FINAL
U.S. ENVIRONMENTAL PROTECTION AGENCY
Region VI

Air Monitoring Summary

Camp Minden North
Start Time: 07-11-2016 1800 - End Time: 07-12-2016 1800

July 12, 2016 – EPA monitored for seven ambient air pollutants over a 24 hour period at the Camp Minden North 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 July 11, 2016 1800 through July 12, 2016, 2016 1800
2 Highest measurement of each analyte from July 11, 2016 1800 through July 12, 2016 1800

National Ambient Air Quality Standards (NAAQS) of criteria pollutants (CO, NO2, SO2, and PM2.5) 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/naaqs-table.

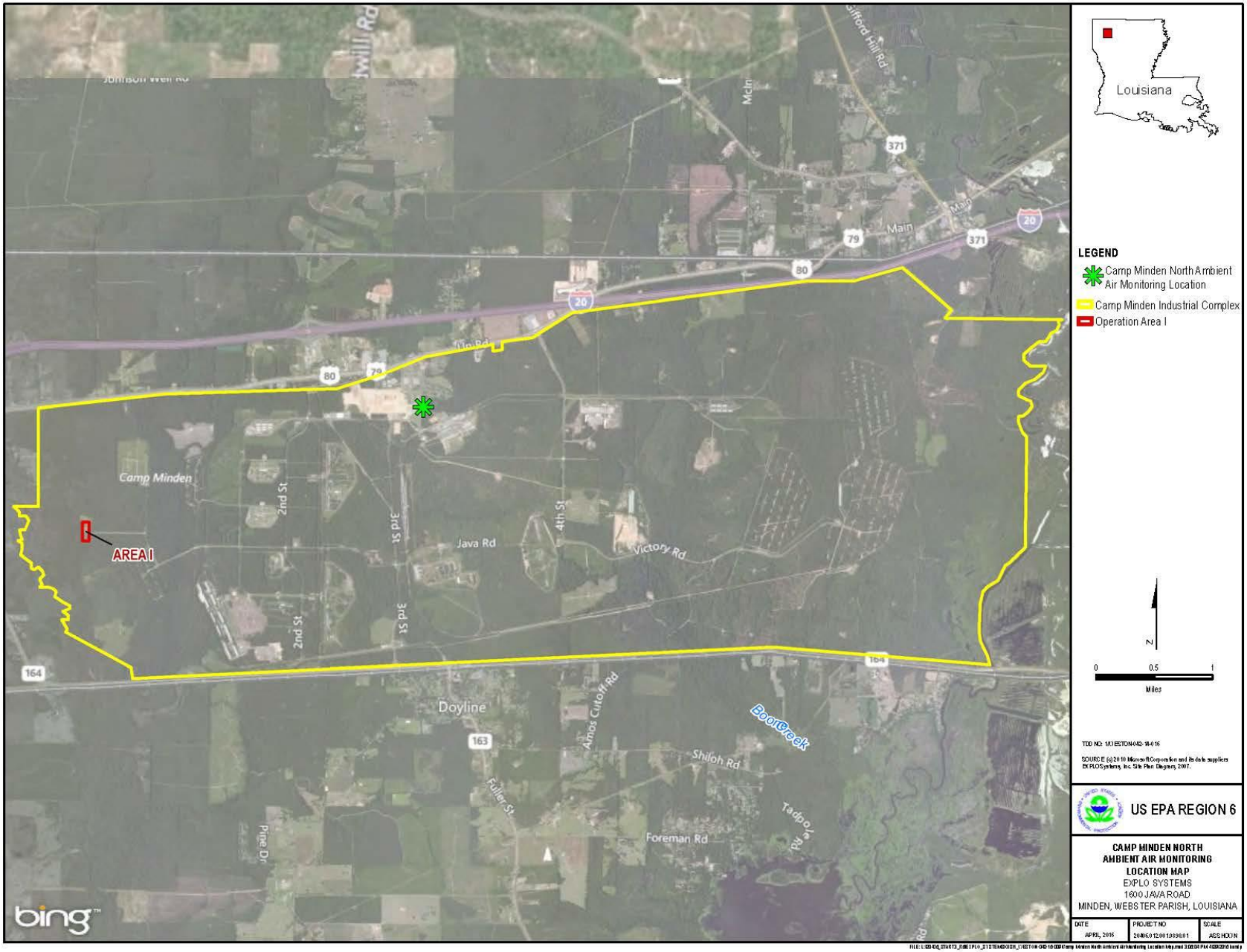
** Note: During follow-up on the elevated PM2.5 readings on 7/11/16, BAM1020 flow rate was found to be 10 LPM, and the pressure reading was 664 mm Hg; normal values are 16.7 LPM and 754 mm Hg. The low flow rate would have a net effect of biasing readings high, which was observed on 7/11. Troubleshooting on 7/12 was not able to resolve the issue; plan is to contact Met One for further assistance, and determine if on-site correction is possible. Review of the data on-board the instrument found that the flow dropped after 0700 CST on 7/9/16; validated database was revised to remove PM2.5 data after 0700 on 7/9.

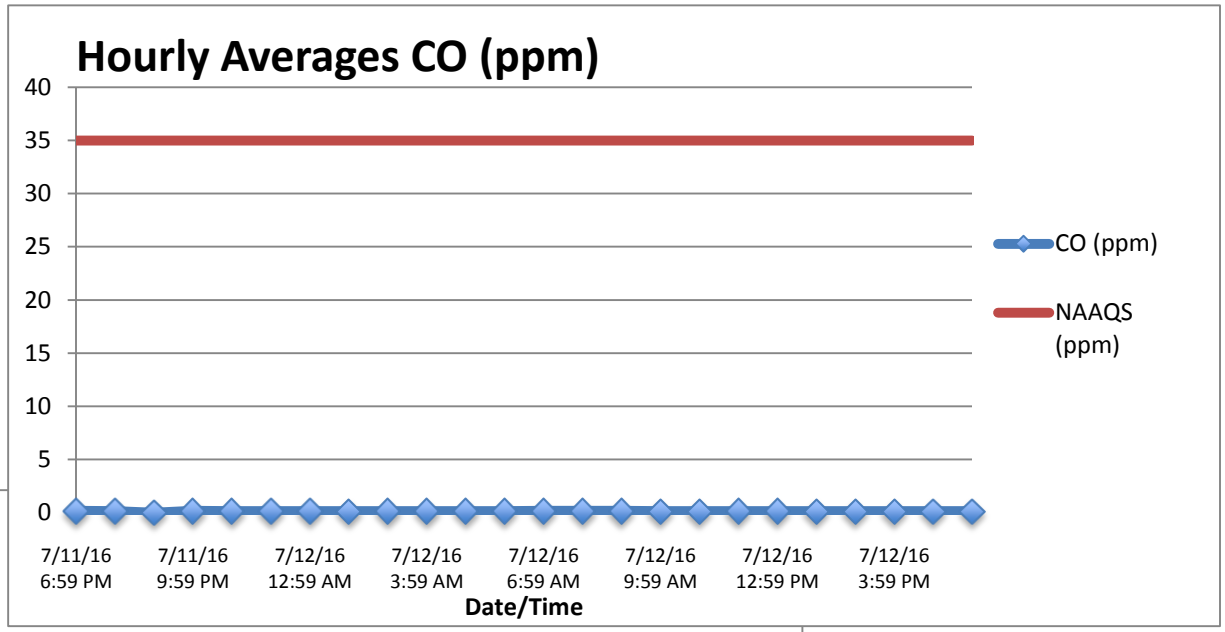
** Note: PM2.5 was captured in 60-min averages. All other analytes were captured in 1-min averages.

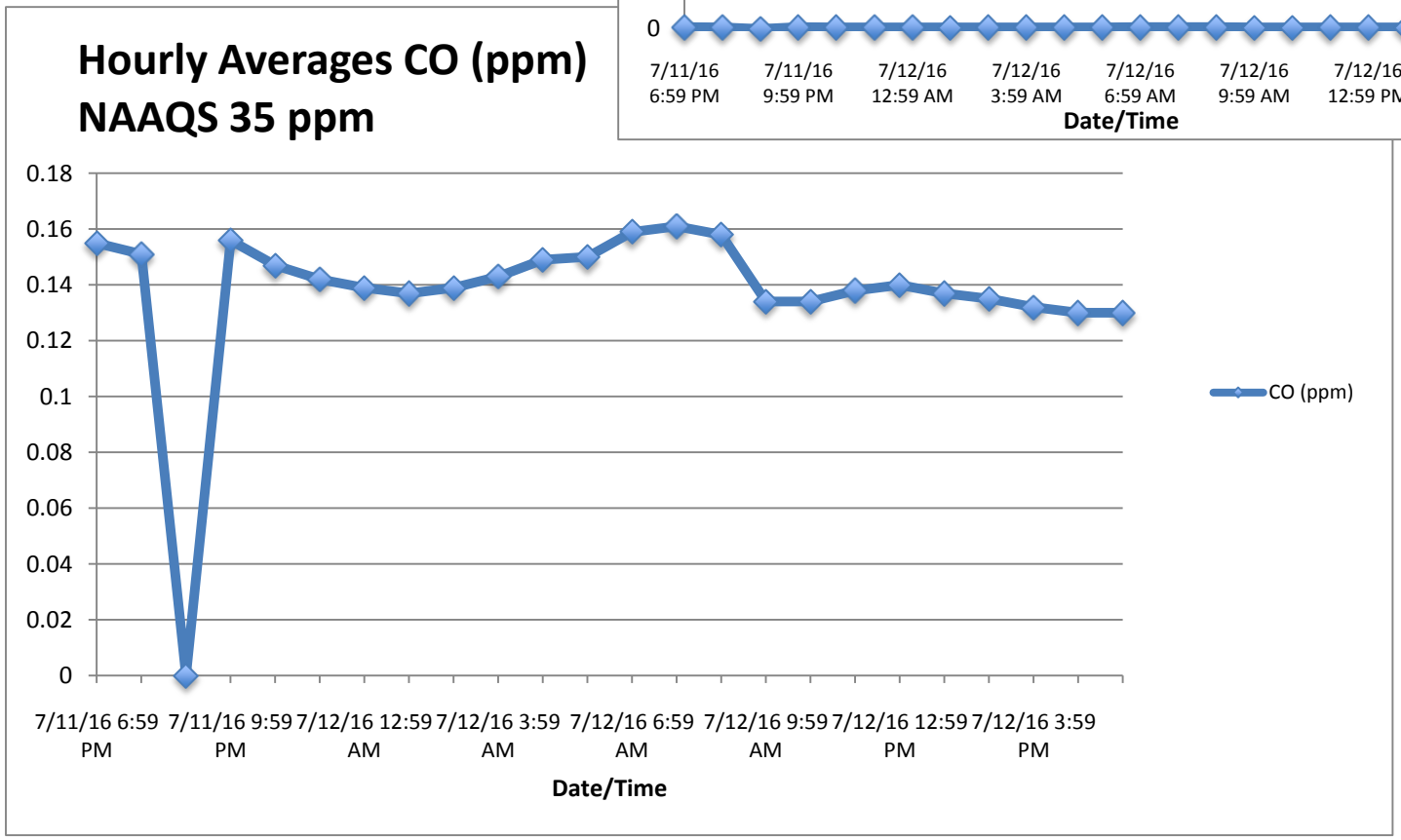
Summary for 12 July 2016 at Camp Minden North

Analyte	Highest Hourly Average Measurement	Highest Measurement	Units	NAAQS Standard
CO	0.161	0.194	ppm	35 (1-hour)
CO2	519.1	535.6	ppm	For Monitoring Only
NO	4.5	27.2	ppb	For Monitoring Only
NO2	1.4	6.1	ppb	100 (1-hour)
NOX	5.9	31.4	ppb	100 (1-hour)
SO2	0.9	1.2	ppb	75 (1-hour)
Analyte	Average 24-hour Measurement	Highest Measurement	Units	NAAQS Standard
PM 2.5	0	0	ug/m3	35 (24-hour)

Camp Minden North Station Location Map for 12 July 2016




Hourly Averages CO (ppm)
40
35
30
25
20
15
10
5
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
CO (ppm)
NAAQS (ppm)


Hourly Averages CO (ppm)
NAAQS 35 ppm
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
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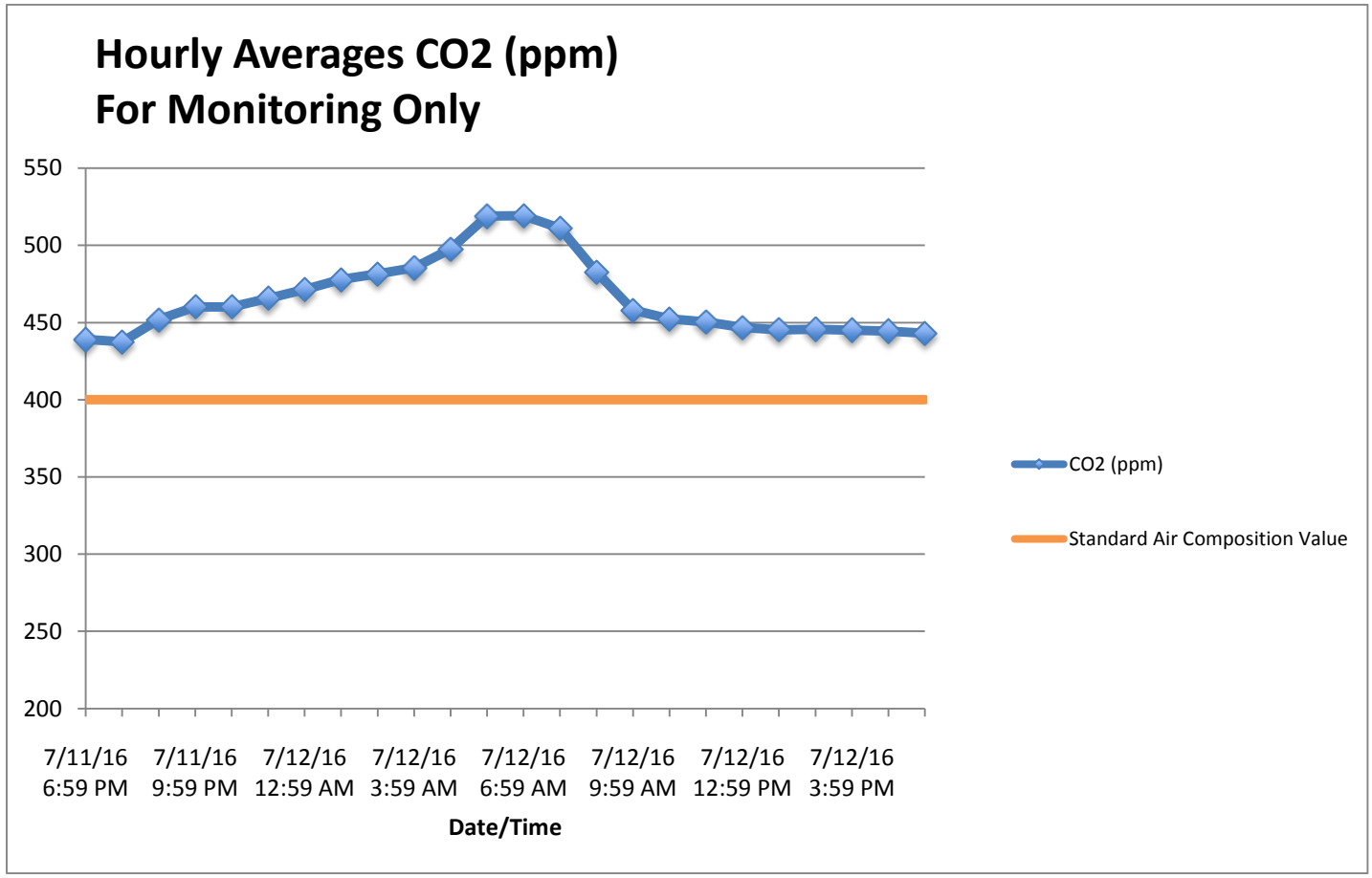
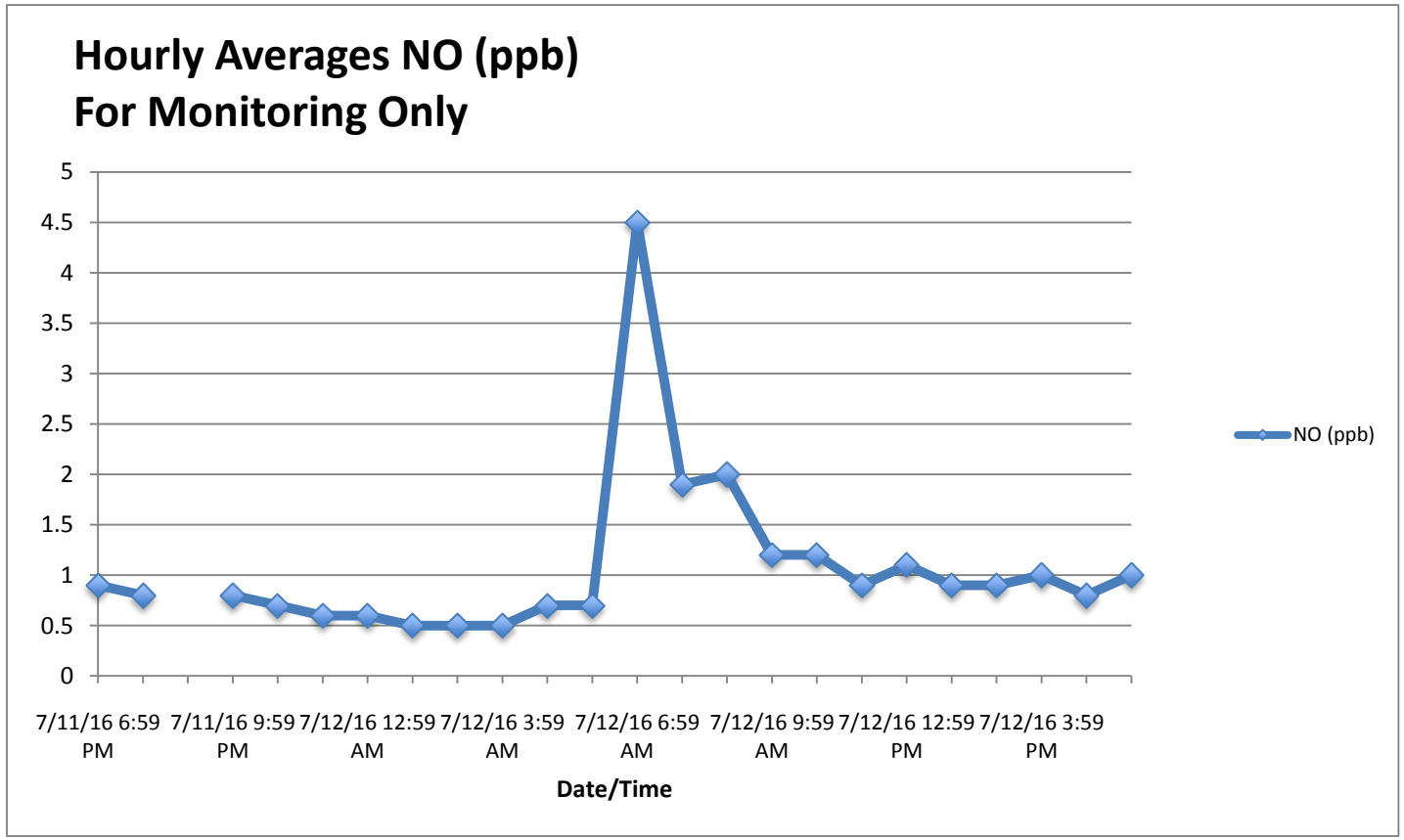
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
CO (ppm)


Hourly Averages CO2 (ppm)
For Monitoring Only
550
500
450
400
350
300
250
200
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
CO2 (ppm)
Standard Air Composition Value


Hourly Averages NO (ppb)
For Monitoring Only
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
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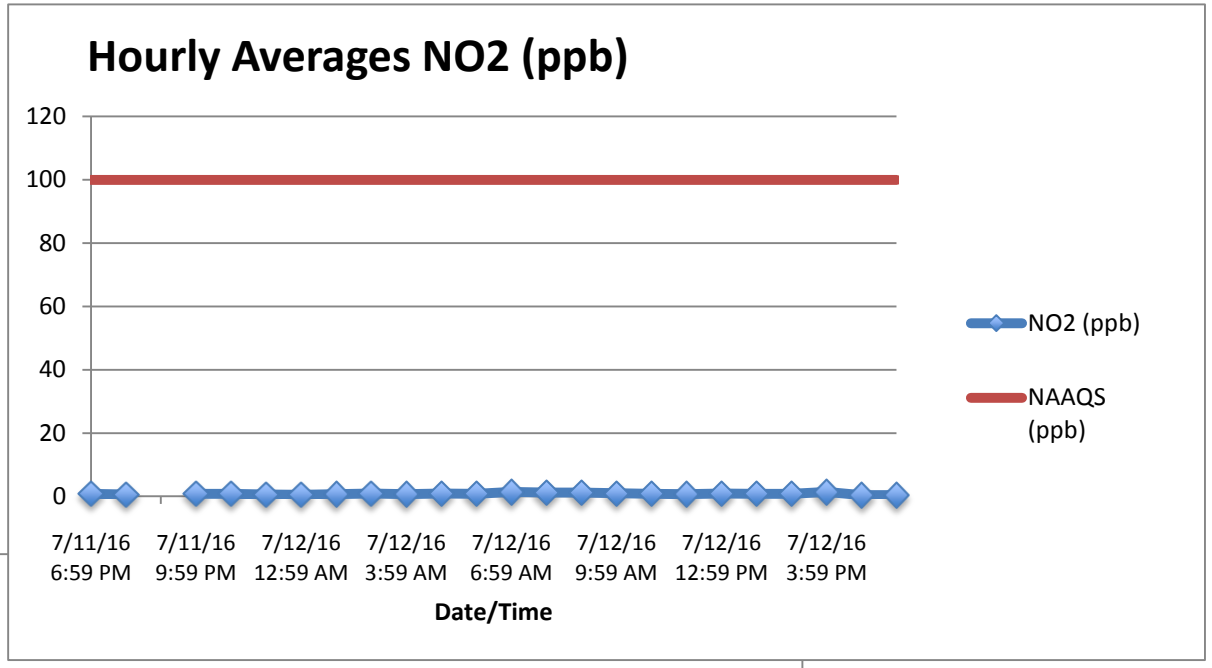
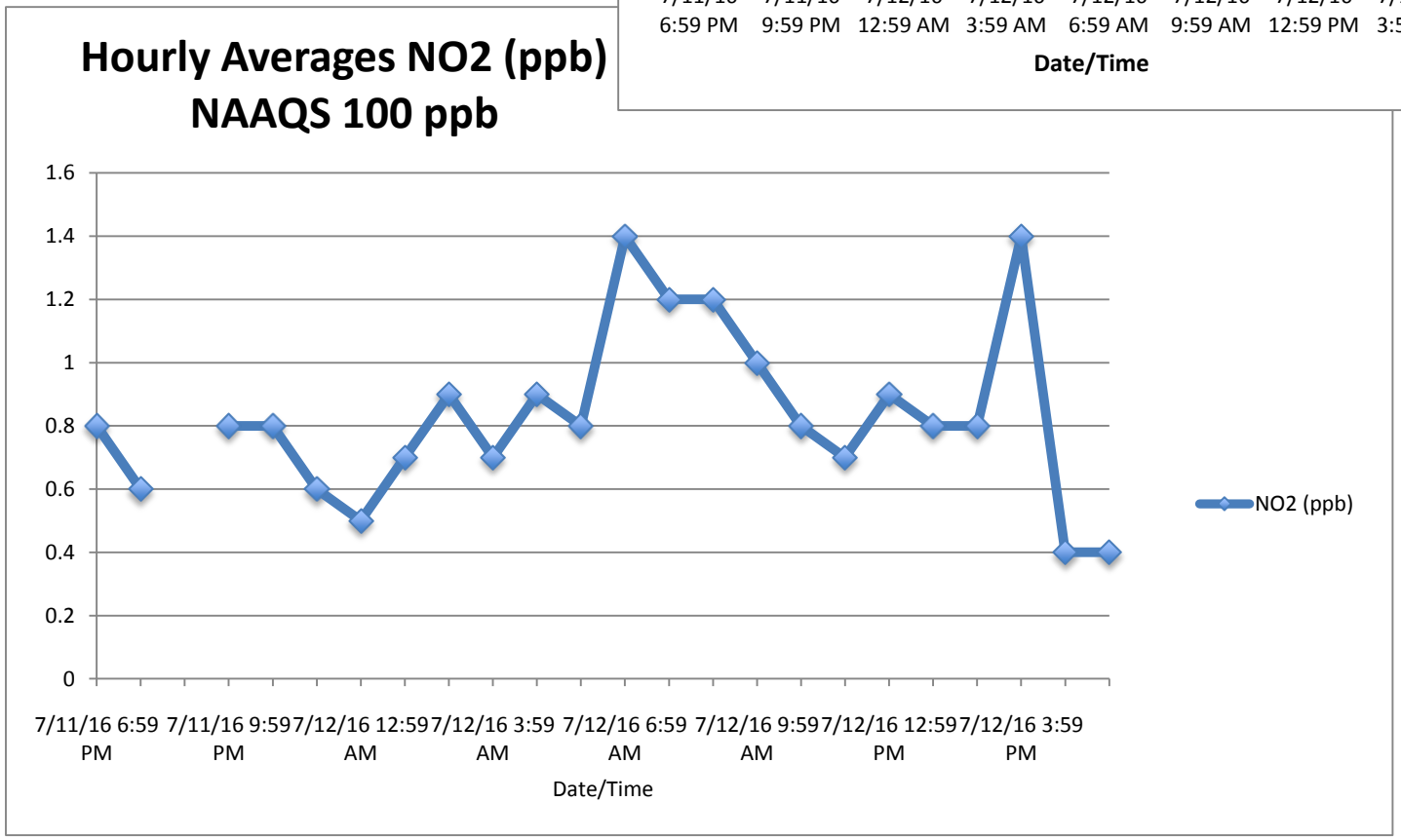
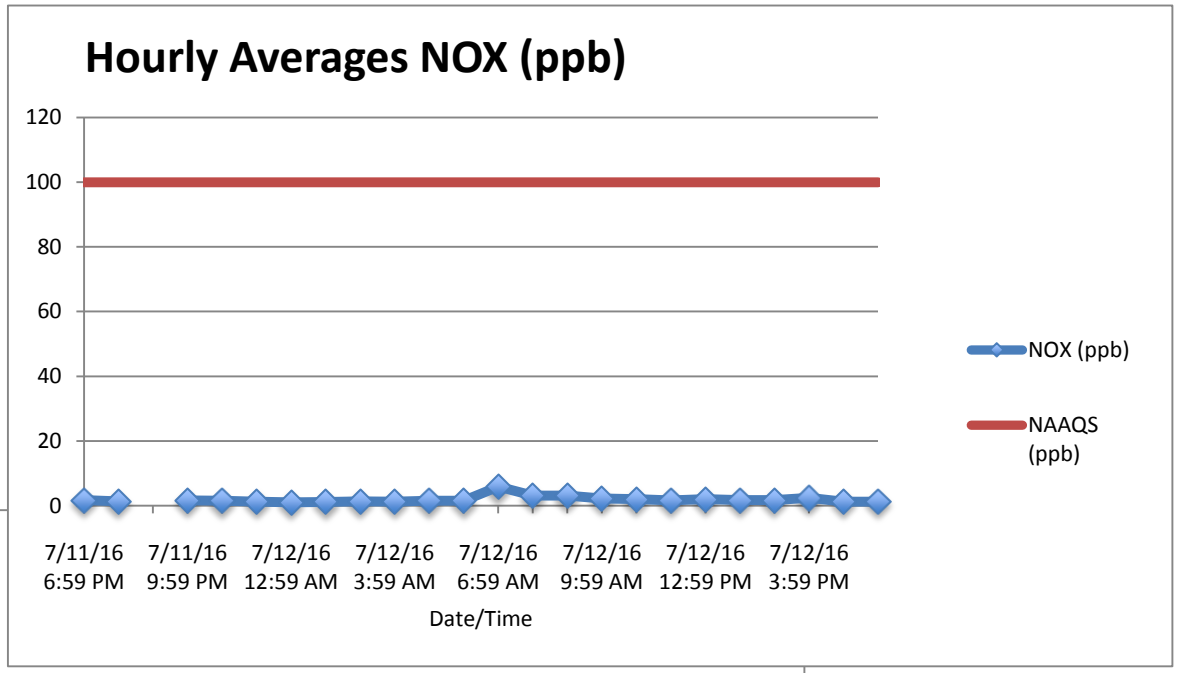
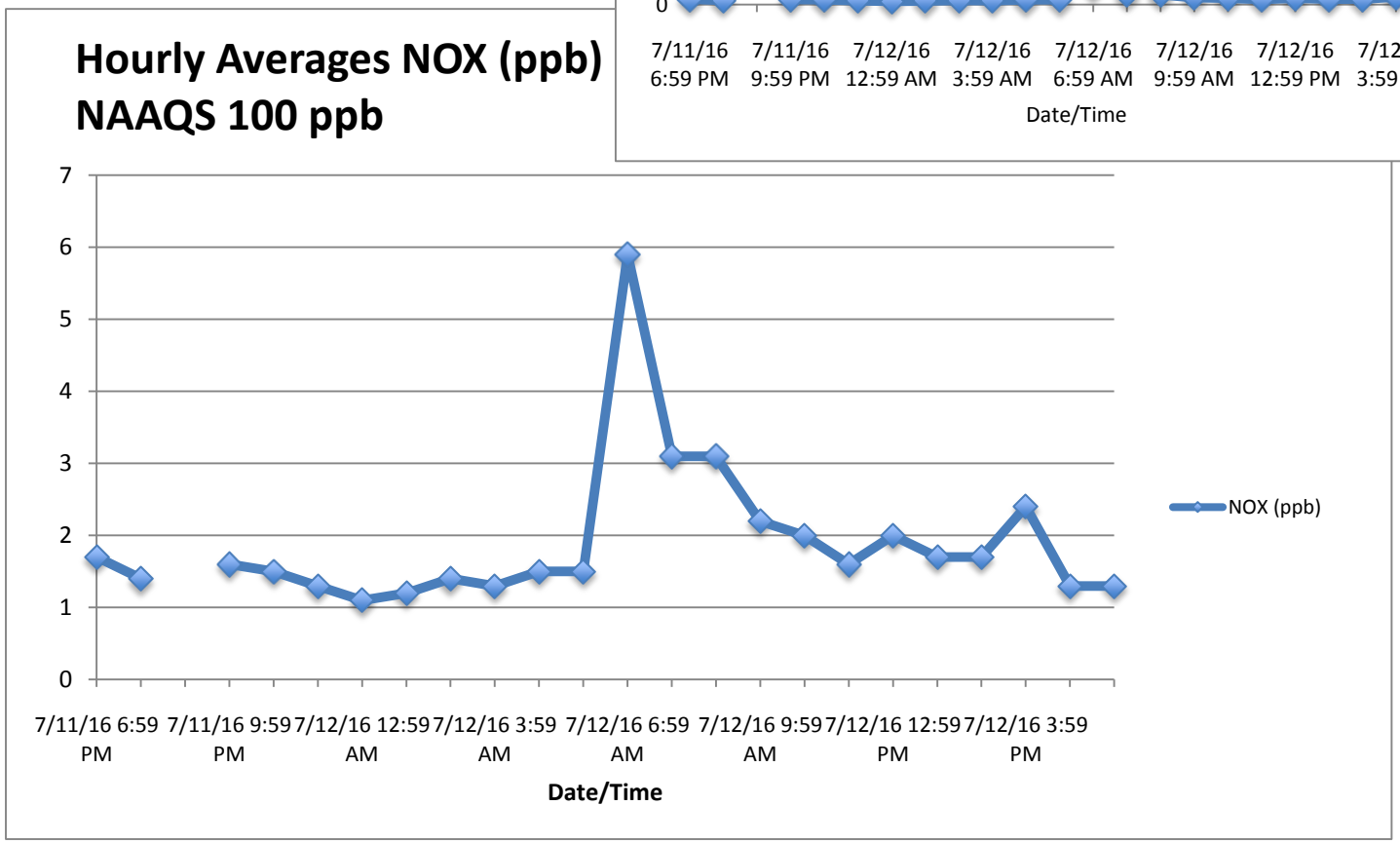
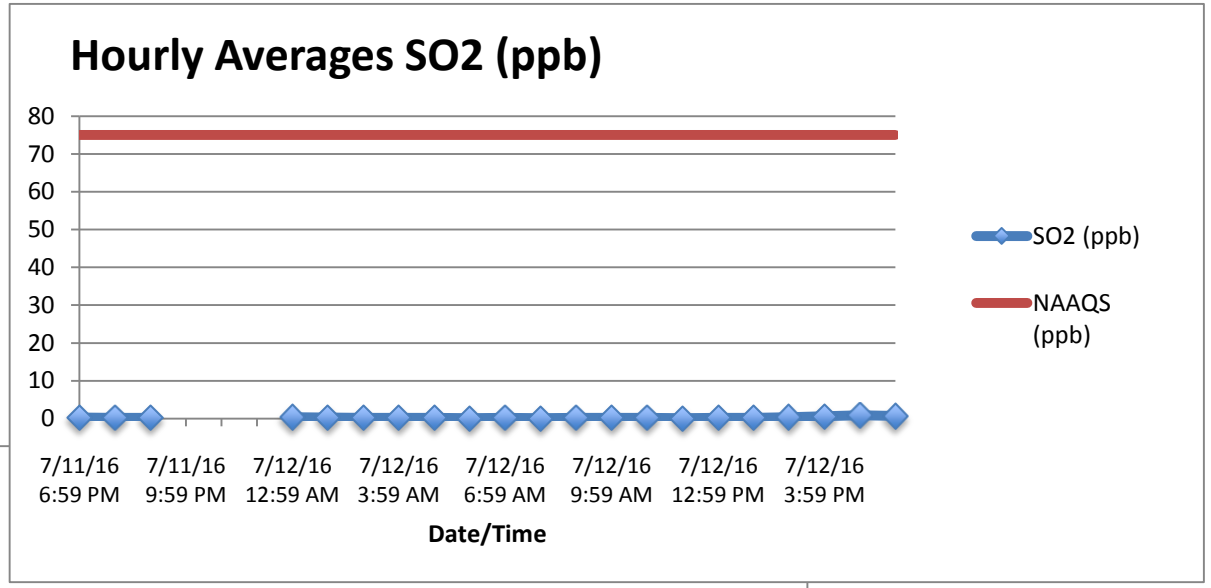
7/12/16 3:59 PM
Date/Time
NO (ppb)

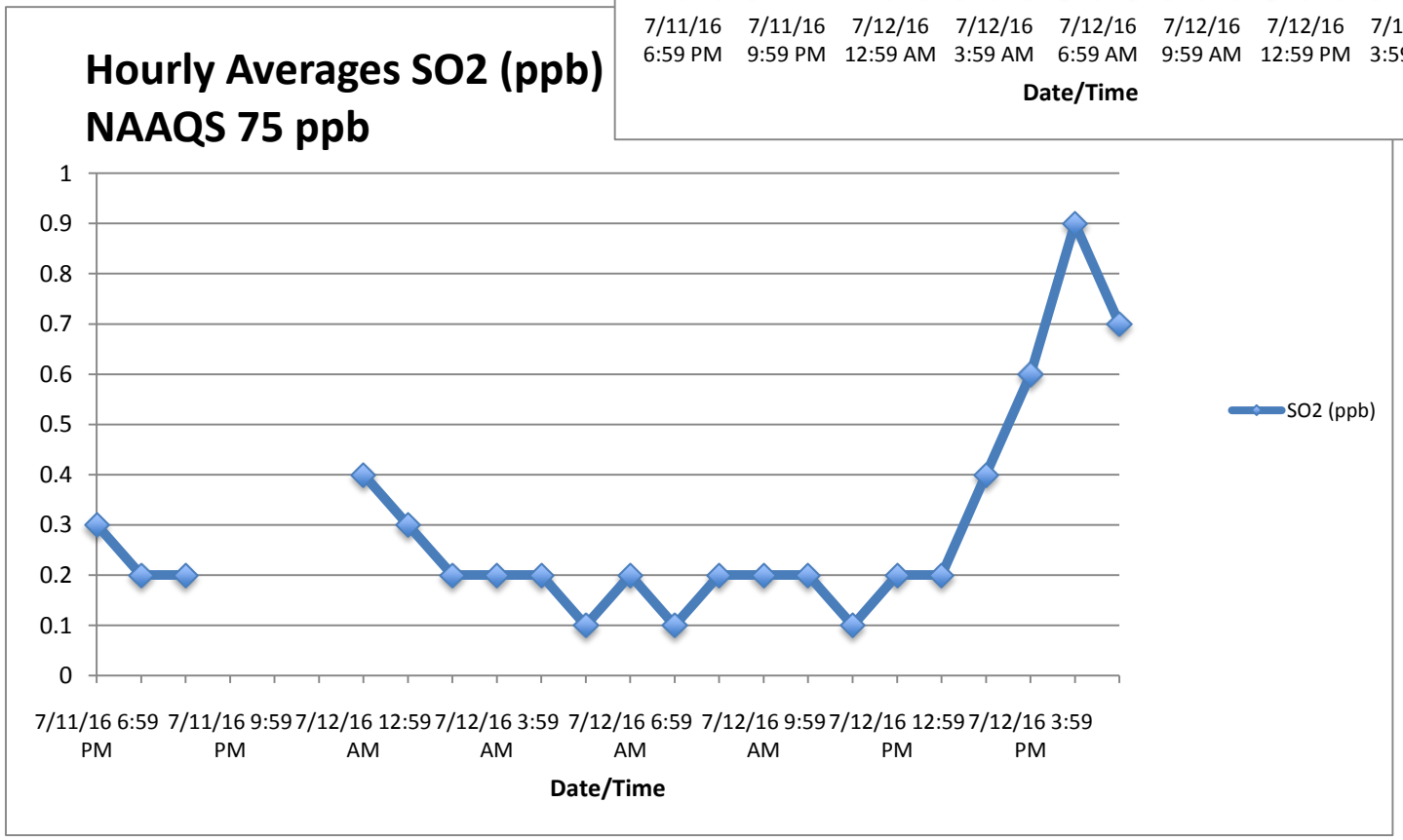

Hourly Averages NO2 (ppb)
120
100
80
60
40
20
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
NO2 (ppb)
NAAQS (ppb)

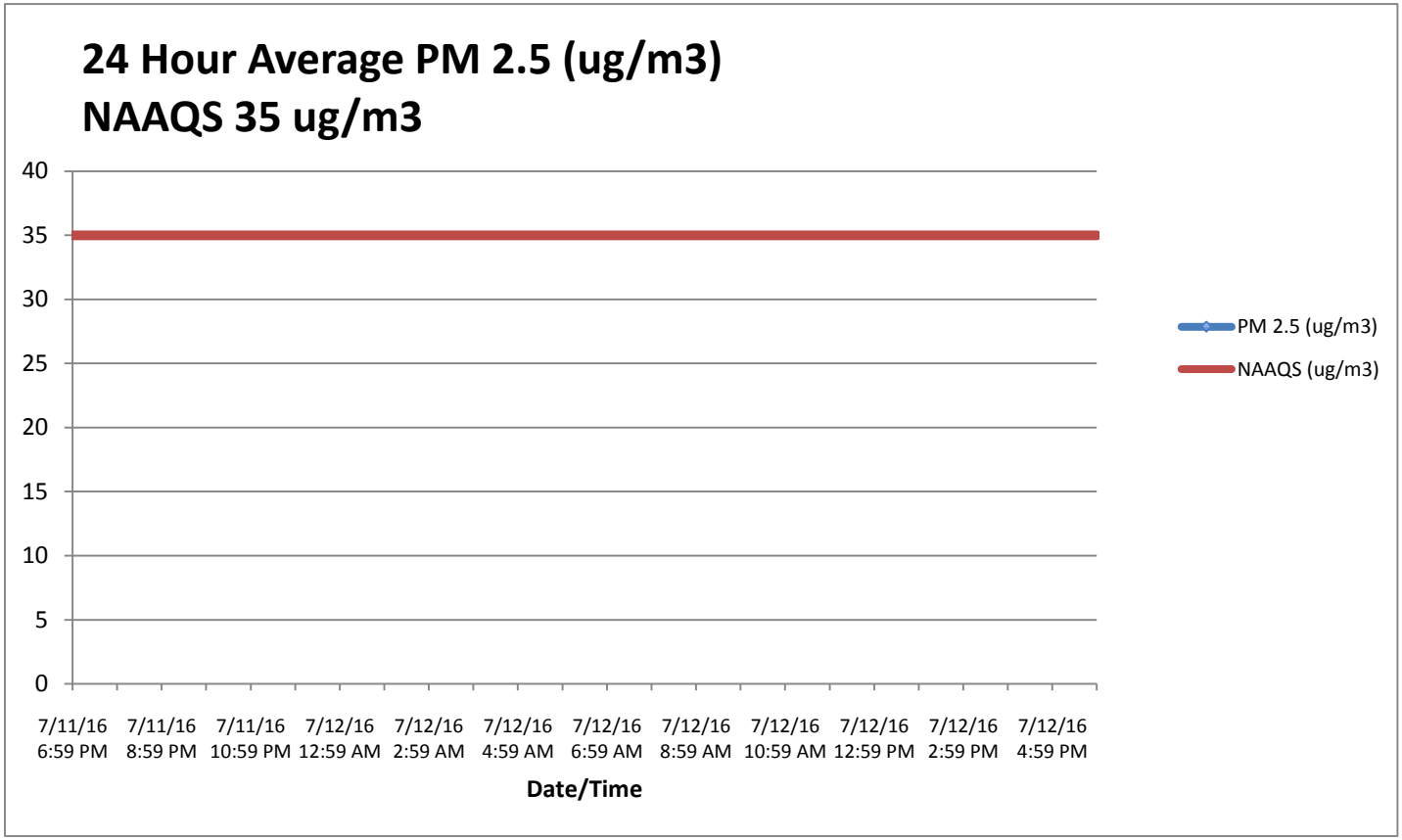

Hourly Averages NO2 (ppb)
NAAQS 100 ppb
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
NO2 (ppb)

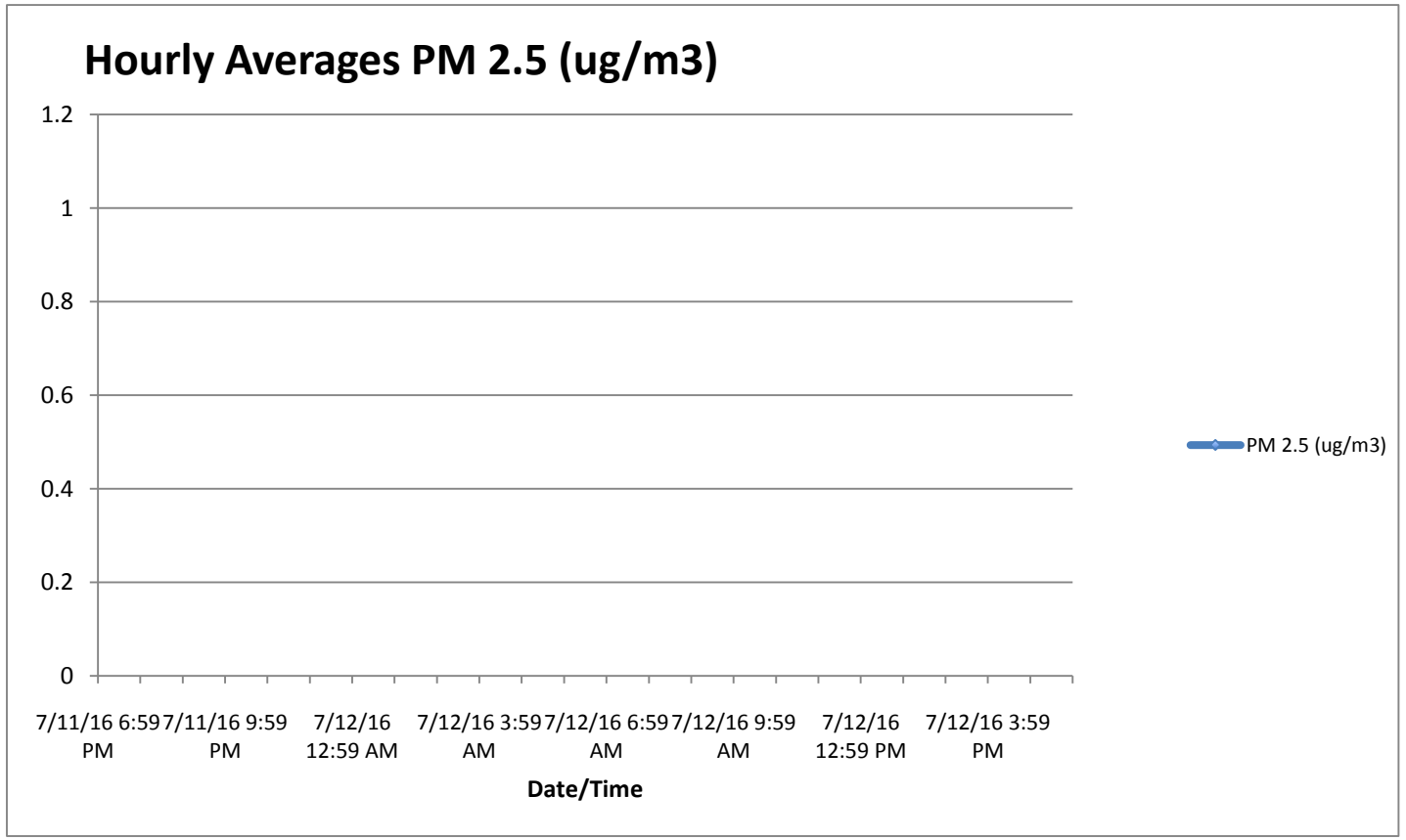

Hourly Averages NOX (ppb)
120
100
80
60
40
20
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
NOX (ppb)
NAAQS (ppb)


Hourly Averages NOX (ppb)
NAAQS 100 ppb
7
6
5
4
3
2
1
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
NOX (ppb)


Hourly Averages SO2 (ppb)
80
70
60
50
40
30
20
10
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
SO2 (ppb)
NAAQS (ppb)


Hourly Averages SO2 (ppb)
NAAQS 75 ppb
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
SO2 (ppb)


24 Hour Average PM 2.5 (ug/m3)
NAAQS 35 ug/m3
40
35
30
25
20
15
10
5
0
7/11/16 6:59 PM
7/11/16 8:59 PM
7/11/16 10:59 PM
7/12/16 12:59 AM
7/12/16 2:59 AM
7/12/16 4:59 AM
7/12/16 6:59 AM
7/12/16 8:59 AM
7/12/16 10:59 AM
7/12/16 12:59 PM
7/12/16 2:59 PM
7/12/16 4:59 PM
Date/Time
PM 2.5 (ug/m3)
NAAQS (ug/m3)


Hourly Averages PM 2.5 (ug/m3)
1.2
1
0.8
0.6
0.4
0.2
0
7/11/16 6:59 PM
7/11/16 9:59 PM
7/12/16 12:59 AM
7/12/16 3:59 AM
7/12/16 6:59 AM
7/12/16 9:59 AM
7/12/16 12:59 PM
7/12/16 3:59 PM
Date/Time
PM 2.5 (ug/m3)