
Duplicate (B9K0707-DUP1)	Source: 9110553-01			Analyzed: 11/13/19			
Ethylene oxide	0.0885	ppbv	0.09	3.77	25		
Batch B9K1306 - Summa Canister Prep	D						
Blank (B9K1306-BLK1)			Prepared: 10/21/19	Analyzed: 11/13/19			
Ethylene oxide	ND	ppbv				U	
Batch B9K1401 - Summa Canister Pre	מ						
Blank (B9K1401-BLK1)			Prepared: 11/12/19	Analyzed: 11/14/19			
Ethylene oxide	ND	ppbv				U	
Duplicate (B9K1401-DUP1)	Source	9110810-01		Analyzed: 11/15/19			
Ethylene oxide	0.0626	ppbv	0.06	0.480	25		
Batch B9K1504 - Summa Canister Pre	מ						
Blank (B9K1504-BLK1)			Prepared: 11/12/19	Analyzed: 11/15/19			
Ethylene oxide	ND	ppbv				ປ	
Batch B9K2005 - Summa Canister Pre,	p						
Blank (B9K2005-BLK1)			Prepared: 11/12/19	Analyzed: 11/20/19			
Ethylene oxide	ND	ppbv				U	
Batch B9K2605 - Summa Canister Pre	p						
Blank (B9K2605-BLK1)			Prepared: 11/18/19	Analyzed: 11/26/19			
Ethylene oxide	ND	ppbv				U	

## CERTIFICATE OF ANALYSIS

CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4 4244 International Pkwy, Suite 120 Atlanta, GA 30354			FILE #: 4222	FILE #: 4222.00 REPORTED: 12/10/19 11:16 SUBMITTED: 11/01/19 to 11/20/19			
			REPORTED:				
			SUBMITTED:				
ATTN: Ms. Jaime Gore			AQS SITE COI	DE:			
PHONE: (404) 362-4912	FAX: (919) 541-0516		SITE CODE:	Covington			
Analyte	Result	Units	% Difference	Limit (%)	Notes		
Air Toxics by EPA Comp Sequence 1911008	endium Method TO-15 - Q	uality Contro	ł				
Calibration Check (1911)	008-CCV1)		Prepared & Analyzed	1: 11/05/19			
Ethylene oxide	2,26	ppbv	-9.4	30.00			
Servence 1011015							

Sequence 1911015					
Calibration Check (1911015-CCV1)		Pre	pared & Analyze	d: 11/12/19	
Ethylene oxide	1.89	ppbv	-24.5	30.00	
Sequence 1911025					
Calibration Check (1911025-CCV1)		Pre	pared & Analyze	d: 11/13/19	
Ethylene oxide	1.94	ppbv	-22.5	30.00	
Sequence 1911027					
Calibration Check (1911027-CCV1)		Pre	pared & Analyze	d: 11/14/19	
Ethylene oxide	1.87	ppbv	-25.3	30.00	
Sequence 1911030					
Calibration Check (1911030-CCV1)		Pre	pared & Analyze	d: 11/15/19	
Ethylene oxide	1.87	ppbv	-25.4	30.00	
Sequence 1911047					
Calibration Check (1911047-CCV1)		Pr€	epared & Analyze	d: 11/20/19	
Ethylene oxide	2.00	ppbv	-19.8	30,00	
Sequence 1911058					
Calibration Check (1911058-CCV1)		Pre	epared & Analyze	d: 11/26/19	
Ethylene oxide	2,75	ppbv	9.9	30.00	

NERG

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## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

 FILE #: 4222.00

 REPORTED: 12/10/19 11:16

 SUBMITTED: 11/01/19 to 11/20/19

 AQS SITE CODE:

 SITE CODE:

 Covington

## **Notes and Definitions**

U Under Detection Limit

LK Analyte identified; Reported value may be biased high.

ND Analyte NOT DETECTED

NR Not Reported

MDL Method Detection Limit

RPD Relative Percent Difference

Note: The test results meet all requirements of NELAC; however the following analytes are not accredited: 1,2,4-trimethylbenzene, 1,2-dibromoethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-butadiene, acetylene, acrolein, bromochloromethane, bromodichloromethane, dichlorodifluoromethane, dichlorotetrafluoroethane, ethyl acrylate, ethyl tert butyl ether, ethylene oxide, hexachloro-1,3-butadiene, n-octane, propylene, tert amyl methyl ether, tetrachloroethylene, trans-1,2-dichloroethylene, trichloroffluoromethane, and trichlorotrufluoroethane.

Eastern Research Group

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