

# How to Read the Flat Rock Gasoline Spill TAGA Air Monitoring Results

This fact sheet is meant to help you understand how to read the air monitoring test results collected by the U.S. Environmental Protection Agency's Trace Atmospheric Gas Analyzer (TAGA) in response to the Flat Rock gasoline spill. If you have any questions about the air monitoring results that are not answered by this fact sheet, you are welcome to call the Michigan Department of Health and Human Services at 800-648-6942.

## Example Results Report

**1**

At the top of each results page, you will see the location and date that the data was collected.

**2**

Detection Limit is the lowest level of the chemical that the equipment was set up to detect during that screening. This value will vary from site to site.

Quantitation Limit is the lowest level of the chemical that the equipment was set up to detect accurately during that screening. This value will vary from site to site.

Site-specific Public Health Screening Levels are the levels at which no health effects are expected.

**3**

This column lists the location that the sample was taken.

**4**

When the air monitoring results are below the Detection Limit, they will be listed with a "DL=" and then the Detection Limit value. This means that the chemical was not actually able to be detected in the air sample.

**Figure 1d**

TAGA Target Compound Summary in ppbv for the Unit 2874 Monitoring Two File: 64MSMS01660 Acquired on 12 September 2021 at 11:48:43				
		Benzene	Toluene	Xylene
<b>1</b> Detection Limits - DL:		1.3	1.1	1.0
<b>2</b> Quantitation Limits - QL:		4.4	3.7	3.5
Site-specific public health screening levels:		6.0	2000	120
Flags	Description	Benzene	Toluene	Xylene
A - B	Pre-entry ambient	DL=1.3	DL=1.1	DL=1.0
D - E	Cafeteria	DL=1.3	DL=1.1	DL=1.0
F - G	Center of cafeteria	DL=1.3	DL=1.1	DL=1.0
H - I	Cafeteria kitchen	DL=1.3	DL=1.1	DL=1.0
J - K	Cafeteria kitchen bathroom	DL=1.3	DL=1.1	DL=1.0
L - M	Cafeteria kitchen store room	DL=1.3	DL=1.1	DL=1.0
N - O	Cafeteria kitchen store room floor drain one	DL=1.3	DL=1.1	DL=1.0
P - Q	Cafeteria kitchen store room floor drain two	DL=1.3	DL=1.1	DL=1.0
R - S	<b>3</b> Custodian office	DL=1.3	DL=1.1	DL=1.0
T - U	Custodian office bathroom	DL=1.3	DL=1.1	DL=1.0
V - W	Custodian office floor drain one	DL=1.3	DL=1.1	DL=1.0
X - Y	Custodian office floor drain two	DL=1.3	DL=1.1	DL=1.0
Z - A1	Custodian office floor drain three	DL=1.3	DL=1.1	DL=1.0
B1 - C1	Room 6821	DL=1.3	DL=1.1	DL=1.0
D1 - E1	Room 6822 boys bathroom	DL=1.3	DL=1.1	DL=1.0
F1 - G1	Room 6821 boys bathroom floor drain	DL=1.3	DL=1.1	DL=1.0
H1 - I1	Room 6822 girls bathroom	DL=1.3	DL=1.1	DL=1.0
J1 - K1	Room 6823	DL=1.3	DL=1.1	DL=1.0
L1 - M1	Room 6825	DL=1.3	DL=1.1	DL=1.0
N1 - O1	Room 6825 boys bathroom	DL=1.3	DL=1.1	DL=1.0
P1 - Q1	Room 6825 boys bathroom floor drain	DL=1.3	DL=1.1	DL=1.0
R1 - S1	Room 6825 girls bathroom	DL=1.3	DL=1.1	DL=1.0
T1 - U1	Room 6827	DL=1.3	DL=1.1	DL=1.0
V1 - W1	Room 6829	DL=1.3	DL=1.1	DL=1.0
X1 - Y1	Supply storage room	DL=1.3	DL=1.1	DL=1.0
Z1 - A2	Room 6828	DL=1.3	DL=1.1	DL=1.0
B2 - C2	Handicapped bathroom	DL=1.3	DL=1.1	DL=1.0
D2 - E2	Office one	DL=1.3	DL=1.1	DL=1.0
F2 - G2	Room 6826	DL=1.3	DL=1.1	DL=1.0
H2 - I2	Room 6826 bathroom one	DL=1.3	DL=1.1	DL=1.0
J2 - K2	Room 6826 bathroom two	DL=1.3	DL=1.1	DL=1.0

# Air Monitoring Results (continued)

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If there is a detection of any of the chemicals, the level detected during the sampling session is listed on this report.

The J at the end of the values here is a “flag.”

This flag signals that although the value is above the Detection Limit, it’s not above the Quantitation Limit. Therefore, the number is not as exact as it would be if it were higher. However, scientists consider this value to be a very good estimate.

6

At each sampling location, the EPA takes a test sample. This is labeled as a spike.

This test is needed to make sure that the equipment is working as it should.

The EPA has a sample that contains a known amount of each chemical being screened. They use this to test their equipment at the beginning of the day and then when they are done with the home or building being tested to make sure the results match what is expected.

7

All measurements are taken in parts per billion by volume.

## Example Results Report

**Figure 1d (continue)**

TAGA Target Compound Summary in ppbv for the Unit 2874 Monitoring Two File: 64MSMS01660 Acquired on 12 September 2021 at 11:48:43				
	Benzene	Toluene	Xylene	
Detection Limits - DL:	1.3	1.1	1.0	
Quantitation Limits - QL:	4.4	3.7	3.5	
Site-specific public health screening levels:		2000	120	
Flags	Description	Benzene	Toluene	Xylene
L2 - M2	Room 6826 bathroom two floor drain	DL=1.3	DL=1.1	DL=1.0
N2 - O2	Room 6824	DL=1.3	DL=1.1	DL=1.0
P2 - Q2	Room 6822	DL=1.3	DL=1.1	DL=1.0
R2 - S2	Room 6822 bathroom one	DL=1.3	DL=1.1	DL=1.0
T2 - U2	Room 6822 bathroom two	DL=1.3	DL=1.1	DL=1.0
V2 - W2	Room 6822 room two floor drain	DL=1.3	DL=1.1	DL=1.0
X2 - Y2	Room 6820	DL=1.3	DL=1.1	DL=1.0
Z2 - A3	Air handling room	DL=1.3	DL=1.1	DL=1.0
B3 - C3	Handling room floor drain	DL=1.3	DL=1.1	DL=1.0
D3 - E3	Media Center room	DL=1.3	DL=1.1	DL=1.0
F3 - G3	Media Center office	DL=1.3	DL=1.1	DL=1.0
H3 - I3	Media Center office bathroom	DL=1.3	DL=1.1	DL=1.0
J3 - K3	Media Center storage room	DL=1.3	DL=1.1	DL=1.0
L3 - M3	Media Center office two	DL=1.3	DL=1.1	DL=1.0
N3 - O3	Teacher workroom	DL=1.3	DL=1.1	DL=1.0
Q3 - R3	Post-exit ambient	DL=1.3	DL=1.1	DL=1.0
S3 - T3	30 mL/min spike	2.6J	3.5J	5.5

7 Concentrations are given in parts per billion by volume  
J = Concentration detected below the quantitation limit

# Air Monitoring Results (continued)

8

These graphs are called chromatographs. They show the level of chemicals that are found over the entire time of screening. There is a graph for each chemical.

9

These lines represent the Detection Limit (DL), the Quantitation Limit (QL), and the red line represents the Site-specific Public Health Screening Level for each of the chemicals. See #2 for the definitions of each of these terms.

The Site-specific Public Health Screening Level may not be represented as a line on the graph when the levels of chemicals found are far, far below the screening level.

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This bump in the levels shows where the EPA did the spike test to make sure their equipment was working like it should. See #6 for more details.

## Example Results Report

