# Monthly Air Quality Report
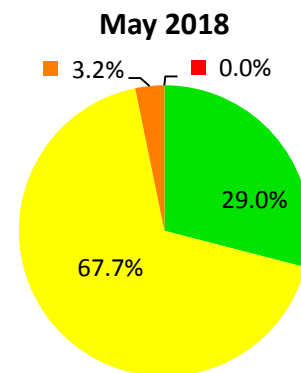# May 2018 · Birmingham, AL

## SUMMARY

This report presents daily maximum Air Quality Index (AQI) values and corresponding AQI colors from five different pollutants monitored in the Birmingham area: carbon monoxide (CO), particulate matter ($PM_{10}$ and $PM_{2.5}$), ozone ($O_3$), and sulfur dioxide ($SO_2$). The table and figure below show the number of days and percentage of days in each AQI category, respectfully, for the month.

| May 2018 | |
| --- | --- |
| AQI Category | Number of Days |
| Good | 9 |
| Moderate | 21 |
| Unhealthy for Sensitive Groups | 1 |
| Unhealthy | 0 |

**May 2018**

3.2%  0.0%

29.0%

67.7%

## AQI CHART

| AQI Levels of Health Concern | AQI Value | Actions to Take |
| --- | --- | --- |
| Good | 0-50 | None |
| Moderate | 51-100 | Unusually sensitive people should consider limiting prolonged outdoor exertion |
| Unhealthy for Sensitive Groups | 101-150 | The following groups should limit prolonged outdoor exertion:<br>• People with heart or lung disease<br>• Children and older adults<br>• People who are active outdoors |
| Unhealthy | 151-200 | The following groups should avoid prolonged outdoor exertion:<br>• People with heart or lung disease<br>• Children and older adults<br>• People who are active outdoors<br>Everyone else should limit prolonged outdoor exertion |
| Very Unhealthy | 201-300 | The following groups should avoid all outdoor exertion:<br>• People with heart or lung disease<br>• Children and older adults<br>• People who are active outdoors<br>Everyone else should limit outdoor exertion |

# DAILY AQI VALUES

The table below shows this month's daily maximum AQI values and corresponding AQI category for each pollutant.

| Date | CO | $O_3$ | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ |
|------|-----|-------|-----------|------------|--------|
| 1 | 7 | 58 | 24 | 66 | 5 |
| 2 | 6 | 71 | 31 | 63 | 4 |
| 3 | 5 | 64 | 32 | 63 | 9 |
| 4 | 6 | 61 | 25 | 53 | 8 |
| 5 | 8 | 33 | 31 | 56 | 28 |
| 6 | 3 | 67 | 19 | 34 | 1 |
| 7 | 5 | 71 | 25 | 53 | 22 |
| 8 | 6 | 87 | 26 | 61 | 28 |
| 9 | 7 | 90 | 31 | 67 | 27 |
| 10 | 7 | 87 | 31 | 73 | 3 |
| 11 | 7 | 97 | 32 | 62 | 14 |
| 12 | 8 | 101 | 36 | 68 | 15 |
| 13 | 9 | 87 | 33 | 72 | 41 |
| 14 | 8 | 61 | 42 | 84 | 58 |
| 15 | 5 | 84 | 28 | 73 | 14 |
| 16 | 5 | 51 | 21 | 43 | 8 |
| 17 | 5 | 48 | 17 | 31 | 17 |
| 18 | 6 | 49 | 18 | 63 | 6 |
| 19 | 6 | 61 | 22 | 57 | 5 |
| 20 | 6 | 67 | 25 | 63 | 39 |
| 21 | 5 | 14 | 37 | 32 | 2 |
| 22 | 8 | 35 | 8 | 31 | 16 |
| 23 | 8 | 34 | 19 | 40 | 13 |
| 24 | 7 | 64 | 21 | 51 | 16 |
| 25 | 10 | 54 | 19 | 53 | 2 |
| 26 | 10 | 46 | 12 | 33 | 1 |
| 27 | 6 | 34 | 11 | 33 | 7 |
| 28 | 5 | 26 | 8 | 19 | 4 |
| 29 | 6 | 22 | 8 | 27 | 12 |
| 30 | 6 | 48 | 12 | 43 | 2 |
| 31 | 6 | 46 | 1 | 54 | 1 |

All data displayed in this report is preliminary and have not been through quality assured and quality controlled procedures. The AQI is used for forecasting and reporting daily air quality and is not used for compliance purposes. For daily air quality forecasts and real-time monitoring data, go to www.jcdh.org and under the "Programs" pull down menu, click on the link titled "Air Quality Forecast."

# AIR QUALITY ALERTS

Air quality alerts are issued for days that are forecast to have AQI values greater than 100 for $O_3$ and/or $PM_{2.5}$. $O_3$ is forecast by the Alabama Department of Environmental Management from mid-April through mid-October. $PM_{2.5}$ is forecast by the Jefferson County Department of Health year-round.

The table below shows air quality alerts that were issued for this month and includes the date of the alert, the pollutant for which the alert was issued, and the AQI category that was forecast. There have been a total of 1 air quality alerts issued in 2018 through May.

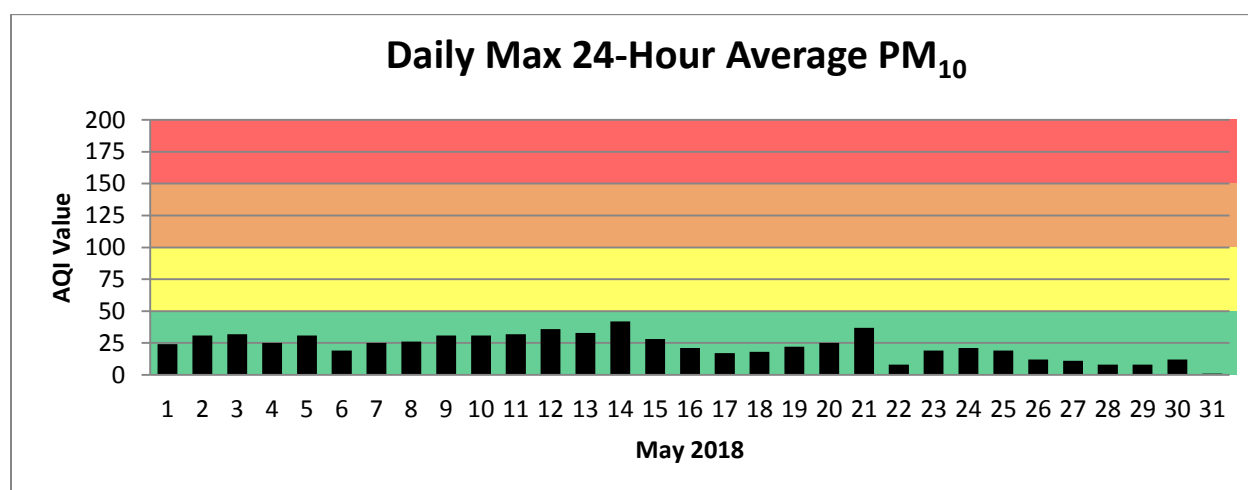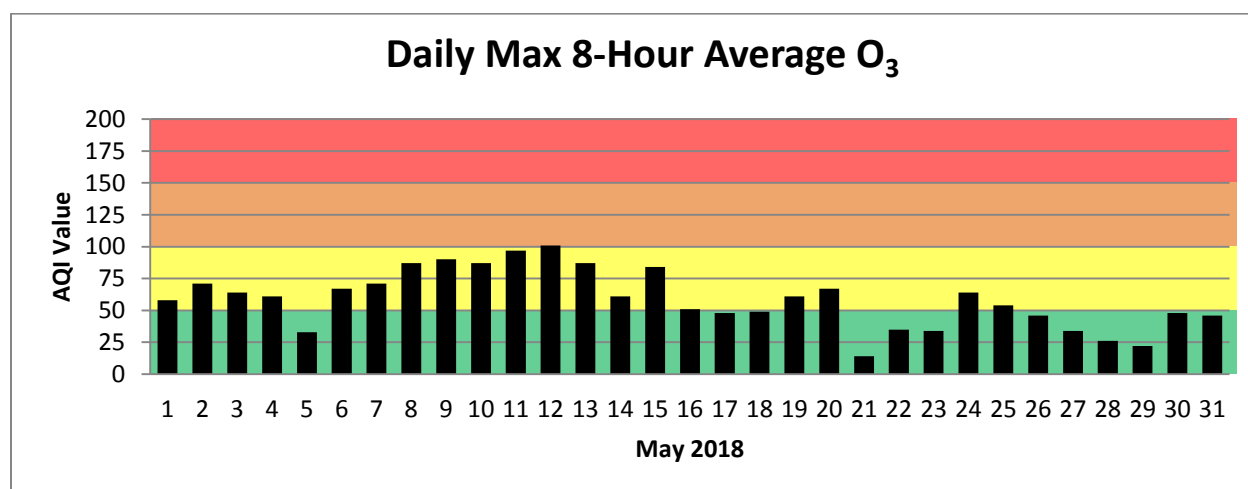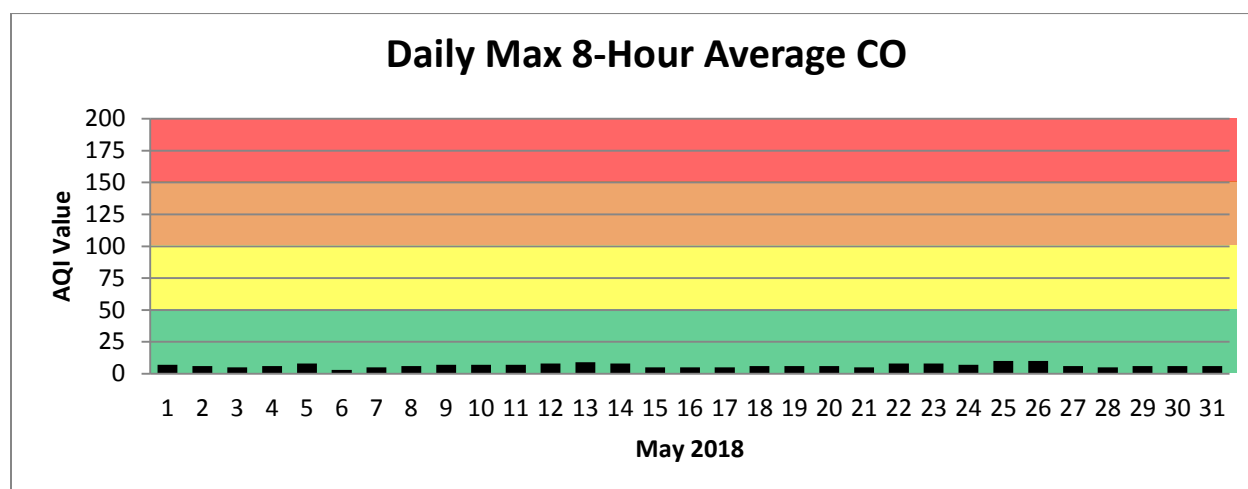| Date of Alert | Pollutant | AQI Category |
|---|---|---|
| 5/9/2018 | $O_3$ | Orange |

# METEOROLOGICAL CONDITIONS

The calendar below shows all reported weather conditions within the hourly weather observations for each day of the month from the National Weather Service's station located at the Birmingham International Airport.

| MAY 2018 | | | | | | |
|---|---|---|---|---|---|---|
| SUN | MON | TUE | WED | THU | FRI | SAT |
|  |  | 1 | 2 | 3 | 4 | 5 RA, TS |
| 6 BR | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 TS | 16 BR, RA, TS | 17 BR, FG, RA, TS | 18 | 19 TS |
| 20 HZ, TS | 21 | 22 BR, RA, TS | 23 TS | 24 BR, FG, TS | 25 BR, RA, TS | 26 RA, TS |
| 27 BR, RA, TS | 28 BR, RA | 29 BR, RA | 30 BR, RA, TS | 31 BR |  |  |

Weather phenomena and obscuration notations as used by the National Weather Service:

| | | | |
|---|---|---|---|
| Drizzle (DZ) | Fog (FG) | Freezing Drizzle (FZDR) | Freezing Rain (FZRA) |
| Haze (HZ) | Hail (GR) | Ice Pellets (PL) | Mist (BR) |
| Rain (RA) | Smoke (FU) | Snow (SN) | Thunderstorms (TS) |

# GRAPHS OF DAILY AQI VALUES BY POLLUTANT

## Daily Max 8-Hour Average CO



## Daily Max 8-Hour Average $O_3$



## Daily Max 24-Hour Average $PM_{10}$

# Daily Max 24-Hour Average PM$_{2.5}$
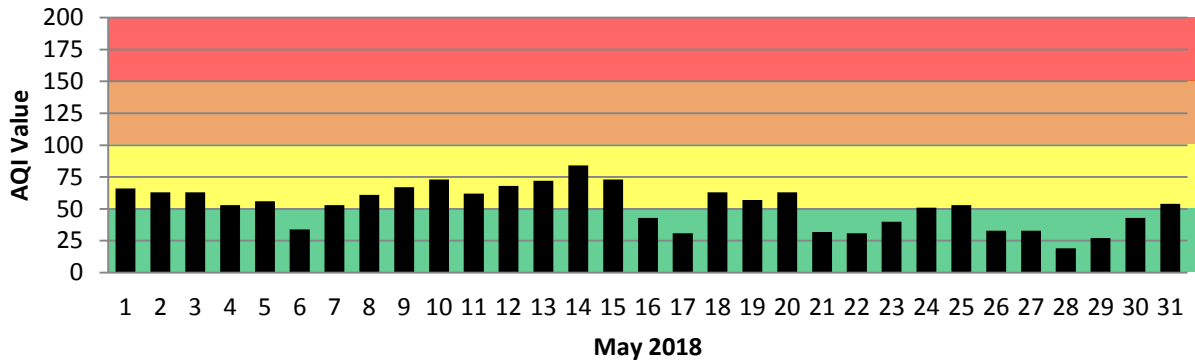


# Daily Max 1-Hour Average SO$_2$