



October 23, 2019

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington October 1 – October 6 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected in September 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. Samples listed in the table below as ND were reported below the method detection limit of 0.0452 ug/m³.

Location	Date	EtO Concentration (ug/m3)
C1	10/3/2019	1.36
C1	10/6/2019	ND
C2	10/3/2019	0.48
C2	10/6/2019	ND
C3	10/3/2019	0.68
C3	10/6/2019	ND
C4	10/3/2019	2.13
C4	10/6/2019	1.42

If you have any questions, please let me know.

DGO/do



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

October 11, 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 10/09/19 11:48.

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

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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: 10/11/19 15:12

SUBMITTED: 10/09/19

AQS SITE CODE:

SITE CODE: Covington

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
C1	9100922-01	Air	10/03/19 23:59	10/09/19 11:48
C2	9100922-02	Air	10/03/19 23:59	10/09/19 11:48
C3	9100922-03	Air	10/03/19 23:59	10/09/19 11:48
C4	9100922-04	Air	10/03/19 23:59	10/09/19 11:48
C1	9100922-05	Air	10/06/19 23:59	10/09/19 11:48
C2	9100922-06	Air	10/06/19 23:59	10/09/19 11:48
C3	9100922-07	Air	10/06/19 23:59	10/09/19 11:48
C4	9100922-08	Air	10/06/19 23:59	10/09/19 11:48



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FILE #: 4222.00
 REPORTED: 10/11/19 15:12
 SUBMITTED: 10/09/19
 AQS SITE CODE:
 SITE CODE: Covington

Description: C1	Lab ID: 9100922-01	Sampled: 10/03/19 23:59
Pressure @ Receipt: 7.00" Hg	Canister #: 18865	Received: 10/09/19 11:48
Comments:		Analyzed: 10/10/19 22:06

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.751	1.36		0.0250*

* 0.0250 ppbv = 0.0452 ug/m³

 Confirmed 12/18/19



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FILE #: 4222.00
 REPORTED: 10/11/19 15:12
 SUBMITTED: 10/09/19
 AQS SITE CODE:
 SITE CODE: Covington

Description: C2	Lab ID: 9100922-02	Sampled: 10/03/19 23:59
Pressure @ Receipt: 7.50" Hg	Canister #: N4102	Received: 10/09/19 11:48
Comments:		Analyzed: 10/10/19 19:41

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.267	0.48		0.0250



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FILE #: 4222.00
 REPORTED: 10/11/19 15:12
 SUBMITTED: 10/09/19
 AQS SITE CODE:
 SITE CODE: Covington

Description: C3	Lab ID: 9100922-03	Sampled: 10/03/19 23:59
Pressure @ Receipt: 8.50" Hg	Canister #: SAT033	Received: 10/09/19 11:48
Comments:		Analyzed: 10/10/19 23:43

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.376	0.68		0.0250



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FILE #: 4222.00

REPORTED: 10/11/19 15:12

SUBMITTED: 10/09/19

AGS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 9100922-04

Sampled: 10/03/19 23:59

Pressure @ Receipt: 7.00" Hg

Canister #: 18869

Received: 10/09/19 11:48

Comments:

Analyzed: 10/11/19 00:31

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	1.18	2.13		0.0250



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FILE #: 4222.00
 REPORTED: 10/11/19 15:12
 SUBMITTED: 10/09/19
 AQS SITE CODE:
 SITE CODE: Covington

Description: C1	Lab ID: 9100922-05	Sampled: 10/06/19 23:59
Pressure @ Receipt: 5.50" Hg	Canister #: SAT145	Received: 10/09/19 11:48
Comments:		Analyzed: 10/11/19 01:19

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	ND	ND	U	0.0250



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 AQS SITE CODE:
 SITE CODE: Covington

Description: C2

Lab ID: 9100922-06

Sampled: 10/06/19 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: SAT177

Received: 10/09/19 11:48

Comments:

Analyzed: 10/10/19 13:14

Air Toxics by EPA Compendium Method TO-15

Analyte	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	ND	ND	U	0.0250

Eastern Research Group

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 SUBMITTED: 10/09/19
 AQS SITE CODE:
 SITE CODE: Covington

Description: C3	Lab ID: 9100922-07	Sampled: 10/06/19 23:59
Pressure @ Receipt: 7.00" Hg	Canister #: A21069	Received: 10/09/19 11:48
Comments:		Analyzed: 10/10/19 14:03

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	ND	ND	U	0.0250



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REPORTED: 10/11/19 15:12

SUBMITTED: 10/09/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 9100922-08

Sampled: 10/06/19 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: N4088

Received: 10/09/19 11:48

Comments:

Analyzed: 10/11/19 02:56

Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m³</u>		<u>ppbv</u>
Ethylene oxide	0.785	1.42		0.0250



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FILE #: 4222.00

REPORTED: 10/11/19 15:12

SUBMITTED: 10/09/19

AQS SITE CODE:

SITE CODE: Covington

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Batch B9J1004 - Summa Canister Prep

Blank (B9J1004-BLK1)

Prepared: 09/18/19 Analyzed: 10/10/19

Ethylene oxide	ND	ppbv				U
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Duplicate (B9J1004-DUP1)

Source: 9100922-05

Prepared: 10/06/19 Analyzed: 10/11/19

Ethylene oxide	ND	ppbv	ND		25	U
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REPORTED: 10/11/19 15:12

SUBMITTED: 10/09/19

AQS SITE CODE:

SITE CODE: Covington

Analyte	Result	Units	% Difference	Limit (%)	Notes
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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 1910027

Calibration Check (1910027-CCV1)

Prepared & Analyzed: 10/10/19

Ethylene oxide	1.79	ppbv	-27.1	30.00	
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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 trichlorotrifluoroethane.