

EPD Director's Office

2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

October 12, 2022

MEMORANDUM

To: Karen Hays, Air Branch Chief *KH*

Through: James Boylan, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Cobb –August 26, 2021-September 19, 2021, Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were collected during the period of August 26, 2021-September 19, 2021, 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 “2” was given to samples to indicate that the collection deviated from established procedures, but the integrity of the sample was not compromised. The Qualifier code of “3” was given to samples to indicate that integrity of the field data may have been compromised. The Qualifier code of “LK” was given by ERG to indicate that the sample may be biased high. Samples listed as “SC” indicate the sample seems to be contaminated as the results are significantly high and incomparable to the spatial sites. Please note that sampling was discontinued at the end of August 2021 for site S3.

Location	Date	Qualifier	EtO Concentration (ug/m ³)
S2	08/26/2021	3	0.34
S2	09/07/2021	LK, 2, 3	0.79
S2	09/19/2021		SC
S2 QA	09/07/2021	3	0.18
S3	08/26/2021	2	0.30
S6 SA	08/26/2021	2	0.13
S6 SA	09/19/2021	2	0.26
S7 SA	08/26/2021	2, LK	0.13
S7 SA	09/19/2021	2	0.28

If you have any questions, please let me know.

DGO/do



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

October 29, 2021

Ms. Jaime Gore
GA Ambient Monitoring Program
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 09/03/21 12:57 through 10/07/21 12:38.

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.



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: 10/29/21 14:22
SUBMITTED: 09/03/21 to 10/07/21
AQS SITE CODE:
SITE CODE: Cobb

ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
S2	1090320-01	Air	08/26/21 23:59	09/03/21 12:57
S3	1090320-02	Air	08/26/21 23:59	09/03/21 12:57
S6-SA	1090320-03	Air	08/26/21 23:59	09/03/21 12:57
S7-SA	1090320-04	Air	08/26/21 23:59	09/03/21 12:57
S2	1091620-01	Air	09/07/21 23:59	09/16/21 11:33
S2-QA	1091620-02	Air	09/07/21 23:59	09/16/21 11:33
Cobb FB	1091620-03	Air	09/13/21 23:59	09/16/21 11:33
S2	1100727-01	Air	09/19/21 23:59	10/07/21 12:38
S6-SA	1100727-02	Air	09/19/21 23:59	10/07/21 12:38
S7-SA	1100727-03	Air	09/19/21 23:59	10/07/21 12:38



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 1090320-01

Sampled: 08/26/21 23:59

Pressure @ Receipt: 7.00" Hg

Canister #: 19284

Received: 09/03/21 12:57

Comments:

Analyzed: 09/16/21 03:00

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	0.190	0.34		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S3

Lab ID: 1090320-02

Sampled: 08/26/21 23:59

Pressure @ Receipt: 8.50 " Hg

Canister #: 33506

Received: 09/03/21 12:57

Comments:

Analyzed: 09/16/21 04:02

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	0.166	0.30		0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S6-SA

Lab ID: 1090320-03

Sampled: 08/26/21 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: 110335

Received: 09/03/21 12:57

Comments:

Analyzed: 09/16/21 05:03

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	0.0742	0.13		0.0261

Type text here



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S7-SA

Lab ID: 1090320-04

Sampled: 08/26/21 23:59

Pressure @ Receipt: 10.0" Hg

Canister #: A21010

Received: 09/03/21 12:57

Comments:

Analyzed: 09/16/21 06:04

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	0.0711	0.13		0.0261

10/12/22 LK flag added through updated information from ERG *dgo*



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 1091620-01

Sampled: 09/07/21 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: A21007

Received: 09/16/21 11:33

Comments:

Analyzed: 09/29/21 23:41

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	0.437	0.79		0.0261

10/12/22 LK flag added through updated information from ERG *dgo*



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S2-QA

Lab ID: 1091620-02

Sampled: 09/07/21 23:59

Pressure @ Receipt: 4.00 "Hg

Canister #: 19665

Received: 09/16/21 11:33

Comments:

Analyzed: 09/30/21 01:43

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	0.102	0.18		0.0261

LK flag added through updated information from ERG10



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: Cobb FB

Lab ID: 1091620-03

Sampled: 09/13/21 23:59

Pressure @ Receipt: 29.5 "Hg

Canister #: 18818

Received: 09/16/21 11:33

Comments: Field Blank

Analyzed: 09/29/21 17:34

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	0.0261

LK flag added through updated information from ERG1



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S2

Lab ID: 1100727-01

Sampled: 09/19/21 23:59

Pressure @ Receipt: 9.00" Hg

Canister #: 35141

Received: 10/07/21 12:38

Comments:

Analyzed: 10/08/21 13:45

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	12.3	22.20	D	0.0522

Evaluating the wind direction on this day and comparison of this sample to the spatial samples collected the same day, (S6 and S7), this concentration is very likely due to canister bias and should be voided with the null code SC.



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S6-SA

Lab ID: 1100727-02

Sampled: 09/19/21 23:59

Pressure @ Receipt: 5.50" Hg

Canister #: 19340

Received: 10/07/21 12:38

Comments:

Analyzed: 10/08/21 06:19

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	0.145	0.26	LK	0.0261



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FILE #: 4222.00

REPORTED: 10/29/21 14:22

SUBMITTED: 09/03/21 to 10/07/21

AQS SITE CODE:

SITE CODE: Cobb

Description: S7-SA

Lab ID: 1100727-03

Sampled: 09/19/21 23:59

Pressure @ Receipt: 6.50" Hg

Canister #: 33498

Received: 10/07/21 12:38

Comments:

Analyzed: 10/08/21 08:21

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	0.157	0.28	LK	0.0261



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FILE #: 4222.00
REPORTED: 10/29/21 14:22
SUBMITTED: 09/03/21 to 10/07/21
AQS SITE CODE:
SITE CODE: Cobb

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

Batch B1I1505 - Summa Canister Prep

Blank (B1I1505-BLK1)

Prepared & Analyzed: 09/15/21

Ethylene oxide	ND	ppbv				U
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Batch B1I2906 - Summa Canister Prep

Blank (B1I2906-BLK1)

Prepared & Analyzed: 09/29/21

Ethylene oxide	ND	ppbv				U
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Duplicate (B1I2906-DUP3)

Source: 1091620-01

Prepared: 09/07/21 Analyzed: 09/30/21

Ethylene oxide	0.472	ppbv	0.44	7.62	25	
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Duplicate (B1I2906-DUP4)

Source: 1091620-02

Prepared: 09/07/21 Analyzed: 09/30/21

Ethylene oxide	0.116	ppbv	0.10	12.5	25	
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Batch B1J0704 - Summa Canister Prep

Blank (B1J0704-BLK1)

Prepared & Analyzed: 10/07/21

Ethylene oxide	ND	ppbv				U
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Duplicate (B1J0704-DUP2)

Source: 1100727-02

Prepared: 09/19/21 Analyzed: 10/08/21

Ethylene oxide	0.141	ppbv	0.15	2.94	25	
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FILE #: 4222.00
REPORTED: 10/29/21 14:22
SUBMITTED: 09/03/21 to 10/07/21
AQS SITE CODE:
SITE CODE: Cobb

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

Sequence 2109045

Calibration Check (2109045-CCV1)

Prepared & Analyzed: 09/15/21

Ethylene oxide	2.41	ppbv	-3.7	30.00
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Sequence 2109072

Calibration Check (2109072-CCV1)

Prepared & Analyzed: 09/29/21

Ethylene oxide	2.51	ppbv	3.7	30.00
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Sequence 2110016

Calibration Check (2110016-CCV1)

Prepared & Analyzed: 10/07/21

Ethylene oxide	3.02	ppbv	24.9	30.00
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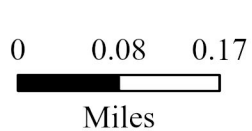
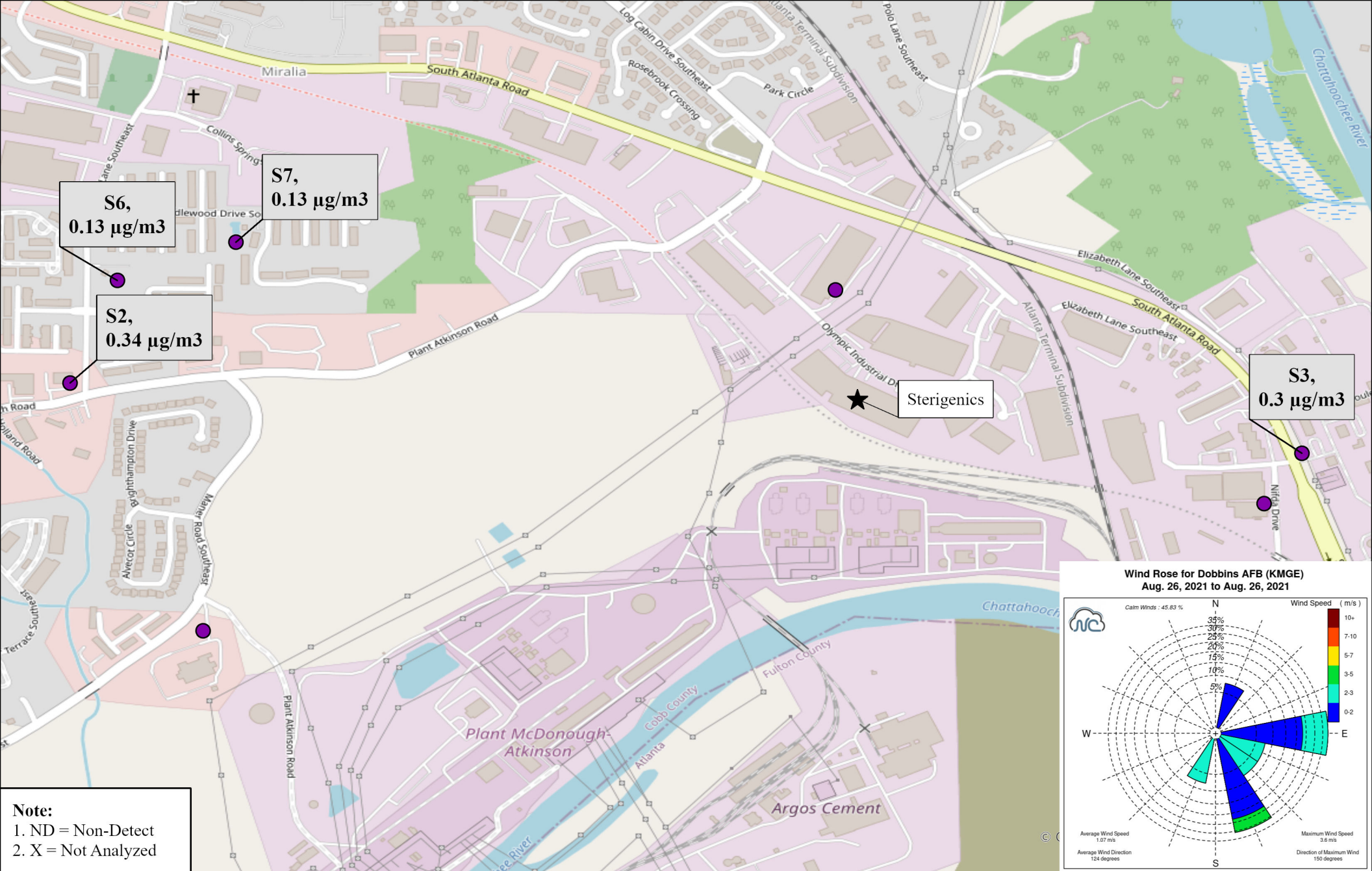
U.S. Environmental Protection Agency, Region 4
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SUBMITTED: 09/03/21 to 10/07/21
AQS SITE CODE:
SITE CODE: Cobb

Notes and Definitions

U	Under Detection Limit
D	This result obtained by dilution.
ND	Analyte 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.



Site ID, Concentration (µg/m³)

Ethylene Oxide Sampling
Cobb County, GA

08/26/2021

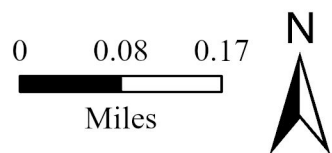
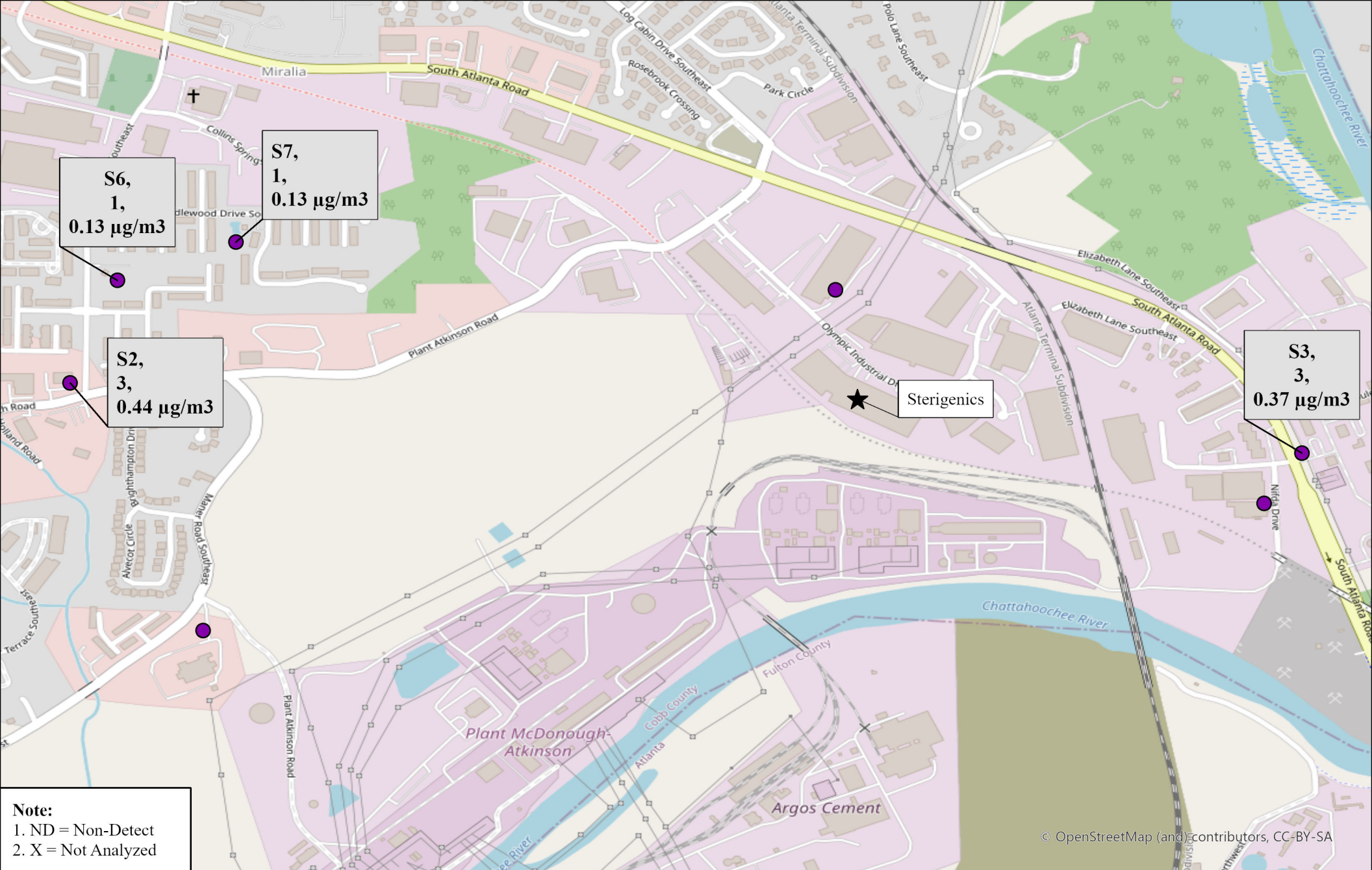
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



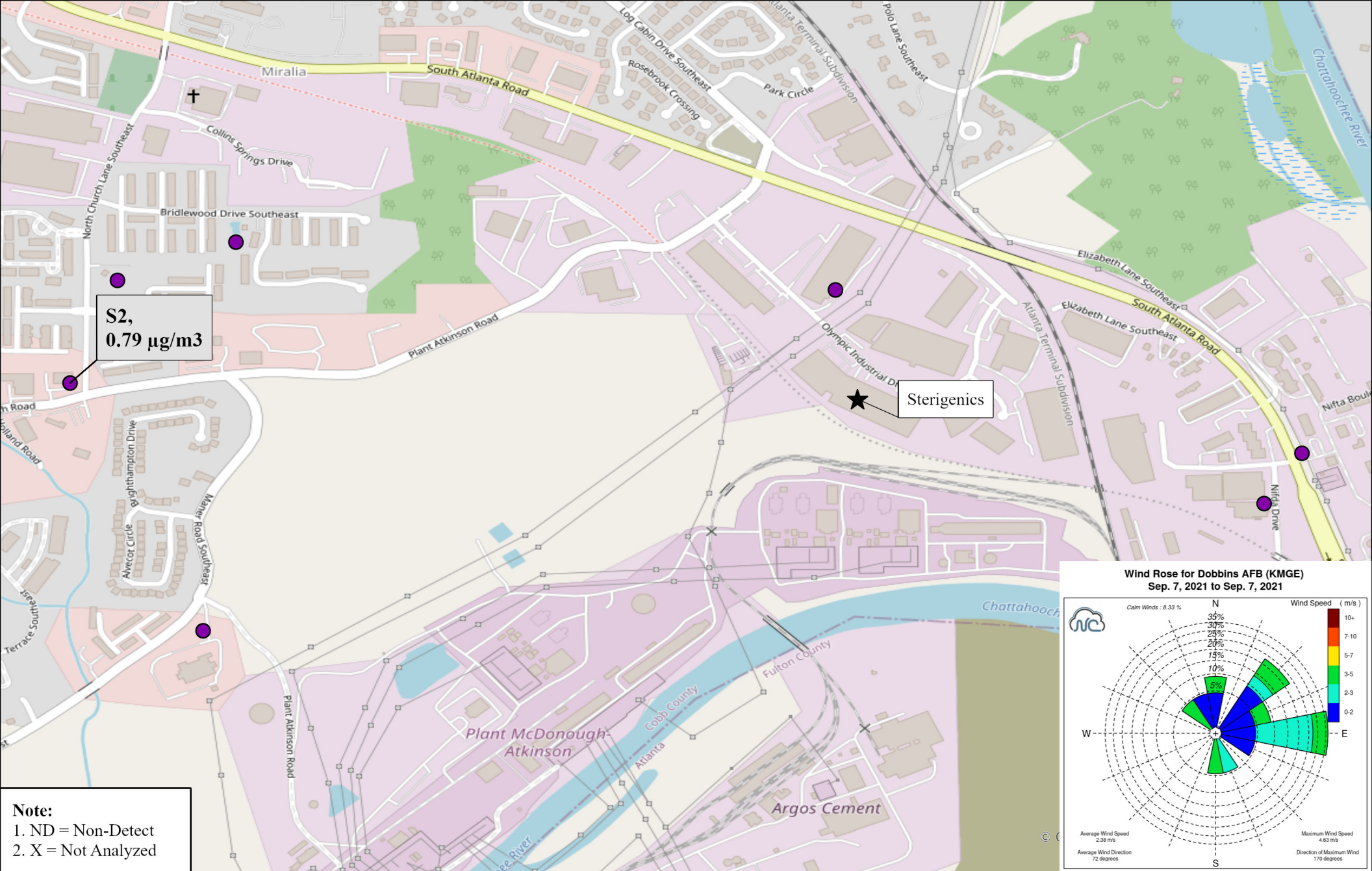
GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



Ethylene Oxide Sampling
Cobb County, GA

August 2021 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



0 0.08 0.17
 Miles



Site ID, Concentration ($\mu\text{g}/\text{m}^3$)

Ethylene Oxide Sampling
 Cobb County, GA

09/07/2021

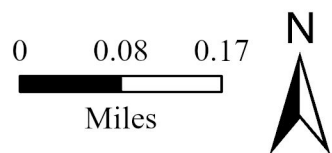
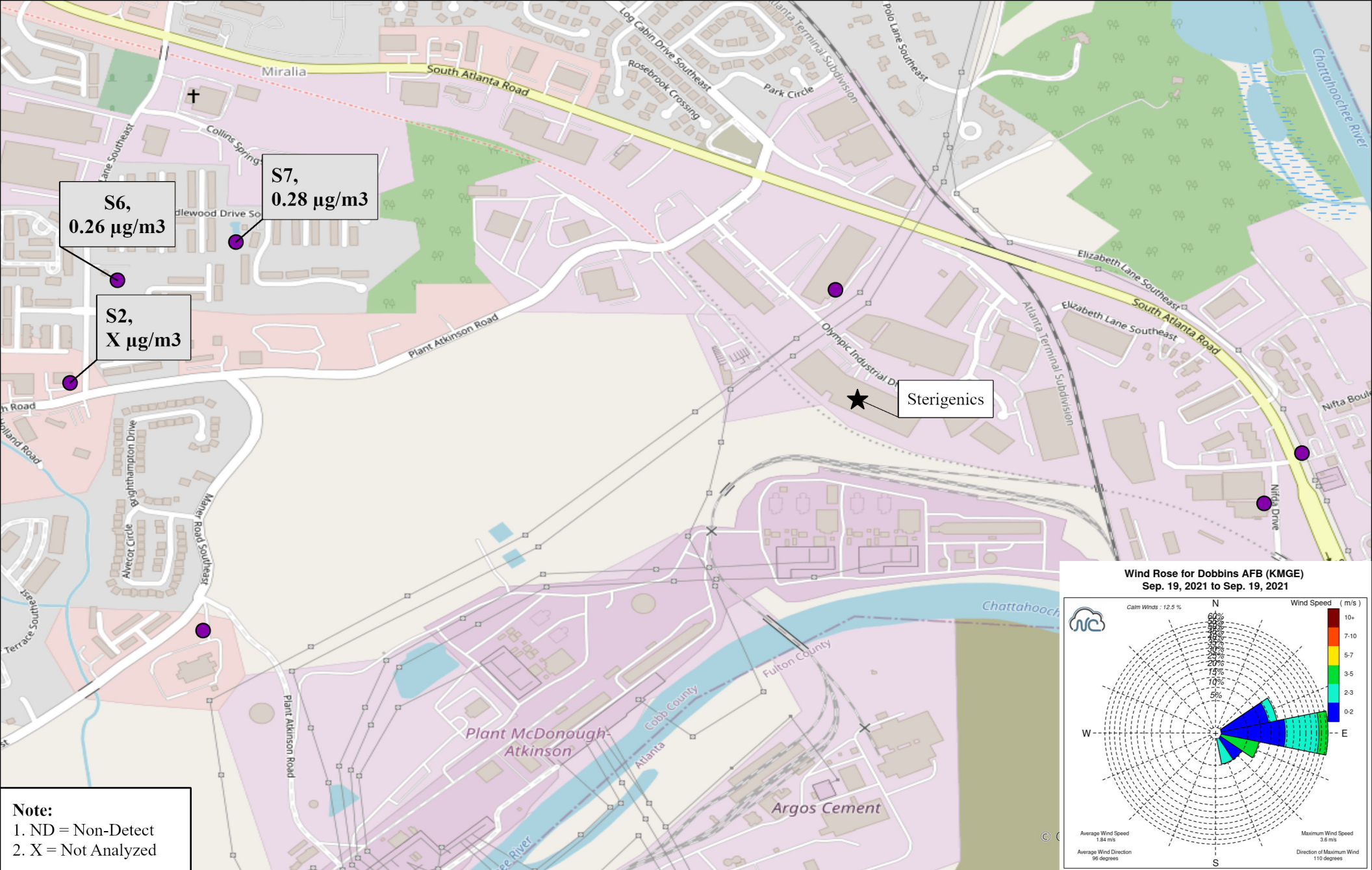
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



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ENVIRONMENTAL PROTECTION DIVISION



Site ID, Concentration ($\mu\text{g}/\text{m}^3$)

Ethylene Oxide Sampling
 Cobb County, GA

09/19/2021

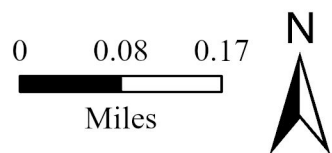
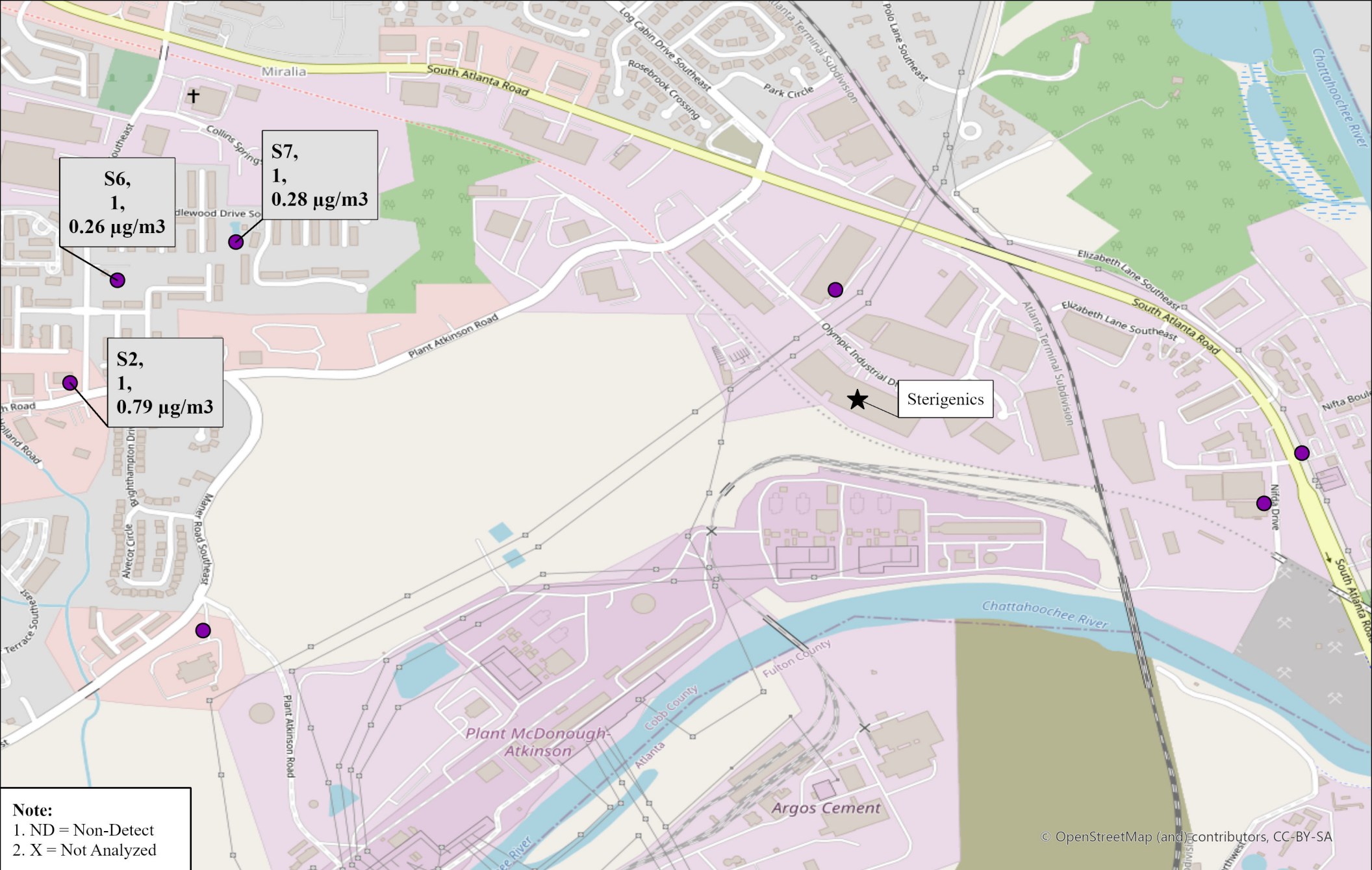
Sampled By: Georgia Environmental Protection Division

Analyzed By: Eastern Research Group



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 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



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

Ethylene Oxide Sampling
Cobb County, GA

September 2021 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



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