



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

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 11, 2020

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: South DeKalb and NR-285 March 4-22, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were taken at our South DeKalb monitoring station in March 2020. Samples were also collected at a nearby ambient monitoring station close to the interstate (NR-285) to see the impacts of mobile traffic on the ethylene oxide measurements. Each of 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.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
South DeKalb	03/04/2020		0.21
South DeKalb	03/04/2020 QA		0.86
South DeKalb	03/10/2020		0.24
South DeKalb	03/16/2020		0.46
South DeKalb	03/22/2020		0.15
South DeKalb	03/22/2020 QA		0.30
NR - 285	3/10/20	2	0.37
NR - 285	3/22/20		0.37

If you have any questions, please let me know.

DGO/do



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

April 15, 2020

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

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 03/13/20 12:25 through 04/01/20 12:23.

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 #: 4022.00

REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
South Dekalb	0031323-01	Air	03/04/20 23:59	03/13/20 12:25
South Dekalb QA	0031323-02	Air	03/04/20 23:59	03/13/20 12:25
NR285	0031723-01	Air	03/10/20 23:59	03/17/20 11:34
South Dekalb QA <small>sample mislabeled not a QA sample DJO</small>	0031837-01	Air	03/10/20 23:59	03/18/20 12:17
South Dekalb	0032320-01	Air	3/16/20 DGO 03/11/20 23:59	03/23/20 10:22
South Dekalb	0040114-01	Air	03/22/20 23:59	04/01/20 12:23
South Dekalb QA	0040114-02	Air	03/22/20 23:59	04/01/20 12:23
NR285	0040114-03	Air	03/22/20 23:59	04/01/20 12:23



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AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0031323-01

Sampled: 03/04/20 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: 19284

Received: 03/13/20 12:25

Comments:

Analyzed: 04/01/20 21:19

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	0.118	0.21		0.0285



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SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb QA

Lab ID: 0031323-02

Sampled: 03/04/20 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: SAT137

Received: 03/13/20 12:25

Comments: QA

Analyzed: 04/01/20 22:23

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	0.475	0.86		0.0285



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REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: NR285	Lab ID: 0031723-01	Sampled: 03/10/20 23:59
Pressure @ Receipt: 0.00" Hg	Canister #: A21033	Received: 03/17/20 11:34
Comments: Received at ambient, threads look bad		Analyzed: 04/02/20 21:21

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	0.207	0.37		0.0285



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SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb ~~QA~~ sample mislabeled not a QA sample **Lab ID:** 0031837-01 **Sampled:** 03/10/20 23:59
Pressure @ Receipt: 12.50" Hg dgo **Canister #:** SAT117 **Received:** 03/18/20 12:17
Comments: QA **Analyzed:** 04/03/20 05:38

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	0.134	0.24		0.0285



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REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0032320-01

Sampled: ~~03/11/20~~ 23:59 3/16/20 DGO

Pressure @ Receipt: 5.50" Hg

Canister #: SAT016

Received: 03/23/20 10:22

Comments:

Analyzed: 04/03/20 03:48

Air Toxics by EPA Compendium Method TO-15

Analyte	Results		Flag	MDL
	ppbv	ug/m ³		ppbv
Ethylene oxide	0.254	0.46		0.0285



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REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0040114-01

Sampled: 03/22/20 23:59

Pressure @ Receipt: 5.00" Hg

Canister #: SAT120

Received: 04/01/20 12:23

Comments:

Analyzed: 04/03/20 21:56

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	0.0808	0.15		0.0285



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REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb QA

Lab ID: 0040114-02

Sampled: 03/22/20 23:59

Pressure @ Receipt: 12.75 psig

Canister #: A21101

Received: 04/01/20 12:23

Comments: QA

Analyzed: 04/03/20 23:47

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	0.164	0.30		0.0285



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REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: NR285	Lab ID: 0040114-03	Sampled: 03/22/20 23:59
Pressure @ Receipt: 18.50 psig	Canister #: A22329	Received: 04/01/20 12:23
Comments:		Analyzed: 04/04/20 01:37

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	0.203	0.37		0.0285



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FILE #: 4022.00

REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

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

Batch B0D0105 - Summa Canister Prep

Blank (B0D0105-BLK1)

Prepared: 03/26/20 Analyzed: 04/01/20

Ethylene oxide	ND	ppbv				U
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Duplicate (B0D0105-DUP1)

Source: 0031323-01

Prepared: 03/04/20 Analyzed: 04/01/20

Ethylene oxide	0.118	ppbv	0.12	0.170	25	
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Duplicate (B0D0105-DUP2)

Source: 0031323-02

Prepared: 03/04/20 Analyzed: 04/02/20

Ethylene oxide	0.486	ppbv	0.48	2.33	25	
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Batch B0D0204 - Summa Canister Prep

Blank (B0D0204-BLK1)

Prepared & Analyzed: 04/02/20

Ethylene oxide	ND	ppbv				U
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Duplicate (B0D0204-DUP1)

Source: 0032320-01

Prepared: 03/11/20 Analyzed: 04/03/20

Ethylene oxide	0.240	ppbv	0.25	5.83	25	
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Duplicate (B0D0204-DUP2)

Source: 0031837-01

Prepared: 03/10/20 Analyzed: 04/03/20

Ethylene oxide	0.146	ppbv	0.13	8.55	25	
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Batch B0D0302 - Summa Canister Prep

Blank (B0D0302-BLK1)

Prepared & Analyzed: 04/03/20

Ethylene oxide	ND	ppbv				U
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Duplicate (B0D0302-DUP1)

Source: 0040114-01

Prepared: 03/22/20 Analyzed: 04/03/20

Ethylene oxide	0.0803	ppbv	0.08	0.621	25	
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Duplicate (B0D0302-DUP2)

Source: 0040114-02

Prepared: 03/22/20 Analyzed: 04/04/20

Ethylene oxide	0.170	ppbv	0.16	3.23	25	
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FILE #: 4022.00

REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

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

Sequence 2004004

Calibration Check (2004004-CCV1)

Prepared & Analyzed: 04/01/20

Ethylene oxide	2.52	ppbv	2.0	30.00
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Sequence 2004009

Calibration Check (2004009-CCV1)

Prepared & Analyzed: 04/02/20

Ethylene oxide	2.56	ppbv	3.4	30.00
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Sequence 2004013

Calibration Check (2004013-CCV1)

Prepared & Analyzed: 04/03/20

Ethylene oxide	2.45	ppbv	-0.8	30.00
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REPORTED: 04/15/20 15:54

SUBMITTED: 03/13/20 to 04/01/20

AQS SITE CODE:

SITE CODE: GA EtO

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.