

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

January 15, 2020

MEMORANDUM

To:

Karen Hays, Air Branch Chief

Through:

Dika Kuoh, Assistant Branch Chief

From:

DeAnna Oser, Ambient Monitoring Program Manager

RE:

Cobb December 05– December 11 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of December 5th through December 11th, 2019 by the Ambient Monitoring Program in the Cobb area to characterize the EtO concentration. Each of the samples were sent to Eastern Research Group (ERG) for analysis. The Qualifier code of "LK" was given by ERG to indicate that the sample may be biased high. The Qualifier code "U" was given by ERG to indicate that the sample is under the detection limit. The Qualifier code of "2" was given to samples 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)
S1	12/5/19	LK	0.16
S1	12/11/19	LK	0.22
S2	12/5/19	LK, 2	0.17
S2	12/11/19	U, 2	0.03
S3	12/5/19	LK, U	0.03
S3	12/11/19	LK, 2	0.11
S4	12/5/19	LK, 2	0.16
S4	12/11/19	LK, 2	0.11
S4 QA	12/11/19	2	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

January 07, 2020

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

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 12/12/19 10:45 through 12/18/19 11:47.

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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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: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	Sampled	Received
S1	9121206-01	Air	12/05/19 23:59	12/12/19 10:45
S2	9121206-02	Air	12/05/19 23:59	12/12/19 10:45
S3	9121206-03	Air	12/05/19 23:59	12/12/19 10:45
S4	9121206-04	Air	12/05/19 23:59	12/12/19 10:45
S1	9121840-01	Air	12/11/19 23:59	12/18/19 11:47
S2	9121840-02	Air	12/11/19 23:59	12/18/19 11:47
\$3	9121840-03	Air	12/11/19 23:59	12/18/19 11:47
S4	9121840-04	Air	12/11/19 23:59	12/18/19 11:47
S4 QA	9121840-05	Air	12/11/19 23:59	12/18/19 11:47



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: S1

Comments:

Ethylene oxide

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

Lab ID:

Pressure @ Receipt: 4.00" Hg

0.0880

Canister #: 19668

SITE CODE: Cobb

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

FILE #: 4222.00

AQS SITE CODE:

Sampled: 12/05/19 23:59 Received: 12/12/19 10:45

Analyzed: 12/19/19 14:54

Air Toxics by EPA Compendium Method TO-15

9121206-01

Results

<u>MDL</u>

<u>Analyte</u>

ppbv ug/m3

0.16

<u>Flag</u> LK

ppbv 0.0250

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.

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U.S. Environmental Protection Agency, Region 4

Received at ambient

4244 International Pkwy, Suite 120

Pressure @ Receipt: 0.00 psig

Atlanta, GA 30354

Description: S2

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

Lab ID:

Canister #: SAT030

9121206-02

Cobb

FILE #: 4222.00

AQS SITE CODE:

SITE CODE:

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

Sampled: 12/05/19 23:59

Received: 12/12/19 10:45

Analyzed: 12/19/19 15:58

Air Toxics by EPA Compendium Method TO-15

<u>Results</u>

<u>MDL</u>

Analyte Ethylene oxide

Comments:

ppby 0.0912

ug/m³ 0.17

Flag LK

ppbv 0.0250

Eastern Research Group

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Page 4 of 14



FILE #: 4222,00

AQS SITE CODE:

SITE CODE:

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

Description: S3 Pressure @ Receipt: 7.00" Hg

FAX: (919) 541-0516

Lab ID:

9121206-03

Canister #:

18883

Cobb

Sampled: 12/05/19 23:59

Received: 12/12/19 10:45

Analyzed: 12/19/19 17:02

Air Toxics by EPA Compendium Method TO-15

Results

MDL

ppbv ug/m³

Flag

ppby

Analyte Ethylene oxide

Comments:

0.0148

0.03

LK, U



U.S. Environmental Protection Agency, Region 4

Received at ambient

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: S4

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

Lab ID: 9121206-04

Canister #:

<u>Flag</u>

ŁК

Sampled: 12/05/19 23:59

Received: 12/12/19 10:45

Analyzed: 12/19/19 18:06

Air Toxics by EPA Compendium Method TO-15

5044

Results

<u>MDL</u>

<u>Analyte</u>

Comments:

<u>ydqq</u>

ug/m³

ppbv

Ethylene oxide

Pressure @ Receipt: 0.00 psig

0.0905 0.16

0,0250



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

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FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

Description: S1 Pressure @ Receipt: 6.00" Hg

Lab ID: Canister #: SAT079

9121840-01

Sampled: 12/11/19 23:59

Received: 12/18/19 11:47

Analyzed: 12/27/19 14:31

Air Toxics by EPA Compendium Method TO-15

Results

<u>MDL</u>

Analyte Ethylene oxide

Comments:

ppbv uq/m³

0.119

0,22

<u>Flag</u> LK

ppbv 0.0250

Eastern Research Group

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U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: S2

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

Lab ID:

Canister #: 19299

Pressure @ Receipt: 0 psig **Comments:** Received at ambient SITE CODE:

9121840-02

FILE #: 4222.00

AQS SITE CODE:

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

Cobb

Sampled: 12/11/19 23:59

Received: 12/18/19 11:47

Analyzed: 12/27/19 15:35

Air Toxics by EPA Compendium Method TO-15

Results

<u>MDL</u>

Analyte

<u>ppbv</u> uq/m³ Flag

ppby

Ethylene oxide

0.0188

0.03

U



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: S3

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

Lab ID: 9121840-03

Canister #: 5071

Pressure @ Receipt: 0 psig Received at ambient FILE #: 4222,00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

Sampled: 12/11/19 23:59

Received: 12/18/19 11:47

Analyzed: 12/27/19 16:39

Air Toxics by EPA Compendium Method TO-15

Results

<u>MDL</u>

Analyte

ppbv ug/m³

<u>Flaq</u> LK

ppby

Ethylene oxide

Comments:

0.0631

0.11



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: S4

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

Canister #: A22330 Pressure @ Receipt: 0 psig

Received at ambient

FILE #: 4222.00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

Sampled: 12/11/19 23:59

Received: 12/18/19 11:47

Analyzed: 12/27/19 17:43

Air Toxics by EPA Compendium Method TO-15

9121840-04

Results

<u>MDL</u>

ydaa

ug/m³

Flag LK

Lab ID:

<u>vdqq</u>

Ethylene oxide

Analyte

Comments:

0.0622 0.11



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 Description: S4 QA

FAX: (919) 541-0516

Pressure @ Receipt: 0 psig Canister #:

Received at ambient

FILE #: 4222.00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE: Cobb

Sampled: 12/11/19 23:59

Received: 12/18/19 11:47

Analyzed: 12/27/19 19:51

Air Toxics by EPA Compendium Method TO-15

9121840-05

5057

Results

<u>MDL</u>

Analyte

Comments:

ppbv ug/m³

0.44

Flag

Lab ID:

ppbv

Ethylene oxide

0.244



U.S. Environmental Protection Agency, Region 4

FAX: (919) 541-0516

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FILE #: 4222.00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Met Batch B9L1707 - Summa Canister Prep	hod TO-15	- Quality Control				
Blank (B9L1707-BLK1)			Prepared: 12/17/19	Analyzed: 12/19/19		
Ethylene oxide	ND	ppbv				IJ
Batch B9L2703 - Summa Canister Prep						
Blank (B9L2703-BLK1)			Prepared & Analyzed: 12/27/19			
Ethylene oxide	ND	ppbv	- I I I I I I I I I I I I I I I I I I I			U
Duplicate (B9L2703-DUP1)	Source: 9121840-04		Prepared: 12/11/19	Analyzed: 12/27/19		
Ethylene oxide	0.0594	ppbv	0.06	4.61	25	L.K
Duplicate (B9L2703-DUP2)	Sourc	e: 9121840-05	Prepared: 12/11/19	Analyzed: 12/27/19		
Ethylene oxide	0.236	ppbv	0,24	3.25	25	



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Ethylene oxide

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912

FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 01/07/20 14:23

SUBMITTED: 12/12/19 to 12/18/19

AQS SITE CODE:

SITE CODE:

Cobb

Analyte	Result	Units	% Difference	Limit (%)	Notes
Air Toxics by EPA Compendium Me Sequence 1912038	ethod TO-15 - (Quality Contro	i		
•		1	Pranarad: 12/17/10	Applyzod: 12/10/10	
Calibration Check (1912038-CCV1)		-	Prepared: 12/17/19	Analyzed: 12/19/19	
Ethylene oxide	2.51	ppbv	0.5	30.00	
Sequence 1912058					
Calibration Check (1912058-CCV1)			Prepared & Analyze	d: 12/27/19	
Ethylene oxide	2.26	ppbv	-9.7	30.00	



U.S. Environmental Protection Agency, Region 4

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Atlanta, GA 30354

SUBMITTED: 12/12/19 to 12/18/19

ATTN: Ms. Jaime Gore

AQS SITE CODE:

PHONE: (404) 362-4912

SITE CODE:

Cobb

Notes and Definitions

U

Under Detection Limit

LK

Analyte identified; Reported value may be biased high.

FAX: (919) 541-0516

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.