2022
AMBIENT AIR MONITORING NETWORK PLAN

Jefferson County Department of Health
Air and Radiation Protection Division
1400 Sixth Avenue South
Birmingham, AL 35233

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1.0 Definitions and Acronyms

Appendix D	Volume 40, Code of Federal Regulations, part 58, Appendix D
AQI	Air Quality Index
AQS	Air Quality System
CASTNET	Clean Air Status and Trends Network
CBSA	Core Based Statistical Area
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSA	Combined Statistical Area
FEM	Federal Equivalent Method
FRM	Federal Reference Method
JCDH	Jefferson County Department of Health
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NCore	National Core Multipollutant Monitoring Station
NO	Nitric Oxide
NO_x	Oxides of Nitrogen
NO_y	Total Reactive Nitrogen
NO_2	Nitrogen Dioxide
O_3	Ozone
PAMS	Photochemical Assessment Monitoring Station
PM	Particulate matter
$PM_{2.5}$	Particulate matter ≤2.5 micrometers diameter
PM_{10}	Particulate matter ≤10 micrometer diameter
$PM_{10-2.5}$	Particulate matter ≤10 microns but > 2.5 microns
QAPP	Quality Assurance Project Plan
QMP	Quality Management Plan
SLAMS	State or Local Air Monitoring Station
SO_2	Sulfur Dioxide
SPM	Special Purpose Monitor
STN ($PM_{2.5}$)	Speciation Trends Network
USEPA	United States Environmental Protection Agency
≥	greater than or equal to
>	greater than
≤	less than or equal to
<	less than

2.0 Types of Monitoring Stations

CASTNET - *Clean Air Status and Trends Network*: is a national air quality monitoring network designed to provide data to assess trends in air quality, atmospheric deposition, and ecological effects due to changes in air pollutant emissions. CASTNET provides long-term monitoring of air quality in rural areas to determine trends in regional atmospheric nitrogen, sulfur, and ozone concentrations and deposition fluxes of sulfur and nitrogen pollutants in order to evaluate the effectiveness of national and regional air pollution control programs. USEPA-sponsored CASTNET ozone monitors are Part 58 compliant, therefore the data can be used for regulatory purposes. CASTNET ozone data is now reported to AQS.

NCore – *National Core multi-pollutant monitoring station*: Sites that measure multiple pollutants at trace levels in order to provide support to integrated air quality management data needs. Each state is required to operate one NCore site.

PAMS– *Photochemical Assessment Monitoring Station*: PAMS are established to obtain more comprehensive data in areas with high levels of ozone pollution by also monitoring oxides of nitrogen (NOx) and volatile organic compounds (VOCs). PAMS monitoring requirements were revised in the 2016 ozone NAAQS rule and a PAMS site is required in the state of Alabama in Jefferson County.

SLAMS- *State or Local Ambient Monitoring Station*: The SLAMS make up ambient air quality monitoring sites that are primarily needed for NAAQS comparisons.

STN– *PM2.5 Speciation Trends Network*: A $PM_{2.5}$ speciation station designated to be part of the speciation trends network. This network provides chemical species data of fine particulates. There is currently two STN sites located in Jefferson County.

Supplemental Speciation- Any $PM_{2.5}$ speciation station that is used to gain supplemental data and is not dedicated as part of the speciation trends network.

3.0 Background

Federal Regulations (40 CFR 58.10) require that State and Local Agencies operating an ambient air quality monitoring network shall review their air quality monitoring network on an annual basis. Any needed modifications to the network should be identified. A detailed monitoring network description should also be included. In addition, the plan shall be available for public comment. The Jefferson County Department of Health's (JCDH) Ambient Air Monitoring Network Plan is available on the JCDH website at:
https://www.jcdh.org/SitePages/Programs-Services/Scores-Lists/Air/AirPollutionControl.aspx?AQTab=Notices

The JCDH's Ambient Air Monitoring Network Plan was placed on the website on May 23, 2022 for a 30-day public review and comment period.

The Monitoring Network review that is specified in *40 CFR 58.10* contains the following elements that apply to each monitoring site:

- The USEPA Air Quality System (AQS) site identification number.
- The location, including street address and geographical coordinates.
- The sampling and analysis method(s) for each measured parameter.
- The operating schedules for each monitor.
- Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.
- The monitoring objective and spatial scale of representativeness for each monitor as defined in Appendix D of Part 58.
- The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM_{2.5}$ and Ozone National Ambient Air Quality Standards (NAAQS) as described in part 58.30.
- The MSA, CBSA, CSA or other area represented by the monitor.
- The annual monitoring network plans and or periodic network assessments are subject to Regional approval according to part 58.14.

4.0 Proposed Changes for CY2023

- JCDH was approved to receive a portion of USEPA's American Recovery Plan grant. JCDH does not have a date of when this grant will be awarded, but upon the receipt of the award, JCDH plans to upgrade multiple instruments for multiple pollutants. JCDH will reestablish the $PM_{2.5}$ FRM at Leeds to be collocated with the $PM_{2.5}$ FEM which JCDH will is now proposing to categorized as a SPM for 24 months in order to evaluate the FEM's data comparability to the NAAQS. JCDH is requesting that the FEM $PM_{2.5}$ data not be NAAQS comparable during this 24 month period.

5.0 Overview

The ambient air monitoring network for Jefferson County, Alabama is operated by the Jefferson County Department of Health. Ambient air monitors in Jefferson County, Alabama are operated for a variety of monitoring objectives. These objectives include determining if an area of the

County meets the NAAQS, for public information such as USEPA's AirNow data mapping website, Air Quality Index (AQI) reporting for public information, background data collection, spatial considerations, and special projects. The AQI forecast for Jefferson County, Alabama is reported on the JCDH website at:

https://www.jcdh.org/SitePages/Programs-Services/EnvironmentalHealth/Air-RadiationProtectionDivision/AirQualForecast.aspx

In addition, hourly Ozone (O_3), continuous Particulate Matter (PM_{10} and $PM_{2.5}$), Nitrogen Dioxide (NO_2), Sulfur Dioxide (SO_2), and Carbon Monoxide (CO) data is reported to the USEPA AirNow site. 40 CFR 58 has set minimum monitoring requirements for the pollutants that are to be compared with the NAAQS. These minimum requirements are based on population, the level of monitored pollutants, and Metropolitan Statistical Areas (MSA) as defined in the latest US Census information. The JCDH air monitoring site data are suitable for NAAQS comparisons per appendices A, C, D, and E. The JCDH's Quality Management Plan (QMP) is current with an approval date of June 28, 2019. The JCDH Quality Assurance Project Plan (QAPP) for Ambient Air Quality Monitoring of Criteria and Multi-Pollutants is current with an approval date of December 14, 2018.

Based on 40 CFR part 58, Appendix D, JCDH began making Photochemical Assessment Monitoring (PAMS) measurements at the NCore site on the established begin date of June 1, 2021.

6.0 Site Discussion

The JCDH's ambient air monitoring network has been reviewed based on the historic monitoring data, air quality monitoring regulations, data representation based on spatial considerations, special data needs, and changes needed based on the monitoring regulations. The items used in the evaluation were the following: AQS database, the 40 CFR parts 53 and 58 documents, and the census data and maps. The JCDH monitors are classified as either SLAMS (State or Local Air Monitoring Station) or SPM (Special Purpose Monitor).

The following sections describe the purposes and any changes related to each in the ambient air monitoring network in Jefferson County based on the review of the existing monitoring efforts.

1. **Corner** (01-073-5003) – The JCDH operates one O_3 monitor and one continuous non-FEM $PM_{2.5}$ monitor at this site. This site is the background site for the JCDH and no changes are proposed for this site at this time.

    - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The ozone sample inlet is approximately 6.1 meters above ground level, and the continuous $PM_{2.5}$ is approximately 6.4 meters above ground level. A tree is located north of the site, approximately 10 meters. There are no other trees or obstacles that would impact the siting criteria for this site.

2. **Fairfield** (01-073-1003) – The JCDH operates one O_3 monitor, one SO_2 monitor, and one CO monitor at this site. No changes are proposed for this site.

- **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlets for the three monitors are approximately 5 meters above ground level. No trees or obstacles impact the siting criteria for this site.

3. **Leeds** (01-073-1010) – The JCDH operates one O_3 monitor, and beginning March 1, 2022, one continuous FEM monitor for PM_{10} and $PM_{2.5}$. This one monitor replaces the previously operated continuous non-FEM $PM_{2.5}$ monitor, two FRM manual $PM_{2.5}$ monitors, and two FRM manual PM_{10} monitors at this site. However, JCDH is now proposing to reestablish the one FRM manual $PM_{2.5}$ monitor while requesting that the FEM $PM_{2.5}$ monitor be categorized as SPM for a 24 month period in order to evaluate the FEM $PM_{2.5}$ monitor's data. Accordingly, JCDH requests that the FEM $PM_{2.5}$ monitor's data during this 24 month period be excluded from NAAQS comparability.
4.
    - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet for the O_3 is approximately 4.6 meters above ground level, the continuous PM_{10} and $PM_{2.5}$ monitor is approximately 4.8 meters above ground level. No trees or obstacles impact the siting criteria for this site.

5. **McAdory** (01-073-1005) – The JCDH operates one O_3 monitor, one continuous non-FEM $PM_{2.5}$ monitor, and one FRM manual $PM_{2.5}$ monitor. No changes are proposed for this site at this time.

    - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The sample inlet for the O_3 is approximately 4.6 meters above ground level, the continuous $PM_{2.5}$ monitor is approximately 4.7 meters above ground level, and the particulate manual monitors are approximately 5 meters above ground. No trees or obstacles impact the siting criteria for this site.

6. **NCore** (01-073-0023) – The JCDH operates an NCore site which contains a full complement of instruments, including: meteorological, IMPROVE, RADNET, and PAMS. The ambient air monitoring parameters currently include O_3, SO_2, CO, Nitric Oxides as NO_x and NO_y, one FRM manual $PM_{2.5}$ monitor, speciated $PM_{2.5}$, continuous FEM $PM_{2.5}$, continuous FEM PM_{10}, FEM $PM_{10\text{-}2.5}$, wind speed, wind direction, ambient temperature, barometric pressure, and relative humidity. No changes are proposed for this site.

    - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The meteorological tower is approximately 30 meters above ground level. The NO_x, CO, and SO_2 sample inlets are approximately 4.3 meters above ground level. The O_3 sample inlet is approximately 4.6 meters above ground level, and PAMS is approximately 4.7 meters above ground level. The continuous particulate monitor is approximately 4.6 meters above ground level, while the manual particulate monitors and speciated $PM_{2.5}$ monitors are

approximately 4 meters above ground level. IMPROVE and RADNET are operated at ground level. No trees or obstacles impact the siting criteria for this site.

7. **Near Road** (01-073-2059) – The JCDH operates one NO_x monitor, one CO monitor, and one FRM manual $PM_{2.5}$ monitor at this site. Meteorological data is also collected at this site, which includes the following: wind speed, wind direction, ambient temperature, barometric pressure, and relative humidity. No changes are proposed for this site.

    - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. The meteorological tower is approximately 30 meters above ground level. The NO_x and CO sample inlets are approximately 4.2 meters above ground level. The manual particulate monitor is approximately 4.8 meters above ground level. A tree is located west of the site, approximately 10.7 meters. There are no other trees or obstacles that would impact the siting criteria for this site.

8. **Shuttlesworth** (01-073-6004) – The JCDH operates one continuous non-FEM $PM_{2.5}$ monitor and one continuous FEM PM_{10} monitor at this site. No changes are proposed for this site at this time.

    - **Site Approval Status:** The continuous particulate monitors are approximately 4.4 meters above ground level. A tree is located north of the site, at approximately 11 meters. Another tree is located northeast of the site, at approximately 10 meters. There are no other trees or obstacles that would impact the siting criteria for this site.

9. **Tarrant** (01-073-6002) – The JCDH operates one O_3 monitor and one continuous FEM PM_{10} monitor at this site. No changes are proposed for this site at this time.

    - **Site Approval Status:** The O_3 monitor sample inlet is approximately 4.3 meters above ground level. The continuous particulate monitor is approximately 4.4 meters above ground level. A tree is located north of the site, at approximately 11 meters. Another tree is located northeast of the site, at approximately 10 meters. No trees or obstacles impact the siting criteria for this site.

10. **Wylam** (01-073-2003) – The JCDH operates one continuous FEM PM_{10} monitor, one continuous non-FEM $PM_{2.5}$ monitor, three FRM manual $PM_{2.5}$ monitors, and speciated $PM_{2.5}$ at this site. No changes are proposed for this site at this time.

    - **Site Approval Status:** The sample inlets for the continuous particulate monitors are approximately 4.5 meters above ground level. The manual particulate monitors are approximately 5 meters above ground level, and the sample inlet for the speciated $PM_{2.5}$ is approximately 4.8 meters above ground level.
      No trees or obstacles impact the siting criteria for this site.

7.0 CBSA/MSA

Minimum monitoring requirements vary for each pollutant and can be based on a combination of factors such as population, the level of monitored pollutants, and Core Based Statistical Area boundaries as defined in the latest US Census information. The term "Core Based Statistical Area" (CBSA) is a collective term for both Metropolitan Statistical Areas (MSA) and Micropolitan Statistical Areas (µSA). Jefferson County has a 2020 MSA population estimate of 674,721[1]. The population of the CBSA which includes the counties of Jefferson, Bibb, Blount, Chilton, Shelby, St. Clair, and Walker has a 2020 population estimate of 1,180,631[1].

The following sections provide the ambient air monitoring site addresses and coordinates in the JCDH network, in addition to a detailed table of each monitor operated by the JCDH. The JCDH evaluated each site type and scale, along with each monitor objective and type, as part of the assessment for this plan. Some changes were made, and can be found in Section 9.0.

[1]Population estimates for July 1, 2020 found at www.census.gov

8.0 Site Location Coordinates

Site Name/ID: Address	Latitude	Longitude
Corner 01-073-5003: 10005 Corner School Road, Warrior, AL	33.8006	-86.9416
Fairfield 01-073-1003: 5229 Ct B, Fairfield, AL	33.4848	-86.9150
Leeds 01-073-1010: 201 Ashville Road, Leeds, AL	33.5394	-86.5518
McAdory 01-073-1005: 4821 McAdory School Road, McCalla, AL	33.3316	-87.0001
NCore 01-073-0023: 3009 28th Street North, Birmingham, AL	33.5530	-86.8147
Near-Road 01-073-2059: 1110 5th Street West, Birmingham, AL	33.5215	-86.8444
Shuttlesworth 01-073-6004: 4113 Shuttlesworth Drive, Birmingham, AL	33.5652	-86.7963
Tarrant 01-073-6002: 1269 Portland St, Tarrant, AL	33.5783	-86.7738
Wylam 01-073-2003: 1242 Jersey St, Birmingham, AL	33.4997	-86.9241

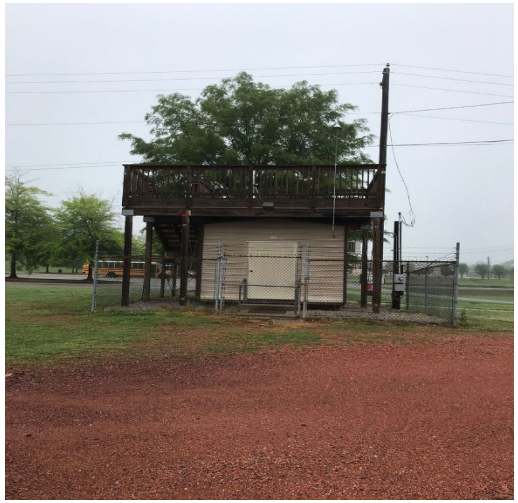
9.0 Network Table

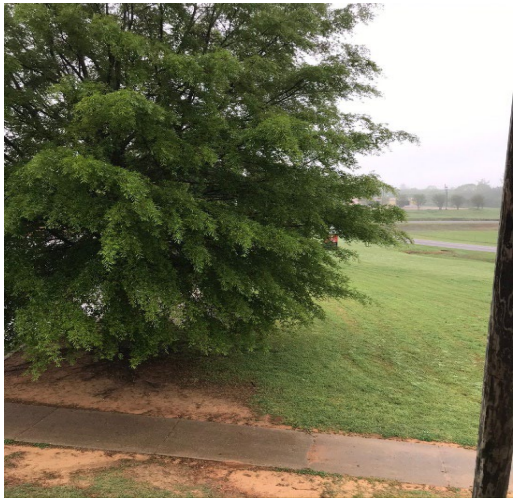
2022 NETWORK ASSESSMENT									
Corner 073-5003									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
O3	44201	1	087	UltraViolet Absorption	Continuous	General/Background	Regional	General/Background	SLAMS
PM2.5	88502	3	701	PM2.5 SCC w/No Correction Factor	Continuous	General/Background	Regional	General/Background	SPM
Fairfield 073-1003									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
CO	42101	1	174	NonDispersive Infrared Photometry	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
SO2	42401	1	188	UltraViolet Fluorescence	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
O3	44201	1	087	UltraViolet Absorption	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
Leeds 073-1010									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
O3	44201	1	087	UltraViolet Absorption	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	1	142	VSCC Gravimetric	Manual	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM10	81102	4	239	Broadband Spectroscopy	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	3	238	Broadband Spectroscopy	Continuous	Population Oriented	Neighborhood	Population Exposure	SPM
McAdory 073-1005									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
O3	44201	1	087	UltraViolet Absorption	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	1	142	VSCC Gravimetric	Manual	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88502	3	701	PM2.5 SCC w/No Correction Factor	Continuous	Population Oriented	Neighborhood	Population Exposure	SPM
NCore 073-0023									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
CO	42101	2	093	Gas Filter Correlation	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
SO2	42401	2	100	UltraViolet Fluorescence	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
NO2	42602	2	200	Photolytic Chemiluminescence	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
O3	44201	1	087	UltraViolet Absorption	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	1	142	VSCC Gravimetric	Manual	Population Oriented	Neighborhood	Highest Concentration/Pop Exp	SLAMS
PM10	81102	4	239	Broadband Spectroscopy	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	3	238	Broadband Spectroscopy	Continuous	Population Oriented	Neighborhood	Highest Concentration/Pop Exp	SLAMS
Near Road 073-2059									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
CO	42101	1	093	Gas Filter Correlation	Continuous	Population Oriented	Microscale	Source Oriented	SLAMS
NO2	42602	1	200	Photolytic Chemiluminescence	Continuous	Population Oriented	Microscale	Source Oriented	SLAMS
PM2.5	88101	1	142	VSCC Gravimetric	Manual	Population Oriented	Microscale	Source Oriented	SLAMS

2022 NETWORK ASSESSMENT									
Shuttlesworth 073-6004									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
PM10	81102	1	079	FDMS Gravimetric	Continuous	Source Oriented	Microscale	Highest Concentration	SLAMS
PM2.5	88502	3	701	PM2.5 SCC w/No Correction Factor	Continuous	Source Oriented	Microscale	Source Oriented	SPM
Tarrant 073-6002									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
O3	44201	1	087	UltraViolet Absorption	Continuous	Population Oriented	Neighborhood	Highest Concentration	SLAMS
PM10	81102	3	208	FDMS Gravimetric	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
Wylam 073-2003									
Parameter	**Code**	**POC**	**Method**	**Method Description**	**Manual/Continuous**	**Site Type**	**Siting Scale**	**Monitor Objective**	**Monitor Type**
PM2.5	88101	1	142	VSCC Gravimetric	Manual	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	2	142	VSCC Gravimetric	Manual	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88101	1	142	VSCC Gravimetric	Manual	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM10	81102	2	208	FDMS Gravimetric	Continuous	Population Oriented	Neighborhood	Population Exposure	SLAMS
PM2.5	88502	3	701	PM2.5 SCC w/No Correction Factor	Continuous	Population Oriented	Neighborhood	Population Exposure	SPM

APPENDIX I

CORNER 01-073-5003





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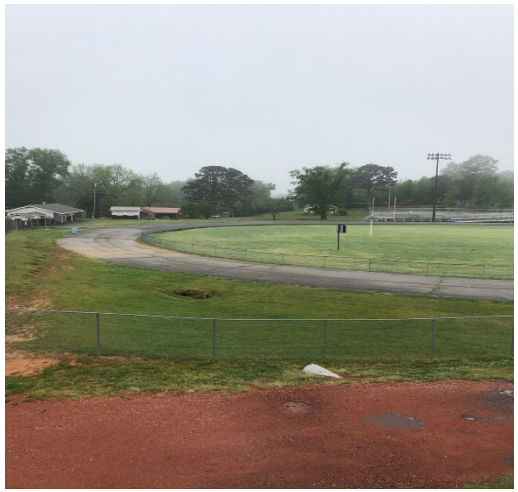

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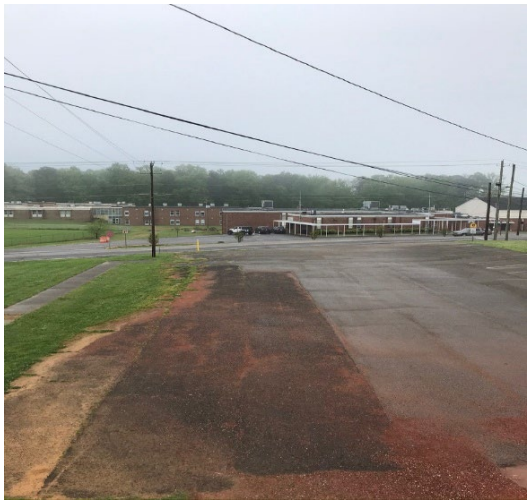

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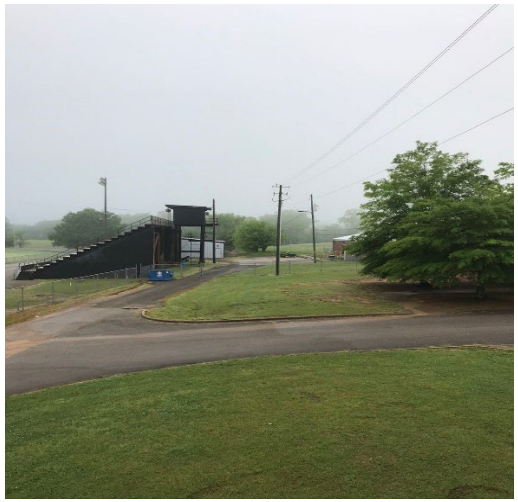

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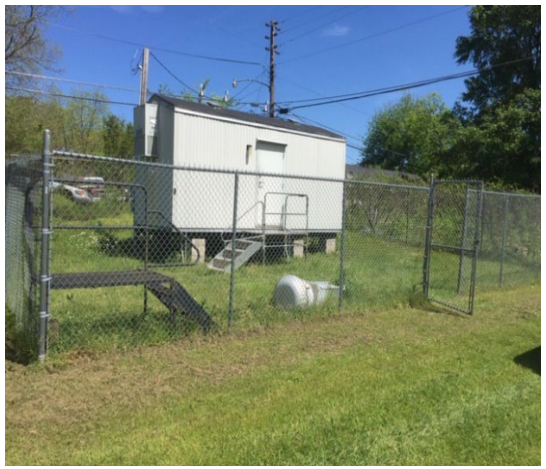

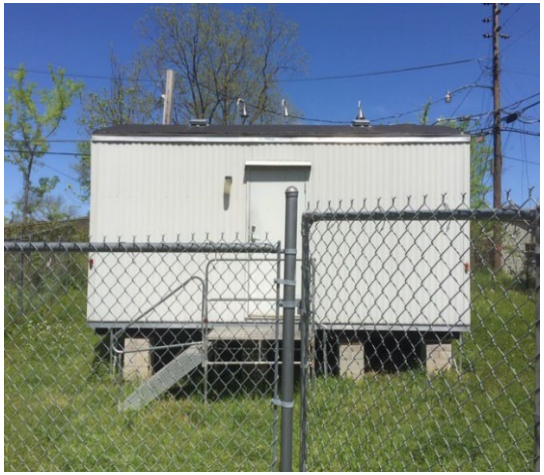

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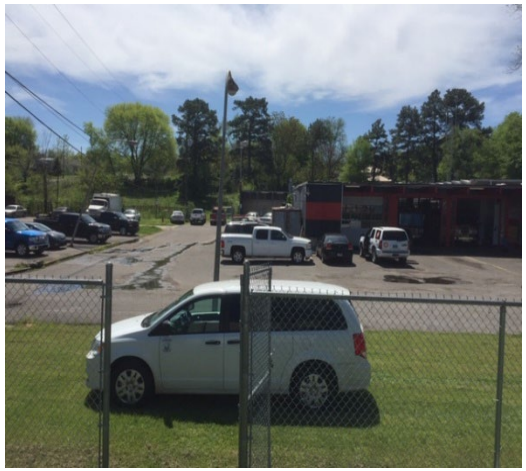

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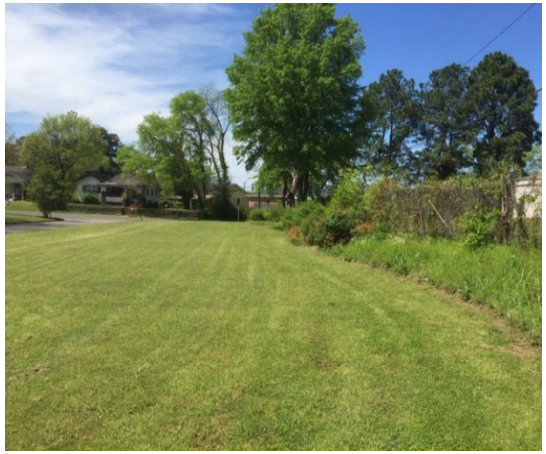

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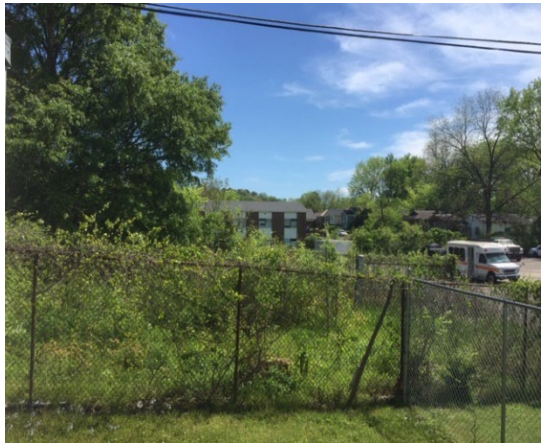

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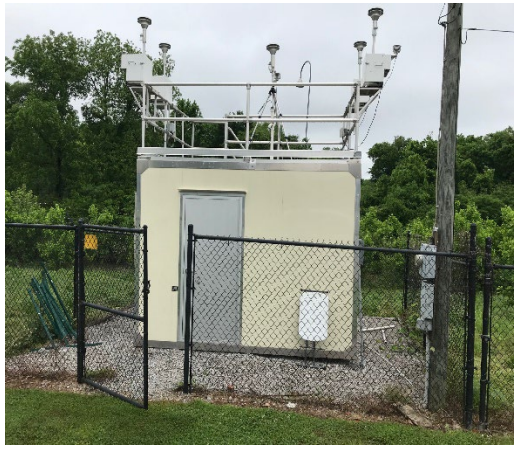
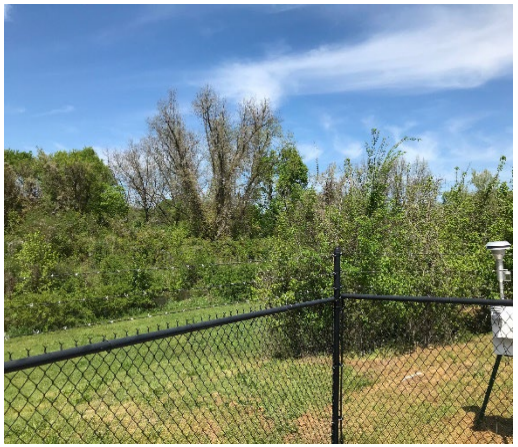
LEEDS 01-073-1010





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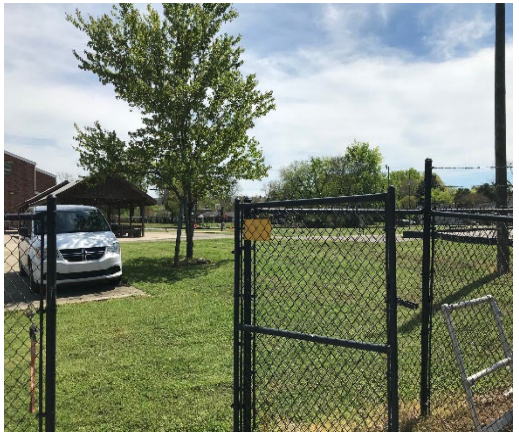

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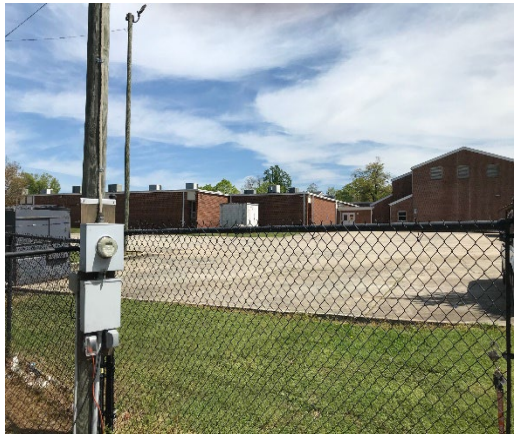

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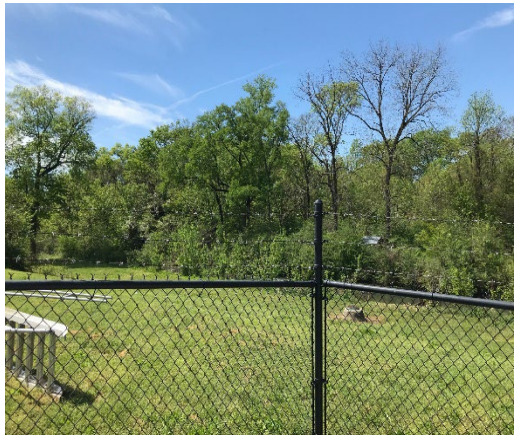

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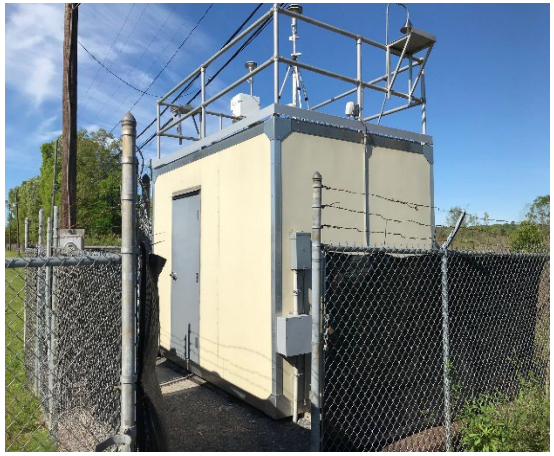

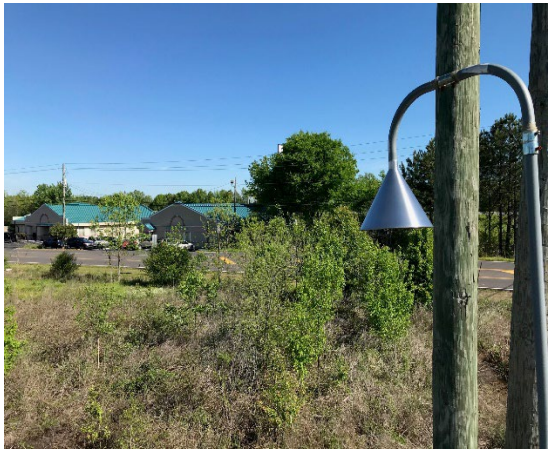

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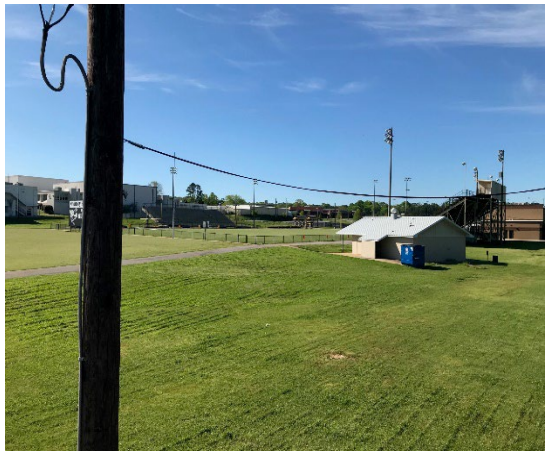

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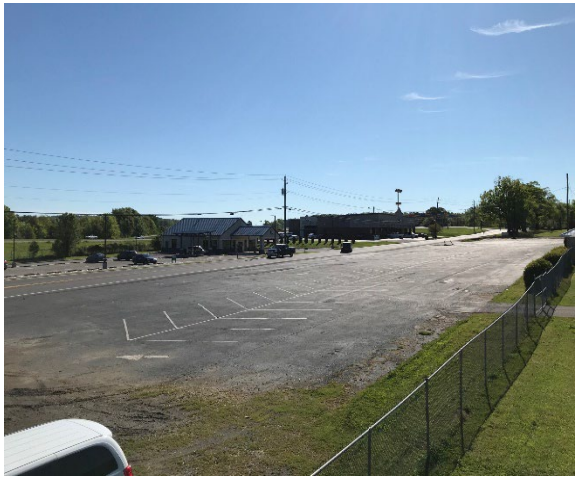

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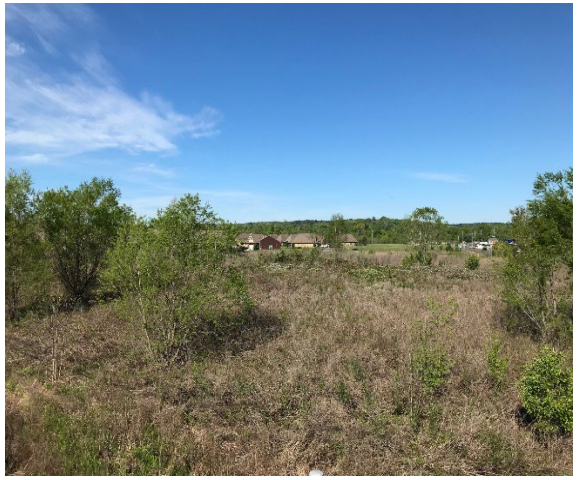

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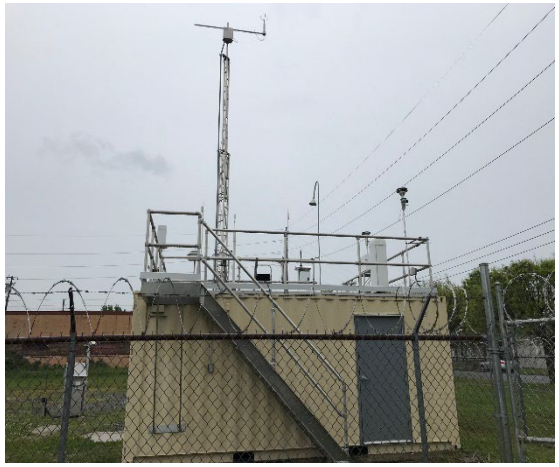
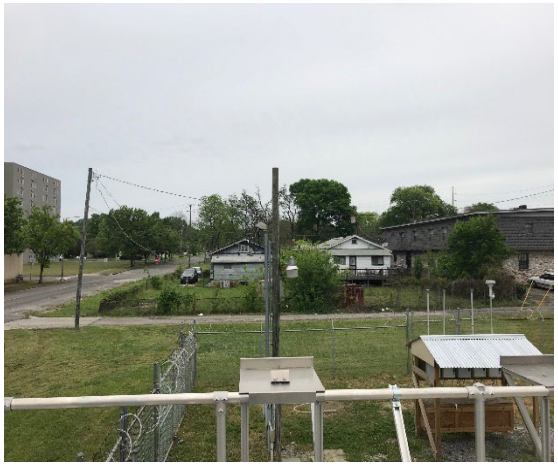
NCORE 01-073-0023





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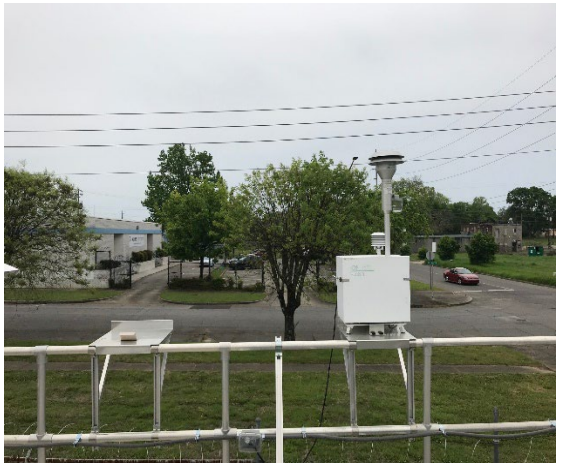

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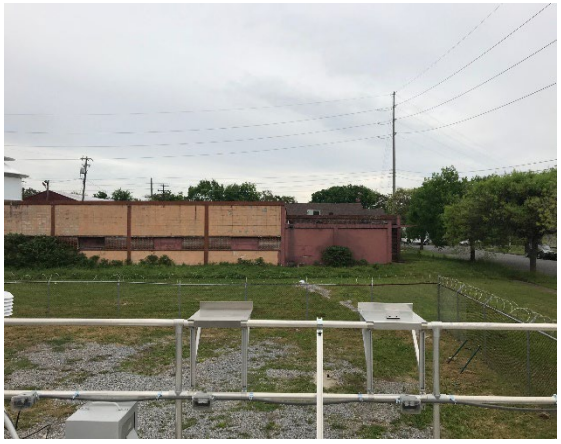

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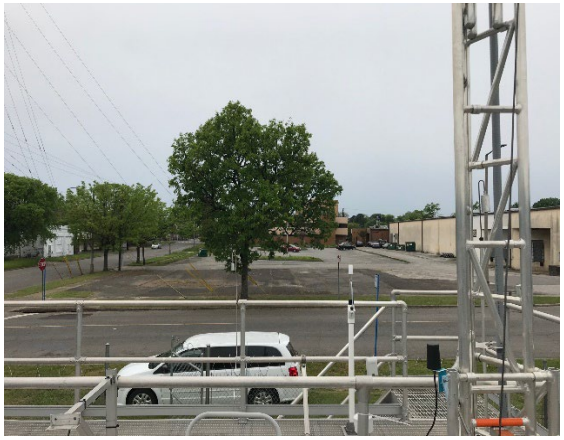

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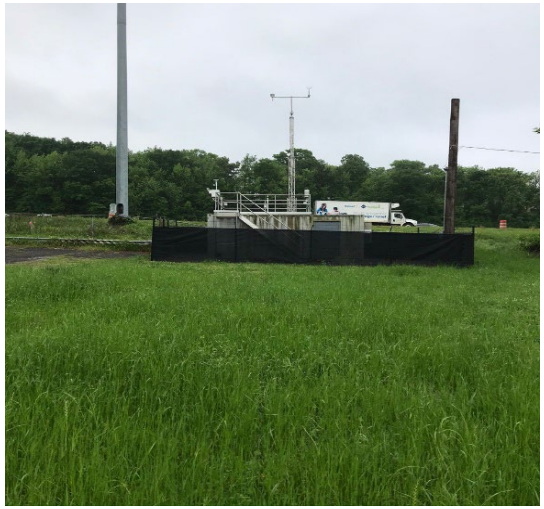
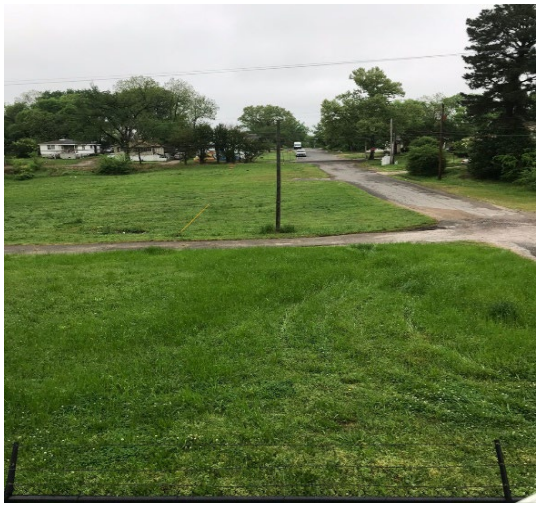
NEAR ROAD 01-073-2059





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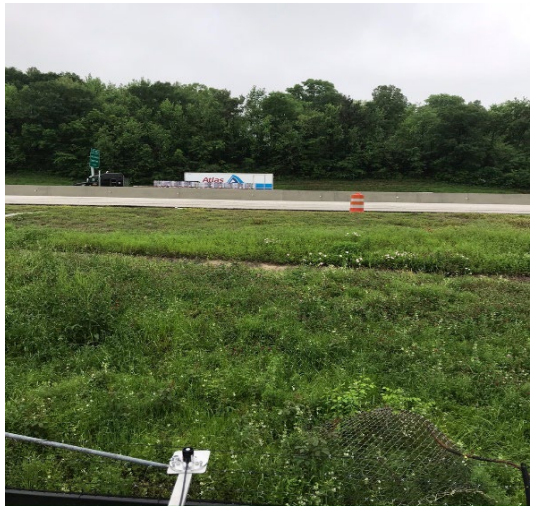

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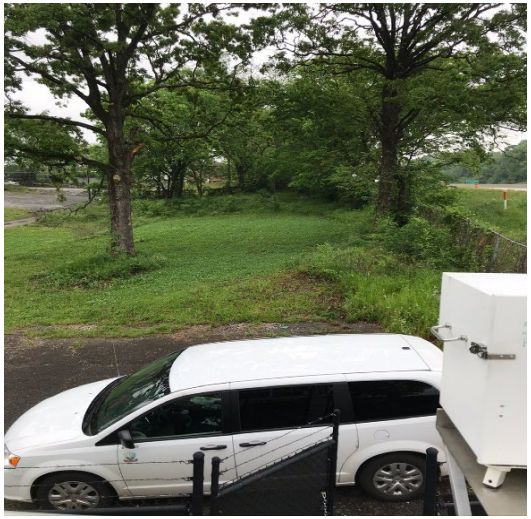

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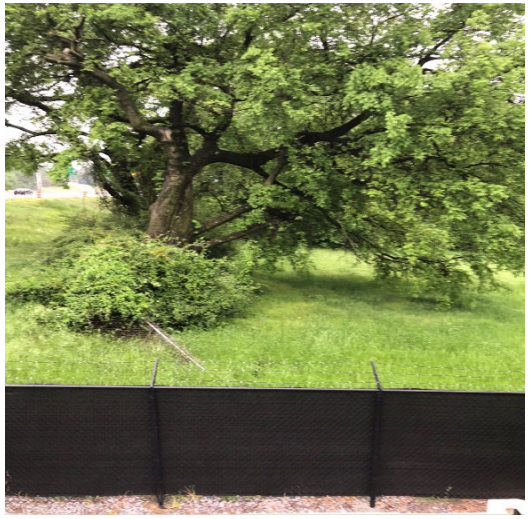

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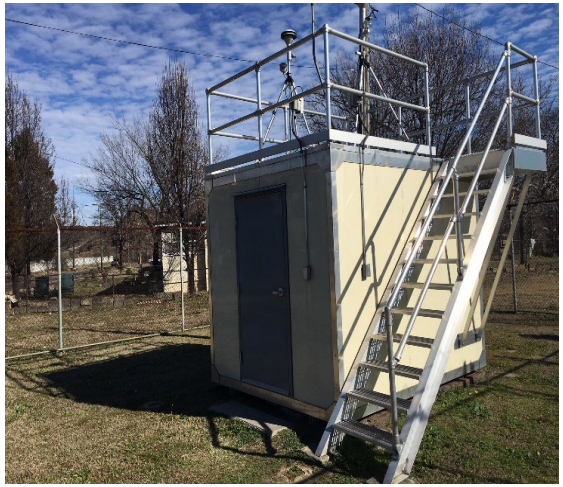
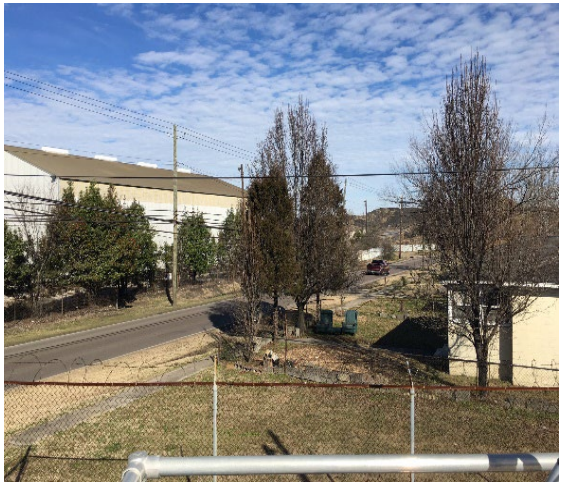
SHUTTLESWORTH 01-073-6004





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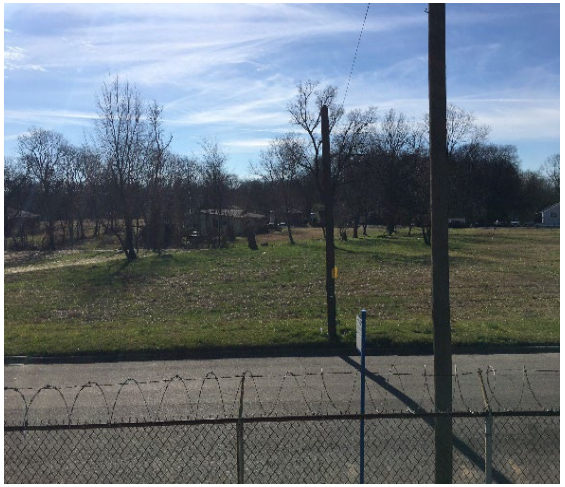

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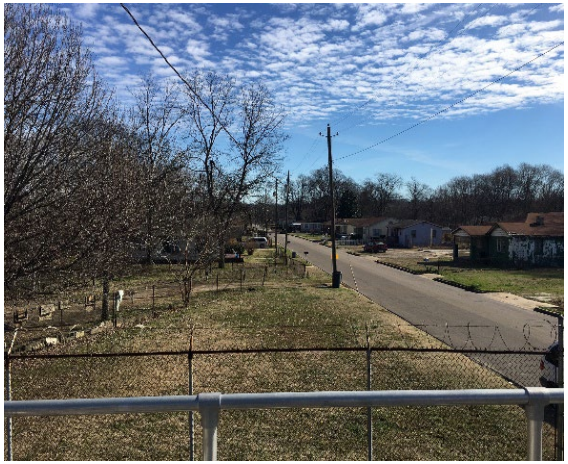

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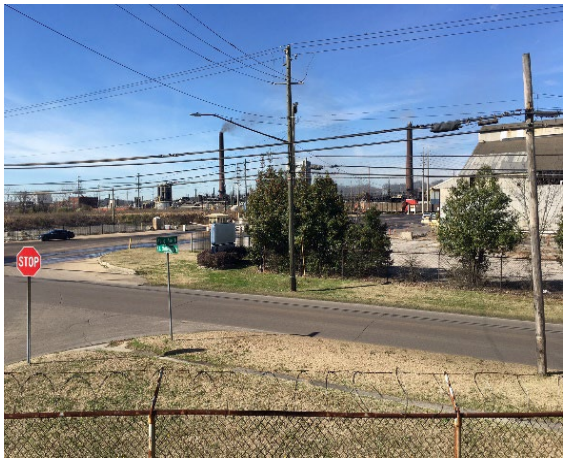

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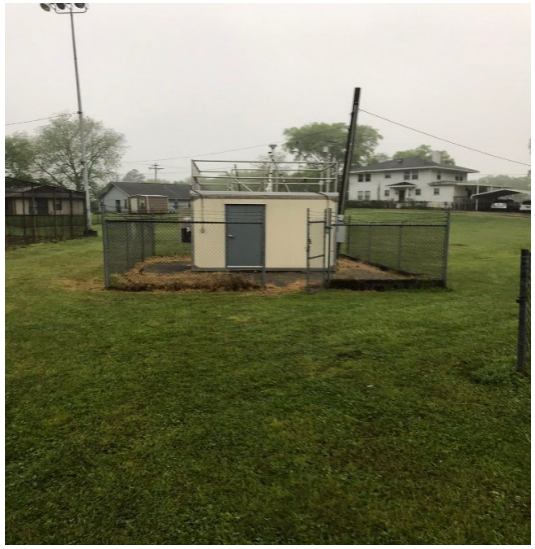
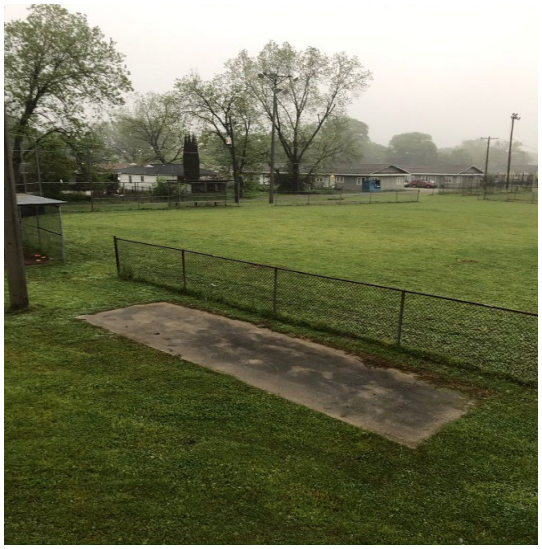
TARRANT 01-073-6002





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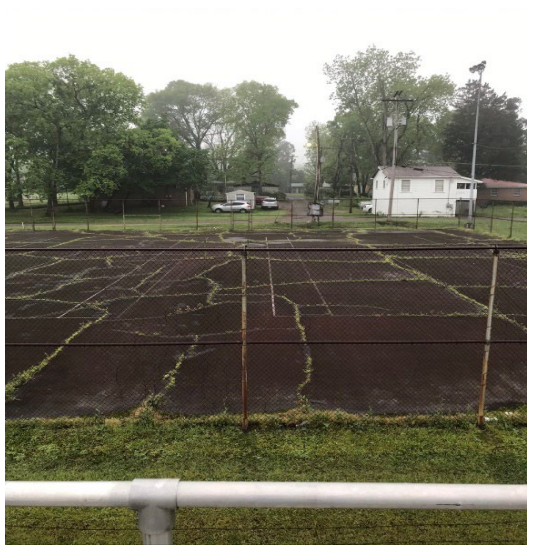

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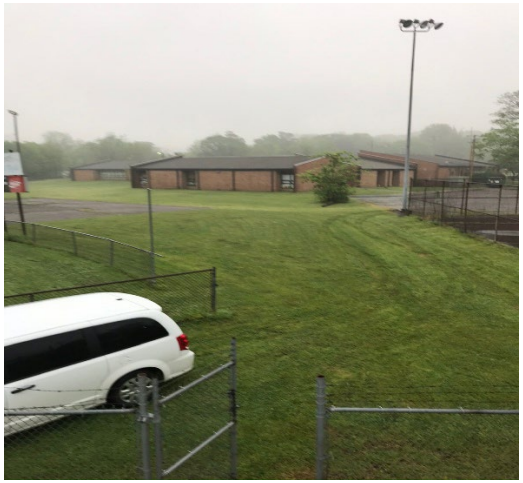

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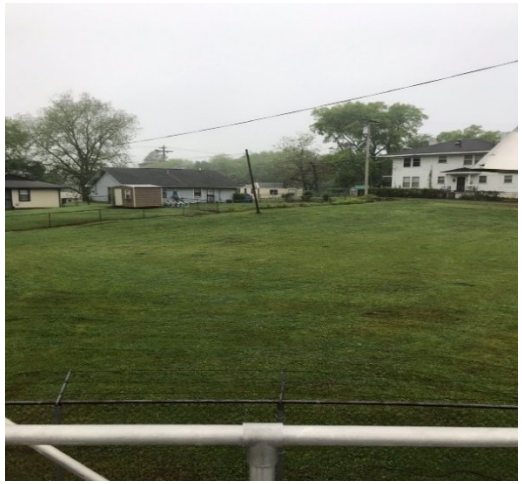

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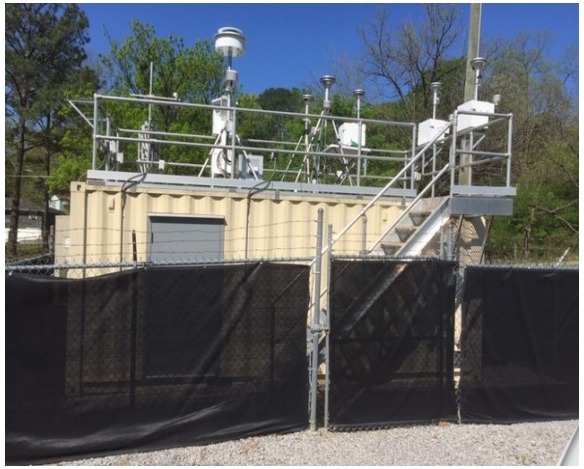
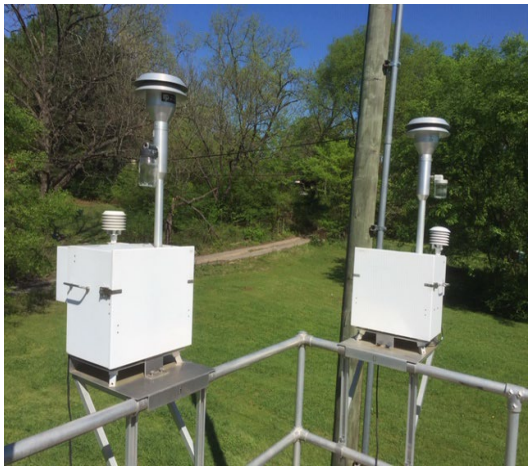
WYLAM 01-073-2003





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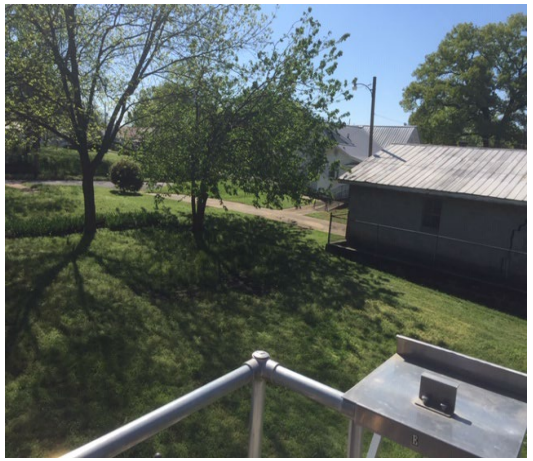

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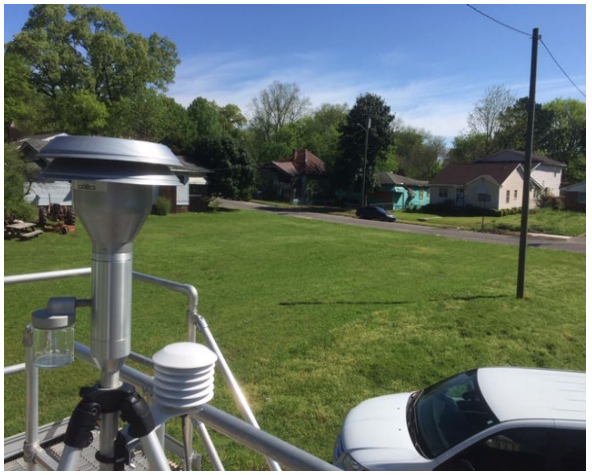

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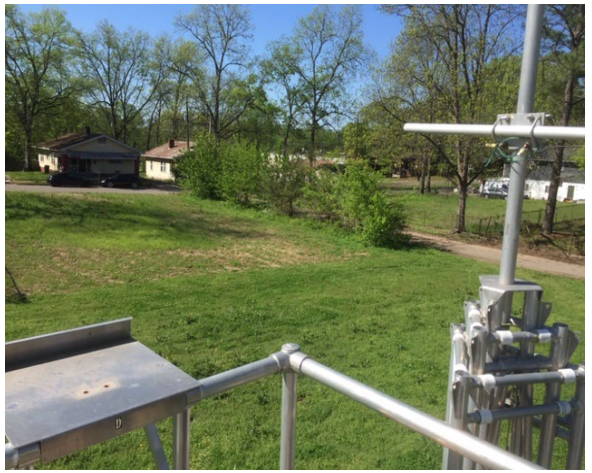

West

APPENDIX II

JCDH Site Equipment List - 2022

Item Description	Manufacturer	Model	Serial Number	Condition	Location
PM Continuous Instrument	Thermo	1400A	23591	Poor	Corner
Ozone Analyzer	Teledyne	400E	2182	Fair	Corner
Zero Air Generator	Teledyne	701	4658	Good	Corner
Calibrator	Teledyne	703E	56	Good	Corner
Data Logger	ESC	8872	-	Good	Corner
Ozone Analyzer	Teledyne	T400	4285	Good	Fairfield
SO2 Analyzer	EcoTech	Serinus 50	192350	Good	Fairfield
CO Analyzer	EcoTech	Serinus 30	192329	Good	Fairfield
Zero Air Generator	Teledyne	T701H	1910	Good	Fairfield
Calibrator	Teledyne	T700U	168	Good	Fairfield
Data Logger	ESC	8872	-	Good	Fairfield
PM Manual Instrument	BGI	PQ200	1708A	Good	Leeds
PM Continuous Instrument	Teledyne	T640x	1278	Good	Leeds
Ozone Analyzer	Teledyne	400E	2183	Fair	Leeds
Zero Air Generator	Teledyne	701	4657	Good	Leeds
Calibrator	Teledyne	703E	857	Good	Leeds
Data Logger	ESC	8872	1018	Good	Leeds
PM Manual Instrument	BGI	PQ200	793A	Good	McAdory
PM Continuous Instrument	Thermo	1400A	24935	Poor	McAdory
Ozone Analyzer	Teledyne	400E	1899	Fair	McAdory
Zero Air Generator	Teledyne	701	5878	Good	McAdory
Calibrator	Teledyne	703E	99	Good	McAdory
Data Logger	ESC	8872	-	Good	McAdory
PM Manual Instrument	BGI	PQ200	1707A	Good	NCore
PM Continuous Instrument	Teledyne	T640x	947	Good	NCore
Ozone Analyzer	Teledyne	T400	1803	Good	NCore
CO Analyzer	Teledyne	T300U	384	Good	NCore
SO2 Analyzer	Teledyne	T100U	188	Good	NCore
NOy Analyzer	Teledyne	T200U	288	Good	NCore
NOx Analyzer	Teledyne	T200UP	156	Good	NCore
Zero Air Generator	Teledyne	701H	1911	Good	NCore
Calibrator	Teledyne	T700U	332	Good	NCore
Data Logger	ESC	8872	1017	Good	NCore
Rain Guage	MetOne	370	P17785	Good	NCore
Ceiliometer	Vaisala	CL51	P1750410	Good	NCore
Wind Sensor	MetOne	50.5	411556	Good	NCore
Temp Sensor	MetOne	597	X11330	Good	NCore
Solar Sensor	MetOne	096-2	Py-104698	Good	NCore

Item Description	Manufacturer	Model	Serial Number	Condition	Location
SASS	MetOne	Super Sass	A3075	Good	NCore
SASS	MetOne	Super Sass	X17961	Good	NCore
URG	MetOne	URG-300N	3N-B0160	Good	NCore
IMPROVE	-	-	BIRM1	Good	NCore
RADNET	HI-a	Hvp-4004 BL-S	16145	Good	NCore

JCDH Site Equipment List - 2022

PM Manual Instrument	BGI	PQ200	1498	Good	Near Road
CO Analyzer	Teledyne	T300U	382	Good	Near Road
NOx Analyzer	Teledyne	T200UP	83	Good	Near Road
Zero Air Generator	Teledyne	701H	1909	Good	Near Road
Calibrator	Teledyne	T700U	169	Good	Near Road
Data Logger	ESC	8872	823	Good	Near Road
Wind Sensor	MetOne	50.5H	P17504	Good	Near Road
Wind Sensor	MetOne	50.5H	A5384	Good	Near Road
Solar Sensor	MetOne	LI-2001R	PY40337	Good	Near Road
Solar Sensor	MetOne	LI-2001R	PY40335	Good	Near Road
Humidity/Temp Sensor	MetOne	083D-1-35	A4745	Good	Near Road
Humidity/Temp Sensor	MetOne	083D-1-35	A4749	Good	Near Road
BP Sensor	MetOne	092	P14411	Good	Near Road
BP Sensor	MetOne	091	A5484	Good	Near Road
Rain Guage	MetOne	370	A5752	Good	Near Road
Rain Guage	MetOne	370	A5754	Good	Near Road
PM Continuous Instrument	Thermo	1400A	24075	Poor	Shuttlesworth
PM Continuous Instrument	Thermo	1405	242221809	Good	Shuttlesworth
Data Logger	ESC	8872	-	Good	Shuttlesworth
PM Continuous Instrument	Thermo	1405	240451712	Good	Tarrant
Ozone Analyzer	Teledyne	400E	1445	Fair	Tarrant
Zero Air Generator	Teledyne	701	5786	Good	Tarrant
Calibrator	Teledyne	703E	165	Good	Tarrant
Data Logger	ESC	8872	-	Good	Tarrant
PM Manual Instrument	BGI	PQ200	861A	Fair	Wylam
PM Manual Instrument	BGI	PQ200	1513B	Good	Wylam
PM Manual Instrument	BGI	PQ200	422C	Poor	Wylam
PM Continuous Instrument	Thermo	1405	441607	Good	Wylam
PM Continuous Instrument	Thermo	1405	242161809	Good	Wylam
Data Logger	ESC	8872	-	Good	Wylam
URG	MetOne	URG-300N	B0454	Good	Wylam
SASS	MetOne	Super Sass	A3084	Good	Wylam

JCDH Backup Equipment List - 2022

Item Description	Manufacturer	Model	Serial Number	Condition	Location
Ozone Analyzer	Teledyne	T400	-	Good	Shop
Ozone Analyzer	Teledyne	400E	-	Bad	Shop
Ozone Analyzer	Teledyne	400E	-	Bad	Shop
Ozone Analyzer	EcoTech	Serinus 10	-	Fair	Shop
Ozone Analyzer	EcoTech	Serinus 10	-	Fair	Shop
CO Analyzer	Teledyne	T300U	-	Good	Shop
CO Analyzer	Teledyne	T300U	-	Good	Shop
CO Analyzer	Teledyne	T300U	-	Poor	Shop
CO Analyzer	EcoTech	Serinus 30	-	Good	Shop
NOx Analyzer	Teledyne	T200UP	-	Good	Shop
SO2 Analyzer	Teledyne	T100U	-	Good	Shop
SO2 Analyzer	Teledyne	T100U	-	Poor	Shop
SO2 Analyzer	EcoTech	Serinus 50	-	Good	Shop
PM Continuous Instrument	Teledyne	T640x	-	Good	Shop
Calibrator	Teledyne	703E	-	Poor	Shop
Calibrator	Teledyne	703E	-	Poor	Shop
Calibrator	Teledyne	703E	-	Poor	Shop
Calibrator	Teledyne	703E	-	Poor	Shop
Calibrator	Teledyne	703E	-	Poor	Shop
Calibrator	EcoTech	Serinus 3000	-	Fair	Shop
Calibrator	EcoTech	Serinus 3000	-	Fair	Shop
Calibrator	Thermo	iQ49	-	Good	Shop
Calibrator	Thermo	iQ49	-	Good	Shop
Zero Air Generator	Teledyne	701H	-	Good	Shop
Zero Air Generator	Teledyne	701	-	Good	Shop
Zero Air Generator	Teledyne	701	-	Good	Shop