

July 17, 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 May 9-21, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were taken at our South DeKalb monitoring station in May 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 samples listed as AA indicate a sample pressure was out of limits. 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		05/09/2020		2		0.16
South DeKalb		05/15/2020		2		0.50
South DeKalb		05/21/2020				0.20
NR - 285		05/09/2020		2		0.07

If you have any questions, please let me know.

DGO/do



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

June 19, 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 05/15/20 11:29 through 05/29/20 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.



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: 06/19/20 12:33

SUBMITTED: 05/15/20 to 05/29/20

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	0051507-01	Air	05/09/20 23:59	05/15/20 11:29
South Dekalb	0052849-01	Air	05/15/20 23:59	05/28/20 12:27
South Dekalb	0052916-01	Air	05/21/20 23:59	05/29/20 11:45



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REPORTED: 06/19/20 12:33

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0051507-01

Sampled: 05/09/20 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: SAT130

Received: 05/15/20 11:29

Comments:

Analyzed: 06/07/20 07:02

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	0.0864	0.16		0.0285



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REPORTED: 06/19/20 12:33

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0052849-01

Sampled: 05/15/20 23:59

Pressure @ Receipt: 6.00" Hg

Canister #: A21097

Received: 05/28/20 12:27

Comments:

Analyzed: 06/09/20 15:06

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	0.279	0.50		0.0285



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REPORTED: 06/19/20 12:33

SUBMITTED: 05/15/20 to 05/29/20

AQS SITE CODE:

SITE CODE: GA EtO

Description: South Dekalb

Lab ID: 0052916-01

Sampled: 05/21/20 23:59

Pressure @ Receipt: 5.00" Hg

Canister #: A21013

Received: 05/29/20 11:45

Comments:

Analyzed: 06/09/20 16:58

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	0.112	0.20		0.0285



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SUBMITTED: 05/15/20 to 05/29/20

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 B0E2706 - Summa Canister Prep

Blank (B0E2706-BLK1)

Prepared: 05/27/20 Analyzed: 06/06/20

Ethylene oxide	ND	ppbv				U
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Batch B0F0907 - Summa Canister Prep

Blank (B0F0907-BLK1)

Prepared & Analyzed: 06/09/20

Ethylene oxide	ND	ppbv				U
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Duplicate (B0F0907-DUP1)

Source: 0052849-01

Prepared: 05/15/20 Analyzed: 06/09/20

Ethylene oxide	0.268	ppbv	0.28	3.84	25	
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FILE #: 4022.00

REPORTED: 06/19/20 12:33

SUBMITTED: 05/15/20 to 05/29/20

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 2005060

Calibration Check (2005060-CCV1)

Prepared & Analyzed: 06/06/20

Ethylene oxide	2.45	ppbv	-0.9	30.00
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Sequence 2006027

Calibration Check (2006027-CCV1)

Prepared & Analyzed: 06/09/20

Ethylene oxide	2.57	ppbv	3.0	30.00
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FILE #: 4022.00

REPORTED: 06/19/20 12:33

SUBMITTED: 05/15/20 to 05/29/20

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.



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

June 19, 2020

Ms. Jaime Gore
U.S. Environmental Protection Agency, Region 4
4244 International Pkwy, Suite 120
Atlanta, GA 30354
Project Name: NR285

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 05/15/20 11:42.

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.

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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: 06/19/20 12:37

SUBMITTED: 05/15/20

AQS SITE CODE:

SITE CODE: NR285

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
NR285	0051509-01	Air	05/09/20 23:59	05/15/20 11:42

Description: NR285	Lab ID: 0051509-01	Sampled: 05/09/20 23:59
Pressure @ Receipt: 18.75 psig	Canister #: 19647	Received: 05/15/20 11:42
Comments:		Analyzed: 06/07/20 09:47

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	0.0390	0.07		0.0285



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4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

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

FILE #: 4222.00

REPORTED: 06/19/20 12:37

SUBMITTED: 05/15/20

AQS SITE CODE:

SITE CODE: NR285

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

Batch B0E2706 - Summa Canister Prep

Blank (B0E2706-BLK1)

Prepared: 05/27/20 Analyzed: 06/06/20

Ethylene oxide	ND	ppbv				U
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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: 06/19/20 12:37

SUBMITTED: 05/15/20

AQS SITE CODE:

SITE CODE: NR285

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

Sequence 2005060

Calibration Check (2005060-CCV1)

Prepared & Analyzed: 06/06/20

Ethylene oxide	2.45	ppbv	-0.9	30.00
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FILE #: 4222.00

REPORTED: 06/19/20 12:37

SUBMITTED: 05/15/20

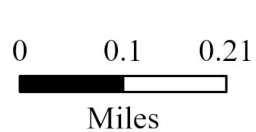
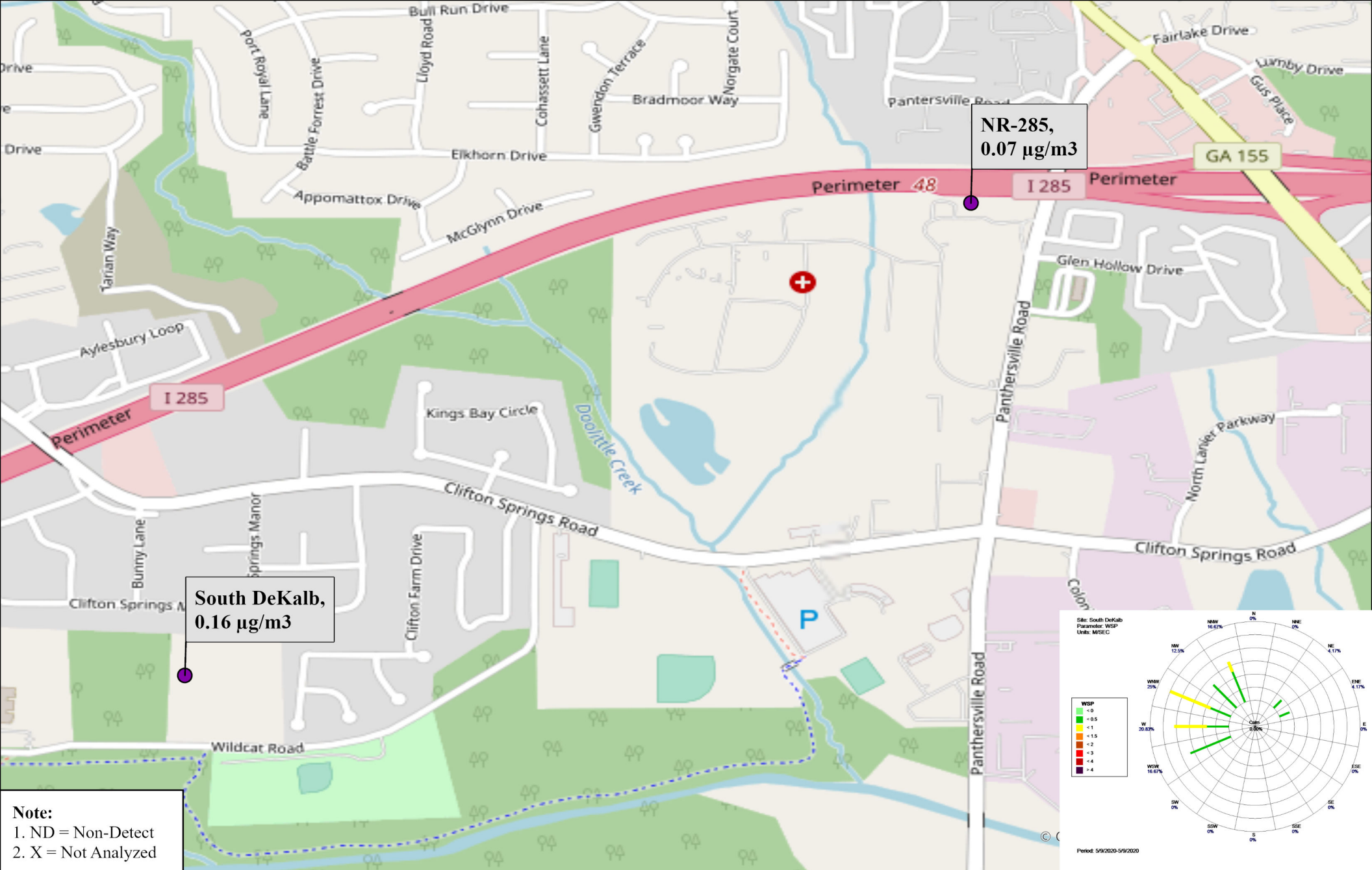
AQS SITE CODE:

SITE CODE: NR285

Notes and Definitions

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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.



Site ID, Concentration (µg/m³)

Ethylene Oxide Sampling
DeKalb County, GA

05/09/2020

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



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION