

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

May 20, 2021

MEMORANDUM

To: Karen Hays, Air Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Fulton December 23, 2020 – January 16, 2021 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of December 23, 2020 – January 16, 2021 in the south Fulton area to characterize the EtO concentrations. The samples were sent to Eastern Research Group (ERG) for analysis. The Qualifier code of "2" is applied to samples to indicate that the collection deviated from established procedures, but the integrity of the sample was not compromised. Qualifier code "LK" was given by ERG to indicate that the reported value for identified analyte may be biased high. A new site, F4, was established on January 16, 2021 to characterize the ethylene oxide concentration since the previous site, F3, was no longer in use due to vandalism. Please note that ERG is now providing values for levels below the detection limit.

Location	Date	Qualifier	EtO Concentration (ug/m³)
F1	12/23/2020		0.14
F1	12/29/2020		0.20
F1	01/04/2021		0.09
F1	01/10/2021	2	0.19
F1	01/16/2021	2	0.09
F2	12/23/2020		0.19
F2	12/29/2020	2	0.46
F2	01/04/2021		0.15
F2	01/10/2021		1.28
F2	01/16/2021	LK	0.39
F2 QA	01/10/2021		1.62
F4	01/16/2021		0.09

If you have any questions, please let me know.

DGO/do



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

March 04, 2021

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

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 01/05/21 10:48 through 01/27/21 11:59.

Values below the MDL for QC results in this report are recorded as ND, however the actual values are reported in the accompanying Excel report with a "U" flag (Under the detection limit). The actual values are reported in AQS.

This test is accredited under the 2016 TNI Standard for Environmental Laboratories (FL DOH Certification # E87673). 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.



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: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: Fulton

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	Received
F1	1010524-01	Air	12/29/20 23:59	01/05/21 10:48
F2	1010524-02	Air	12/29/20 23:59	01/05/21 10:48
F1	1010625-01	Air	12/23/20 23:59	01/06/21 11:28
F2	1010625-02	Air	12/23/20 23:59	01/06/21 11:28
Fulton FB	1011329-01	Air	12/28/20 00:00	01/13/21 13:49
F1	1011516-01	Air	01/04/21 23:59	01/15/21 11:20
F2	1011516-02	Air	01/04/21 23:59	01/15/21 11:20
F1	1012723-01	Air	01/10/21 23:59	01/27/21 11:59
F2	1012723-02	Air	01/10/21 23:59	01/27/21 11:59
F2-QA	1012723-03	Air	01/10/21 23:59	01/27/21 11:59
F1	1012723-04	Air	01/16/21 23:59	01/27/21 11:59
F2	1012723-05	Air	01/16/21 23:59	01/27/21 11:59
F4	1012723-06	Air	01/16/21 23:59	01/27/21 11:59



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F1

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 0.00" Hg

Comments: Received at ambient

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

1010524-01 Sampled: 12/29/20 23:59 **Received:** 01/05/21 10:48

Analyzed: 01/14/21 21:11

Air Toxics by EPA Compendium Method TO-15

Results

MDL

Analyte Ethylene oxide ppbv ug/m³ 0.112

0.20

<u>Flag</u>

Canister #: 110252

Lab ID:

ppbv 0.0285



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F2

ATTN: Ms. Jaime Gore

Pressure @ Receipt: 0.00" Hg

Comments: Received at ambient

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

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Lab ID: 1010524-02 Sampled: 12/29/20 23:59 Canister #: 114366 **Received:** 01/05/21 10:48 **Analyzed:** 01/14/21 22:07

Air Toxics by EPA Compendium Method TO-15

Results

<u>Flag</u>

ppbv

Analyte Ethylene oxide



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F1

ATTN: Ms. Jaime Gore

Pressure @ Receipt: 0.00" Hg

Comments: Received at ambient

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

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE:

Fulton

Sampled: 12/23/20 23:59 **Received:** 01/06/21 11:28

Analyzed: 01/12/21 17:39

Air Toxics by EPA Compendium Method TO-15

1010625-01

Canister #: 11211 CoC was #111211 DGO 5/20/21

Results

MDL

Analyte Ethylene oxide

ppbv ug/m³ 0.0750

0.14

Lab ID:

<u>Flag</u> ppbv 0.0285

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.



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F2

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 5.50" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Lab ID: 1010625-02 Sampled: 12/23/20 23:59 **Canister #:** A21013 **Received:** 01/06/21 11:28 **Analyzed:** 01/12/21 18:35

Air Toxics by EPA Compendium Method TO-15

Results

<u>Flag</u>

ppbv

Analyte Ethylene oxide

Comments:

ppbv ug/m³ 0.105

0.19

0.0285

<u>MDL</u>



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Pressure @ Receipt: 30.00" Hg

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 **FAX:** (919) 541-0516 **Description:** Fulton FB

Comments: Field Blank

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Lab ID: 1011329-01 Sampled: 12/28/20 00:00 **Canister #:** 18836 Received: 01/13/21 13:49 **Analyzed:** 01/22/21 17:35

Air Toxics by EPA Compendium Method TO-15

MDL Results **Analyte** ppbv ug/m³ <u>Flag</u> ppbv ND U 0.0285 Ethylene oxide ND



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F1

ATTN: Ms. Jaime Gore

Pressure @ Receipt: 0.00" Hg

Comments: Received at ambient

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

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE:

Fulton

Sampled: 01/04/21 23:59 Received: 01/15/21 11:20

Analyzed: 01/20/21 01:58

Air Toxics by EPA Compendium Method TO-15

1011516-01

Results

<u>Flag</u>

Canister #: 33531

Lab ID:

MDL

Analyte Ethylene oxide

ppbv ug/m³ 0.0510

0.09

ppbv 0.0285



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F2

Comments:

Analyte

Ethylene oxide

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 3.00" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Lab ID: 1011516-02 Sampled: 01/04/21 23:59 **Canister #:** A21026 Received: 01/15/21 11:20 **Analyzed:** 01/20/21 02:54

Air Toxics by EPA Compendium Method TO-15 MDL

Results

<u>Flag</u>

ppbv ug/m³ 0.0834 0.15

ppbv 0.0285

Eastern Research Group

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U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F1

Comments:

Analyte

Ethylene oxide

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 0.75" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Sampled: 01/10/21 23:59

Analyzed: 01/29/21 14:17

Received: 01/27/21 11:59

Air Toxics by EPA Compendium Method TO-15

1012723-01

Results

0.106

ppbv ug/m³

0.19

<u>Flag</u>

Canister #: SAT033

Lab ID:

MDL ppbv 0.0285



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F2

Comments:

Analyte

Ethylene oxide

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 2.50" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Lab ID: 1012723-02 Sampled: 01/10/21 23:59 **Canister #:** 18889 Received: 01/27/21 11:59 **Analyzed:** 01/29/21 15:13

Air Toxics by EPA Compendium Method TO-15

MDL Results ppbv ug/m³ <u>Flag</u> ppbv 0.710 1.28 0.0285



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

Description: F2-QA

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

Pressure @ Receipt: 2.00" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

1012723-03

Sampled: 01/10/21 23:59 Received: 01/27/21 11:59

Analyzed: 01/29/21 17:03

Air Toxics by EPA Compendium Method TO-15

Results

ppbv ug/m³

<u>Flag</u>

Canister #: SAT161

Lab ID:

MDL ppbv

Analyte Ethylene oxide

Comments:

0.898 1.62

0.0285



U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F1

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 0.75" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Lab ID: 1012723-04 Sampled: 01/16/21 23:59 **Canister #:** 19649 Received: 01/27/21 11:59 **Analyzed:** 02/02/21 16:38

Air Toxics by EPA Compendium Method TO-15

Results ppbv ug/m³

<u>Flag</u>

MDL

Ethylene oxide

Analyte

Comments:

0.0514

0.09

ppbv 0.0285

Eastern Research Group

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U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F2

Comments:

Analyte

Ethylene oxide

ATTN: Ms. Jaime Gore

Pressure @ Receipt: 2.00" Hg

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

0.218

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE:

Fulton

Lab ID: 1012723-05 Sampled: 01/16/21 23:59 Canister #: AZ45 Received: 01/27/21 11:59

Analyzed: 02/02/21 17:34

Air Toxics by EPA Compendium Method TO-15

Results ppbv ug/m³

0.39

<u>Flag</u> LK

ppbv 0.0285

MDL

Eastern Research Group

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U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

Description: F4

Comments:

Analyte

Ethylene oxide

ATTN: Ms. Jaime Gore

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

Pressure @ Receipt: 2.50" Hg

FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: **Fulton**

Sampled: 01/16/21 23:59 Received: 01/27/21 11:59

Analyzed: 02/02/21 18:29

Air Toxics by EPA Compendium Method TO-15

1012723-06

Results

<u>Flag</u>

Lab ID:

Canister #: 33498

ppbv ug/m³ 0.0503

0.09

ppbv 0.0285

MDL



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: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: Fulton

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendiun	n Method TO-15	- Quality Cont	trol			
Batch B1A1407 - Summa Canister						
Blank (B1A1407-BLK1)			Prepared: 01/13/21	Analyzed: 01/14/21		
Ethylene oxide	ND	ppbv				U
Batch B1A1906 - Summa Canister	Prep					
Blank (B1A1906-BLK1)			Prepared & Analyzed	l: 01/19/21		
Ethylene oxide	ND	ppbv				U
Batch B1A2204 - Summa Canister	Prep					
Blank (B1A2204-BLK1)			Prepared & Analyzed	l: 01/22/21		
Ethylene oxide	ND	ppbv				U
Batch B1A2904 - Summa Canister	Prep					
Blank (B1A2904-BLK1)			Prepared & Analyzed	l: 01/29/21		
Ethylene oxide	ND	ppbv				U
Duplicate (B1A2904-DUP1)	Source	: 1012723-02	Prepared: 01/10/21	Analyzed: 01/29/21		
Ethylene oxide	0.713	ppbv	0.71	0.436	25	
Duplicate (B1A2904-DUP2)	Source	: 1012723-03	Prepared: 01/10/21	Analyzed: 01/29/21		
Ethylene oxide	0.916	ppbv	0.90	1.96	25	
Batch B1B0208 - Summa Canister	Prep					
Blank (B1B0208-BLK1)			Prepared & Analyzed	l: 02/02/21		
Ethylene oxide	ND	ppbv				U

Eastern Research Group

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Atlanta, GA 30354

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FILE #: 4222.00

REPORTED: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: Fulton

Analyte	Result	Units	% Difference	Limit (%)	Notes
Air Toxics by EPA Compendium M	lethod TO-15	5 - Quality Co	ntrol		
Sequence 2101019					
Calibration Check (2101019-CCV1)	1		Prepared & Analyze	ed: 01/12/21	
Ethylene oxide	2.73	ppbv	9.3	30.00	
Sequence 2101024					
Calibration Check (2101024-CCV1))		Prepared & Analyze	ed: 01/14/21	
Ethylene oxide	2.80	ppbv	16.0	30.00	
Sequence 2101033					
Calibration Check (2101033-CCV1))		Prepared & Analyze	ed: 01/19/21	
Ethylene oxide	2.86	ppbv	18.5	30.00	
Sequence 2101041					
Calibration Check (2101041-CCV1))		Prepared & Analyze	ed: 01/22/21	
Ethylene oxide	2.88	ppbv	19.0	30.00	
Sequence 2101056					
Calibration Check (2101056-CCV1))		Prepared & Analyze	ed: 01/29/21	
Ethylene oxide	2.45	ppbv	-2.1	30.00	
Sequence 2102004					
Calibration Check (2102004-CCV1))		Prepared & Analyze	ed: 02/02/21	
Ethylene oxide	2.49	ppbv	-0.4	30.00	

Eastern Research Group

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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: 03/04/21 15:55

SUBMITTED: 01/05/21 to 01/27/21

AQS SITE CODE:

SITE CODE: Fulton

Notes and Definitions

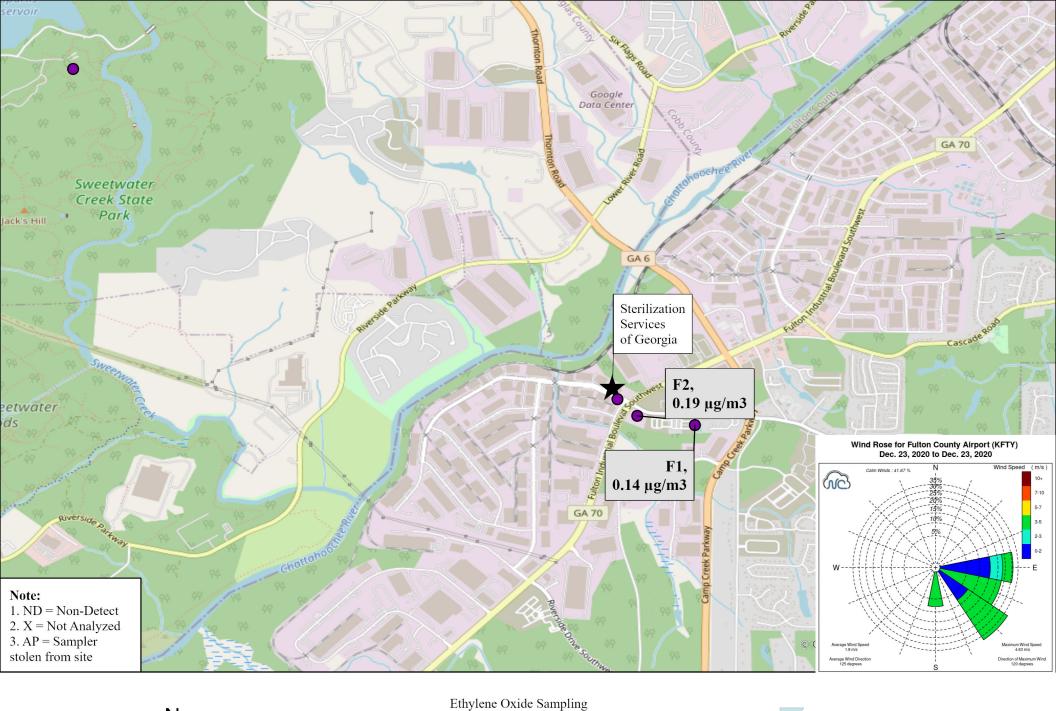
U Under Detection Limit Analyte

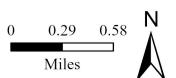
ND NOT DETECTED NR Not Reported

MDL Method Detection Limit
RPD Relative Percent Difference

LK Analyte identified; Reported value may be biased high.

Note: This test is accredited under the 2016 TNI Standard; however the following analytes are not accredited: acetylene, bromodichloroethane, dichlorotetrafluoromethane, ethyl tert butyl ether, n-octane, tert amyl methyl ether, trichlorofluoroethane, and bromochloromethane.





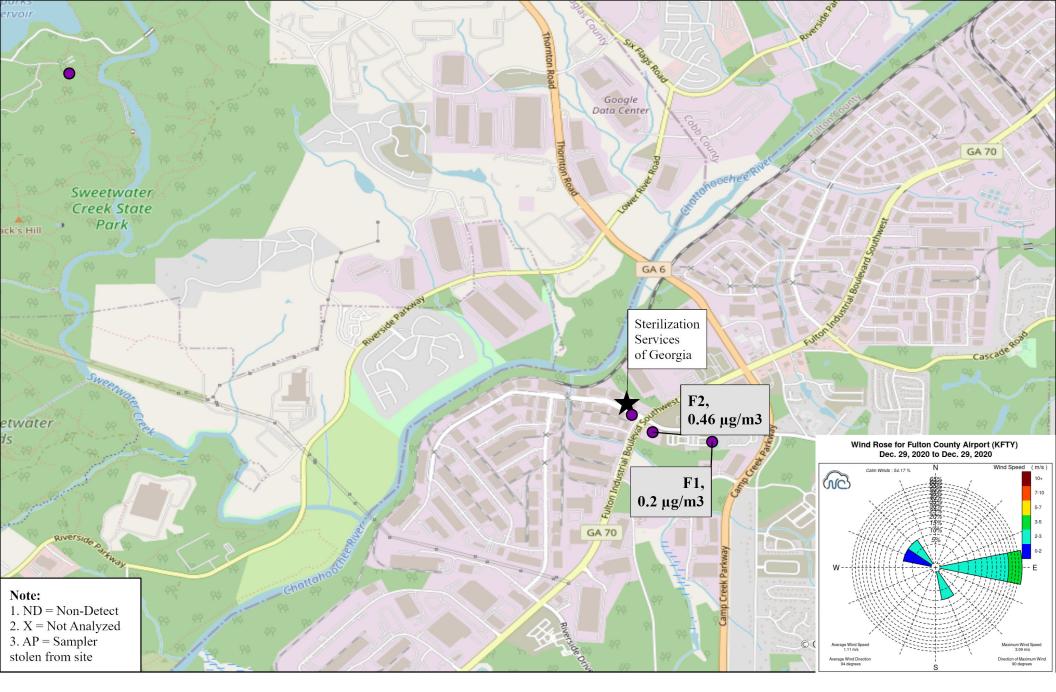
Fulton County, GA

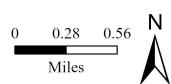
Site ID, Concentration (µg/m3)

12/23/2020

Sampled By: Georgia Environmental Protection Division





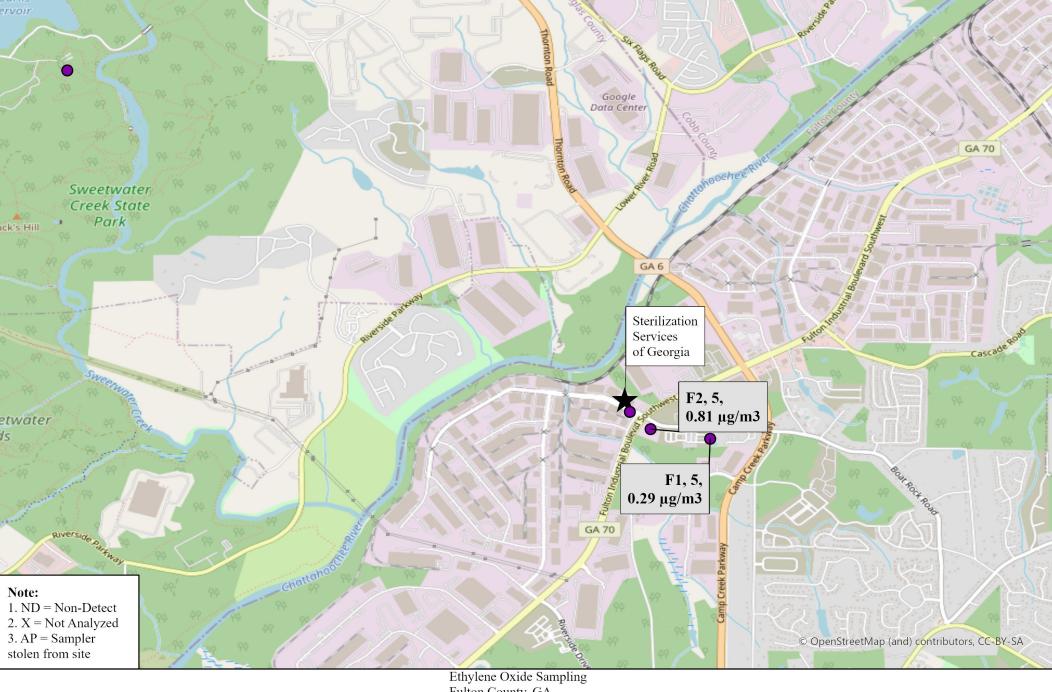


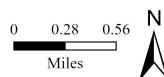
Ethylene Oxide Sampling Fulton County, GA

12/29/2020

Sampled By: Georgia Environmental Protection Division







Site ID, Number of Samples, Concentration (µg/m3)

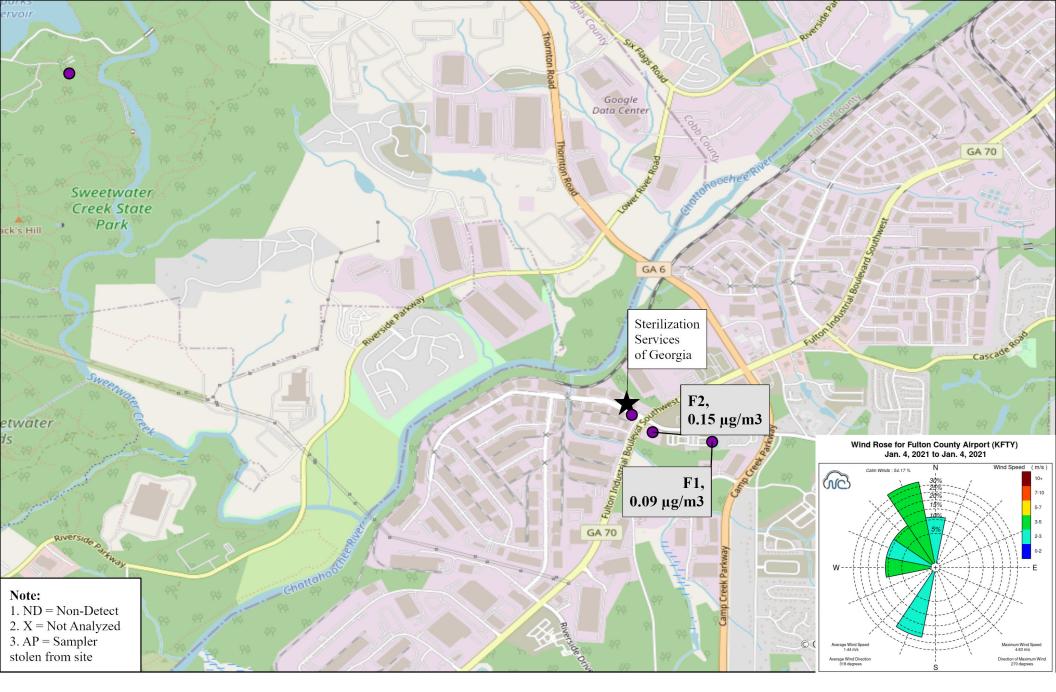
Fulton County, GA

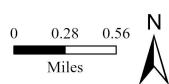
December 2020 Site Average Values

Note: Not detectable values were included in average calculations as a value of 0.

Sampled By: Georgia Environmental Protection Division Analyzed By: Eastern Research Group





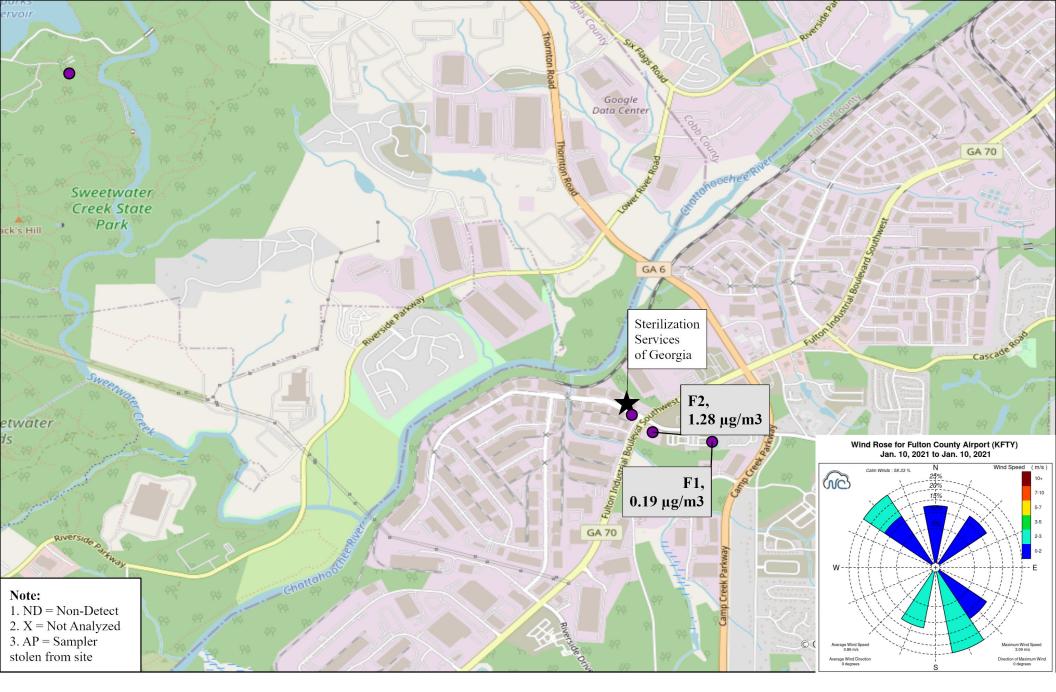


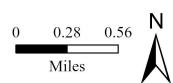
Ethylene Oxide Sampling Fulton County, GA

01/04/2021

Sampled By: Georgia Environmental Protection Division





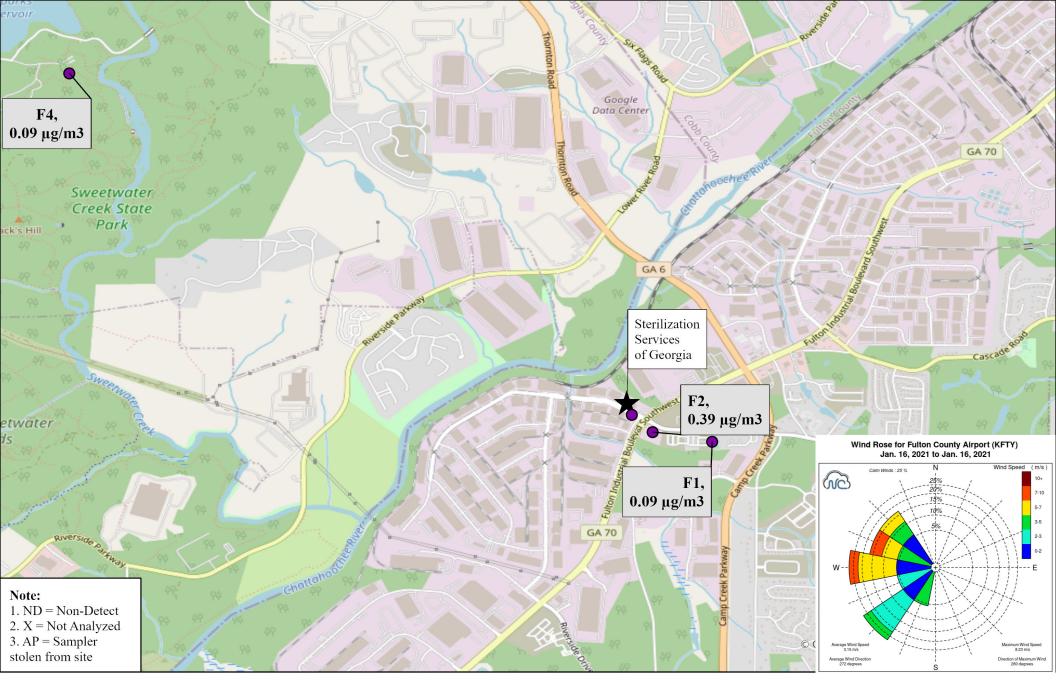


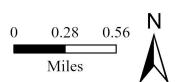
Ethylene Oxide Sampling Fulton County, GA

01/10/2021

Sampled By: Georgia Environmental Protection Division







Ethylene Oxide Sampling Fulton County, GA

01/16/2021

Sampled By: Georgia Environmental Protection Division

