

# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: BioLab Chlorine

From: 9/29/24  
5:05 PM

To: 9/30/24  
4:58 AM



Station 5 - Dairy Queen (33.6655731, -84.0282708)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	763	50	0-1417 ppb	10.41 ppb	9000 ppb 8hr avg
	CO	No	763	8	0-48 ppm	0.15 ppm	83 ppm 1hr avg
	H2S	No, 1-hr average did not exceed	763	2	0-5 ppm	0.01 ppm	0.51 ppm 1hr avg
	O2	No	763	763	20.60-20.90 %	20.90 %	<19.5 or >23%
	LEL	No	763	0	0-0 %	0 %	0.1
	CL2	No	763	205	0-0.30 ppm	0.03 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	12682	0	0-0 ppm	0 ppm	1.8 ppm 1hr avg
SPM Flex	PHOSGENE (COCL2)	No	13043	0	0-0 ppm	0 ppm	0.3 ppm 1hr avg

Station 2 - Mammy's Kitchen (33.6741753, -84.0299759)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	CO	No	1278	0	0-0 ppm	0 ppm	83 ppm 1hr avg
	H2S	No	1278	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	O2	No	1278	1278	20.90-20.90 %	20.90 %	<19.5 or >23%
	LEL	No	1278	0	0-0 %	0 %	0.1
	CL2	No	1278	0	0-0 ppm	0 ppm	0.5 ppm 1hr avg
SPM Flex	HYDROGEN CHLORIDE (HCL)	No	13667	0	0-0 ppm	0 ppm	1.8 ppm 1hr avg
SPM Flex	PHOSGENE (COCL2)	No	13274	0	0-0 ppm	0 ppm	0.3 ppm 1hr avg

Station 8 - Old Covington Highway (33.6742900, -84.0470600)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No, 1-hr average did not exceed	1187	915	0-119365 ppb	3716.60 ppb	9000 ppb 8hr avg
	CO	No	1187	95	0-14 ppm	0.32 ppm	83 ppm 1hr avg
	H2S	No, 1-hr average did not exceed	1187	33	0-1 ppm	0.02 ppm	0.51 ppm 1hr avg
	O2	No	1187	1187	20.90-20.90 %	20.90 %	<19.5 or >23%
	LEL	No	1187	0	0-0 %	0 %	0.1
	CL2	No, 1-hr average did not exceed	1187	55	0-0.70 ppm	0.01 ppm	0.5 ppm 1hr avg

Station 6 - VFW Drive (33.6719360, -84.0342200)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No, 1-hr average did not exceed	1190	73	0-31083 ppb	250.88 ppb	9000 ppb 8hr avg
	CO	No	1192	0	0-0 ppm	0 ppm	83 ppm 1hr avg
	H2S	No	1192	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	O2	No	1192	1192	20.90-20.90 %	20.90 %	<19.5 or >23%
	LEL	No	1192	0	0-0 %	0 %	0.1
	CL2	No, 1-hr average did not exceed	1192	765	0-1.70 ppm	0.19 ppm	0.5 ppm 1hr avg

Station 4 - Park Circle (33.6738600, -84.0194900)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	1113	2	0-63 ppb	0.06 ppb	9000 ppb 1hr avg
	CO	No	1113	4	0-14 ppm	0.02 ppm	83 ppm 1hr avg
	H2S	No	1113	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	O2	No	1113	1113	20.90-20.90 %	20.90 %	<19.5 or >23%
	LEL	No	1113	0	0-0 %	0 %	0.1

Station 7 - Facility Gate (33.6740723, -84.0453600)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	1292	0	0-0 ppb	0 ppb	9000 ppb 8hr avg
	CO	No	1292	1	0-3 ppm	0.00 ppm	83 ppm 1hr avg
	H2S	No	1292	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	O2	No	1292	1292	20.90-21.30 %	21.19 %	<19.5 or >23%
	LEL	No	1292	0	0-0 %	0 %	0.1

Station 3 - North Main St and Irwin Bridge Rd (33.6740800, -84.0250900)							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE Pro	VOC	No	884	2	0-1748 ppb	2.05 ppb	9000 ppb 8hr avg
	CO	No	884	2	0-6 ppm	0.01 ppm	83 ppm 1hr avg
	H2S	No	884	0	0-0 ppm	0 ppm	0.51 ppm 1hr avg
	O2	No	884	884	20.90-20.90 %	20.90 %	<19.5 or >23%
	LEL	No	884	0	0-0 %	0 %	0.1

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.

**From:** 9/29/24  
5:05 PM

**To:** 9/30/24  
4:58 AM



- % Percent
- < Less than
- > Greater than
- AEGL Acute Exposure Guideline Levels for Airborne Chemicals
- C/m Counts (ionization events) per minute
- $\mu\text{g}/\text{m}^3$  Micrograms per cubic meter
- min Minute
- PAC Protective Action Criteria
- PEL Permissible exposure limit
- ppb Parts per billion
- ppm Parts per million
- PM Particulate matter
- SOG Standard Operating Guidelines
- SPM Single Point Monitor
- TEEL Temporary Emergency Exposure Limit
- TLV Threshold limit value

[illegible]

# Air Monitoring Summary Tables – Review

**Project Name:** Bio Lab Chlorine

The EPA uses air monitoring instruments with real-time alerts to track air quality during an emergency response. This air monitoring summary table report is used by EPA and local responders to review the thousands of measurements that can be collected in a single day.

The following is a review of station results for the time period from 5:05pm on 9/29/2024 to 4:58am on 9/30/2024:

- **Station 5:** There were multiple Cl<sub>2</sub> measurements throughout the monitoring period between 0.1ppm to 0.3ppm, but none were sustained. There were two brief measurements of 5ppm but these were not sustained and did not appear to correspond to a rise and fall of concentrations; the 1-hour average for H<sub>2</sub>S did not exceed the action level of 0.5ppm.
- **Station 2:** No issues observed.
- **Station 8:** There were multiple Cl<sub>2</sub> measurements throughout the monitoring period, most at or below 0.3ppm, but none were sustained and only two measurements briefly exceeded 0.5ppm. There were multiple measurements of H<sub>2</sub>S between 0.5ppm to 0.75ppm from 9:45pm to 10:30pm on 9/29; there was also a single isolated measurement of H<sub>2</sub>S at 1ppm that was not sustained around 8pm. There was a sustained elevated VOC measurement from 9:45pm to 10:30pm on 9/29 with concentrations rising to a peak of over 100,000ppb before falling. The measurements of H<sub>2</sub>S and VOC at this station are similar to measurements seen from vehicle exhaust parked near a monitoring station.
- **Station 6:** There were multiple sustained Cl<sub>2</sub> measurements from 7pm on 9/29 to 2am on 9/30 with peaks of 1.7ppm, 1.4ppm, 1.2ppm but mostly averaging around 0.2ppm; the 1-hour averages during this time ranged from 0.07ppm to 0.39ppm with the highest 1-hour average from 8pm to 9pm on 9/29. There was a sustained elevated VOC measurement from 7pm to 7:30pm on 9/29 with some peaks above 10,000ppb but averaging below 5,000ppb.
- **Station 4:** No issues observed. This instrument lacks a Cl<sub>2</sub> sensor
- **Station 7:** No issues observed. This instrument lacks a Cl<sub>2</sub> sensor
- **Station 3:** No issues observed. This instrument lacks a Cl<sub>2</sub> sensor

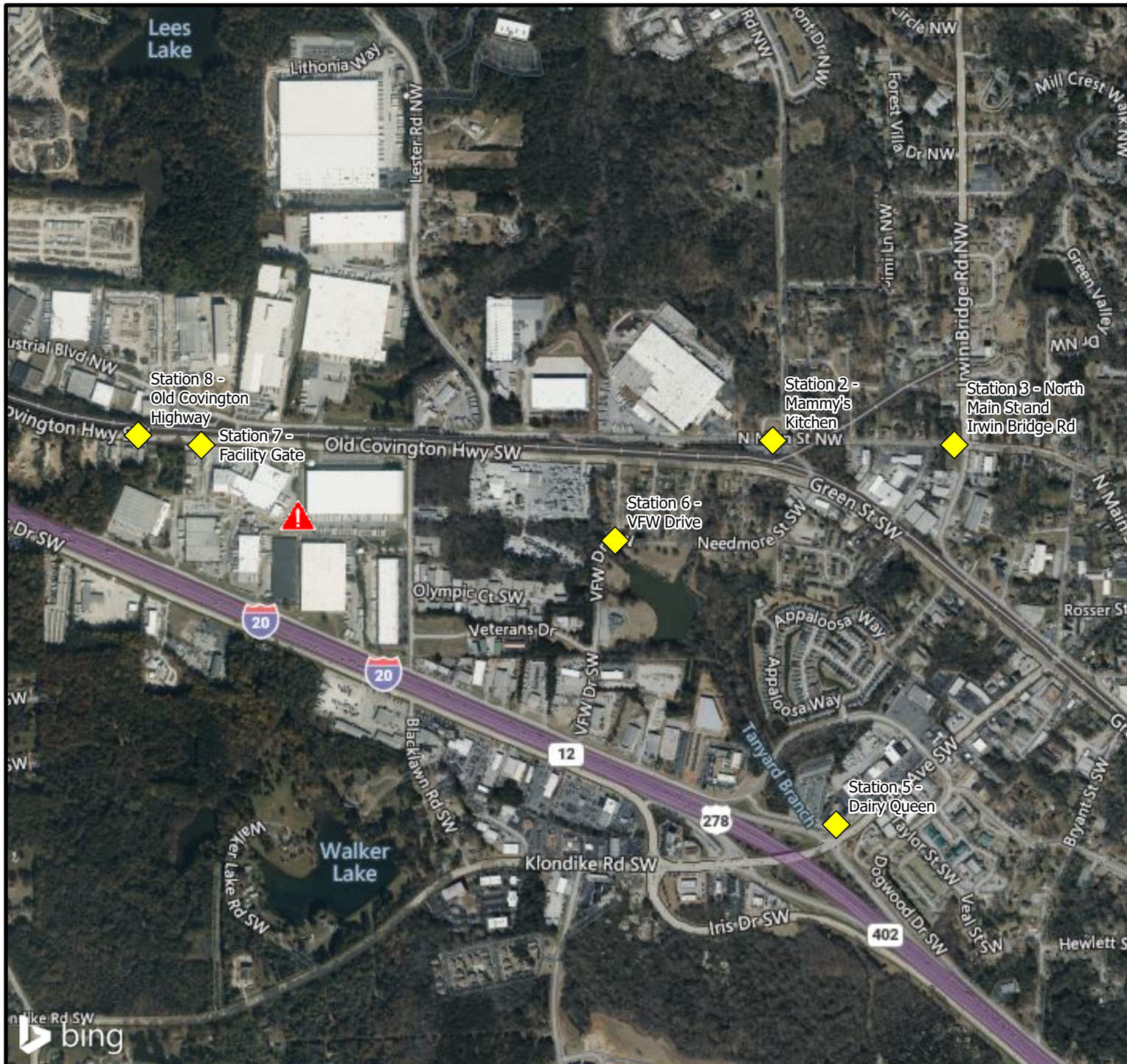
# Air Monitoring Summary Tables – Explanation of Tables

**Project Name:** Bio Lab Chlorine



The following information is provided in each report:

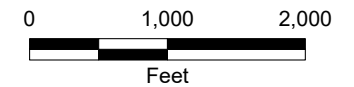
- **Station** – at the top of each table is a name and location for each air monitoring station. These are mobile stations that may change over time.
- **Instrument** – this is the model of instrument being used to measure the air. Some stations may use multiple instruments, and some instruments may measure multiple things at once
- **Analyte** – these are the chemicals or other compounds that the instrument is measuring:
  - **VOC:** Volatile Organic Compounds; this is not a specific chemical but includes a long list of possible chemicals, many of which have strong odors
  - **CO:** Carbon Monoxide; this compound is commonly associated with combustion (i.e. fires)
  - **H<sub>2</sub>S:** Hydrogen Sulfide; this is a default sensor for the instrument and is used for industrial safety
  - **LEL:** Lower-Explosive Limit; this is a default sensor for the instrument and is used for industrial safety
  - **O<sub>2</sub>:** Oxygen; this is a default sensor for the instrument and is used for industrial safety
  - **Cl<sub>2</sub>:** Chlorine; chlorine gas is an inhalation hazard with a pungent suffocating odor and is a contaminant of concern for the site
  - **HCl:** Hydrogen Chloride; a corrosive gas with a sharp, pungent odor and is a contaminant of concern for the site
  - **COCl<sub>2</sub>:** Phosgene; a potential combustion product that EPA monitors for at chemical and industrial fires
- **Action Level Exceedance** – is an easy-to-read determination whether one of the Action Levels in the column on the right **may have** been exceeded. The action levels are based on *averages over time* but this column may say “Yes” whenever a single measurement exceeds that number. This helps responders assess whether further protective measures are needed.
- **Number of Readings** – the number of measurements collected by the sensor, usually collected once every second or every minute.
- **Number of Detections** – the number of measurements greater than zero
- **Concentration Range** – the minimum and maximum measurement that was collected
- **Period Average** – the average measurement for the entire collection period
- **Action Levels** – based on the most protective AEGLs (Acute Exposure Guideline Levels) which are used by emergency responders when dealing with chemical spills or other exposures and describe the human health effects from once-in-a-lifetime, or rare, exposure to airborne chemicals. Further information is available at [EPA.gov/AEGL](http://EPA.gov/AEGL).



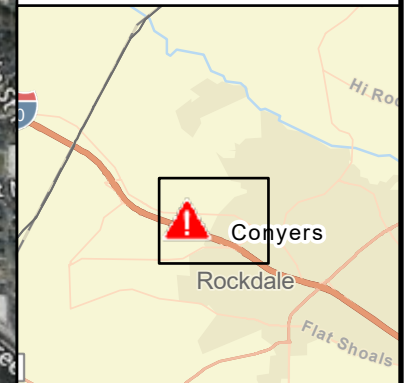


Legend

-  Incident Location
-  Viper Deployment Locations



Map Source:  
BING Maps Hybrid



United States  
Environmental Protection Agency  
Region 4

VIPER Deployment Locations  
9/29/24 5 PM to 9/30/24 5 AM

Site Name: BIOLABS Fire

City:	County:	State:
Conyers	Rockdale	Georgia



Date:  
10/1/2024  
Analyst:  
NATHAN WARREN