

**FINAL**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Region VI**



**Air Monitoring Summary**

**Camp Minden Area I**

**Start Time: 10-25-2016 1800 - End Time: 10-26-2016 1800**

October 26, 2016 – EPA monitored for seven ambient air pollutants over a 24 hour period at the Camp Minden Area I air monitoring location. The seven pollutants included carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, nitrogen oxides, sulfur dioxide, and fine particulates. Over the 24 hour period, each of these pollutants were detected below EPA’s National Ambient Air Quality Standards or the action benchmark when an air quality standard had not been previously established.

Below is a summary of Camp Minden Air Monitoring Data collected at the location referenced above. The table contains a detailed listing of the following:

- 1 Average reading of each analyte from October 25, 2016 1800 through October 26, 2016, 2016 1800
- 2 Highest measurement of each analyte from October 25, 2016 1800 through October 26, 2016 1800

National Ambient Air Quality Standards (NAAQS) of criteria pollutants (CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub>) are listed with specific time frames and calculation formulas. Please visit NAAQS website for more in-depth information on how these are calculated - <https://www.epa.gov/criteria-air-pollutants/naqs-table>.

**\*\* Note:** PM<sub>2.5</sub> was captured in 60-min averages. All other analytes were captured in 1-min averages. All monitors were operating normally except PM<sub>2.5</sub>. There was a period of elevated gaseous pollutant levels from 1002 – 1026 CDT on 10/26. Peak 1-minute NO<sub>x</sub> reached 369 ppb, with peak NO<sub>2</sub> up to 302 ppb. The 1-minute CO and CO<sub>2</sub> levels rose by at most approx. 0.8 ppm and 40 ppm above baseline, respectively. SO<sub>2</sub> 1-minute levels rose about 1 ppb above baseline. This event was coincident with generators being operated for the EPA TAGA (Trace Atmospheric Gas Analyzer) mobile laboratory bus, parked adjacent to the monitoring trailer. On-site observations indicated odors around trailer. Winds were < 3 mph and southerly during the period.

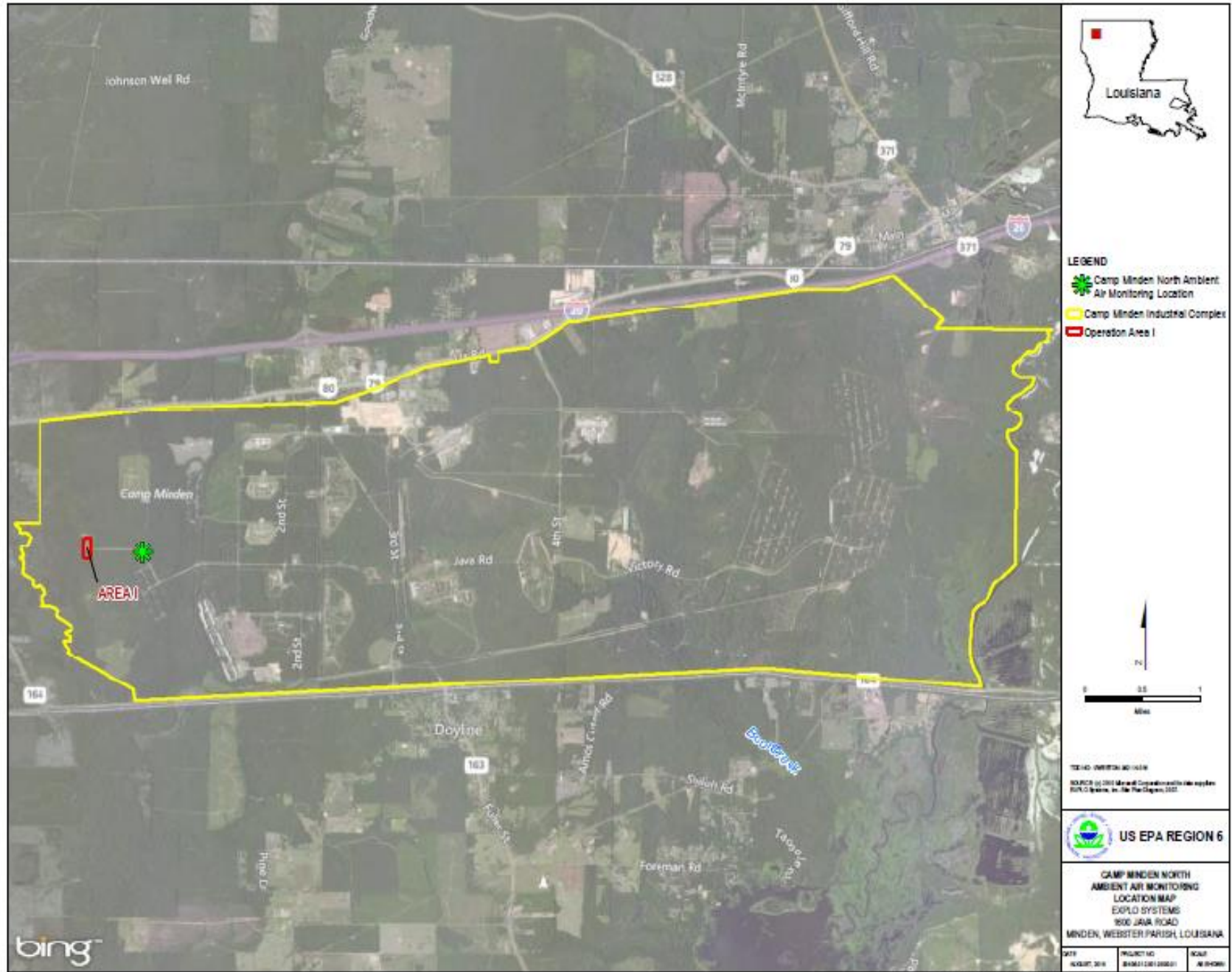
PM<sub>2.5</sub> levels rose sharply to slightly over 100 ug/m<sup>3</sup> starting after 0600 CDT 10/26 and continued throughout the day. There was heavy vehicle traffic noted in the vicinity, including the TAGA bus activity. Dusty conditions were observed due to the extended period of dry weather and resuspended road dust. No operational issues were noted with the BAM unit at the time, and the tape showed solid dark spots. Winds were light (< 3 mph) most of the day, mainly from the south and southeast. The high readings continued throughout the day on 10/27, between 110 – 130 ug/m<sup>3</sup>. Data from the BAM-1020 internal logger will be downloaded to confirm the values and check for error flags. Data for PM<sub>2.5</sub> are being flagged invalid pending outcome of the additional checks; data will be revised if confirmed.

The trailer logger was reset at 0601 and 1701 CDT on 10/26, and at 0901 and 1601-1602 CDT on 10/27 to clear Modbus communications; program modified to log Modbus activity to diagnose issue. Weather station was reset at 0653 CDT 10/26 to restore communications; communications lost after 0130 CDT 10/27.

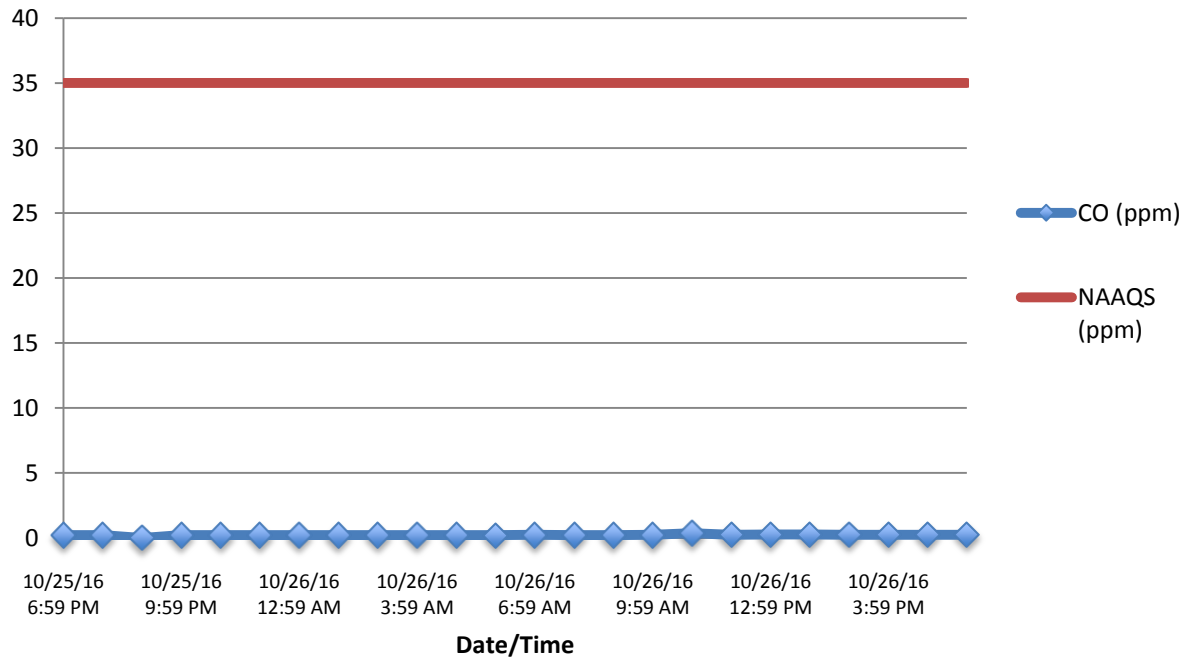
### Summary for 26 October 2016 at Camp Minden Area I

Analyte	Highest Hourly Average Measurement	Highest Measurement	Units	NAAQS Standard
CO	0.363	1.079	ppm	35 (1-hour)
CO2	581	591.2	ppm	For Monitoring Only
NO	35.8	301.9	ppb	For Monitoring Only
NO2	20.2	91.7	ppb	100 (1-hour)
NOX	55.6	369.6	ppb	100 (1-hour)
SO2	1.2	1.8	ppb	75 (1-hour)
Analyte	Average 24-hour Measurement	Highest Measurement	Units	NAAQS Standard
PM 2.5	42.8	62	ug/m3	35 (24-hour)

# Camp Minden Area I Station Location Map for 26 October 2016

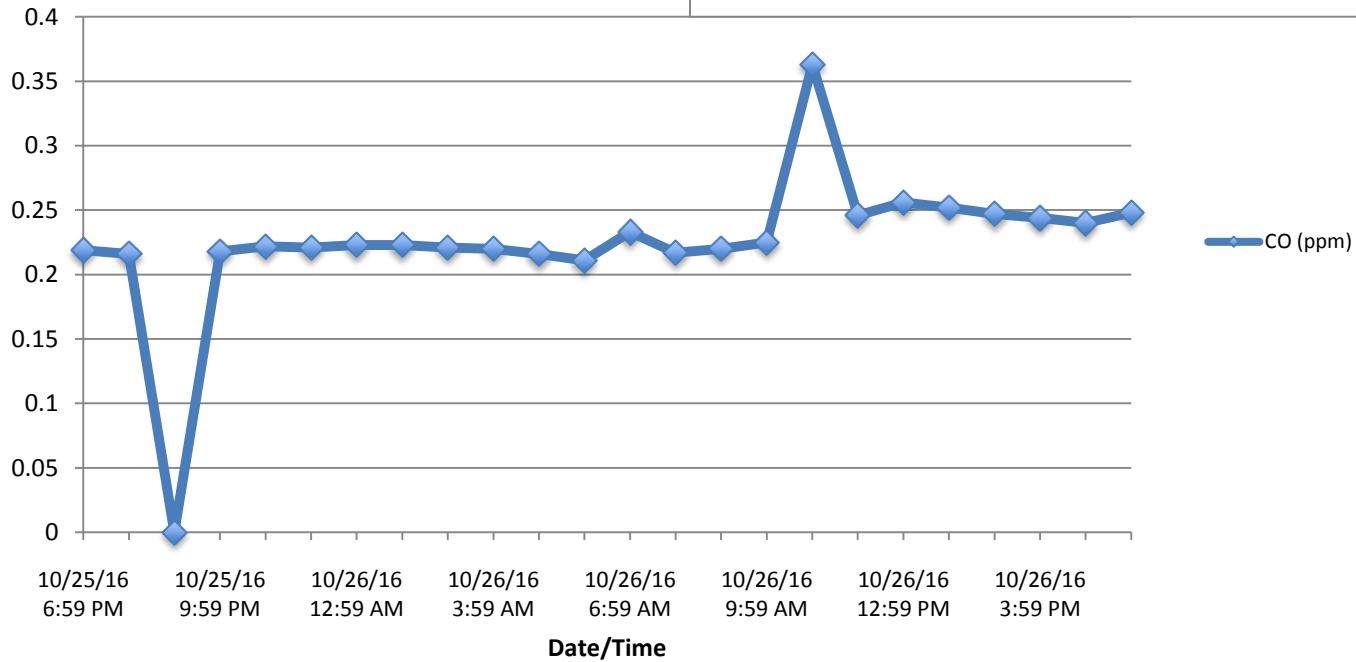


### Hourly Averages CO (ppm)

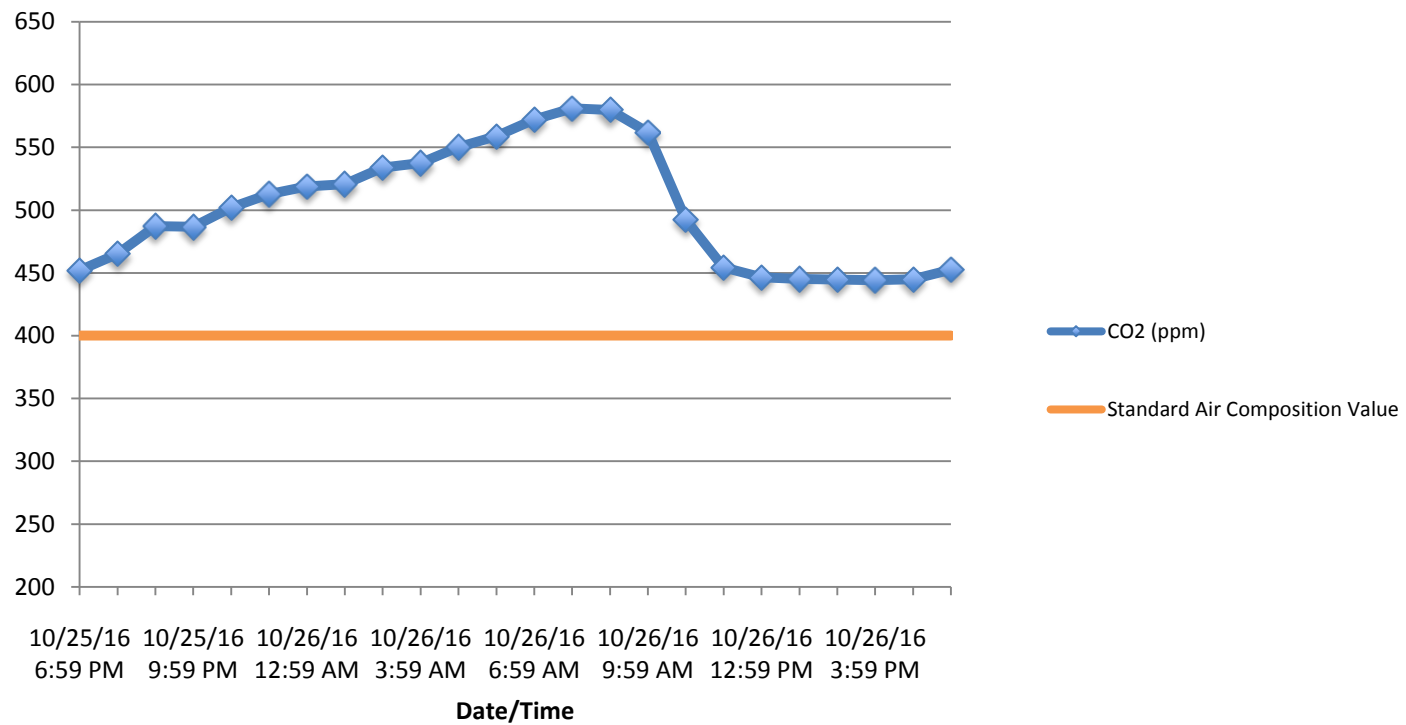


### Hourly Averages CO (ppm)

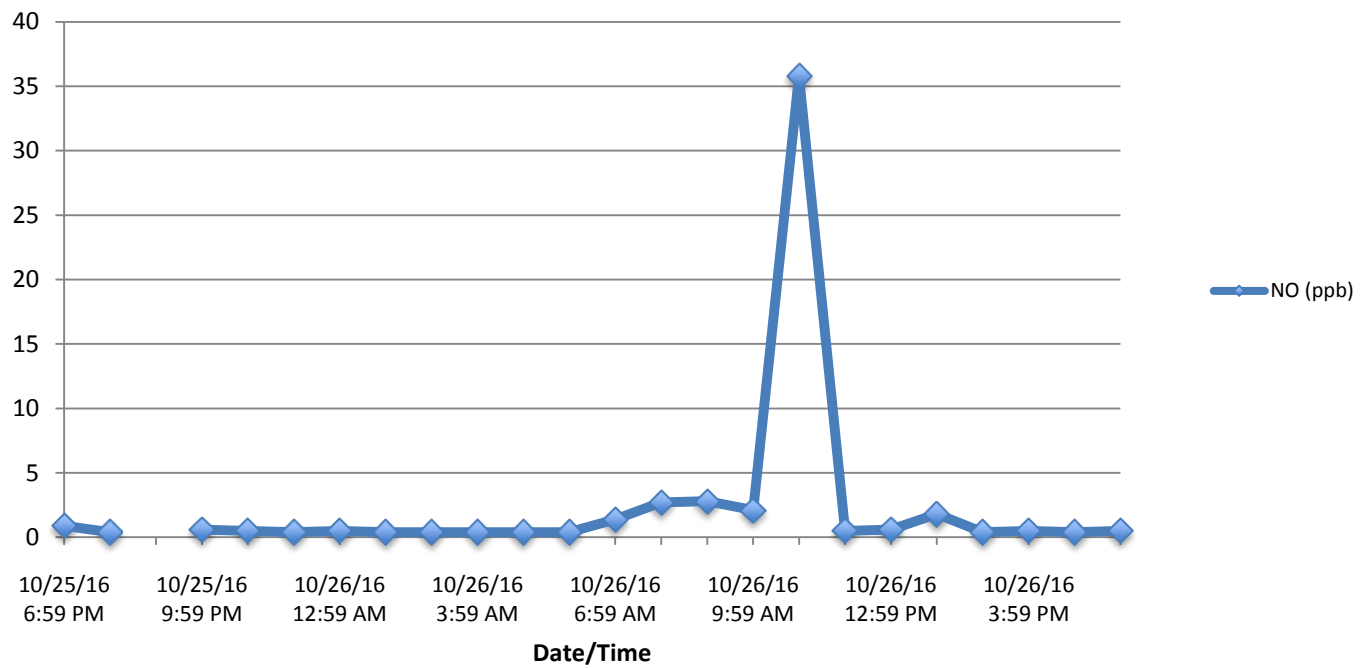
NAAQS 35 ppm



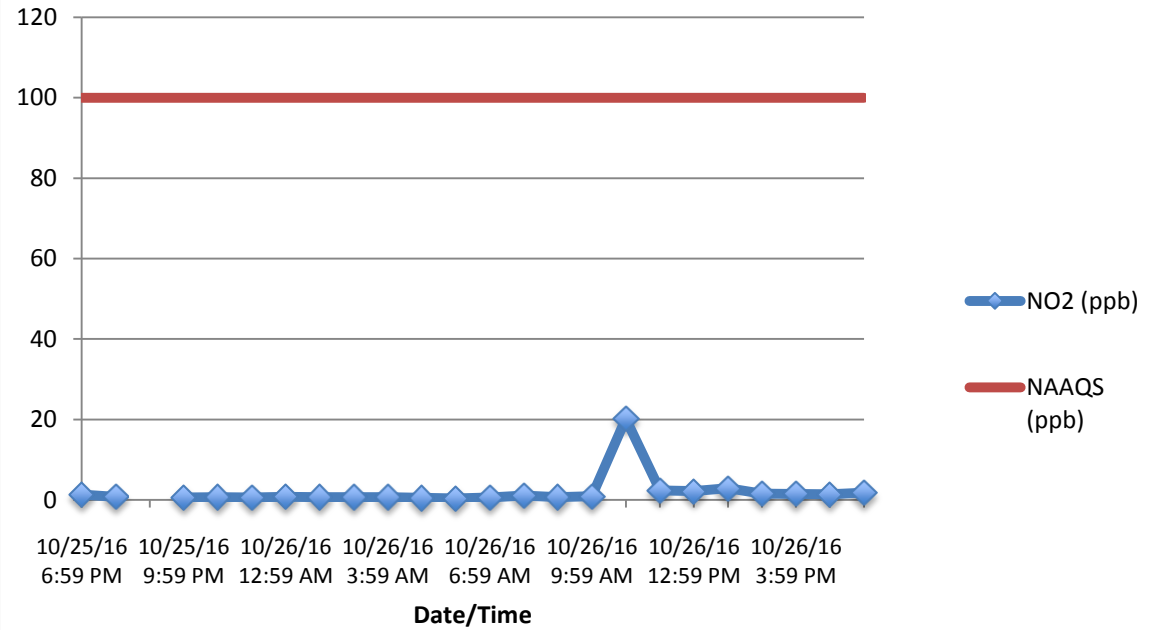
## Hourly Averages CO2 (ppm) For Monitoring Only



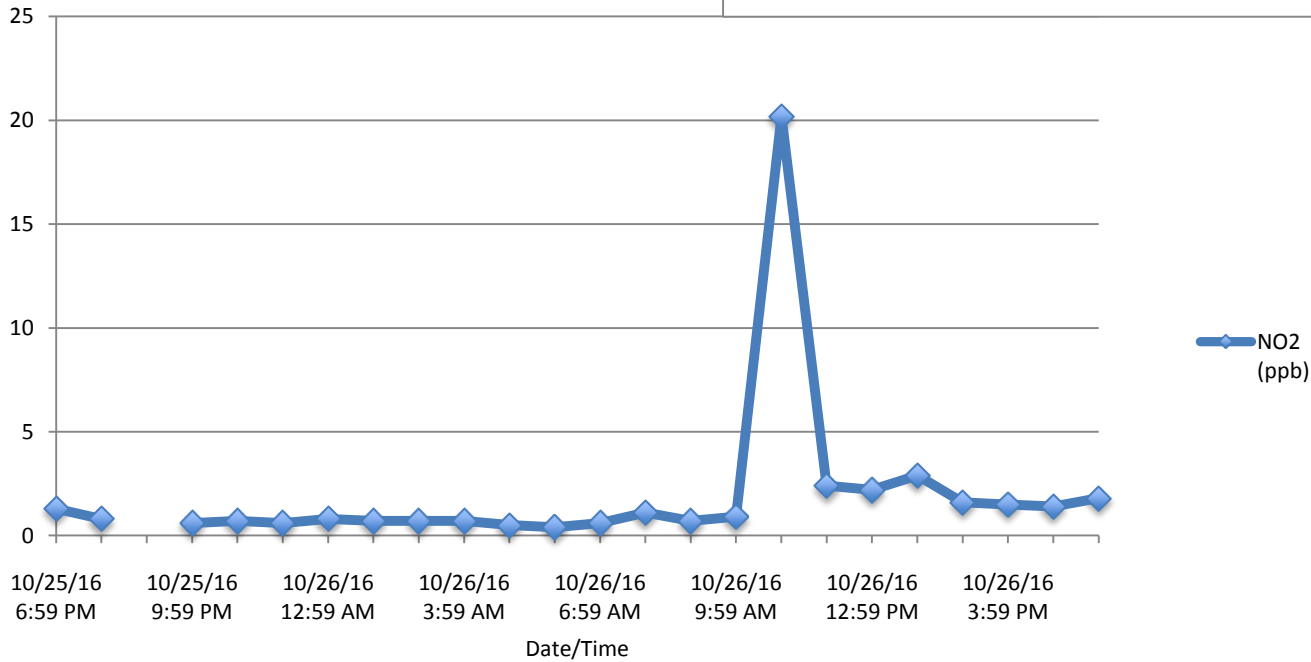
## Hourly Averages NO (ppb) For Monitoring Only



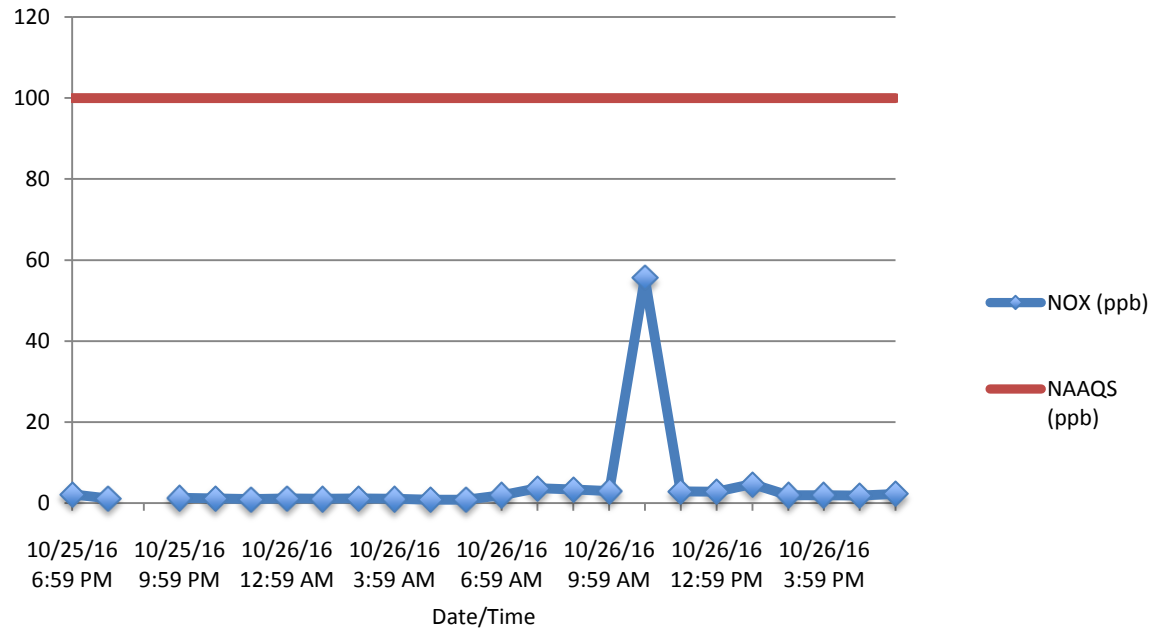
### Hourly Averages NO2 (ppb)



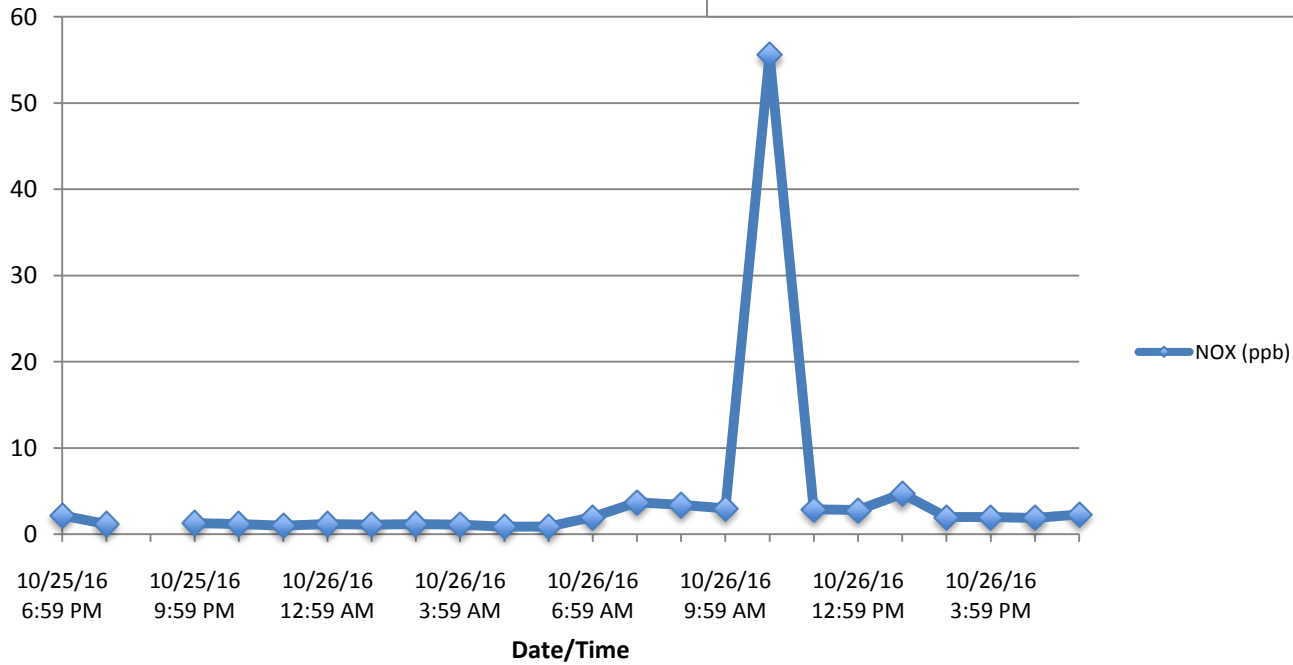
### Hourly Averages NO2 (ppb) NAAQS 100 ppb



### Hourly Averages NOX (ppb)

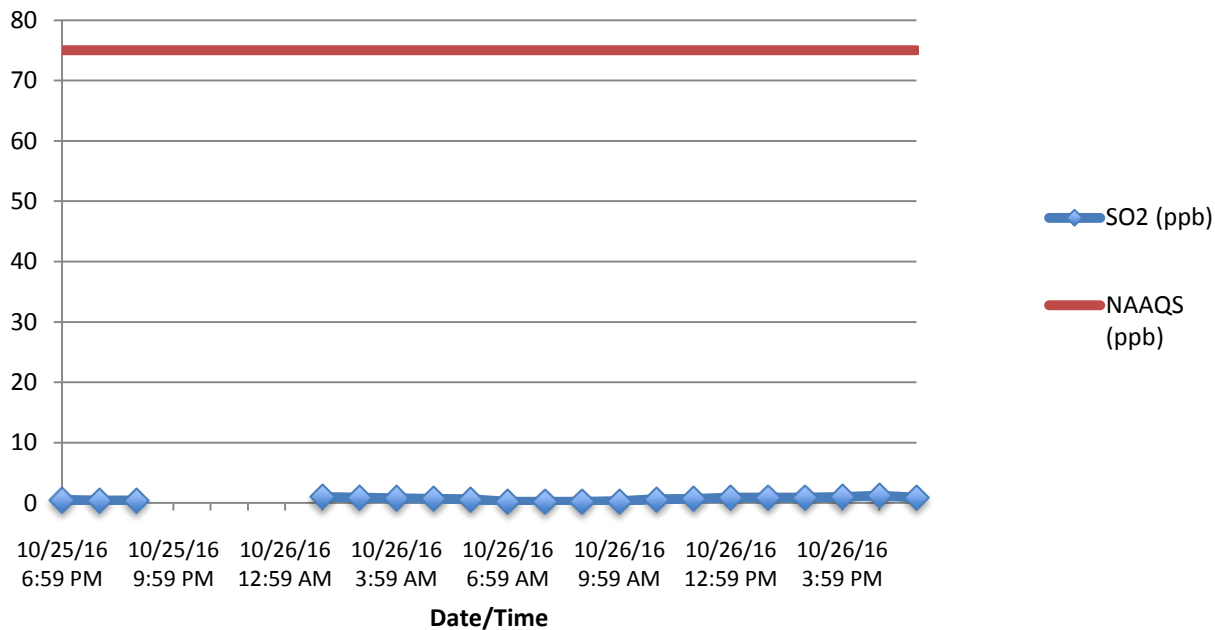


### Hourly Averages NOX (ppb) NAAQS 100 ppb

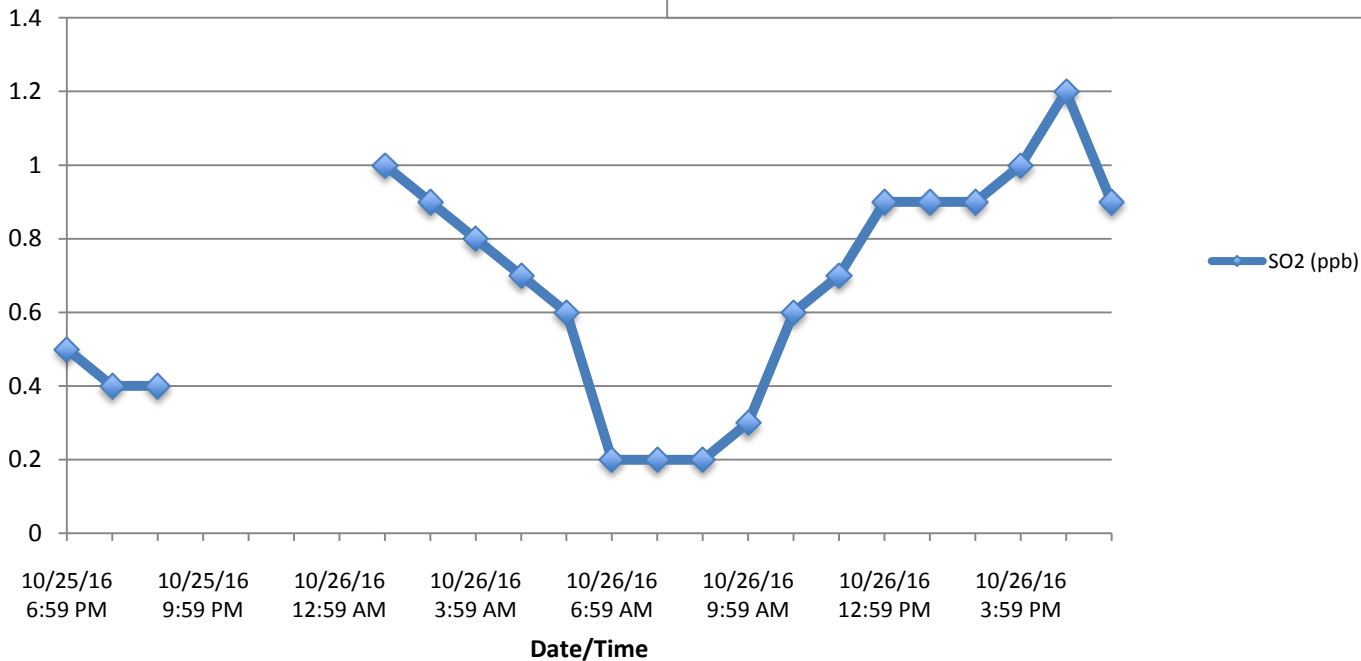




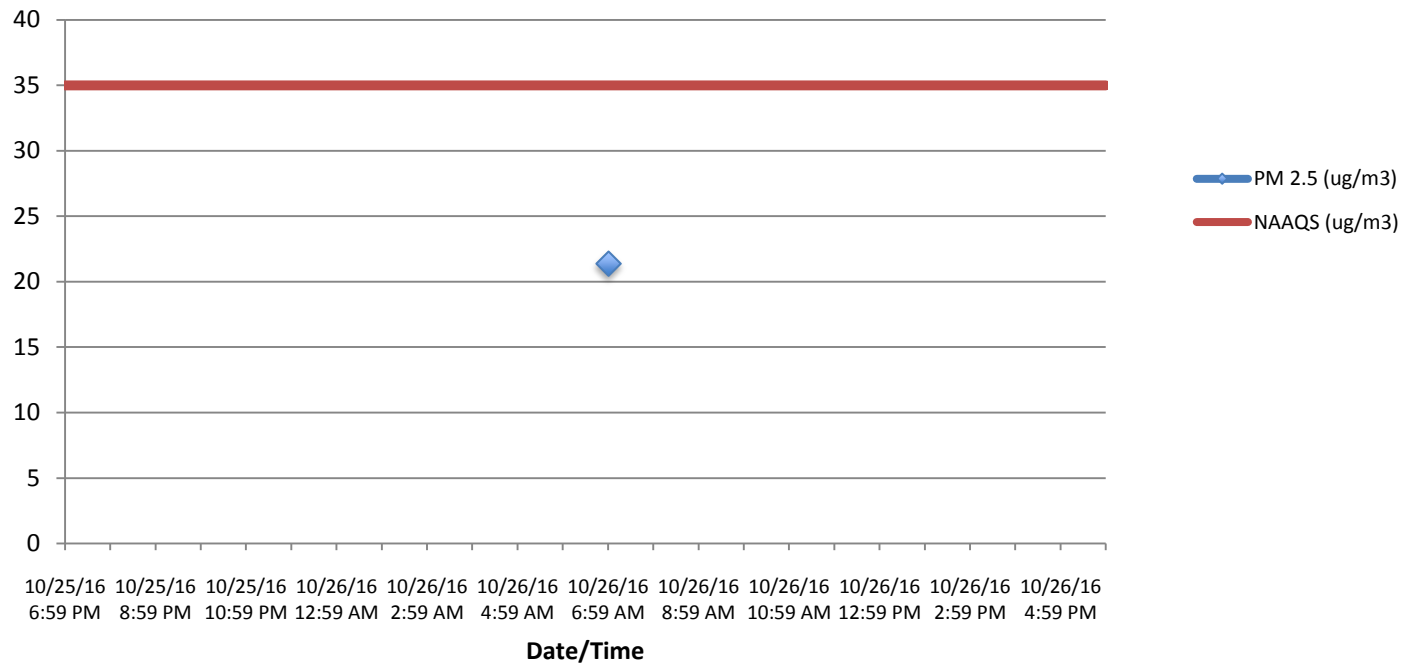
### Hourly Averages SO2 (ppb)



### Hourly Averages SO2 (ppb) NAAQS 75 ppb



## 24 Hour Average PM 2.5 (ug/m3) NAAQS 35 ug/m3



### Hourly Averages PM 2.5 (ug/m3)

