

MAML - Mobile Air Monitoring Laboratory

Data Collection Report – James Bay Air Quality Study

June – August 2009



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For:
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1. Background and Summary of Findings

The James Bay Air Quality Study (JBAQS) was designed as a multi-phase research project to investigate air quality in the James Bay neighbourhood of Victoria, BC, Canada. Phase I¹, conducted in 2007, consisted of field monitoring throughout the study area to establish two-week and seasonal average levels of nitric oxide (NO), nitrogen dioxide (NO₂), and sulphur dioxide (SO₂), as well as hourly and 24-hour average levels of fine particulate matter (PM_{2.5}) in selected locations. The results suggested that longer-term average levels of NO, NO₂ and SO₂ were below current guideline levels, but that there may be short-term peaks, especially of SO₂ associated with cruise ship emissions, that were not adequately characterized. Phase II² used an advanced dispersion model, the California Puff Model (CALPUFF), to estimate 1-hour and 24-hour average concentration levels of SO₂, NO₂, PM_{2.5} and PM₁₀ from cruise ship and ferry sources using meteorological data and marine vessel schedules for 2007. The model results suggested that short-term (1-hour and 24-hour) levels of NO₂ and SO₂ could approach or exceed current air quality guidelines.

The 2009 cruise ship season presented an opportunity to conduct further field monitoring at a single site in the study area with the Ministry of Environment's Mobile Air Monitoring Lab, known as "MAML". Hourly and daily data collected by MAML is useful to supplement data obtained during Phase I and Phase II of JBAQS. MAML provides additional measured data of NO, NO₂, SO₂, PM₁₀ and PM_{2.5}, but for shorter time periods (1-hour) not previously captured by monitoring equipment used in the Phase I field monitoring. Although MAML monitoring data cannot be used to directly validate the short-term estimates from the Phase II CALPUFF modeling analysis, it provides field data that confirms the actual level and frequency of short-term pollutant peaks.

This report presents the data collected for NO, NO₂, SO₂ and PM_{2.5} by MAML between May 30th and Aug 24th, 2009. For comparison purposes, data from the Ministry of Environment air quality monitoring stations at Topaz Avenue are also presented when applicable, as are current air quality guidelines. Port activity data were provided by the Greater Victoria Harbour Authority, including vessel name and date/duration in port (Appendix I). This report, in conjunction with the Phase I and II reports, have been provided to the Population Health Surveillance Unit at the Vancouver Island Health Authority (VIHA). It is the intention of VIHA to commission a review of the results by an expert to assess the health risk associated with the levels measured.

Detailed analyses of the data are presented in the following report, and complete data are provided in appendices. In summary:

- No existing B.C. Provincial air quality objectives were exceeded for SO₂, NO₂ or PM_{2.5}.
- The World Health Organization 10-minute average guideline for SO₂ (500 ug/m³) was exceeded in 3 of 11,678 measured 10-minute intervals (0.03 percent) at MAML.

¹ JBAQS Phase I Field Monitoring Report available at: <http://www.viha.ca/mho/publications/>

² JBAQS Phase II Air Quality Modeling Report available at: <http://www.viha.ca/mho/publications/>

- The US Environmental Protection Agency 1-hour average proposed guideline for SO₂ (135 ug/m³) was exceeded in 50 of 1,962 measured 1-hour intervals (2.5 percent) at MAML, and in 1 of 1,978 measured 1-hour intervals at Topaz (0.05 percent).
- The World Health Organization 24-hour average guideline for SO₂ (20 ug/m³) was exceeded on 14 of 87 measured days at MAML (16 percent), and on 3 of 87 measured days at Topaz (3.5 percent).
- No current guidelines for NO, NO₂ or PM_{2.5} were exceeded.
- NO, NO₂ and SO₂ were always highest on days with cruise ships in port than on days without, at both MAML and Topaz, with highest peaks observed generally between 5pm and 1am.
- PM_{2.5} was generally similar on days with cruise ships in port than on days without, at both MAML and Topaz.

2. Sampling Location and Dates

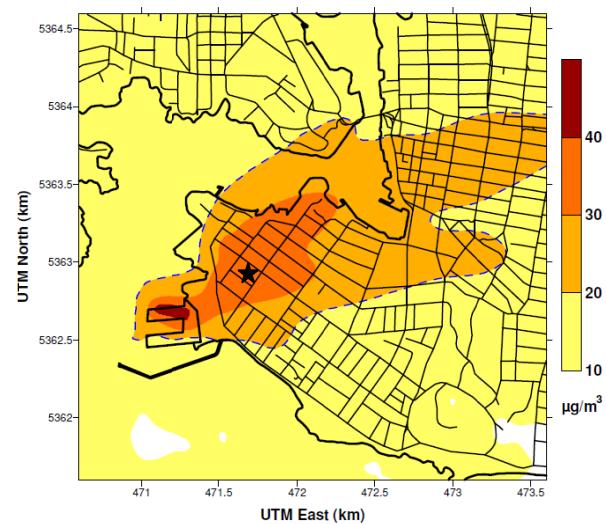
MAML was located on Montreal Street, adjacent to the community gardens at the northwest corner of Macdonald Park (Figure A). This site was chosen as it provided adequate room to park MAML for several months and access to power, and was in the area expected to have highest 24-hour SO₂ concentrations based on 2007 model predictions (Figure B). MAML was used to measure concentration levels of NO, NO₂, SO₂, and PM_{2.5} in James Bay over 87 days (2,072 hours) during the 2009 cruise ship season, from 1:00 May 30 to 08:00 August 24. All instruments were calibrated and maintained by BC Ministry of Environment staff. An instrument list and calibration logs are provided in Appendix II.

A.



MAML monitoring location within the James Bay neighbourhood, adjacent to the community garden and daycare centre.

B.



Predicted maximum 24-hour SO₂ concentrations (area within blue dashed line indicates exceedance of WHO guideline of 20 µg/m³ for a 24-hour period).

Figure 2.1. MAML monitoring location in James Bay during the 2009 cruise ship season
(1:00 May 30 – 08:00 August 24)

3. Data processing

Raw data were quality assured by BC Ministry of Environment staff and provided to researchers at UVIC and required the following additional processing:

- Correction of instrument drift over time, as indicated by examination of zero and span check records.
- Conversion of measured levels from parts per billion (ppb) to micrograms per cubic metre ($\mu\text{g}/\text{m}^3$), in order to be consistent with air quality standards for comparative purposes (See Appendix III).

Complete 1-hour and 24-hour data for MAML are provided in Appendices IV and V. Hourly data from the Ministry of Environment air quality monitoring station on Topaz Avenue are also provided for comparison purposes, in Appendices VI and VII. These data were also provided to researchers at UVIC in raw format and were processed using equivalent procedure as described for the MAML dataset.

Hourly data provided in this report represent an average of concentrations over the previous one 1-hour period (i.e., 2:00 is given a concentration value representing the average between 1:00 and 2:00).

Wind direction and speed at MAML and Ogden Point are also provided in Appendices IV and V. Wind direction data between June 4th and 16th at MAML appear to be incorrect, although no cause was discovered.

4. Other Useful Reports

Air quality in the James Bay area has been the subject of a number of reports:

- **James Bay Air Quality Study: Phase I Report on the Results of Field Monitoring in 2007.** Prepared by the James Bay Air Quality Study Team for the Vancouver Island Health Authority. 2008. Available at: <http://www.viha.ca/mho/publications/>
 - This report provides summaries of field data collected in the James Bay area on 2007, and a preliminary analysis of data from the Topaz Station on days with and without cruise ships in port.
- **James Bay Air Quality Study: Phase II Report on the Results of CALPUFF Air Quality Dispersion Modelling 2007.** Prepared by the James Bay Air Quality Study Team for the Vancouver Island Health Authority 2009. Available at: <http://www.viha.ca/mho/publications/>
 - This report provides a description of modelling undertaken to predict 1-hour, 24-hour, and seasonal average pollutant levels.
- **Air Quality in the Capital Regional District 2008.** Prepared by SENES Consultants Limited for the Capital Regional District Environmental Services Department, November 2009. Available from the Capital Regional District: <http://www.crd.bc.ca/airquality/index.htm>
 - This report includes an appendix with an analysis of SO₂ levels and their coincidence with the presence of cruise ships in port, for 2008.

5. Data Summary – 10-minute Averages

Table 5.1 Current 10-Minute Air Quality Guidelines ($\mu\text{g}/\text{m}^3$)

	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}
CRD	--	--	--	--	--
Can –Max Acceptable	--	--	--	--	--
World Health Org	--	--	500	--	--
BC Level A	--	--	--	--	--
Can Max Desirable	--	--	--	--	--

Table 5.2 MAML 10-minute averages*

Percentiles	SO ₂
90th	10.6
95th	39.4
96th	68.9
97th	105.9
98th	170.9
99th	264.3
100th	599.4

* 11,678 intervals with valid data

Table 5.3 MAML Ten highest averages

Rank	Day	Intervals	Level $\mu\text{g}/\text{m}^3$	>500 $\mu\text{g}/\text{m}^3$	Ships in Port	Arrival	Departure
1		05/06/2009 18:20	599.4	x	Amsterdam	17:47	23:26
2	5-Jun	05/06/2009 19:30	594.1	x	Golden Princess	18:24	23:54
7		05/06/2009 19:50	482.9				
9		13/06/2009 17:10	472.8				
6		13/06/2009 17:20	491.4		Star Princess	16:48	0:09
3	13-Jun	13/06/2009 17:30	509.8	x	Norwegian Pearl	17:48	23:32
8		13/06/2009 23:59	476.0		Westerdam	17:53	23:42
4		13/06/2009 23:59	498.3				
5		21/08/2009 21:10	482.9		Amsterdam	17:35	23:19
10	21-Aug	21/08/2009 21:20	466.4		Golden Princess	18:30	23:53

Exceedences:

- The WHO 10-minute guideline of 500 $\mu\text{g}/\text{m}^3$ was exceeded three times at the MAML location.
- The maximum level measured at Topaz Station over the same period was 316 $\mu\text{g}/\text{m}^3$.

6. Data Summary – 1-hour Averages

Table 6.1 Current 1-Hour Air Quality Guidelines ($\mu\text{g}/\text{m}^3$)

	NO	NO₂	SO₂	PM₁₀	PM_{2.5}
CRD	--	200	--	--	--
Can –Max Acceptable	--	400	--	--	--
World Health Org	--	200	--	--	--
BC Level A	--	--	450	--	--
Can Max Desirable	--	--	450	--	--
Proposed US EPA	--	--	135 - 265	--	--

Table 6.2 MAML 1-Hour Summary ($\mu\text{g}/\text{m}^3$)

Overall	NO	NO₂	SO₂	PM₁₀	PM_{2.5}
Min	0.0	0.4	0.0	1.0	0.0
Max	341.3	78.5	447.8	61.0	32.0
Avg	10.3	16.8	12.1	10.9	7.5
Med	2.7	13.4	2.7	10.0	7.0
Stdev	29.8	13.1	40.7	6.4	4.2
Total hours	1,956	1,956	1,962	2,070	2,070
% Complete	94.4	94.4	94.6	99.9	99.9

Percentiles	NO	NO₂	SO₂	PM₁₀	PM_{2.5}
5th	0.0	2.4	0.2	3.0	2.0
25th	0.5	7.1	1.1	7.0	5.0
50th	2.7	13.4	2.7	10.0	7.0
75th	7.5	22.6	5.1	14.0	9.9
90th	18.3	34.4	14.3	19.0	14.0
95th	34.0	42.5	48.9	23.0	16.0
96th	45.6	46.1	80.6	25.0	16.0
97th	67.9	49.4	113.7	26.0	17.0
98th	122.2	55.5	164.6	28.0	18.0
99th	168.3	63.0	247.6	32.0	20.0
100th	341.3	78.5	447.8	61.0	32.0

Exceedences:

- The lowest level of the 1-hour guideline proposed by the US Environmental Protection Agency for SO₂ ($135 \mu\text{g}/\text{m}^3$) was exceeded no more than 2.5 percent of the hours (50 out of the 1,962 hours with valid data).

Table 6. 3 TOPAZ 1-Hour Summary ($\mu\text{g}/\text{m}^3$)

Overall	NO	NO₂	SO₂	PM_{2.5}
Min	0.0	0.4	0.6	0.0
Max	125.5	100.3	169.8	30.0
Avg	8.0	19.2	6.0	5.9
Med	3.5	16.5	2.4	5.0
Stdev	12.3	13.8	11.9	4.5
Total Hours	1,948	1,947	1,978	2,020
% Complete	93.3	93.2	94.7	96.7

Percentiles	NO	NO₂	SO₂	PM_{2.5}
5th	0.0	3.8	1.1	0.0
25th	0.7	8.8	1.7	3.0
50th	3.5	16.5	2.4	5.0
75th	9.7	25.6	4.8	8.0
90th	21.0	36.4	11.8	12.0
95th	31.1	46.3	23.7	15.0
98th	46.1	58.8	48.8	19.0
99th	59.9	64.6	60.5	21.0
100th	125.5	100.3	169.8	30.0

Exceedences:

- The lowest level of the 1-hour guideline proposed by the US Environmental Protection Agency for SO₂ (135 $\mu\text{g}/\text{m}^3$) was exceeded once (1 out of the 1,978 hours with valid data).

Table 6.4 MAML - Twenty Highest 1-Hour Averages

NO				NO ₂				SO ₂				PM ₁₀				PM _{2.5}			
Date	Time	µg/m ³	#cruise	Date	Time	µg/m ³	#cruise	Date	Time	µg/m ³	#cruise	Date	Time	µg/m ³	#cruise	Date	Time	µg/m ³	#cruise
18-Jul-09	18:00	341.3	2	5-Jun-09	19:00	78.5	2	13-Jun-09	17:00	448	1+2nr	10-Jun-09	9:00	61	1	4-Aug-09	21:00	32	0
5-Jun-09	19:00	321.5	2	11-Jun-09	19:00	75.2	1+2nr	5-Jun-09	19:00	448	2	1-Jun-09	20:00	48	0	4-Aug-09	22:00	30	0
18-Jul-09	19:00	311.7	2+1nr	6-Aug-09	22:00	75.0	2	18-Jul-09	18:00	381	2	2-Jun-09	9:00	43	0	4-Aug-09	23:00	28	0
13-Jun-09	17:00	299.5	1+2nr	13-Jun-09	17:00	74.1	1+2nr	18-Jul-09	19:00	354	2+1nr	4-Aug-09	20:00	42	0	4-Aug-09	0:00	28	0
13-Jun-09	22:00	268.6	3	10-Jun-09	18:00	72.7	2	13-Jun-09	22:00	351	3	3-Jun-09	8:00	41	0	4-Aug-09	20:00	27	0
21-Aug-09	20:00	258.2	2	13-Jun-09	21:00	71.8	3	5-Jun-09	18:00	322	1+1nr	3-Jun-09	9:00	40	0+1nr	28-Jul-09	23:00	24	0
21-Aug-09	21:00	246.2	2	19-Jun-09	23:00	71.2	2	21-Aug-09	21:00	313	2	2-Jun-09	8:00	40	0	5-Aug-09	1:00	24	0
20-Jun-09	18:00	239.7	3	11-Jun-09	21:00	70.6	2	13-Jun-09	21:00	305	3	6-Jun-09	14:00	39	1	28-Jul-09	0:00	23	0
13-Jun-09	21:00	227.3	3	13-Jun-09	22:00	68.9	3	21-Aug-09	20:00	305	2	1-Jun-09	17:00	39	0	2-Jun-09	7:00	22	0
17-Jul-09	19:00	227.0	2+1nr	13-Jun-09	19:00	67.8	3	13-Jun-09	19:00	300	3	3-Jun-09	21:00	38	1	6-Jun-09	13:00	22	1
19-Jun-09	19:00	223.4	2	19-Jun-09	20:00	67.6	2	11-Jun-09	19:00	289	1+2nr	29-Jul-09	16:00	37	1+1nr	29-Jul-09	21:00	22	0
5-Jun-09	18:00	219.4	1+1nr	10-Jun-09	20:00	67.4	2	17-Jun-09	17:00	288	2	4-Aug-09	21:00	36	0	29-Jul-09	1:00	21	0
19-Jun-09	18:00	219.0	1+1nr	10-Jun-09	23:00	66.8	2	10-Jun-09	18:00	278	2	2-Jun-09	7:00	36	0	3-Jun-09	3:00	21	0+1nr
13-Jun-09	19:00	212.1	3	6-Aug-09	21:00	66.8	2	11-Jun-09	21:00	278	2	6-Jun-09	13:00	35	1	3-Jun-09	2:00	21	1
19-Jun-09	20:00	207.3	2	20-Jun-09	18:00	65.9	3	19-Jun-09	18:00	274	1+1nr	3-Jun-09	7:00	35	0	2-Jun-09	0:00	21	0
19-Jun-09	23:00	201.8	2	5-Jun-09	18:00	65.3	1+1nr	20-Jun-09	18:00	268	2+1nr	28-Jul-09	17:00	34	0	2-Jun-09	6:00	21	0
17-Jun-09	17:00	186.6	2	13-Jun-09	20:00	65.1	3	10-Jun-09	23:00	258	2	17-Aug-09	8:00	34	0	29-Jul-09	20:00	20	0
25-Jun-09	16:00	180.5	2	19-Jun-09	18:00	64.7	1+1nr	19-Jun-09	20:00	258	2	28-Jul-09	23:00	33	0	28-Jul-09	22:00	20	0
18-Jul-09	21:00	173.5	3	19-Jun-09	19:00	63.9	2	19-Jun-09	23:00	252	2	4-Aug-09	22:00	33	0	2-Jun-09	23:00	20	0
10-Jun-09	18:00	170.4	2	11-Jun-09	18:00	63.0	2+1nr	13-Jun-09	23:00	248	3	1-Jun-09	19:00	32	0	6-Jun-09	12:00	20	1

*nr = cruise ship reported arriving in hour before or hour after

Marine Vessels in Addition to Cruise Ships

Vessel Name	Type	Arrival	Departure	Interpretation
Pac Alnath	Freighter	6/8/2009 13:00	6/10/2009 12:00	• Large vessels other than cruise ships do not appear to have much influence on the highest twenty measured 1-hour average levels of NO, NO ₂ and SO ₂ .
Archimedes	Super Yacht	6/9/2009 13:00	6/10/2009 6:00	
Joides Resolution	Scientific Research Vessel	7/5/2009 7:00	7/10/2009 7:00	• Cruise ships do not appear to have much influence on the highest twenty 1-hour average measured levels of PM ₁₀ and PM _{2.5} .
Viking Vision	Scientific Research Vessel	7/12/2009 7:00	7/15/2009 23:59	
Lodbrok	Fishing Vessel	8/19/2009 22:30	8/20/2009 12:30	

7. Data Summary – 24-hour Averages

Table 7.1 Current 24-Hour Air Quality Guidelines ($\mu\text{g}/\text{m}^3$)

	NO	NO₂	SO₂	PM₁₀	PM_{2.5}
CRD	--	--	125	50	25
Canada –Max Acceptable	--	200	--	--	--
Canada Wide Standard*	--	--	--	--	30
World Health Org	--	--	20	50	25
BC Ambient Objective	--	--	160	50	25
Can Max Desirable	--	--	150	--	--

* The Canada Wide Standard for PM_{2.5} is considered to be exceeded when the average of the 98th percentile for each of three consecutive years is above 30 $\mu\text{g}/\text{m}^3$.

Table 7.2 MAML 24-Hour Summary ($\mu\text{g}/\text{m}^3$)*

Overall	NO	NO₂	SO₂	PM₁₀	PM_{2.5}
Min	0.6	3.3	0.5	2.1	1.6
Max	67.7	40.0	122.0	26.6	16.7
Avg	10.3	16.8	12.3	10.9	7.5
Med	5.1	15.9	3.9	10.0	6.9
Stddev	13.4	7.8	21.5	5.0	3.5

Percentiles	NO	NO₂	SO₂	PM₁₀	PM_{2.5}
5th	1.4	5.9	1.2	4.6	3.1
25th	3.2	10.9	2.6	7.5	4.7
50th	5.1	15.9	3.9	10.0	6.9
75th	10.3	21.9	9.4	13.0	9.0
80th	10.8	24.1	14.0	14.0	9.8
84th	13.6	25.1	17.7	15.1	10.7
85th	14.1	25.5	22.0	15.3	11.0
90th	27.6	26.9	34.5	17.9	12.9
95th	40.6	28.8	55.4	20.6	14.6
98th	56.3	31.9	79.7	24.7	16.5
99th	63.4	33.5	102.7	25.5	16.6
100th	67.7	40.0	122.0	26.6	16.7

* 87 days with valid data

Exceedences:

- The World Health Organization 24-hour guideline for SO₂ (20 $\mu\text{g}/\text{m}^3$) was exceeded 16 percent of the time (14 days out of 87).

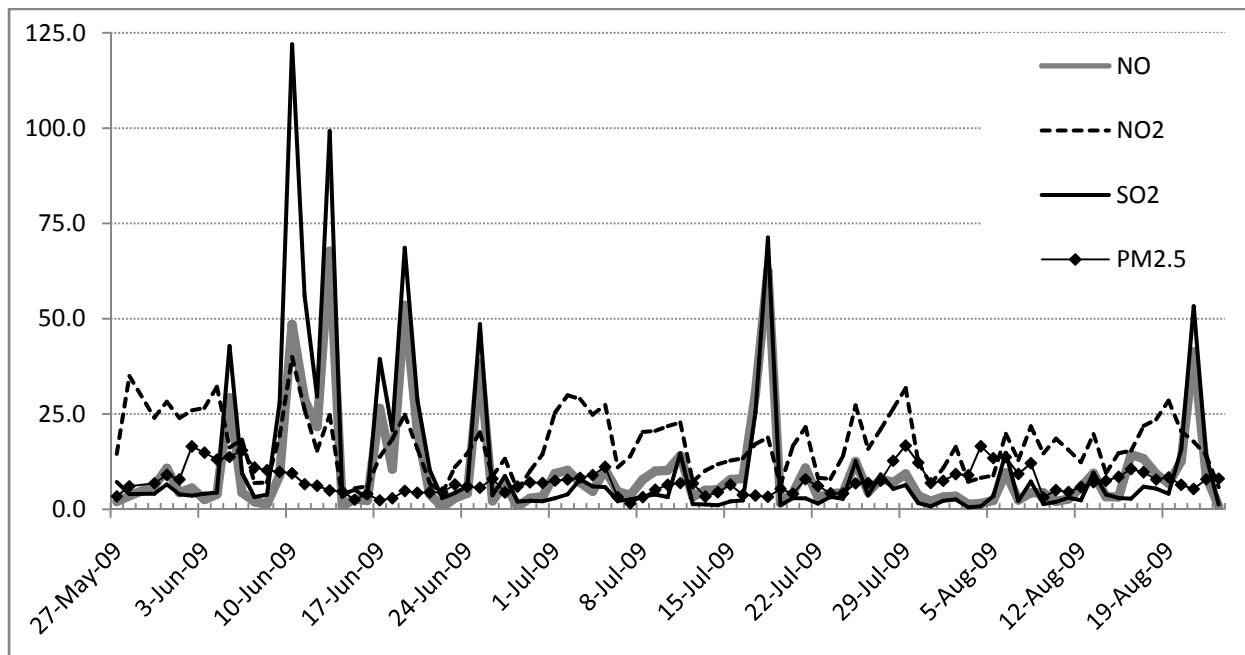


Figure 7.1. MAML 24-Hour Average Levels ($\mu\text{g}/\text{m}^3$)

Interpretation:

- At the MAML site, 24-hour average SO₂ and NO followed similar trends over time. This suggests a common source and would be consistent with nearby cruise ship emissions.
- NO₂ sometimes followed the same trend as SO₂ and NO, but not consistently. The relationship between NO and NO₂ is complex as NO is converted with time and distance from the source. These data suggest more than one source of NO₂ at the MAML site.
- PM_{2.5} levels occasionally followed the same trend as NO, NO₂ or SO₂. This suggests there are multiple sources of PM_{2.5} in the study area.

Table 7.3 MAML - Fifteen Highest 24-Hour Averages

NO			NO ₂			SO ₂			PM ₁₀			PM _{2.5}		
date	µg/m ³	#cruise	date	µg/m ³	#cruise	date	µg/m ³	#cruise	date	µg/m ³	#cruise	date	µg/m ³	#cruise
13-Jun-09	67.7	3	10-Jun-09	40.0	3	10-Jun-09	122	3	3-Jun-09	27	2	29-Jul-09	17	2
18-Jul-09	62.6	3	28-May-09	35.0	3	13-Jun-09	99	3	2-Jun-09	25	0	4-Aug-09	17	0
19-Jun-09	53.6	2	4-Jun-09	32.2	3	18-Jul-09	71	3	29-Jul-09	24	2	2-Jun-09	17	0
10-Jun-09	48.5	3	29-Jul-09	31.8	2	19-Jun-09	69	2	6-Jun-09	21	4	6-Jun-09	15	4
21-Aug-09	41.3	2	2-Jul-09	29.9	3	11-Jun-09	56	4	28-Jul-09	21	0	3-Jun-09	15	2
25-Jun-09	38.3	1	3-Jul-09	29.0	2	21-Aug-09	53	2	4-Jun-09	21	3	5-Jun-09	14	2
17-Jul-09	30.3	3	19-Aug-09	28.5	1	25-Jun-09	49	1	4-Aug-09	20	0	6-Aug-09	14	3
5-Jun-09	29.3	2	31-May-09	28.3	0	5-Jun-09	43	2	5-Jun-09	20	2	5-Aug-09	13	1
11-Jun-09	28.7	4	5-Jul-09	27.4	1	17-Jun-09	39	2	30-Jul-09	18	2	4-Jun-09	13	3
17-Jun-09	26.5	2	25-Jul-09	27.3	3	12-Jun-09	30	2	6-Aug-09	17	3	28-Jul-09	13	0
12-Jun-09	21.7	2	3-Jun-09	26.6	2	20-Jun-09	29	3	1-Jun-09	17	1	30-Jul-09	12	2
20-Jun-09	20.9	3	28-Jul-09	26.4	0	9-Jun-09	28	0	5-Aug-09	17	1	8-Aug-09	12	3
16-Aug-09	14.4	0	11-Jun-09	26.1	4	17-Jul-09	26	3	7-Jun-09	15	0	5-Jul-09	11	1
11-Jul-09	14.1	4	2-Jun-09	26.0	0	18-Jun-09	21	3	8-Jun-09	15	0	7-Jun-09	11	0
17-Aug-09	13.3	0	1-Jul-09	25.4	1	20-Aug-09	16	3	5-Jul-09	15	1	16-Aug-09	11	0

Table 7.4 TOPAZ 24-Hour Summary ($\mu\text{g}/\text{m}^3$)*

Overall	NO	NO₂	SO₂	PM_{2.5}
Min	0.9	4.8	1.3	1.2
Max	23.5	41.7	28.4	17.2
Avg	7.9	19.1	6.0	5.8
Med	6.7	17.4	4.0	5.5
Stdev	5.3	8.6	5.4	3.3

Percentiles	NO	NO₂	SO₂	PM_{2.5}
5th	1.7	7.7	1.6	1.6
25th	4.3	13.1	2.3	3.1
50th	6.7	17.4	4.0	5.5
75th	10.1	23.9	8.1	7.4
90th	16.6	30.6	12.2	10.0
95th	19.2	36.1	17.6	12.3
98th	21.8	37.8	22.4	14.2
99th	22.1	40.6	24.8	15.5
100th	23.5	41.7	28.4	17.2

* 87 days matching those with valid data at MAML

Exceedences:

- The World Health Organization 24-hour guideline for SO₂ (20 $\mu\text{g}/\text{m}^3$) was exceeded 3.5 percent of the time (3 days out of 87).

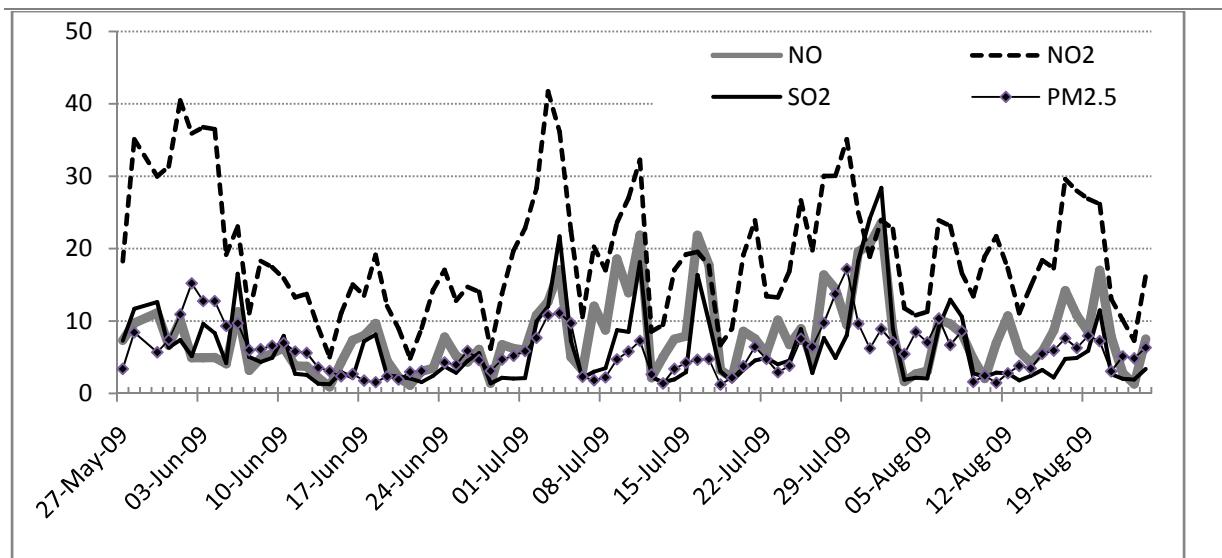


Figure 7.2. TOPAZ 24-Hour Average Levels ($\mu\text{g}/\text{m}^3$)

Interpretation:

- Trends at TOPAZ were not as clear as those seen at MAML. There was some coincidence in the trends of SO₂, NO and NO₂, suggesting a common source or regional influences.
- PM_{2.5} levels occasionally followed the same trend as NO, NO₂ or SO₂. This suggests multiple sources of PM_{2.5} affect the study area.

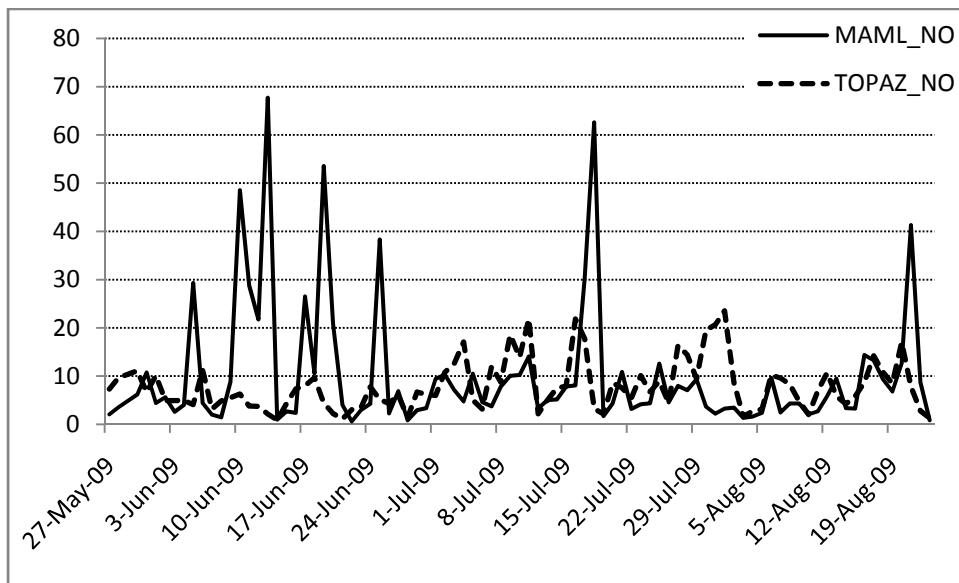


Figure 7.3. NO - MAML and TOPAZ 24-Hour Average Levels ($\mu\text{g}/\text{m}^3$)

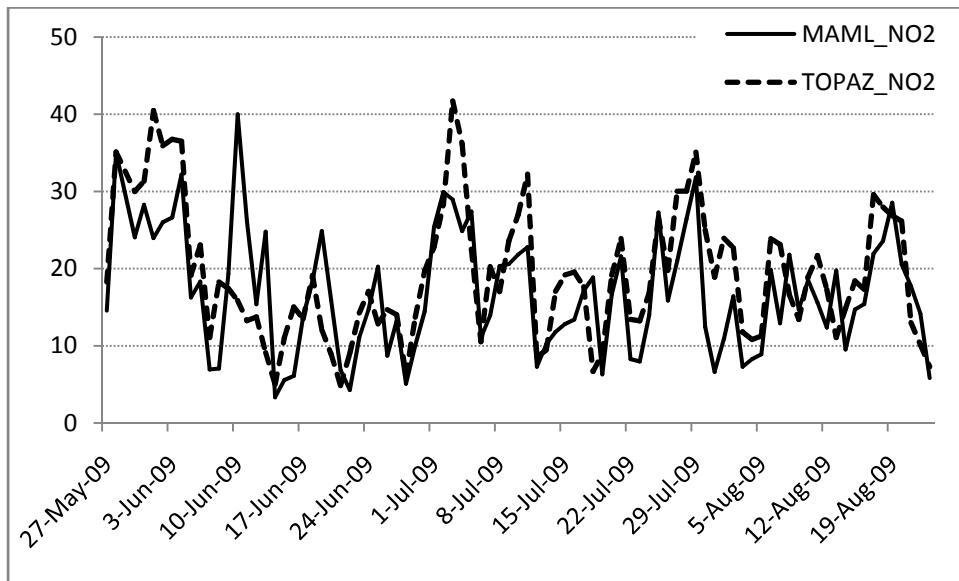


Figure 7.4. NO_2 – MAML and TOPAZ 24-Hour Average Levels ($\mu\text{g}/\text{m}^3$)

Interpretation:

- NO levels occasionally followed the same trend at MAML and TOPAZ, suggesting a common source can influence both sites under some conditions.
- NO_2 levels coincided more frequently at MAML and TOPAZ, indicating either a common source or regional influences.

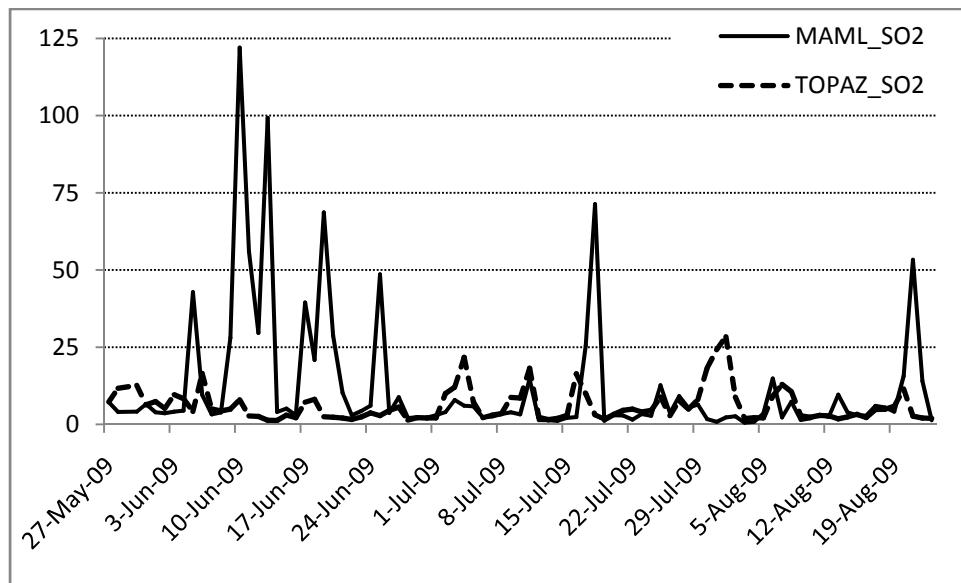


Figure 7.5 SO_2 – MAML and TOPAZ 24-Hour Average Levels ($\mu\text{g}/\text{m}^3$)

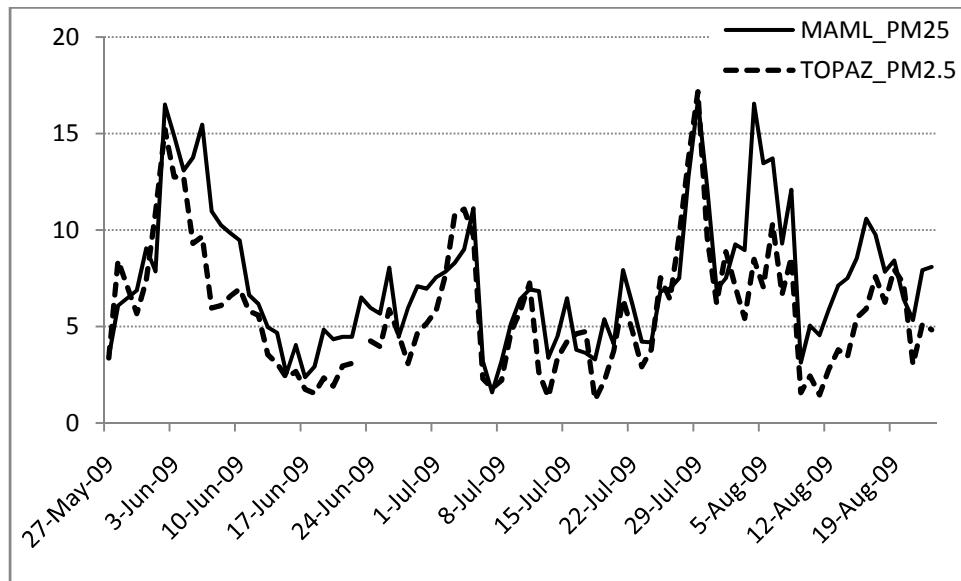


Figure 7.6 $\text{PM}_{2.5}$ – MAML and TOPAZ 24-Hour Average Levels ($\mu\text{g}/\text{m}^3$)

Interpretation:

- SO_2 levels occasionally followed the same trend at MAML and TOPAZ, suggesting a common source can influence both sites under some conditions.
- $\text{PM}_{2.5}$ levels coincided frequently at MAML and TOPAZ, indicating either a common source or regional influences.

8. Cruise Ship Source Analysis - Hourly Averages

Table 8.1 MAML 1-Hour Averages for Days with Cruise Ships in Port ($\mu\text{g}/\text{m}^3$)*

Percentiles	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}
5th	0.0	2.7	0	2	2
25th	0.7	8.4	1	7	4
50th	3.4	15.5	3	10	7
75th	9.2	25.7	7	14	9
90th	23.5	38.9	27	20	14
95th	60.3	48.5	109	24	16
98th	157.0	60.1	216	28	18
99th	216.5	66.8	278	30	19
100th	341.3	78.5	448	61	24

* 55 days

Table 8.2 MAML 1-Hour Averages for Days without Cruise Ships in Port ($\mu\text{g}/\text{m}^3$)*

Percentiles	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}
5th	0.0	2.1	0	3	2
25th	0.2	5.8	1	7	5
50th	1.7	10.7	2	10	7
75th	5.7	17.6	3	13	10
90th	12.2	26.6	7	19	13
95th	18.7	31.8	11	23	15
98th	26.7	38.8	19	29	19
99th	43.8	41.5	38	33	21
100th	67.9	51.7	93	43	32

* 31 days

Table 8.3 TOPAZ 1-Hour Averages for Days with Cruise Ships in Port ($\mu\text{g}/\text{m}^3$)*

Percentiles	NO	NO ₂	SO ₂	PM _{2.5}
5th	0.0	4.0	1.1	0.0
25th	0.9	9.6	1.9	3.0
50th	4.2	17.4	2.9	5.0
75th	11.6	27.4	6.1	9.0
90th	24.6	40.4	16.9	12.0
95th	34.3	50.2	32.5	15.0
98th	52.4	61.8	55.0	19.0
99th	61.8	66.5	71.3	22.0
100th	125.5	100.3	169.8	30.0

* 55 days

Table 8.4 TOPAZ 1-Hour Averages for Days without Cruise Ships in Port ($\mu\text{g}/\text{m}^3$)*

Percentiles	NO	NO ₂	SO ₂	PM _{2.5}
5th	0.0	3.6	1.1	0.0
25th	0.6	8.4	1.5	2.0
50th	2.7	14.7	2.2	4.0
75th	7.9	22.8	3.2	7.0
90th	14.0	31.2	5.9	10.0
95th	23.4	37.0	9.0	14.0
98th	35.5	47.0	12.9	17.0
99th	50.0	55.4	19.5	19.0
100th	93.8	94.6	77.7	27.0

* 31 days

Interpretation:

The above tables and the following graphs suggest that:

- NO, NO₂ and SO₂ levels were always higher on days with cruise ships in port than on days without, at both MAML and TOPAZ. This suggests cruise ships are a major source of NO, NO₂ and SO₂ in the study area.
- Levels of PM₁₀ and PM_{2.5} were generally similar at both sites on days with and without cruise ships in port. This suggests cruise ships are not a dominant source of PM_{2.5} in the region.
- The Report on CRD AQ 2008 presents a more refined comparison, including categorization by weekdays and weekends.³

³ **Air Quality in the Capital Regional District 2008.** Prepared by SENES Consultants Limited for the Capital Regional District Environmental Services Department, November 2009. Available from the Capital Regional District.

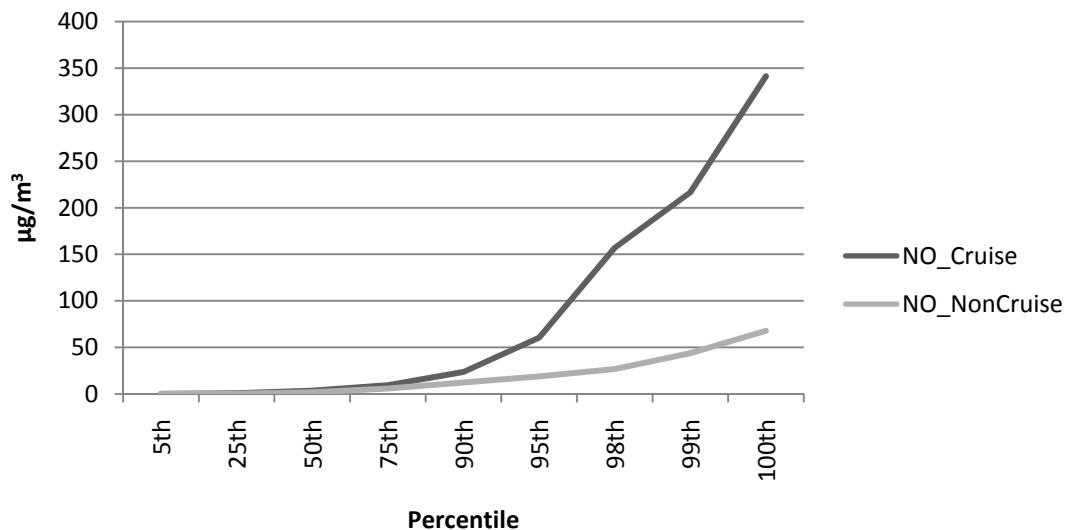


Figure 8.1. MAML NO 1-hour Frequency Distribution

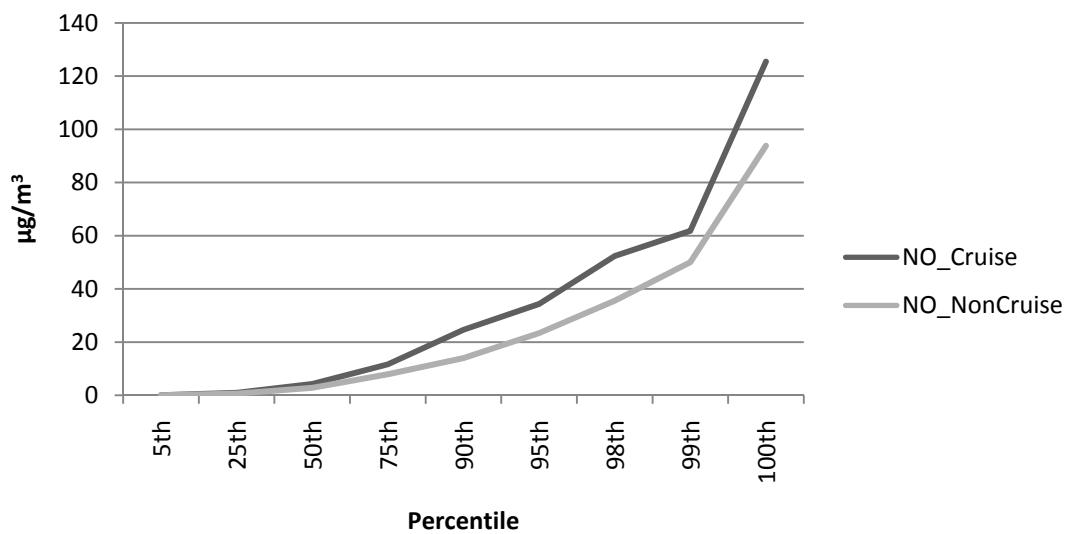


Figure 8.2. TOPAZ NO 1-hour Frequency Distribution

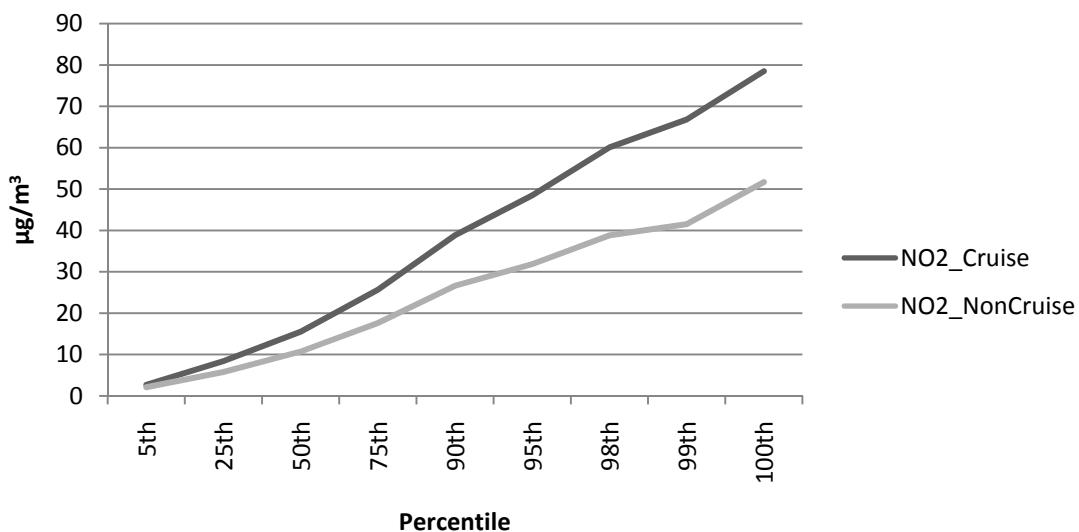


Figure 8.3. MAML NO₂ 1-hour Frequency Distribution

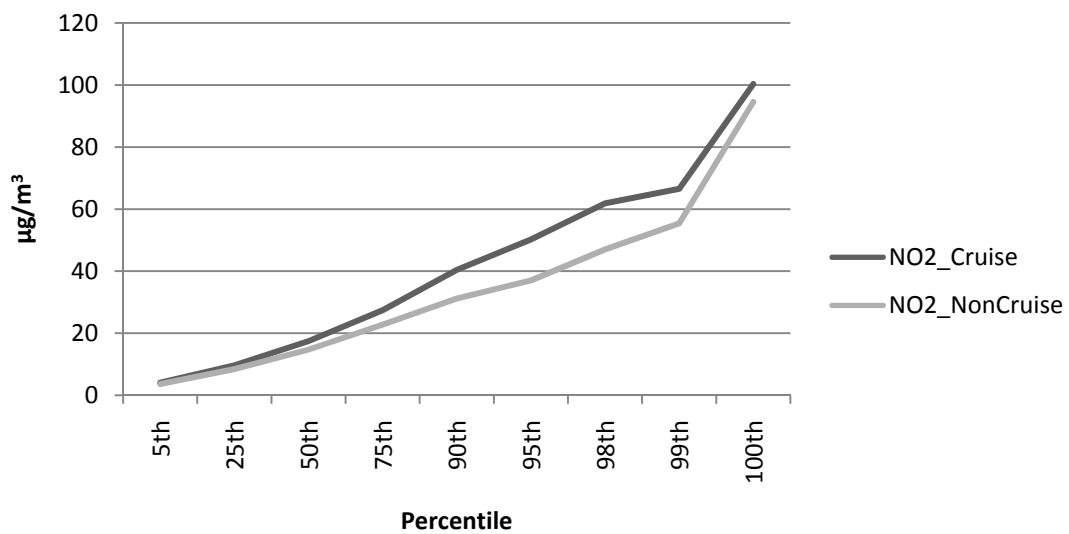


Figure 8.4. TOPAZ NO₂ 1-hour Frequency Distribution

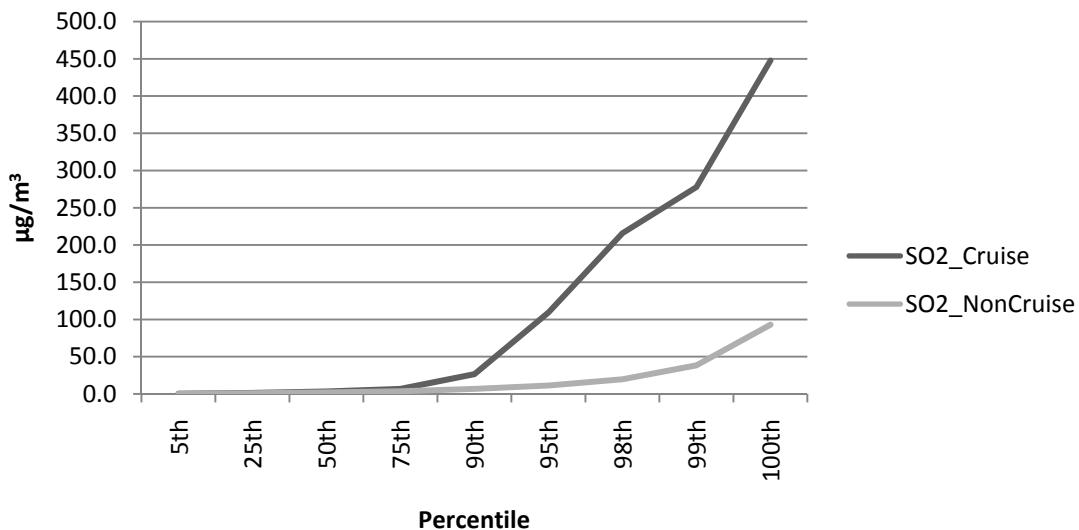


Figure 8.5. MAML SO₂ 1-hour Frequency Distribution

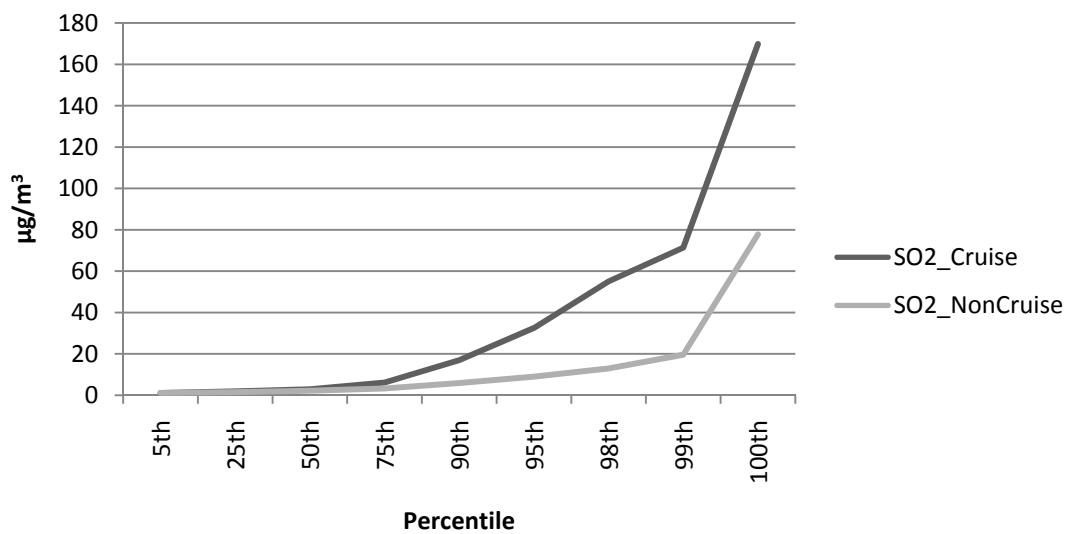


Figure 8.6. TOPAZ SO₂ 1-hour Frequency Distribution

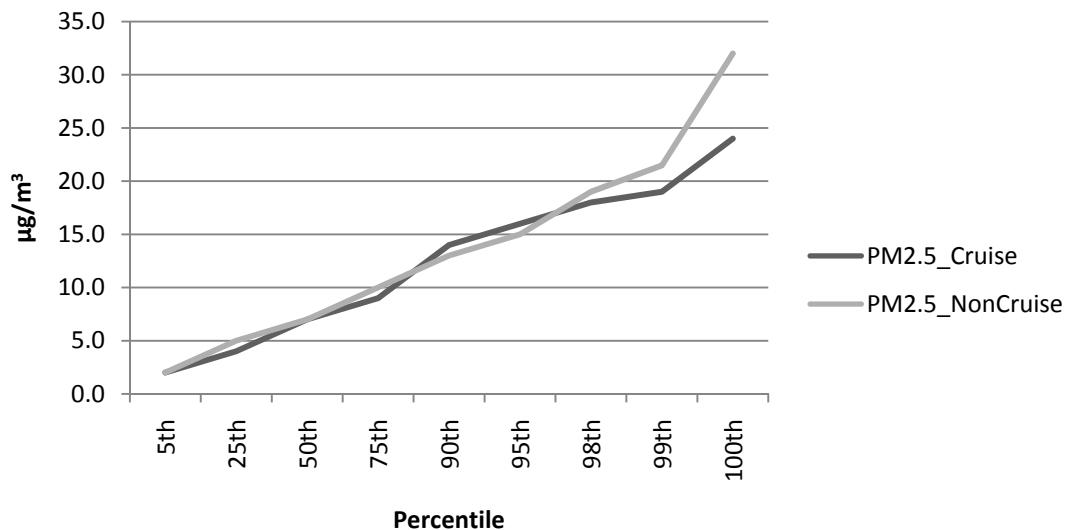


Figure 8.7. MAML PM_{2.5} 1-hour Frequency Distribution

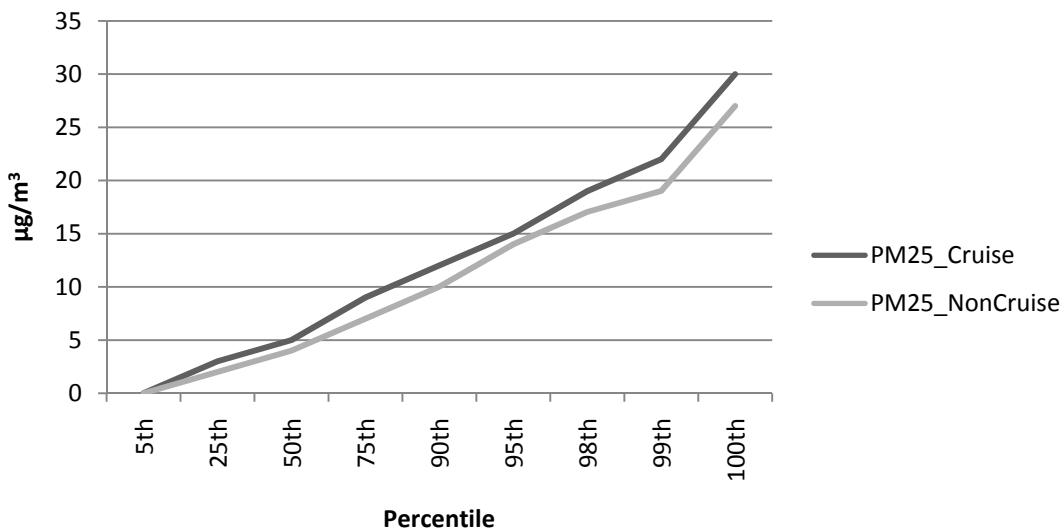


Figure 8.8. TOPAZ PM_{2.5} 1-hour Frequency Distribution

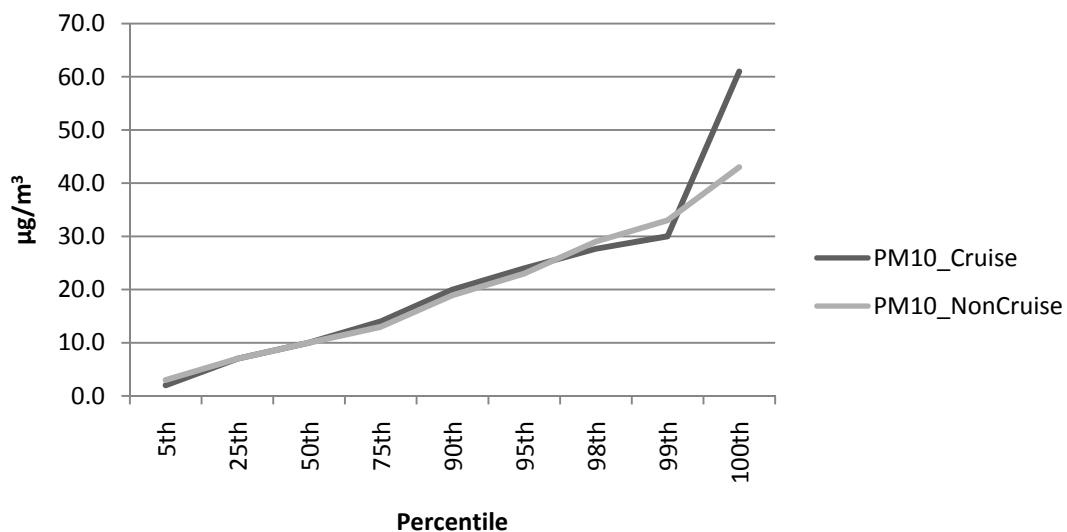


Figure 8.9. MAML PM₁₀ 1-hour Frequency Distribution

9. Cruise Ship Source Analysis - Diurnal Pattern of Hourly Averages⁴

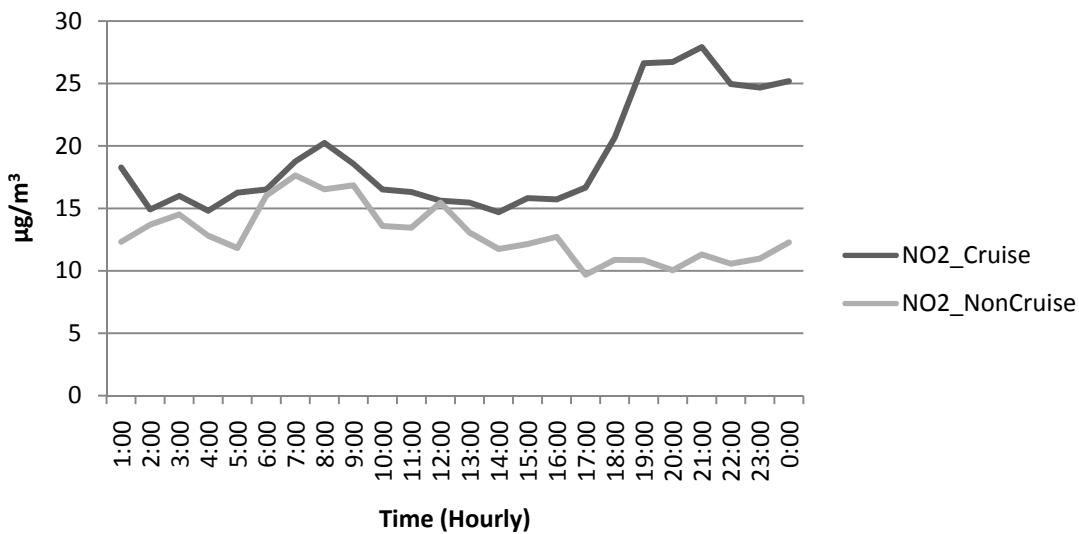


Figure 9.1. MAML NO₂ Diurnal Pattern

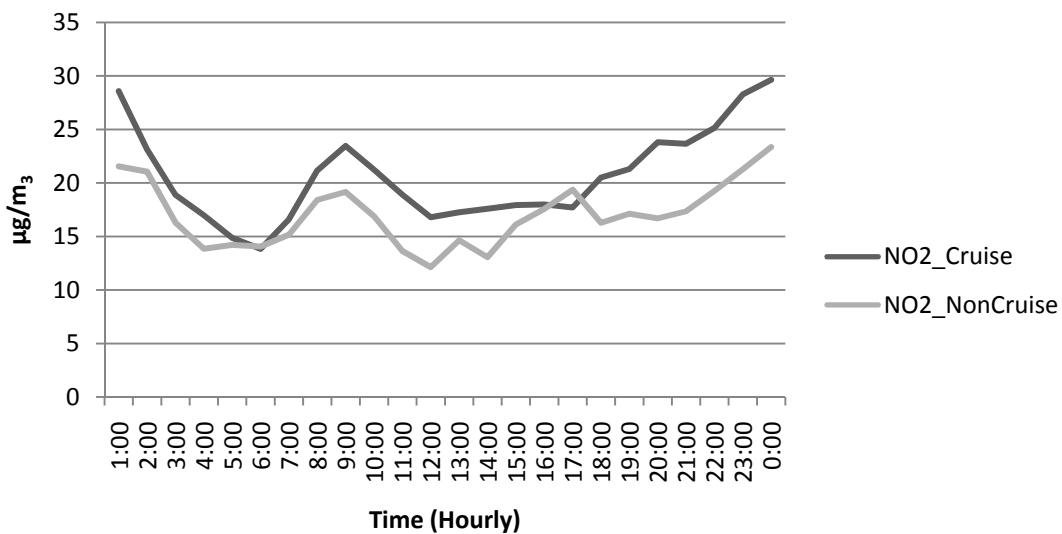


Figure 9.2. TOPAZ NO₂ Diurnal Pattern

Interpretation:

- Average NO₂ was always higher at MAML, and almost always higher at TOPAZ on hours with cruise ships in port. The largest difference was observed at MAML between 17:00 and 01:00 hours.

⁴ All measures taken within the same hourly period on days with or without cruise ships are averaged and shown in these graphs. In total, cruise ships were present on 55 days, and not present on the remaining 31 days.

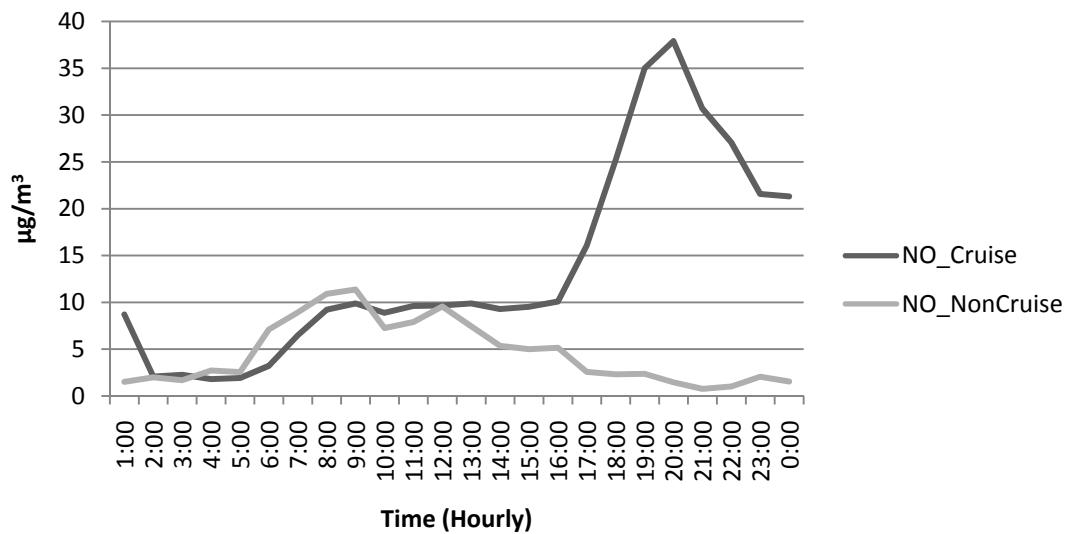


Figure 9.3. MAML NO Diurnal Pattern

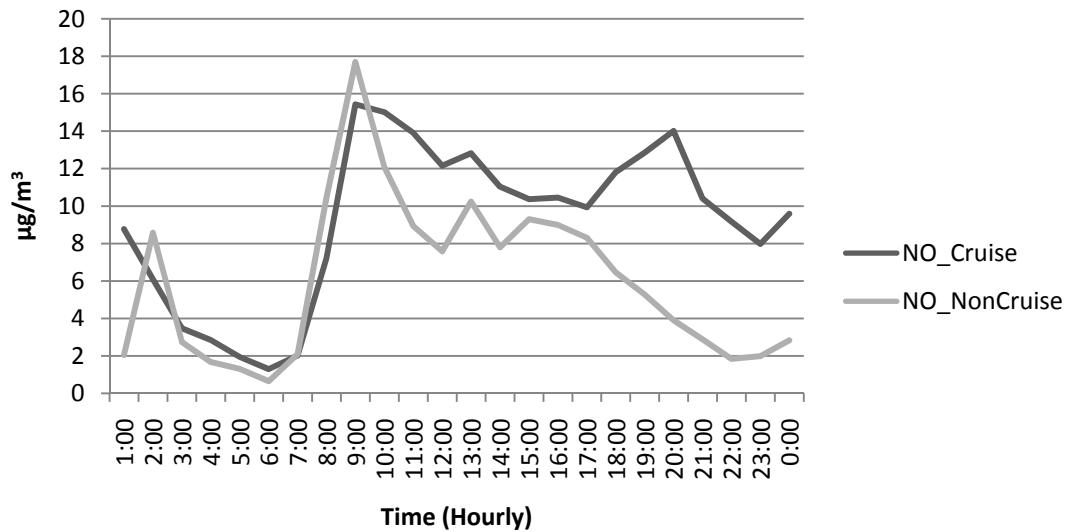


Figure 9.4. TOPAZ NO Diurnal Pattern

Interpretation:

- Average NO was always higher at MAML and TOPAZ between 10:00am to 01:00am on hours with cruise ships in port, with larger differences seen after 16:00. The largest difference was observed at MAML.

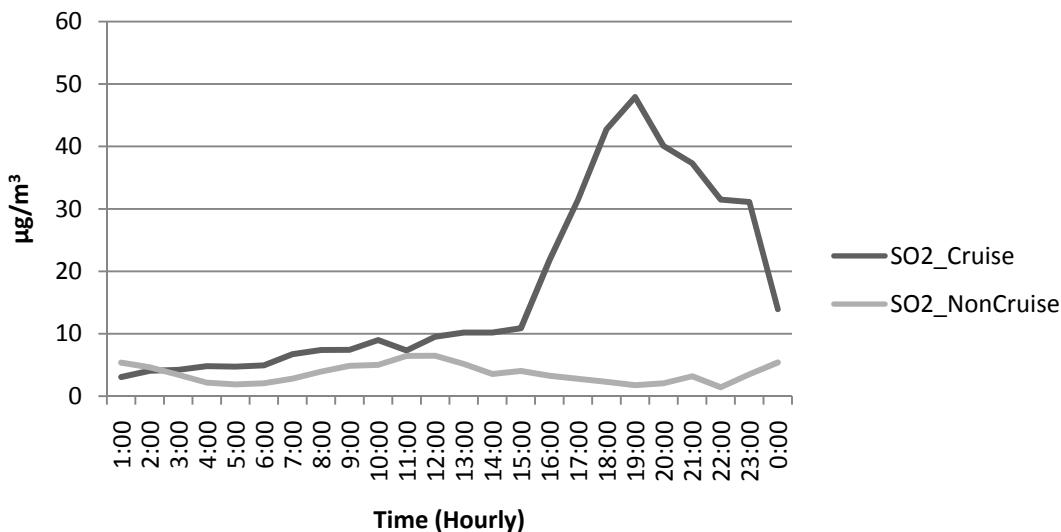


Figure 9.5. MAML SO₂ Diurnal Pattern

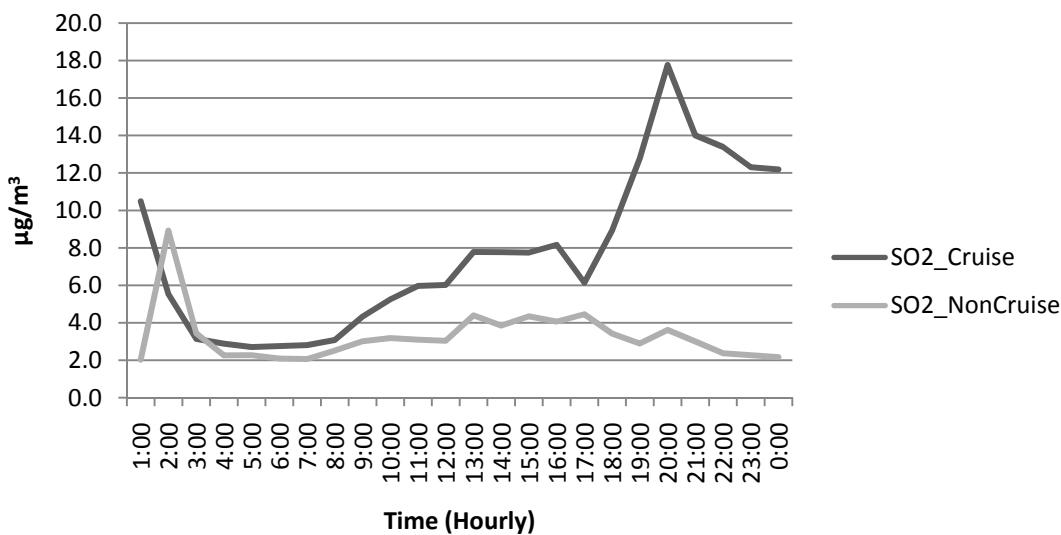


Figure 9.6. TOPAZ SO₂ Diurnal Pattern

Interpretation:

- Average SO₂ was always higher at MAML and TOPAZ (with the exception of midnight to 02:00) during hours with cruise ships in port. The largest difference was observed at MAML between 16:00 and 23:00 hours.
- The Report on CRD AQ 2008 presents a more refined comparison, including categorization by weekdays and weekends.⁵

⁵ **Air Quality in the Capital Regional District 2008.** Prepared by SENES Consultants Limited for the Capital Regional District Environmental Services Department, November 2009. Available from the Capital Regional District.

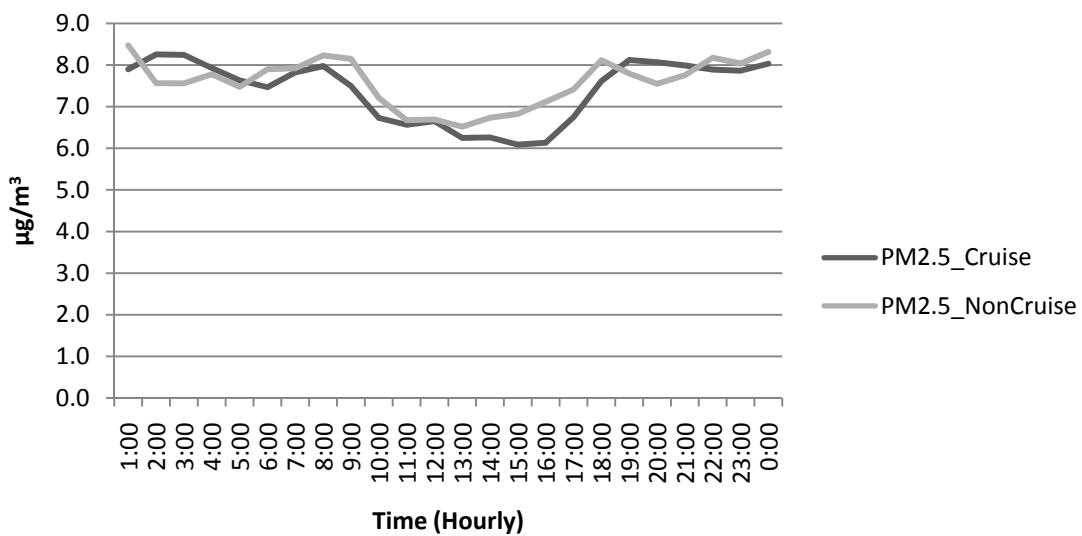


Figure 9.7. MAML PM_{2.5} Diurnal Pattern

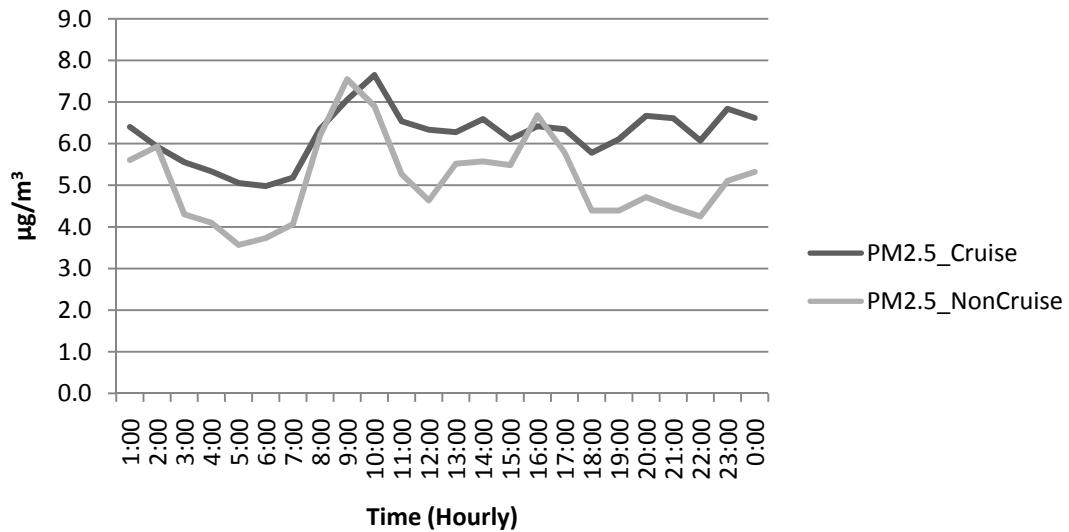


Figure 9.8. TOPAZ PM_{2.5} Diurnal Pattern

Interpretation:

- Average $\text{PM}_{2.5}$ was similar on days with and without cruise ships at MAML, and more frequently higher by a few $\mu\text{g}/\text{m}^3$ at TOPAZ during hours with cruise ships.

Appendix I – Cruise Ship Schedule

VESSEL NAME	DATE	Arrival	Departure
CARNIVAL SPLENDOR	05/27/2009	12:49	0:45
MARINER OF THE SEAS	05/27/2009	11:40	23:53
PACIFIC PRINCESS	05/27/2009	16:23	23:38
CELEBRITY INFINITY	05/28/2009	15:43	22:04
RHAPSODY OF THE SEAS	05/28/2009	8:38	17:47
ZAANDAM	05/28/2009	19:17	23:44
NORWEGIAN PEARL	05/30/2009	17:40	23:48
STAR PRINCESS	05/30/2009	17:10	23:59
WESTERDAM	05/30/2009	17:44	23:39

VESSEL NAME	DATE	Arrival	Departure
SEA PRINCESS	1/6/2009	5:12	11:26
CARNIVAL SPLENDOR	3/6/2009	9:25	1:01
MARINER OF THE SEAS	3/6/2009	11:21	23:40
CELEBRITY INFINITY	4/6/2009	13:37	22:47
RHAPSODY OF THE SEAS	4/6/2009	8:42	17:45
ZAANDAM	4/6/2009	19:22	23:48
AMSTERDAM	5/6/2009	17:47	23:26
GOLDEN PRINCESS	5/6/2009	18:24	23:54
NORWEGIAN PEARL	6/6/2009	17:38	23:45
SILVER SHADOW	6/6/2009	9:57	17:08
STAR PRINCESS	6/6/2009	16:45	0:01
WESTERDAM	6/6/2009	18:04	23:34
CARNIVAL SPLENDOR	10/6/2009	8:11	1:24
MARINER OF THE SEAS	10/6/2009	11:24	23:30
PACIFIC PRINCESS	10/6/2009	16:39	23:45
CELEBRITY INFINITY	11/6/2009	14:55	22:35
RHAPSODY OF THE SEAS	11/6/2009	8:45	17:49
SEA PRINCESS	11/6/2009	5:47	14:16
ZAANDAM	11/6/2009	19:21	23:54
AMSTERDAM	12/6/2009	17:38	23:29
GOLDEN PRINCESS	12/6/2009	18:12	23:55
NORWEGIAN PEARL	06/13/2009	17:43	23:32
STAR PRINCESS	06/13/2009	16:48	0:09
WESTERDAM	06/13/2009	17:53	23:42
SILVER SHADOW	06/15/2009	11:34	23:54
CARNIVAL SPLENDOR	06/17/2009	8:33	0:06
MARINER OF THE SEAS	06/17/2009	11:27	23:36
CELEBRITY INFINITY	06/18/2009	14:09	22:42
RHAPSODY OF THE SEAS	06/18/2009	8:45	17:43

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VESSEL NAME	DATE	Arrival	Departure
ZAANDAM	06/18/2009	19:45	23:59
AMSTERDAM	06/19/2009	17:45	23:25
GOLDEN PRINCESS	06/19/2009	18:38	23:59
NORWEGIAN PEARL	06/20/2009	17:33	23:33
STAR PRINCESS	06/20/2009	16:43	0:05
WESTERDAM	06/20/2009	18:00	23:43
SEA PRINCESS	06/21/2009	5:37	14:12
PACIFIC PRINCESS	06/24/2009	14:59	23:38
CELEBRITY INFINITY	06/25/2009	13:41	21:54
RHAPSODY OF THE SEAS	06/25/2009	8:50	17:41
AMSTERDAM	06/26/2009	17:50	23:23
NORWEGIAN PEARL	06/27/2009	17:18	23:42
STAR PRINCESS	06/27/2009	16:52	23:58
WESTERDAM	06/27/2009	18:50	23:34

VESSEL NAME	DATE	Arrival	Departure
SEA PRINCESS	1/7/2009	5:36	14:09
CELEBRITY INFINITY	2/7/2009	13:30	22:05
RHAPSODY OF THE SEAS	2/7/2009	9:20	18:25
ZAANDAM	2/7/2009	19:30	23:50
AMSTERDAM	3/7/2009	17:35	23:17
GOLDEN PRINCESS	3/7/2009	18:28	23:48
NORWEGIAN PEARL	4/7/2009	17:40	23:59
STAR PRINCESS	4/7/2009	16:42	23:52
WESTERDAM	4/7/2009	16:10	0:12
SILVER SHADOW	5/7/2009	9:29	16:55
THE WORLD	7/7/2009	6:48	12:49
PACIFIC PRINCESS	8/7/2009	15:48	23:43
CELEBRITY INFINITY	9/7/2009	13:34	21:54
RHAPSODY OF THE SEAS	9/7/2009	8:34	17:51
ZAANDAM	9/7/2009	19:38	23:56
AMSTERDAM	10/7/2009	17:32	23:19
GOLDEN PRINCESS	10/7/2009	18:42	23:59
NORWEGIAN PEARL	11/7/2009	17:38	23:57
SEA PRINCESS	11/7/2009	5:39	14:06
STAR PRINCESS	11/7/2009	16:42	23:42
WESTERDAM	11/7/2009	18:05	0:05
CELEBRITY INFINITY	07/16/2009	13:36	21:56
RHAPSODY OF THE SEAS	07/16/2009	8:16	17:46
ZAANDAM	07/16/2009	19:15	23:50
AMSTERDAM	07/17/2009	17:57	23:46

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

VESSEL NAME	DATE	Arrival	Departure
GOLDEN PRINCESS	07/17/2009	18:48	23:58
SILVER SHADOW	07/17/2009	9:36	17:03
NORWEGIAN PEARL	07/18/2009	17:51	0:01
STAR PRINCESS	07/18/2009	16:42	23:56
WESTERDAM	07/18/2009	19:09	0:13
SEA PRINCESS	07/21/2009	5:58	13:56
PACIFIC PRINCESS	07/22/2009	14:26	23:34
CELEBRITY INFINITY	07/23/2009	13:36	22:00
RHAPSODY OF THE SEAS	07/23/2009	8:25	17:55
ZAANDAM	07/23/2009	18:48	23:38
AMSTERDAM	07/24/2009	17:55	23:21
GOLDEN PRINCESS	07/24/2009	18:32	23:48
NORWEGIAN PEARL	07/25/2009	17:48	23:52
STAR PRINCESS	07/25/2009	16:32	0:01
WESTERDAM	07/25/2009	18:15	23:39
HANSEATIC	07/27/2009	7:32	23:57
HANSEATIC	07/29/2009	7:17	14:01
SILVER SHADOW	07/29/2009	8:45	16:34
CELEBRITY INFINITY	07/30/2009	13:40	21:57
RHAPSODY OF THE SEAS	07/30/2009	8:39	17:54
AMSTERDAM	07/31/2009	17:26	23:20
GOLDEN PRINCESS	07/31/2009	18:26	23:48
SEA PRINCESS	07/31/2009	6:41	14:25

VESSEL NAME	DATE	Arrival	Departure
NORWEGIAN PEARL	1/8/2009	17:45	23:58
STAR PRINCESS	1/8/2009	16:40	23:50
WESTERDAM	1/8/2009	17:59	0:11
PACIFIC PRINCESS	5/8/2009	14:45	23:30
CELEBRITY INFINITY	6/8/2009	13:35	21:45
RHAPSODY OF THE SEAS	6/8/2009	8:35	18:56
ZAANDAM	6/8/2009	19:22	23:45
AMSTERDAM	7/8/2009	16:40	23:17
GOLDEN PRINCESS	7/8/2009	18:20	23:40
NORWEGIAN PEARL	8/8/2009	17:43	23:45
STAR PRINCESS	8/8/2009	16:35	23:49
WESTERDAM	8/8/2009	18:30	0:05
SEA PRINCESS	10/8/2009	6:20	14:10
SILVER SHADOW	10/8/2009	8:48	0:02
CELEBRITY INFINITY	08/13/2009	14:04	21:50
RHAPSODY OF THE SEAS	08/13/2009	8:30	17:47

VESSEL NAME	DATE	Arrival	Departure
ZAANDAM	08/13/2009	18:34	23:33
AMSTERDAM	08/14/2009	17:53	23:13
NORWEGIAN PEARL	08/15/2009	17:50	23:42
STAR PRINCESS	08/15/2009	16:40	23:52
WESTERDAM	08/15/2009	18:28	0:04
PACIFIC PRINCESS	08/19/2009	11:30	23:30
CELEBRITY INFINITY	08/20/2009	14:49	22:00
RHAPSODY OF THE SEAS	08/20/2009	8:40	17:42
SEA PRINCESS	08/20/2009	6:40	14:13
AMSTERDAM	08/21/2009	17:35	23:19
GOLDEN PRINCESS	08/21/2009	18:30	23:53
NORWEGIAN PEARL	08/22/2009	17:40	23:40
STAR PRINCESS	08/22/2009	16:40	23:50
WESTERDAM	08/22/2009	19:36	0:05

Other Marine Vessels

Vessel Name	Type	Arrival	Departure
Pac Alnath	Freighter	6/8/2009 13:00	6/10/2009 12:00
Archimedes	Super Yacht	6/9/2009 13:00	6/10/2009 6:00
Joides Resolution	Scientific Research Vessel	7/5/2009 7:00	7/10/2009 7:00
Viking Vision	Scientific Research Vessel	7/12/2009 7:00	7/15/2009 23:59
Lodbrog	Fishing Vessel	8/19/2009 22:30	8/20/2009 12:30

Appendix II. Instrument List and Calibration Logs

The following table lists the specific instrumentation the MAML monitor is equipped with to conduct air quality measurements, perform equipment calibrations, and record meteorological conditions. This is followed by more specific descriptions of equipment design and operation extracted from equipment user manuals.

Type	Equipment Specifics
Air Quality Measurement	<ul style="list-style-type: none">• American Ecotech EC9841 Nitrogen Oxides Analyzer• American Ecotech EC9850 Sulfur Dioxide Analyzer• GRIMM Particle Size Analyser/Dust-Monitor Model 180• American Ecotech EC9810 A&B Series Ozone Analyser• American Ecotech EC9830 Carbon Monoxide Analyzer• Magee Scientific Aethalometer
Calibration Equipment	<ul style="list-style-type: none">• American Ecotech GasCal 1100 Dilution Calibrator
Meteorological Measurement	<ul style="list-style-type: none">• Campbell Scientific Model HMP45C Temperature and Relative Humidity Probe• Campbell Scientific 05103-10 R.M Young Wind Monitor• R.M. Young Company Model 32500 Electronic Compass with Serial Interface

American Ecotech EC9841 Nitrogen Oxides Analyzer

The EC9841 nitrogen oxides analyzer uses gas-phase chemiluminescence detection to perform continuous analysis of nitric oxide (NO), total oxides of nitrogen (NO_x), and nitrogen dioxide (NO₂). The 9841 analyzer design represents an advance in nitrogen oxides analysis technology achieved by using adaptive microprocessor control of a single measurement channel. The instrument consists of a pneumatic system, a NO₂-to-NO converter (molycon), a reaction cell, detector (PMT), and processing electronics. With an auto-zero routine that allows the analyzer to periodically check and correct for background illumination, the 9841 virtually eliminates zero drift. In addition to temperature and pressure compensation, the analyzer can adjust the span ratio based on a known concentration of gas used to span the analyzer.

American Ecotech EC9850 Sulfur Dioxide Analyzer

The EC9850 sulfur dioxide (SO₂) analyzer is an ultraviolet (UV) fluorescence spectrometer designed to continuously measure low concentrations of SO₂ in ambient air. The 9850 analyzer comprises an optical sensor assembly, an analog electronic signal preprocessor module, microprocessor-based control and computation electronics, and a pneumatic system that samples ambient air by point monitoring. The EC9850 A series has a built in charcoal scrubber that provides SO₂-free zero air to the analyzer, the instrument is designed to monitor the fluorescence background signal by periodically sampling SO₂ scrubbed air. This results in the virtual elimination of zero drift. This feature is an optional extra in the 9850 B series, where an external scrubber is normally used.

GRIMM Particle Size Analyser/Dust-Monitor Model 180

The particle size analyser /dust-monitor Model 180 is used for the continuous measurement of particles in the air (aerosols). These particles can be reported in various modes. However, these measurements are determined as Environmental mass as $\mu\text{g}/\text{m}^3$. These measurements are reported for the various size distribution channels. All units of the 180 series use light-scattering technology for single-particle counts, whereby a semiconductor-laser serves as the light-source. The scattered signal from the particle passing through the laser beam and is collected at approximately 90° by a mirror and transferred to a recipient-diode. The signal of the diode passes, after a corresponding reinforcement, a multi-channel size classifier. A pulse height analyser then classifies the signal transmitted in each channel. These counts can be displayed and are also stored in the data storage card and may be transferred via the RS 232 for further analysis.

American Ecotech EC9810 A&B Series Ozone Analyser

The EC9810 ozone (O_3) analyser is a nondispersive ultraviolet (UV) photometer which alternately switches a selective ozone scrubber in and out of the measuring stream and computes the ratio of transmitted light giving an accurate and reliable measure of ozone concentration in the presence of common atmospheric compounds. A mercury vapour lamp is used as the light source. Its 254 nm line is close to the centre of the ozone absorption band. The selective scrubber uses manganese dioxide (MnO_2) to selectively destroy ozone and pass other common absorbers such as SO_2 and aromatics. Since absorbances add, the resulting difference in beam intensity between the scrubbed and nonscrubbed cycle is a function of ozone concentration. The system is under the control of the EC9800 series microprocessor module. Software algorithms handle all internal adjustments, continuously perform diagnostics, indicate errors, display status, and make calculations of ozone concentration. The only operator functions are to perform routine maintenance on the pneumatics and periodically verify calibration of the unit. The microprocessor continuously monitors the source and many other parameters, making adjustments as necessary to ensure stable and accurate operation. In addition to temperature and pressure compensation, the EC9810 analyser can readjust its span ratio based on a known concentration of gas used to span the analyser.

American Ecotech EC9830 Carbon Monoxide Analyzer

The EC9830 carbon monoxide (CO) analyzer is a nondispersive infrared photometer that accurately and reliably measures low concentrations of CO, using gas filter correlation and state-of-the-art optical and electronic technology. The EC9830 analyzer generates infrared radiation (IR) that is absorbed by the CO within the 5-meter folded pathlength. The gas filter correlation wheel facilitates rejection of interferents and the narrow band-pass filter ensures measuring only the CO-sensitive IR wavelengths. The CO content of the sample is continuously measured from a user-supplied air stream of which the instrument extracts 1 slpm (standard liter per minute) of sample. The EC9830 has a built-in catalytic zero air scrubber which provides CO-free air to the analyzer. The microprocessor automatically resets the zero reading after the analyzer has sampled air through the converter. In addition to temperature and pressure compensation, the EC9830 analyzer can readjust its span ratio based on a known concentration of gas used to span the analyzer.

Magee Scientific Aethalometer

The Aethalometer™ is an instrument that provides a real-time readout of the concentration of ‘Black’ or ‘Elemental’ carbon aerosol particles (‘BC’ or ‘EC’) in an air stream. These particles (“soot”) are emitted from all types of combustion, most notably from diesel exhaust. ‘BC’ is defined by ‘blackness’, an optical measurement. The Aethalometer uses a continuous filtration and optical measurement method to give a continuous readout of real-time data. The ‘EC’ definition is based on a thermal-chemical measurement, an analysis of material collected on a filter sample for several hours and then heated in a gas stream. There is no accepted definition of ‘elementarity’. Different thermal parameters as used by different EC analysis protocols will actually yield different EC numerical results, even on portions of the same filter samples. The optical analysis for BC is consistent and reproducible. A wide body of published research shows that the Aethalometer BC measurement is closely proportional to filter-based EC measurements. The Aethalometer performs the optical analysis and data readout ‘on the spot’. The results are available immediately to the user, without waiting for analysis of a sample at a laboratory. The Aethalometer is a self-contained, automatic instrument. It requires no consumable materials, no

gas cylinders, no operator attention. It runs automatically: plug it in, walk away. It requires no calibration other than periodic checks of the air flow meter response.

American Ecotech GasCal 1100 Dilution Calibrator

The GasCal 1100 has been designed as a stand-alone dilution calibrator specifically for environmental applications and should give many years of trouble free service provided that it is installed, used and maintained correctly. The GasCal can be used in conjunction with many different gas analysers (CO, CO₂, O₃, NO_x, NO_y, NH₃, SO₂, etc) to provide precise and constant volumes of zero air or dilutions of various span gas. The GasCal is available as a portable unit that can be transported from location to location or most effectively, used within an integrated ambient or emissions gas monitoring station. The GasCal is used in conjunction with regulatory traceable gases, zero air generators and/or ozone generators. The GasCal can be optionally fitted with a Gas Phase Titration (GPT) for the accurate creation and delivery of ozone concentrations.

MAML station log notes

Calibration certificate spreadsheets available on request

May 25, 2009 –James Strain

- Started preliminary setup of the MAML at the James Bay site, no power currently available, will return to complete setup when power is on

May 26, 2009- James Strain

- Maml powered up and preliminary setup started

May 29, 2009 – James Strain

- Installation calibrations
 - o Aeth flow checked at 4.0lpm
 - o Grimm flow and zero checked.
 - o 5103 head aligned using the translator module

Jun 16, 2009

- Arrived at stn, to warm-up replacement analyzers for replacement of the ecotech units. Hooked up the O₃ (API 400E s/n 404) and start com with the dr.das computer, setup diagnostics, all working OK. Set to trigger calibration cycle in the instrument starting at 17:00 and all seems to be working fine.
- The pump labelled (O₃ pump) is actually the pump for the CO and SO₂ analyzers
- The issue with the CH₄/ NMHC analyzer is that the auto calibration was set to run on the instrument which is what caused the change to 10ppm. Corrected the reading of the instrument, will recalibrate tomorrow with the new calibration cylinder that has just arrived.
- The PC anywhere host was not running when I arrived at the site, started up the host and Victoria was able to connect to the site, checked the properties and found that “start host with windows” was not checked. Checked, all seems OK will watch for future reference.

Jun 17, 2009

- Arrived at MAML at 15:40 flagged NO, SO₂, and CO for Removal Points. And started removal.
- Did not start NO_x, CO and SO₂ as there are some elevated readings and will let the event continue. Started calibration points on the CH₄, NMHC analyzer
- Event finished, started Removal of NO_x, SO₂, CO @ 17:15
- Started Install calibration of O₃ analyzer (API 400E s/n 404)
- 21:00 All new instruments installed and initial points checked, will return tomorrow morning to finish installation calibration.

Jun 18, 2009

- 06:15 Arrived at start final calibration on all instruments in operation at the station (CH4, O3, Nox, CO, SO2)
- Finished Calibration, complete details in calibration folder.
-

Jun 22, 2009

- Arrived at station 1132.
- No alarms on instruments.
- Loaded new filters in Partisol.
- Will return this week with perm. tubes if available.
- Left site @ 1152
- --RW

Jun 29, 2009 15:28 James Strain

- Arrived at stn all looks OK, good baselines.
- Started test point on THC analyzer 15:30
 - o Finished two point check, all points within spec (see calibration sheet for Jun 29th)
 - o Back online at 16:15
- Cycled power through the cellular modem to attempt to have PC anywhere connection maintain stability, restarted pc anywhere server, set to run minimized, change user level to specified (was superuser). Selected the program to run as the current user, but have uncheck the “protect my computer from unauth program activity”
- Updated ozone span set target to 438ppb (approx average daily span value since install calibration Jun 17)
- Changed CO span target to 8.1ppm (approx average daily span value since install calibration Jun 17)
- Changed SO2 span target to 85.0ppb (approx average daily span value since install calibration Jun 17)
- Started test point on NO 16:05
 - o Changed dry air pack for analyzer
 - o Analyzer has not been spanning even though will go in through the zero port in local mode. Could not get the unit to auto trigger into internal zero.
 - o Changed the option switches so that the RS232 port is ON, the perm oven is ON. Still unable to get the instrument to switch to calibrate mode via rs232 command.
- Finished and left station at 17:15

Jun 30, 2009 James Strain

- Arrived at site in investigate Nox no span trigger
- Partisol is sampling
- Uninstalled PC anywhere
- Cycled power through dr.das computer 10:50
- Cycled power through Nox to see if it will activate the rs232 IZS trigger
- Got the Nox to trigger internal zero function by cycling power through the unit, analyzer will respond to the calibration sequence as laid out, funny issue is that when the “daily” calibration cycle is run, it switches the Ozone into the cycle, which it shouldn’t be doing, refreshed the calibration cycle for the ozone analyzer
- Disabled the 3 continuous output sequences in the station setup, unchecked the allow digital to analog data file in the Envidas setup, pc anywhere seems to be staying on

July 8 2009, Ryan Wiederick

- Downloaded all data from Partisol 2025
- Removed Sampled Filters
- Loaded 8 more filters
- Updated filter list
- Will ship samples to lab
- Will put sample data sheets onto MAML desktop
- Inside temp good
- No fault lights

-
- CH4/NMHC pressures correct
 - Hit 'Menu' on 55C, top of screen said 'cancelled', then returned to Main Menu, unsure of what I 'cancelled'. Was looking for main menu like other TECO analyzers that would display 'Alarm' if an Alarm condition existed. No 55C manual at MAML.
 - Hit 'Run', instrument seems to be running normally.
 - NO daily span has been steadily dropping
 - O3/SO2/CO daily spans seem OK.

14 July 2009

Ryan Wiederick

- All pressures on 55C seem normal
- Nitrogen down to 300psi
- No Alarm status on instruments
- Calibrations seem OK
- Inside temp 22 deg C
- Partisol Status OK

July 17, 2009

James Strain

- Arrived on site 6:10PST
- Changed out N2 cylinder
- N2 pressure 2550psi, H2 pressure 800psi (H2 cylinder instock at prax if required)
- Changed out dry air desicant on Nox analyzer
- Changed out all analyzer intake filters (no flag as all analyzer are currently going through the daily calibration cycle).
- Started point check on CH4 analyzer at 6:50
- Changed Envidas registry settings
 - o Terminate_PCAWR from 1 to 0 (to see if it keeps it operational)
 - o Calib Measure Time from 1 to 3 (cal point measure for last 3 minutes)
- Restarted envidas computer at 6:58 to update reg changes
- Finished CH4 check at 8:08
- PC anywhere has continued to run (it also started automatically when the computer rebooted) will monitor.
- Check partisol, all looks OK.
- O3 daily cals are all labeled "in valid" even though the values are within specification. Problems was that in the configuration setup for the channel the "valid TH%" was set at 0, changed the value to 7 (audit criteria)
- Left station at 8:25PST.

July 24th 2009

Ryan Wiederick

- Inside temp 22 deg C.
- No fault status present on instruments.
- Calibrations look okay, exception, NOx daily span change of 50ppb over 1 week.
- Silica almost exhausted on NOx, will return next week and replace.
- Partisol OK, running, will return next week to load more filters.
- Left station 1433.

July 31, 2009

Ryan Wiederick

- Inside temp 22 deg C
- Loaded filters into dichot in the following order:
 - 0709033 RP 095746
 - 0709034 RP 084154
 - 0709035 RP 097725

0709036 RP 095787
0709037 RP 095754
0709038 RP 069008

This is the order they went into the cassette, will sample in opposite order

- No faults present on instruments
- Calibrations look ok, Nox has stabilized
- Partisol status ok
- Left station at 0930

Aug 6 2009 – Ryan Wiederick

- Inside temp 22 deg C
- Changed silica gel
- Daily calibrations look good.
- Partisol status
- No faults on instruments
- Pressures good on CH4/Non CH4 analyzer.
- Left station at 1508

Aug 10, 2009 – James Strain

- Arrived on site to check on MAML operation, NOx analyzer spans have been elevated since Aug 8th. Started manual point check at 1530
- Found that the Ozone capillary o-ring had deteriorated significantly and was likely causing the instability in the readings, replaced the o-rings, leak checked instrument, checked sample cap o-rings (OK), adjusted PMT (significant increase in response after o-ring replacement).
- Still seeing a large variance in response when the dry-air pack is removed, but this is slightly expected given the effect on the generation of O3.
- ***** NEED TO CLEAN REACTION CELL AT THE END OF THE SAMPLING PERIOD ****
- Finished recalibrating NOx at 1920 (calibration documents in calibration folders)
- Everything else looks OK, did not check dicot.

Aug 12, 2009 – James Strain (remote)

- Enabled the NO calibration “daily” must have switched it off during the Nox calibration on the 10th, so the NO channel was not being flagged for calibration.

Aug 18, 2009 – James Strain

- Arrived on site at 16:10 to perform final calibration points on the CH4 analyzer and start to prepare the removal of the partisol at the site.
- Installed Catalytic Oxidizer for use with the calibration of the CH4 analyzer.
- Finished and left stn 1830

Aug 19, 2009 – James Strain

- Arrived on site 0630 restarted PC anywhere, updated Envidas software to version 53
- Removed Partisol from service

Aug 24, 2009 – James Strain / Brenda Leathom

- Arrived on site at 0800PST to start removal of the MAML from the James Bay Location.
- Turned off GRIMM and Aethalometer and CH4 analyzer 0815
- Started removal cals for O3, SO2, CO and Nox.
- Shutdown station to move at 1000

Appendix III. Conversion Factors

MAML raw data are measured in parts per billion (ppb). The following factors were used to convert values to micrograms per cubic metre ($\mu\text{g}/\text{m}^3$):

SO ₂	Divide level in ppb by 0.37584801 → level in $\mu\text{g}/\text{m}^3$
NO	Divide level in ppb by 0.80167390 → level in $\mu\text{g}/\text{m}^3$
NO ₂	Divide level in ppb by 0.52236779 → level in $\mu\text{g}/\text{m}^3$
CO	Divide level in ppb by 0.00085883 → level in $\mu\text{g}/\text{m}^3$

Appendix IV. MAML 1-hour data

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
30-May-09	1:00	0.1	3.3	1	7	5	10.2	0.3	47	12.4	227
30-May-09	2:00	0.1	14.2	1	7	6	10.4	0.3	305	13.3	228
30-May-09	3:00	0.4	24.5	1	8	7	10.2	0.3	19	12.7	234
30-May-09	4:00	3.9	27.4	1	8	7	9.8	0.3	285	11.6	245
30-May-09	5:00	6.9	25.8	1	11	9	9.4	0.5	52	13.3	246
30-May-09	6:00	2.0	12.4	1	9	7	11	0.4	122	10.2	250
30-May-09	7:00	9.6	20.7	1	12	9	12.8	0.9	290	10.2	250
30-May-09	8:00	4.5	11.3	1	7	5	12.4	1.4	65	6.4	261
30-May-09	9:00	5.0	9.8	1	7	5	14.9	1.1	32	1.7	269
30-May-09	10:00	5.9	13.6	4	6	5	14.9	1.7	37	1.0	21
30-May-09	11:00	3.9	9.8	6	6	5	12.6	1.2	86	0.5	80
30-May-09	12:00	17.7	27.2	23	7	6	13.7	1	101	0.4	49
30-May-09	13:00	6.2	16.5	10	7	5	14.3	1.1	95	0.2	54
30-May-09	14:00	5.0	12.1	2	8	6	13.3	1	109	0.5	259
30-May-09	15:00	3.7	14.7	4	7	6	14.5	1.2	117	1.2	108
30-May-09	16:00	3.9	15.3	5	8	5	15.7	0.8	101	2.1	169
30-May-09	17:00	6.2	26.0	11	11	6	16.7	0.7	100	3.2	158
30-May-09	18:00	21.1	57.4	13	16	8	15.6	0.4	84	4.1	150
30-May-09	19:00	4.5	38.5	8	20	7	16	0.4	80	2.3	182
30-May-09	20:00	1.4	36.6	1	12	7	15.6	0.4	66	1.2	173
30-May-09	21:00	1.0	32.5	1	9	7	13	0.5	41	1.3	175
30-May-09	22:00	6.2	49.6	1	12	9	14.5	0.2	326	1.5	208
30-May-09	23:00	28.3	47.9	3	16	12	14	0.4	62	1.4	222
30-May-09	0:00	0.9	30.4	1	18	14	12.2	0.2	28	1.5	201
31-May-09	1:00	18.2	47.9	2	19	14	13.3	0.5	260	0.8	207
31-May-09	2:00	21.7	46.1	2	22	18	12.8	0.4	82	0.5	232
31-May-09	3:00	4.6	41.4	1	21	18	10.9	0.1	36	0.4	231
31-May-09	4:00	4.7	38.9	1	17	15	11	0.2	16	0.8	220
31-May-09	5:00	19.1	41.5	1	15	13	11.7	0.3	259	0.5	206
31-May-09	6:00	17.7	43.6	4	12	10	13.9	0.3	55	0.2	13
31-May-09	7:00	21.6	42.3	6	15	12	13.6	0.4	117	0.6	140
31-May-09	8:00	24.2	41.2	11	17	15	14.4	0.5	89	0.1	4
31-May-09	9:00	18.3	32.2	11	12	9	16.4	0.5	116	0.7	22
31-May-09	10:00	24.7	32.9	11	11	8	13.6	0.9	107	1.3	79
31-May-09	11:00	26.7	34.5	19	10	8	13.8	1.7	132	1.7	149
31-May-09	12:00	18.8	31.0	26	9	6	15.7	0.8	107	0.2	208
31-May-09	13:00	13.5	28.7	26	8	5	17.1	0.9	85	0.5	20
31-May-09	14:00	8.7	25.1	15	7	5	17.4	0.9	91	1.1	67
31-May-09	15:00	3.7	14.9	6	11	5	18.6	0.9	76	1.4	156

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
31-May-09	16:00	4.9	18.4	6	7	5	17.5	1.1	79	1.9	160
31-May-09	17:00	2.5	14.7	5	9	6	16.9	1.3	74	2.0	154
31-May-09	18:00	1.7	13.4	2	11	7	17.7	0.7	51	2.1	211
31-May-09	19:00	0.9	10.9	1	15	7	17.3	0.4	57	3.4	254
31-May-09	20:00	0.4	16.1	1	14	7	17.2	0.3	70	2.9	247
31-May-09	21:00	0.9	30.6	1	14	8	15.3	0.4	75	2.1	208
31-May-09	22:00	0.1	12.8	1	8	6	13.2	0.5	73	1.7	208
31-May-09	23:00	0.1	7.3	1	7	6	12.1	0.6	46	1.5	200
31-May-09	0:00	0.1	11.9	1	8	7	12.2	0.5	293	2.2	196
1-Jun-09	1:00	0.4	31.8	1	11	8	14.6	1.5	269	1.6	164
1-Jun-09	2:00	0.1	16.1	1	9	7	13	0.6	66	1.6	141
1-Jun-09	3:00	0.1	12.1	1	10	8	11.9	0.2	54	2.2	148
1-Jun-09	4:00	2.7	19.3	1	10	8	11.6	0.4	318	0.6	117
1-Jun-09	5:00	4.7	31.2	1	11	9	11.8	0.5	161	0.5	196
1-Jun-09	6:00	14.2	29.3	1	13	10	13.3	0.4	153	1.0	255
1-Jun-09	7:00	20.7	37.1	1	19	10	14.5	0.9	237	0.8	186
1-Jun-09	8:00				12	7	13.1	1.1	68	0.5	10
1-Jun-09	9:00	7.9	23.2	3	9	6	13.4	0.4	88	3.1	40
1-Jun-09	10:00	10.6	25.8	6	11	7	15.6	0.8	115	1.7	166
1-Jun-09	11:00	8.5	20.9	8	11	6	15.7	0.9	114	0.3	255
1-Jun-09	12:00	6.4	20.7	16	10	7	16.5	1.3	125	0.5	117
1-Jun-09	13:00	6.9	24.9	18	12	6	18.2	0.8	118	1.7	299
1-Jun-09	14:00	6.2	22.2	13	14	6	18.7	0.9	107	0.7	319
1-Jun-09	15:00	3.1	16.7	5	12	7	19	0.9	118	2.2	2
1-Jun-09	16:00	2.0	16.3	4	18	9	21.2	1	130	1.7	170
1-Jun-09	17:00	1.4	15.5	4	39	6	21.3	0.6	115	0.8	147
1-Jun-09	18:00	1.7	22.2	4	18	8	22.1	0.5	126	0.8	179
1-Jun-09	19:00	0.2	16.3	3	32	9	21.2	0.3	102	1.3	221
1-Jun-09	20:00	1.4	32.7	2	48	8	18.4	0.2	62	1.9	241
1-Jun-09	21:00	0.2	20.5	1	25	9	16.9	0.1	32	3.5	238
1-Jun-09	22:00	0.1	40.4	1	20	10	16.7	0.3	285	1.9	226
1-Jun-09	23:00	1.6	36.9	0	20	10	16	0.3	74	1.7	228
1-Jun-09	0:00	0.1	18.8	0	18	9	14.1	0.4	343	1.6	233
2-Jun-09	1:00	1.1	40.6	0	15	13	15.4	0.6	277	2.5	235
2-Jun-09	2:00	2.5	51.7	1	19	19	15.9	0.8	267	0.8	222
2-Jun-09	3:00	0.1	30.4	0	26	20	15	0.9	349	0.6	159
2-Jun-09	4:00	0.1	15.7	0	27	12	12.9	0.3	240	0.3	167
2-Jun-09	5:00	1.4	26.6	0	15	17	13.6	0.7	252	0.1	176
2-Jun-09	6:00	9.1	36.4	1	23	21	15.2	0.2	209	0.4	103
2-Jun-09	7:00				36	22	16.6	0.5	280	0.8	207

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
2-Jun-09	8:00	17.0	36.0	3	40	19	16.4	0.9	163	0.5	259
2-Jun-09	9:00	12.3	26.4	4	43	12	16	0.9	139	1.2	40
2-Jun-09	10:00	14.3	28.1	3	22	12	17.7	0.9	121	1.7	30
2-Jun-09	11:00	13.5	26.8	5	23	12	17.5	0.7	119	2.8	93
2-Jun-09	12:00	16.5	29.9	10	19	12	19.5	0.7	118	1.6	120
2-Jun-09	13:00	13.3	28.7	11	19	13	18.4	0.9	103	1.4	40
2-Jun-09	14:00	7.5	26.8	5	19	15	19.3	0.8	110	0.7	49
2-Jun-09	15:00	8.4	34.3	11	21	14	21.7	0.7	118	0.5	137
2-Jun-09	16:00	5.2	33.3	11	23	15	22.3	0.6	111	1.7	193
2-Jun-09	17:00	3.2	32.5	14	24	20	20	1	124	2.0	246
2-Jun-09	18:00	1.1	16.1	3	29	16	22.7	0.6	116	1.6	219
2-Jun-09	19:00	0.4	13.2	0	30	17	18.6	0.7	91	1.3	230
2-Jun-09	20:00	0.7	18.0	0	27	15	16.9	0.6	78	1.5	242
2-Jun-09	21:00	0.4	17.2	0	29	19	16.6	0.7	103	1.9	231
2-Jun-09	22:00	0.1	10.0	0	29	20	17.1	0.7	69	1.7	253
2-Jun-09	23:00	0.1	12.3	0	25	20	16.7	0.5	46	2.2	249
2-Jun-09	0:00	0.1	6.9	0	26	21	15.8	0.7	41	2.1	243
3-Jun-09	1:00	0.1	5.7	0	27	20	13.8	0.5	35	3.2	245
3-Jun-09	2:00	0.1	15.3	0	26	21	14.4	0.3	347	2.0	237
3-Jun-09	3:00	0.5	30.6	0	26	21	14.4	0.7	273	2.2	221
3-Jun-09	4:00	1.5	41.9	1	26	20	15.6	0.8	306	1.3	225
3-Jun-09	5:00	0.5	32.2	1	29	19	16.2	1.2	256	2.0	238
3-Jun-09	6:00				28	19	17.7	1.4	279	1.2	296
3-Jun-09	7:00	6.7	36.6	5	35	19	19.2	2.3	268	0.9	198
3-Jun-09	8:00	7.7	33.9	10	41	15	21.1	2.1	265	0.8	232
3-Jun-09	9:00	7.5	25.5	9	40	14	22.2	1.7	281	0.7	165
3-Jun-09	10:00	2.6	16.7	5	30	10	24.3	2.4	283	0.7	98
3-Jun-09	11:00	2.2	13.8	3	20	9	25.3	2.7	275	1.6	47
3-Jun-09	12:00	5.0	24.7	4	20	12	20.6	1.3	104	2.2	47
3-Jun-09	13:00	6.4	27.6	8	20	15	18.8	0.8	108	2.0	42
3-Jun-09	14:00	7.2	33.7	12	22	13	21.1	0.7	120	1.6	94
3-Jun-09	15:00	3.2	26.0	12	21	12	22.3	1	78	4.4	27
3-Jun-09	16:00	2.4	23.0	7	20	9	26.5	0.6	98	1.1	258
3-Jun-09	17:00	2.5	27.6	5	18	11	24.4	0.7	102	1.0	158
3-Jun-09	18:00	0.1	18.8	3	20	12	23.2	0.7	118	2.1	30
3-Jun-09	19:00	0.9	21.4	2	19	11	24.3	0.3	116	3.2	54
3-Jun-09	20:00	0.6	36.2	4	25	13	23.6	0.1	24	2.4	198
3-Jun-09	21:00	0.5	44.8	3	38	13	21.6	0.1	70	1.6	253
3-Jun-09	22:00	0.1	32.4	2	32	15	19.2	0.1	17	1.6	262
3-Jun-09	23:00	0.6	28.1	0	25	18	15.7	0.3	47	1.6	205

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
3-Jun-09	0:00	0.1	15.9	0	30	16	15.4	0.4	42	0.8	192
4-Jun-09	1:00	0.1	37.5	0	22	16	16.5	0.6	288	1.8	214
4-Jun-09	2:00	9.2	59.7	1	23	17	16.6	0.5	268	2.3	245
4-Jun-09	3:00	7.0	55.9	1	26	17	16.2	0.4	269	1.0	237
4-Jun-09	4:00	3.2	45.4	1	24	17	16.3	1.2	282	0.5	286
4-Jun-09	5:00				30	16	16.1	0.8	253	0.4	263
4-Jun-09	6:00	2.1	31.4	2	26	16	17.9	0.8	255	0.2	14
4-Jun-09	7:00	4.6	31.8	3	26	16	15.4	0.7	137	0.4	245
4-Jun-09	8:00	12.1	42.1	5	21	16	17.2	0.9	137	0.7	193
4-Jun-09	9:00	9.5	30.8	5	23	14	17.8	0.9	88	1.9	27
4-Jun-09	10:00	6.1	23.5	9	20	12	18.1	1.1	78	1.6	37
4-Jun-09	11:00	8.7	27.8	5	20	10	18	0.8	107	0.9	24
4-Jun-09	12:00	4.4	25.1	5	13	7	20.3	0.7	107	1.9	47
4-Jun-09	13:00	2.5	20.5	7	16	5	21.6	0.8	109	2.8	44
4-Jun-09	14:00	3.0	27.0	5	5	5	22.5	0.8	105	0.6	53
4-Jun-09	15:00	3.1	26.2	4	5	7	23.7	0.7	103	1.7	234
4-Jun-09	16:00	1.1	15.5	2	11	10	24.4	1	83	1.8	255
4-Jun-09	17:00	2.1	26.2	2	19	12	23.9	1.3	126	2.2	207
4-Jun-09	18:00	8.1	54.2	23	19	13	24.8	0.7	114	1.4	175
4-Jun-09	19:00	1.9	40.8	7	24	12	24.4	0.5	133	0.8	241
4-Jun-09	20:00	2.2	54.2	7	22	13	24.6	0.2	61	1.1	256
4-Jun-09	21:00	0.4	27.9	4	27	15	20.5	0.6	105	1.6	243
4-Jun-09	22:00	0.1	16.3	1	23	17	19.4	1.3	79	1.4	239
4-Jun-09	23:00	0.2	12.8	0	25	16	17.4	1.3	85	1.6	242
4-Jun-09	0:00	0.4	7.8	1	24	15	18	2.5	120	0.9	201
5-Jun-09	1:00	0.1	3.3	0	24	14	19.1	1.3	130	2.3	272
5-Jun-09	2:00	0.1	3.1	0	25	15	16.6	1.5	76	1.6	233
5-Jun-09	3:00	0.1	7.7	0	24	19	12.5	1.9	84	0.9	259
5-Jun-09	4:00				25	19	11.7	1.9	80	0.5	255
5-Jun-09	5:00	0.2	6.5	0	25	18	13.1	1.3	94	1.7	254
5-Jun-09	6:00	0.1	5.0	0	24	15	14.3	1.3	98	5.4	251
5-Jun-09	7:00	1.1	10.3	0	20	14	14	1.4	88	6.5	245
5-Jun-09	8:00	1.4	7.1	0	20	14	15	0.9	103	11.3	249
5-Jun-09	9:00	1.9	8.6	0	19	11	16	1.1	99	7.2	274
5-Jun-09	10:00	2.0	10.3	0	17	10	16.2	1.3	78	4.7	217
5-Jun-09	11:00	1.4	5.9	0	15	10	14	2.4	71	10.6	213
5-Jun-09	12:00	5.6	14.5	8	15	11	15.4	1.9	66	10.8	210
5-Jun-09	13:00	4.5	11.5	6	15	13	14.9	2.5	68	10.0	217
5-Jun-09	14:00	0.9	4.4	0	18	14	14.8	2.4	71	9.7	217
5-Jun-09	15:00	1.9	7.8	0	19	14	16.6	2	68	8.3	212

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
5-Jun-09	16:00	1.4	5.7	0	19	11	19.2	1.3	101	6.5	221
5-Jun-09	17:00	5.6	14.5	5	18	12	19.2	3.4	133	3.6	227
5-Jun-09	18:00	219.4	65.3	322	19	16	18.6	4	132	4.6	212
5-Jun-09	19:00	321.5	78.5	448	21	14	17.8	4.2	132	8.4	203
5-Jun-09	20:00	92.3	55.1	164	17	12	16.6	3.1	129	8.1	199
5-Jun-09	21:00	6.6	19.1	25	15	14	14.7	1.4	95	8.5	199
5-Jun-09	22:00	0.5	6.7	0	19	13	13.2	1.1	89	8.4	198
5-Jun-09	23:00	2.6	12.4	2	18	14	13	1	107	7.9	197
5-Jun-09	0:00	2.0	10.3	5	17	13	13.5	1.7	123	8.1	227
6-Jun-09	1:00	0.1	2.1	0	16	12	13.7	1	118	10.0	255
6-Jun-09	2:00	0.2	2.1	2	15	13	13.5	0.6	92	10.1	257
6-Jun-09	3:00				17	13	12.8	0.7	90	10.2	260
6-Jun-09	4:00	0.4	5.9	2	17	13	12.7	0.5	109	7.6	263
6-Jun-09	5:00	0.5	18.0	4	16	14	11.8	1.2	79	5.8	258
6-Jun-09	6:00	0.7	19.5	5	17	14	11.5	1.4	80	7.7	214
6-Jun-09	7:00	0.9	11.7	5	17	15	11.4	1.1	78	8.4	220
6-Jun-09	8:00	0.6	10.3	3	19	17	11.9	0.5	71	8.6	234
6-Jun-09	9:00	3.0	16.5	3	22	15	12.7	0.7	128	6.8	255
6-Jun-09	10:00	3.0	15.5	3	20	15	14.1	0.9	119	4.7	257
6-Jun-09	11:00	3.5	14.9	3	21	17	15.3	1.2	52	4.6	241
6-Jun-09	12:00	2.5	10.0	4	27	20	16.2	1.3	49	6.1	231
6-Jun-09	13:00	2.7	11.5	6	35	22	16.3	2	45	6.3	215
6-Jun-09	14:00	3.5	11.9	8	39	17	15.2	2.1	51	6.8	211
6-Jun-09	15:00	1.6	7.3	4	28	14	15.1	2.1	56	6.3	211
6-Jun-09	16:00	2.1	11.5	4	24	15	13.9	1.5	67	5.6	226
6-Jun-09	17:00	7.4	25.8	14	27	16	13.4	0.9	84	1.9	249
6-Jun-09	18:00	6.4	25.7	4	25	17	12.4	0.8	103	1.8	250
6-Jun-09	19:00	2.5	13.8	2	22	15	11.9	1	88	2.6	146
6-Jun-09	20:00	0.1	15.3	2	18	14	11.4	1.4	82	3.0	147
6-Jun-09	21:00	8.2	45.2	12	17	15	11.5	1	100	3.2	150
6-Jun-09	22:00	26.1	49.4	46	18	16	11.7	0.9	116	3.4	144
6-Jun-09	23:00	23.0	48.2	65	19	16	12.4	1.1	111	3.5	149
6-Jun-09	0:00	2.5	28.9	16	19	16	11.9	0.9	115	4.2	182
7-Jun-09	1:00	0.5	3.1	6	19	13	13.7	1	117	6.1	207
7-Jun-09	2:00				14	13	12.8	1	77	5.6	200
7-Jun-09	3:00	0.1	1.3	2	15	12	12.2	1.1	62	5.4	201
7-Jun-09	4:00	0.2	1.5	2	13	11	11.7	0.5	68	5.9	207
7-Jun-09	5:00	0.1	4.2	2	12	11	10.8	0.7	52	5.6	202
7-Jun-09	6:00	0.2	6.3	2	13	11	10.9	0.6	85	7.3	208
7-Jun-09	7:00	0.7	8.0	2	14	12	11.7	0.4	110	7.4	223

MAML – JAMES BAY AIR QUALITY STUDY
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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
7-Jun-09	8:00	2.1	12.3	4	14	12	12.2	0.4	109	5.8	231
7-Jun-09	9:00	1.5	10.1	3	14	12	12.4	1	62	5.4	261
7-Jun-09	10:00	5.6	14.2	4	14	12	13.2	1.5	83	4.3	229
7-Jun-09	11:00	7.1	15.9	9	18	12	13.6	1.5	91	3.8	218
7-Jun-09	12:00	6.0	12.8	7	19	12	14	1.9	82	2.7	256
7-Jun-09	13:00	3.4	7.8	5	19	12	14.8	1.6	70	1.1	210
7-Jun-09	14:00	2.7	9.8	5	26	13	14.3	1.8	64	1.0	208
7-Jun-09	15:00	5.7	14.0	6	24	12	13.5	2.7	67	3.1	224
7-Jun-09	16:00	1.1	3.8	2	17	12	13.7	2.4	70	2.8	218
7-Jun-09	17:00	0.9	3.6	1	19	12	15.5	1.5	75	1.3	185
7-Jun-09	18:00	1.7	5.9	1	17	11	17.4	1.8	119	7.2	215
7-Jun-09	19:00	2.1	10.3	1	15	10	16.9	3.2	136	8.8	210
7-Jun-09	20:00	0.7	2.3	1	14	9	15.7	2.8	137	8.2	206
7-Jun-09	21:00	0.2	1.7	1	11	8	14.6	2.4	133	7.9	199
7-Jun-09	22:00	0.2	1.9	1	10	7	14.2	2.2	125	7.5	198
7-Jun-09	23:00	0.1	1.5	1	9	7	14	1.5	126	7.7	198
7-Jun-09	0:00				9	7	13.4	1.1	114	8.3	203
8-Jun-09	1:00	0.2	3.8	3	9	8	12.8	1.1	115	6.4	214
8-Jun-09	2:00	0.2	2.1	2	9	7	12.9	1.1	121	8.1	241
8-Jun-09	3:00	0.2	4.2	2	8	8	12.7	0.8	121	9.6	257
8-Jun-09	4:00	0.1	1.7	2	9	8	12.7	1.5	128	9.5	256
8-Jun-09	5:00	0.1	3.3	2	9	8	12.9	1	121	8.2	260
8-Jun-09	6:00	0.2	3.8	2	9	10	12.6	0.7	101	6.8	268
8-Jun-09	7:00	1.6	8.6	2	11	11	12.5	0.6	105	5.5	265
8-Jun-09	8:00	1.0	4.4	2	14	11	12.5	1.1	73	5.5	256
8-Jun-09	9:00	1.7	11.3	0	14	12	12.9	1.2	72	5.9	255
8-Jun-09	10:00	2.5	11.3	1	16	10	14.2	0.8	76	6.0	260
8-Jun-09	11:00	3.5	12.1	2	18	11	14.2	1.6	62	5.5	250
8-Jun-09	12:00	1.4	4.8	2	15	11	14.2	1.3	68	6.0	258
8-Jun-09	13:00	1.5	7.7	2	14	12	14.1	1.1	76	5.9	262
8-Jun-09	14:00	2.4	7.1	2	16	13	15.2	1.2	81	5.7	247
8-Jun-09	15:00	2.1	6.7	2	18	13	15.1	1.2	92	5.5	229
8-Jun-09	16:00	1.1	5.7	2	20	14	15.6	0.9	95	4.5	223
8-Jun-09	17:00	2.4	11.1	3	22	14	15.8	0.7	102	5.0	217
8-Jun-09	18:00	2.2	8.8	2	24	13	15.1	1.1	87	4.0	226
8-Jun-09	19:00	0.9	5.6	1	25	12	14.9	0.9	81	2.5	161
8-Jun-09	20:00	0.1	9.2	2	28	10	14.2	0.9	80	2.0	166
8-Jun-09	21:00	0.7	4.8	4	22	8	13.4	0.7	85	3.8	207
8-Jun-09	22:00	0.7	5.4	6	11	7	13	0.7	84	3.5	196
8-Jun-09	23:00				9	7	12.7	0.8	110	7.3	217

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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
8-Jun-09	0:00	5.1	19.0	40	9	8	12.3	1.1	124	8.6	219
9-Jun-09	1:00	17.7	31.8	93	9	8	12	0.6	131	8.2	222
9-Jun-09	2:00	9.5	34.6	85	10	8	11.5	0.3	103	7.2	223
9-Jun-09	3:00	6.5	15.1	51	10	8	11.2	0.6	129	6.7	224
9-Jun-09	4:00	0.4	11.3	14	9	8	10.7	0.3	45	6.4	231
9-Jun-09	5:00	2.9	6.7	4	9	8	10.5	0.2	3	6.4	239
9-Jun-09	6:00	10.9	29.1	6	10	11	13.3	0	7	6.7	238
9-Jun-09	7:00	21.1	33.5	19	13	12	14.1	0.3	145	7.6	238
9-Jun-09	8:00	22.8	36.2	28	17	13	14.5	0.6	139	7.5	239
9-Jun-09	9:00	21.6	30.2	48	25	12	15.6	0.6	89	5.9	246
9-Jun-09	10:00	16.6	18.6	11	22	10	15.1	0.8	87	4.6	249
9-Jun-09	11:00	14.0	23.4	20	14	9	15.3	1	75	4.0	258
9-Jun-09	12:00	12.6	17.8	10	12	9	14.2	1	82	1.2	251
9-Jun-09	13:00	7.6	12.8	9	12	9	16.6	0.7	86	0.1	6
9-Jun-09	14:00	4.7	11.1	5	12	10	17.8	0.7	105	0.3	56
9-Jun-09	15:00	5.7	11.1	5	18	10	17.2	0.8	106	1.7	132
9-Jun-09	16:00	2.0	5.2	4	16	10	17.6	0.7	111	1.4	151
9-Jun-09	17:00	1.5	4.6	5	19	9	17.5	0.9	109	3.1	145
9-Jun-09	18:00	1.1	3.6	3	15	10	16.2	1.1	93	2.4	165
9-Jun-09	19:00	1.4	7.3	7	16	11	15.8	1	86	1.9	171
9-Jun-09	20:00	2.4	18.0	13	19	10	15.4	0.8	72	2.0	194
9-Jun-09	21:00	6.1	29.7	56	17	10	15.3	0.7	80	2.4	155
9-Jun-09	22:00				14	10	15	0.6	93	1.9	161
9-Jun-09	23:00	6.1	25.1	69	14	10	13.8	0.8	102	2.6	222
9-Jun-09	0:00	7.4	27.6	80	14	11	13.5	0.7	113	4.9	225
10-Jun-09	1:00	2.2	10.5	37	14	11	13.1	0.6	111	7.6	233
10-Jun-09	2:00	12.5	33.9	101	15	11	12.8	0.8	116	7.8	230
10-Jun-09	3:00	14.2	37.7	124	14	11	12.3	1	119	7.4	237
10-Jun-09	4:00	17.7	40.6	145	13	10	12	0.8	112	6.6	240
10-Jun-09	5:00	17.2	40.4	134	12	11	11.8	1.3	122	7.8	246
10-Jun-09	6:00	20.5	42.9	128	13	12	12.2	0.5	125	8.4	247
10-Jun-09	7:00	39.8	45.9	181	14	13	13.5	0.6	127	8.3	242
10-Jun-09	8:00	30.8	37.1	111	16	19	14.3	0.9	128	7.2	238
10-Jun-09	9:00	27.7	35.8	83	61	14	15.3	1.3	135	6.7	235
10-Jun-09	10:00	24.7	34.3	114	24	12	16.9	0.9	127	8.2	241
10-Jun-09	11:00	10.5	21.8	16	19	10	17	0.8	102	7.9	242
10-Jun-09	12:00	18.1	31.0	57	19	6	18.2	1.4	106	7.5	242
10-Jun-09	13:00	4.1	11.1	8	8	6	18.7	2	119	7.9	244
10-Jun-09	14:00	17.1	24.9	37	8	5	19.4	1.8	125	6.7	248
10-Jun-09	15:00	44.0	39.2	89	7	6	20	1.9	129	6.0	248

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
10-Jun-09	16:00	94.8	59.3	186	9	7	20.5	2.7	133	5.7	244
10-Jun-09	17:00	128.9	61.6	217	10	8	19.5	3.2	128	7.0	242
10-Jun-09	18:00	170.4	72.7	278	10	8	18.1	3.3	127	7.1	241
10-Jun-09	19:00	61.9	48.4	135	12	8	16.3	3	130	5.1	221
10-Jun-09	20:00	133.7	67.4	216	10	8	15	4.3	129	6.7	235
10-Jun-09	21:00			9	8		13.7	4	129	7.2	238
10-Jun-09	22:00	67.5	46.9	136	9	7	13.4	2.4	130	7.8	245
10-Jun-09	23:00	155.2	66.8	258	9	10	12.9	3.1	133	8.7	244
10-Jun-09	0:00	2.5	9.6	14	10	6	12.2	2	135	7.5	247
11-Jun-09	1:00	4.2	9.6	14	6	5	11.9	2	129	7.2	249
11-Jun-09	2:00	0.2	1.7	4	5	4	12	0.9	126	8.5	246
11-Jun-09	3:00	0.1	1.3	3	5	3	11.8	1.1	127	9.8	265
11-Jun-09	4:00	0.5	6.5	3	4	5	11.7	1.4	130	8.6	260
11-Jun-09	5:00	2.4	10.3	9	5	5	11.8	1.3	128	9.6	260
11-Jun-09	6:00	3.9	15.5	13	5	5	12.4	1.4	139	7.8	258
11-Jun-09	7:00	3.0	14.2	4	5	5	13.3	1.2	136	9.0	250
11-Jun-09	8:00	20.0	26.2	32	6	6	14	2.2	138	9.3	249
11-Jun-09	9:00	19.1	28.9	36	9	6	14.8	2.5	136	9.4	253
11-Jun-09	10:00	36.2	37.9	101	8	6	15.1	4.2	133	6.7	254
11-Jun-09	11:00	15.6	25.5	42	7	6	16.4	1.4	119	6.7	251
11-Jun-09	12:00	5.5	12.3	13	7	5	17	1.2	107	6.5	258
11-Jun-09	13:00	29.3	38.9	90	7	6	17.8	3.5	132	5.0	257
11-Jun-09	14:00	22.7	31.8	61	7	7	18.7	2.5	123	5.4	263
11-Jun-09	15:00	9.7	26.4	5	8	6	18.7	2.1	119	4.3	262
11-Jun-09	16:00	4.0	13.0	2	8	7	17.7	1.2	94	6.3	257
11-Jun-09	17:00	2.4	11.3	3	10	7	17.9	1.5	105	7.5	257
11-Jun-09	18:00	106.8	63.0	177	10	9	17.6	3.2	135	7.9	247
11-Jun-09	19:00	164.9	75.2	289	11	11	16.1	4.2	135	7.3	240
11-Jun-09	20:00				13	9	14.2	2.6	132	7.2	236
11-Jun-09	21:00	164.0	70.6	278	11	10	13.2	5.4	140	7.3	248
11-Jun-09	22:00	37.2	54.9	85	10	10	12.7	3.2	138	7.0	245
11-Jun-09	23:00	8.5	17.2	16	11	8	12.3	2.8	133	7.4	241
11-Jun-09	0:00	1.0	8.8	9	9	8	12.2	1.4	130	5.7	230
12-Jun-09	1:00	0.5	4.4	3	8	7	12.2	2.1	131	6.8	235
12-Jun-09	2:00	0.1	2.9	3	8	8	12.3	1.1	127	8.2	246
12-Jun-09	3:00	0.2	5.6	3	9	9	12.1	1.5	133	9.3	258
12-Jun-09	4:00	0.2	3.3	3	10	8	12.4	1.5	133	9.3	250
12-Jun-09	5:00	0.2	2.9	2	9	7	12.4	0.9	131	11.1	255
12-Jun-09	6:00	0.6	5.9	3	8	6	12.6	1.4	134	9.1	253
12-Jun-09	7:00	1.1	6.1	3	7	6	13.6	1.6	139	8.5	255

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
12-Jun-09	8:00	2.1	7.7	3	7	6	14.5	1.2	125	8.4	257
12-Jun-09	9:00	2.4	6.1	3	8	6	15.3	1.1	126	7.3	259
12-Jun-09	10:00	3.5	11.9	3	7	5	16	0.8	109	6.5	257
12-Jun-09	11:00	6.2	13.0	3	7	3	16.2	0.8	103	6.1	257
12-Jun-09	12:00	3.0	8.2	3	4	3	16.5	0.8	110	5.4	258
12-Jun-09	13:00	2.6	7.8	2	4	3	16.9	1	106	4.8	257
12-Jun-09	14:00	3.2	8.6	2	3	3	17	1.1	106	4.8	258
12-Jun-09	15:00	3.2	8.2	2	3	3	16.8	1.1	99	4.8	257
12-Jun-09	16:00	2.6	7.7	2	4	5	17.3	1.2	93	5.1	252
12-Jun-09	17:00	4.1	10.3	3	8	7	17.5	1.1	108	6.5	247
12-Jun-09	18:00	9.5	19.3	13	10	8	16.5	1.8	120	6.0	240
12-Jun-09	19:00				10	8	15.6	2.4	125	5.9	226
12-Jun-09	20:00	166.5	58.6	214	10	8	14.4	1.9	128	6.1	226
12-Jun-09	21:00	48.8	40.6	77	9	7	13.6	1.3	121	6.2	223
12-Jun-09	22:00	140.1	54.8	176	9	7	12.5	1.7	129	7.8	228
12-Jun-09	23:00	91.2	45.8	139	9	8	12	1.6	125	8.0	224
12-Jun-09	0:00	7.6	14.4	16	9	7	11.5	1.3	124	6.9	221
13-Jun-09	1:00	0.2	2.3	4	8	9	11.4	1.1	122	8.3	234
13-Jun-09	2:00	0.1	1.7	4	10	6	11.2	1.3	123	8.2	241
13-Jun-09	3:00	0.1	2.5	3	7	5	11.3	1.1	121	8.8	246
13-Jun-09	4:00	0.4	3.8	3	5	5	11.1	0.7	120	8.8	248
13-Jun-09	5:00	1.0	11.1	3	5	4	11.1	0.6	125	7.1	259
13-Jun-09	6:00	4.2	12.1	3	5	4	12.5	0.4	113	8.3	252
13-Jun-09	7:00	0.1	2.7	3	5	4	13.2	0.4	111	7.7	249
13-Jun-09	8:00	1.6	3.4	3	4	3	14.2	0.5	119	7.0	246
13-Jun-09	9:00	3.0	6.5	3	4	3	14.4	0.7	102	7.0	248
13-Jun-09	10:00	4.7	10.1	3	4	2	15.1	0.9	93	6.3	252
13-Jun-09	11:00	1.9	4.8	3	3	2	16	1	104	5.6	250
13-Jun-09	12:00	2.4	6.9	3	2	2	15.9	1.2	87	4.1	252
13-Jun-09	13:00	2.0	5.4	3	2	2	17	1	108	4.4	250
13-Jun-09	14:00	1.9	5.0	3	2	2	16.4	1.3	96	2.5	255
13-Jun-09	15:00	2.5	6.5	3	2	2	17.5	1.2	95	3.2	243
13-Jun-09	16:00	92.2	39.2	142	3	6	18	2.8	130	4.2	245
13-Jun-09	17:00	299.5	74.1	448	9	11	15.8	4.4	138	4.3	227
13-Jun-09	18:00				15	8	15.6	2.4	135	4.5	222
13-Jun-09	19:00	212.1	67.8	300	11	6	14.7	1.8	136	5.7	227
13-Jun-09	20:00	150.1	65.1	232	9	7	13.2	2.1	117	5.1	214
13-Jun-09	21:00	227.3	71.8	305	8	8	12.3	2.5	137	7.2	226
13-Jun-09	22:00	268.6	68.9	351	9	6	12.2	3.6	137	9.1	223
13-Jun-09	23:00	162.0	61.5	248	7	6	12.2	2.1	132	8.3	219

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
13-Jun-09	0:00	119.3	36.6	208	7	6	12.2	3.2	136	10.1	243
14-Jun-09	1:00	0.1	0.4	7	6	4	11.7	1.8	125	11.5	254
14-Jun-09	2:00	0.1	1.0	5	4	5	11.5	2.7	128	9.8	248
14-Jun-09	3:00	0.1	1.1	5	5	6	11.4	2.2	127	10.6	247
14-Jun-09	4:00	0.2	1.7	4	6	5	11.2	2.2	131	11.2	247
14-Jun-09	5:00	0.2	1.7	4	6	6	11.3	2.1	133	10.6	247
14-Jun-09	6:00	0.2	1.7	4	6	6	11.9	1.8	129	9.5	256
14-Jun-09	7:00	0.7	2.7	4	7	6	12.2	2.6	125	8.0	255
14-Jun-09	8:00	0.6	2.5	4	7	6	12.7	2.7	125	7.5	247
14-Jun-09	9:00	1.7	5.2	4	7	7	13.5	2.5	124	6.0	253
14-Jun-09	10:00	2.4	6.3	4	8	6	14.5	2	126	7.6	264
14-Jun-09	11:00	2.1	4.8	4	8	6	14.4	1.3	118	6.6	265
14-Jun-09	12:00	1.6	4.6	4	7	5	14.9	1.3	112	7.5	258
14-Jun-09	13:00	1.9	6.9	4	7	3	15.4	1.1	115	8.4	253
14-Jun-09	14:00	1.9	6.1	3	3	3	16.2	1.1	103	7.7	253
14-Jun-09	15:00	3.0	6.5	3	3	3	16.9	1.3	109	8.0	245
14-Jun-09	16:00	1.0	3.4	3	4	4	17.6	1.9	123	9.1	243
14-Jun-09	17:00				5	5	17.5	1.5	114	9.1	242
14-Jun-09	18:00	1.5	6.3	3	7	5	16.5	1.1	120	8.5	240
14-Jun-09	19:00	0.6	2.9	4	7	4	15.2	2.1	125	9.0	232
14-Jun-09	20:00	0.5	2.7	4	5	4	13.8	2.2	130	8.1	229
14-Jun-09	21:00	0.4	1.7	3	5	4	12.5	2.2	128	6.6	230
14-Jun-09	22:00	0.4	1.9	3	4	3	12.2	1.5	122	6.7	235
14-Jun-09	23:00	0.4	1.9	3	4	3	12	1.8	123	7.9	238
14-Jun-09	0:00	0.4	2.3	3	4	3	11.7	1.6	128	8.4	246
15-Jun-09	1:00	0.2	1.9	2	3	4	11.6	1.1	119	7.7	247
15-Jun-09	2:00	0.2	2.3	2	5	4	11.5	1.3	126	7.7	237
15-Jun-09	3:00	0.2	2.1	2	4	3	11.5	1.4	130	9.2	250
15-Jun-09	4:00	0.2	1.1	2	3	3	11.6	0.9	139	8.8	254
15-Jun-09	5:00	0.4	3.6	2	4	3	11.6	0.9	129	8.2	255
15-Jun-09	6:00	0.4	3.1	2	4	3	12.2	1	134	7.2	254
15-Jun-09	7:00	1.1	4.4	1	3	3	13.5	0.9	134	8.0	249
15-Jun-09	8:00	1.9	4.4	2	3	3	15	0.6	101	7.2	255
15-Jun-09	9:00	3.4	7.8	2	4	2	15.6	0.9	122	5.8	251
15-Jun-09	10:00	3.0	9.8	2	3	2	16.5	0.8	121	5.6	257
15-Jun-09	11:00	2.2	5.2	2	4	2	17.4	0.9	102	4.4	267
15-Jun-09	12:00	1.7	5.7	2	3	1	17.9	0.9	107	4.5	278
15-Jun-09	13:00	3.6	6.7	1	1	1	17.7	0.9	113	4.2	272
15-Jun-09	14:00	2.4	5.4	1	1	1	18.4	1.7	125	4.0	258
15-Jun-09	15:00	2.1	4.8	1	1	1	18.5	1.1	121	2.4	270

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
15-Jun-09	16:00				2	1	18.8	1.4	113	1.2	232
15-Jun-09	17:00	1.5	4.0	1	3	4	17.4	1.1	88	4.5	246
15-Jun-09	18:00	1.7	3.1	1	12	4	17.2	1.1	109	3.3	249
15-Jun-09	19:00	1.1	4.2	1	13	4	16.4	1.5	115	3.8	241
15-Jun-09	20:00	4.2	7.1	7	12	4	15.3	1.2	116	4.7	241
15-Jun-09	21:00	24.2	24.1	65	13	3	14.3	1.6	135	5.5	238
15-Jun-09	22:00	3.1	8.8	12	5	2	13.6	1.2	92	7.4	240
15-Jun-09	23:00	0.9	3.4	2	3	2	13.1	1.5	133	8.4	235
15-Jun-09	0:00	2.0	4.6	4	2	1	12.9	0.7	117	7.9	240
16-Jun-09	1:00	0.4	1.7	3	2	2	12.5	0.6	111	7.4	231
16-Jun-09	2:00	0.5	3.1	3	2	1	12.2	0.5	117	9.7	236
16-Jun-09	3:00	0.2	1.9	4	2	2	11.7	0.6	121	7.3	251
16-Jun-09	4:00	0.2	1.3	3	2	2	11.4	0.7	118	7.3	260
16-Jun-09	5:00	0.5	5.0	3	2	3	11.5	0.6	107	7.6	275
16-Jun-09	6:00	1.6	8.0	3	3	3	11.8	0.4	140	6.4	256
16-Jun-09	7:00	4.5	8.8	3	3	3	12.6	0.5	115	6.6	248
16-Jun-09	8:00	9.4	14.4	4	3	4	13.2	0.7	118	7.2	250
16-Jun-09	9:00	3.5	5.6	3	7	4	14	0.6	104	5.7	250
16-Jun-09	10:00	2.6	4.6	3	5	5	14	1.3	75	5.2	249
16-Jun-09	11:00	9.4	15.3	4	7	5	14.8	1.2	76	4.6	249
16-Jun-09	12:00	3.0	5.4	4	8	3	15.3	1.4	69	3.4	256
16-Jun-09	13:00	2.5	6.9	3	5	4	14.3	1.5	70	2.5	244
16-Jun-09	14:00	4.6	10.1	3	5	4	13.6	1.7	61	2.7	273
16-Jun-09	15:00				7	5	13.5	2.1	60	2.9	246
16-Jun-09	16:00	1.0	5.2	1	9	7	13.8	1.5	72	2.8	246
16-Jun-09	17:00	1.5	6.1	1	14	8	13.4	1.5	74	3.9	224
16-Jun-09	18:00	1.7	7.8	1	12	7	14.2	1.1	95	4.2	202
16-Jun-09	19:00	1.5	5.0	3	12	6	14.8	1.4	117	3.3	192
16-Jun-09	20:00	2.0	9.6	3	9	5	14.7	0.8	109	4.9	199
16-Jun-09	21:00	1.1	5.0	3	7	4	14.4	0.7	105	5.8	206
16-Jun-09	22:00	1.0	6.1	3	5	4	14.1	0.8	104	5.5	210
16-Jun-09	23:00	0.7	2.5	3	5	3	14.7	0.8	112	5.8	203
16-Jun-09	0:00	0.4	0.8	3	4	3	12.9	0.8	77	6.8	218
17-Jun-09	1:00	0.4	1.9	2	3	3	13	0.6	83	6.6	217
17-Jun-09	2:00	0.2	0.4	1	3	2	13.8	0.6	116	8.0	225
17-Jun-09	3:00	0.2	0.4	1	3	3	12.1	1	81	8.7	233
17-Jun-09	4:00	0.5	8.8	1	4	4	11.7	1	82	6.2	237
17-Jun-09	5:00	1.0	6.7	1	5	2	13.6	1.8	125	6.7	241
17-Jun-09	6:00	1.1	4.4	1	2	3	13.4	1.1	126	6.5	241
17-Jun-09	7:00	5.0	13.4	1	3	3	13.5	2.2	131	5.8	246

MAML – JAMES BAY AIR QUALITY STUDY
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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
17-Jun-09	8:00	12.3	14.4	16	3	2	14.6	1.7	134	4.9	226
17-Jun-09	9:00	6.9	13.8	2	2	5	15	1.2	123	6.0	235
17-Jun-09	10:00	5.6	13.2	2	9	3	14.6	1.1	122	5.1	250
17-Jun-09	11:00	23.1	23.0	31	6	2	16.5	2	127	3.8	219
17-Jun-09	12:00	32.3	22.2	60	4	2	17	2	110	3.7	232
17-Jun-09	13:00	3.9	5.7	3	4	4	14.8	1.4	103	6.2	252
17-Jun-09	14:00				7	3	15.5	1.2	102	8.0	243
17-Jun-09	15:00	2.4	5.2	1	5	2	16.3	1.3	106	8.1	256
17-Jun-09	16:00	142.6	38.1	219	5	3	18.4	2.8	127	8.4	248
17-Jun-09	17:00	186.6	48.6	288	6	2	19.9	4.3	217	4.9	234
17-Jun-09	18:00				4	2	19.9	3.4	293	7.8	229
17-Jun-09	19:00				3	1	19.1	3.5	298	6.2	251
17-Jun-09	20:00				2	1	17.2	3.5	303	6.3	242
17-Jun-09	21:00				1	1	16.4	2.8	301	9.2	209
17-Jun-09	22:00				2	1	15.9	2.1	283	9.1	211
17-Jun-09	23:00				1	2	15.2	1.9	287	8.6	217
17-Jun-09	0:00				2	1	14.6	2.2	290	9.0	242
18-Jun-09	1:00				1	0	15.1	1.1	294	9.3	254
18-Jun-09	2:00				1	2	13.1	1.3	215	10.1	250
18-Jun-09	3:00				2	2	12.1	0.9	223	9.3	266
18-Jun-09	4:00				2	1	12.3	0.4	271	9.5	278
18-Jun-09	5:00				1	2	11.7	1.1	217	8.8	276
18-Jun-09	6:00				2	3	12	0.8	237	7.2	251
18-Jun-09	7:00				3	1	13.9	0.7	232	7.3	244
18-Jun-09	8:00				2	1	14.5	1	284	5.9	264
18-Jun-09	9:00				2	2	15.7	1.7	275	5.6	288
18-Jun-09	10:00				3	3	16.6	1.3	268	2.1	212
18-Jun-09	11:00				5	5	15.3	1.7	255	3.8	209
18-Jun-09	12:00				8	4	15.5	1	261	4.6	242
18-Jun-09	13:00				8	3	16.6	1.1	271	2.4	214
18-Jun-09	14:00	3.1	11.1	5	6	4	16	0.8	263	5.9	220
18-Jun-09	15:00	3.9	13.6	5	6	3	16.6	1.2	261	3.5	224
18-Jun-09	16:00	2.2	9.6	5	6	3	15.5	0.8	279	6.1	243
18-Jun-09	17:00	16.0	18.0	21	9	4	15.1	1.6	280	8.0	244
18-Jun-09	18:00	4.0	17.2	7	7	4	13.2	1.1	275	7.5	244
18-Jun-09	19:00	7.5	20.3	19	8	4	13.5	2.2	284	7.7	239
18-Jun-09	20:00	70.7	46.1	132	6	6	16	2.6	293	7.0	222
18-Jun-09	21:00	0.9	11.7	11	8	3	15.2	1.3	301	7.4	225
18-Jun-09	22:00	3.2	26.0	6	4	4	15.1	0.7	269	5.8	218
18-Jun-09	23:00	4.4	22.0	11	5	3	14.8	0.8	258	6.0	228

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
18-Jun-09	0:00	0.1	7.1	8	5	3	15.2	1.1	285	6.9	220
19-Jun-09	1:00	0.1	0.6	5	3	2	15.5	1.3	307	9.2	229
19-Jun-09	2:00	0.1	1.5	4	3	4	14.5	0.6	259	9.4	224
19-Jun-09	3:00	0.1	1.1	4	6	4	12.4	1.5	211	9.8	226
19-Jun-09	4:00	0.2	17.8	9	6	4	11.3	1.5	202	8.4	260
19-Jun-09	5:00	0.1	8.0	5	5	4	11	0.8	228	4.2	272
19-Jun-09	6:00	2.2	16.5	6	5	4	11	0.8	236	2.6	245
19-Jun-09	7:00	4.2	20.1	6	5	4	10.9	1.3	227	4.0	244
19-Jun-09	8:00	8.0	16.8	6	5	4	12.5	0.9	246	4.1	273
19-Jun-09	9:00	10.7	17.4	6	4	4	12.6	1.1	239	4.5	292
19-Jun-09	10:00	8.9	15.3	5	6	4	13.3	1.6	246	2.3	264
19-Jun-09	11:00	4.6	10.9	5	6	2	16.2	1.6	268	3.7	197
19-Jun-09	12:00				5	1	17.4	2.9	285	2.8	162
19-Jun-09	13:00	1.4	7.3	4	2	2	16.5	2.3	279	2.9	213
19-Jun-09	14:00	2.5	9.0	4	3	2	16.1	3.5	286	6.4	216
19-Jun-09	15:00	0.7	4.2	4	4	1	16.7	3.5	284	4.6	204
19-Jun-09	16:00	0.1	5.6	4	3	1	16.3	5.3	288	6.5	215
19-Jun-09	17:00	58.4	24.7	84	3	4	16.3	4.7	293	6.9	210
19-Jun-09	18:00	219.0	64.7	274	6	10	16.1	4.2	295	8.0	210
19-Jun-09	19:00	223.4	63.9	247	12	9	14.6	4	297	8.1	232
19-Jun-09	20:00	207.3	67.6	258	13	9	13.4	4.9	298	10.2	250
19-Jun-09	21:00	128.5	57.2	184	13	9	12.9	4.6	303	10.0	237
19-Jun-09	22:00	73.8	46.1	107	12	8	12.5	3.3	297	10.1	247
19-Jun-09	23:00	201.8	71.2	252	11	12	12.3	2.8	289	11.5	247
19-Jun-09	0:00	75.2	23.9	96	15	8	12	3.7	288	13.1	258
20-Jun-09	1:00	0.1	6.9	8	10	7	11.6	3.4	286	11.9	258
20-Jun-09	2:00	0.1	3.4	6	9	6	11.5	3.3	292	10.8	261
20-Jun-09	3:00	0.1	2.7	5	8	5	11.3	2.8	291	10.1	259
20-Jun-09	4:00	0.1	3.4	5	7	5	11.4	2.2	292	11.4	265
20-Jun-09	5:00	0.1	3.3	5	7	4	11.4	2.3	296	10.0	267
20-Jun-09	6:00	0.7	6.3	5	6	4	11.4	1.9	299	9.9	273
20-Jun-09	7:00	0.7	6.7	4	6	4	11.9	1.9	294	9.6	258
20-Jun-09	8:00	1.0	5.9	4	6	4	12.8	1.6	294	9.6	256
20-Jun-09	9:00	2.5	7.8	4	6	4	13.7	2.2	291	9.3	259
20-Jun-09	10:00	5.6	10.5	4	6	4	15	1.3	275	9.8	260
20-Jun-09	11:00				7	5	14.5	1.2	272	8.9	261
20-Jun-09	12:00	0.7	6.9	4	9	4	14.2	1.9	291	7.6	263
20-Jun-09	13:00	4.5	12.3	4	6	4	14.9	1.4	280	6.9	264
20-Jun-09	14:00	1.7	7.7	4	9	3	15.1	1.6	297	5.5	272
20-Jun-09	15:00	2.6	7.8	4	5	3	16.1	1.4	288	4.8	276

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
20-Jun-09	16:00	10.1	18.6	13	5	3	16.1	1.3	271	3.9	267
20-Jun-09	17:00	68.1	37.1	77	7	4	15.7	1.8	281	5.2	263
20-Jun-09	18:00	239.7	65.9	268	7	5	15.2	3.5	288	7.2	242
20-Jun-09	19:00	58.9	42.3	81	7	4	14.4	2.2	295	7.3	229
20-Jun-09	20:00	14.5	17.2	23	6	4	13	2.3	293	6.3	265
20-Jun-09	21:00	23.5	28.1	43	6	4	12.5	2.7	291	4.5	261
20-Jun-09	22:00	11.9	22.8	25	5	4	12.1	2.4	297	5.2	271
20-Jun-09	23:00	21.1	25.8	41	5	5	11.7	2.2	299	4.3	267
20-Jun-09	0:00	11.7	16.7	25	7	5	11.4	2.2	286	5.7	236
21-Jun-09	1:00	0.1	4.6	6	7	5	11.3	2.4	287	7.8	238
21-Jun-09	2:00	0.1	3.1	5	7	6	11.4	2.1	291	7.5	249
21-Jun-09	3:00	0.1	3.8	5	7	6	11.5	1.5	291	6.5	257
21-Jun-09	4:00	0.1	2.1	4	8	5	11.4	2	298	5.0	270
21-Jun-09	5:00	0.4	9.6	5	7	5	11.1	1.3	285	5.1	269
21-Jun-09	6:00	6.6	16.3	12	7	5	11.5	1.5	294	5.5	269
21-Jun-09	7:00	0.5	7.1	7	7	4	12.2	1.3	290	7.0	273
21-Jun-09	8:00	5.6	19.7	17	7	4	12.7	1.3	288	7.7	267
21-Jun-09	9:00	1.4	6.5	6	8	4	13.4	1.4	299	6.3	270
21-Jun-09	10:00				7	5	14.2	1.2	61	6.6	276
21-Jun-09	11:00	10.0	17.0	20	8	4	15.1	1	280	6.2	278
21-Jun-09	12:00	4.4	8.2	12	6	3	15.9	2	257	6.5	282
21-Jun-09	13:00	29.4	15.5	49	7	5	15.9	2	244	5.4	272
21-Jun-09	14:00	28.9	19.1	56	8	3	16.6	3.2	294	5.4	270
21-Jun-09	15:00	1.0	3.3	4	6	2	16.4	3.1	299	4.7	261
21-Jun-09	16:00	0.5	2.7	3	5	3	15.8	2.7	302	3.7	252
21-Jun-09	17:00	0.9	3.6	3	6	3	16.1	3.1	297	4.0	261
21-Jun-09	18:00	0.2	2.1	3	6	3	15	3.4	298	3.8	292
21-Jun-09	19:00	0.4	2.7	3	6	3	14.6	3.4	297	2.8	266
21-Jun-09	20:00	0.1	1.1	3	5	4	13.7	3.2	294	4.5	234
21-Jun-09	21:00	0.1	2.1	3	7	6	13.1	3.6	298	5.7	254
21-Jun-09	22:00	0.1	1.7	3	10	6	12.7	2.5	296	9.1	268
21-Jun-09	23:00	0.1	2.3	3	9	6	12.4	2.6	299	8.6	275
21-Jun-09	0:00	0.1	3.1	4	9	7	12.3	2.7	298	8.8	277
22-Jun-09	1:00	0.1	2.9	4	9	7	12.3	2.8	296	8.3	274
22-Jun-09	2:00	0.1	0.8	3	9	6	12.1	3.2	292	11.1	272
22-Jun-09	3:00	0.1	0.4	3	8	5	11.9	3.1	290	10.3	270
22-Jun-09	4:00	0.1	0.6	3	7	5	11.7	2.9	293	8.9	270
22-Jun-09	5:00	0.1	0.6	3	6	5	11.6	2.6	290	11.1	270
22-Jun-09	6:00	0.1	2.1	3	6	5	11.9	2.1	294	7.6	270
22-Jun-09	7:00	0.2	3.1	3	7	4	12.3	2.4	292	7.6	271

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
22-Jun-09	8:00	1.4	6.1	3	6	6	13.1	3.1	290	7.8	270
22-Jun-09	9:00				9	6	13.9	3.4	289	8.0	266
22-Jun-09	10:00	1.9	5.7	3	9	4	14.9	3.7	291	9.1	263
22-Jun-09	11:00	0.6	3.6	3	7	3	16	3.3	291	9.4	265
22-Jun-09	12:00	1.0	4.4	3	6	3	16.9	2.9	291	9.4	271
22-Jun-09	13:00	0.4	2.9	3	6	3	17	3.3	298	8.4	267
22-Jun-09	14:00	1.6	5.9	3	7	3	17.4	3	292	7.8	269
22-Jun-09	15:00	2.2	7.1	3	7	3	17.7	1.9	285	7.6	267
22-Jun-09	16:00	1.0	4.6	3	8	3	17.8	2	276	8.1	265
22-Jun-09	17:00	0.6	3.3	3	10	3	17.2	2.2	275	8.6	265
22-Jun-09	18:00	0.4	3.4	3	7	3	16.9	2.3	277	9.2	264
22-Jun-09	19:00	0.9	6.3	3	7	3	16.4	1.9	283	9.0	264
22-Jun-09	20:00	0.1	7.1	3	8	4	14.9	1.4	254	7.8	260
22-Jun-09	21:00	0.1	7.7	3	8	5	12	0.9	246	8.3	269
22-Jun-09	22:00	0.1	5.2	3	10	6	11.2	1.1	235	8.2	266
22-Jun-09	23:00	0.1	6.3	3	8	6	11.4	1.2	268	7.2	246
22-Jun-09	0:00	0.1	8.4	3	7	6	11	0.8	270	6.8	246
23-Jun-09	1:00	0.1	2.5	3	8	6	10.7	1	281	8.1	246
23-Jun-09	2:00	0.1	2.1	3	8	6	10.4	1.2	288	8.1	249
23-Jun-09	3:00	0.1	1.3	3	7	6	10.1	1.5	288	6.8	256
23-Jun-09	4:00	0.1	3.4	3	7	7	9.8	0.4	302	6.0	252
23-Jun-09	5:00	0.1	8.0	2	8	6	9.8	0.1	307	4.8	230
23-Jun-09	6:00	2.2	14.5	3	8	7	11.9	0.1	11	5.2	228
23-Jun-09	7:00	5.5	16.1	3	8	7	12.5	0.3	344	5.3	228
23-Jun-09	8:00				10	8	12.5	1.3	232	5.9	237
23-Jun-09	9:00	2.1	6.5	3	12	8	13.5	2	191	6.1	246
23-Jun-09	10:00	3.2	8.6	6	10	8	13.3	1.8	211	5.8	253
23-Jun-09	11:00	11.5	19.5	7	11	9	12.9	1.3	233	5.1	256
23-Jun-09	12:00	7.9	16.1	9	13	8	13.5	1	245	3.3	265
23-Jun-09	13:00	3.5	11.1	14	11	7	14.8	0.8	257	0.9	278
23-Jun-09	14:00	5.9	14.5	7	9	7	15.3	0.7	263	0.1	340
23-Jun-09	15:00	4.9	11.1	3	12	6	15	0.9	258	0.3	21
23-Jun-09	16:00	9.0	20.7	3	9	6	15.6	0.6	255	1.3	204
23-Jun-09	17:00	7.1	20.5	3	12	6	14.6	0.9	239	3.7	149
23-Jun-09	18:00	0.9	7.8	3	9	5	14.6	0.8	245	3.5	176
23-Jun-09	19:00	0.1	10.1	3	12	6	13.2	1	217	2.5	198
23-Jun-09	20:00	3.0	28.9	9	16	6	12.2	0.9	229	2.1	217
23-Jun-09	21:00	0.1	7.7	3	11	5	12.2	0.6	243	2.1	247
23-Jun-09	22:00	0.1	11.5	3	7	5	12.9	0.5	259	3.3	227
23-Jun-09	23:00	0.1	8.4	3	7	5	12.5	1	215	4.3	223

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
23-Jun-09	0:00	0.1	3.6	3	6	6	11.6	0.7	196	4.7	223
24-Jun-09	1:00	0.1	6.7	3	9	6	11.1	0.6	216	4.9	217
24-Jun-09	2:00	0.1	10.9	3	9	7	11.4	0.5	84	6.0	223
24-Jun-09	3:00	0.1	11.3	3	10	7	11.7	0.5	157	4.4	211
24-Jun-09	4:00	0.1	15.1	3	10	7	12.5	0.5	98	2.4	200
24-Jun-09	5:00	0.1	17.0	4	9	6	11.4	0.4	135	5.9	237
24-Jun-09	6:00	1.6	23.7	4	8	7	11.8	0.5	71	3.1	245
24-Jun-09	7:00				10	8	12.7	1.1	73	1.8	176
24-Jun-09	8:00	11.1	34.3	4	12	8	12.8	1	2	1.0	162
24-Jun-09	9:00	2.4	15.5	4	15	7	11.2	0.5	247	2.7	215
24-Jun-09	10:00	6.4	22.2	4	9	9	12	0.4	194	1.5	316
24-Jun-09	11:00	9.9	23.5	4	12	8	13.3	1	152	1.6	118
24-Jun-09	12:00	6.4	17.4	3	11	8	11.1	1.2	267	1.6	115
24-Jun-09	13:00	8.4	20.1	4	11	8	12.9	0.7	249	3.0	134
24-Jun-09	14:00	10.4	20.9	5	10	7	13.4	1	264	1.0	80
24-Jun-09	15:00	9.1	22.4	7	10	8	14	1.2	258	2.0	46
24-Jun-09	16:00	8.6	22.2	7	11	9	15.1	0.9	267	1.9	351
24-Jun-09	17:00	10.6	17.6	23	12	6	17.4	1.7	289	1.4	201
24-Jun-09	18:00	5.4	7.1	17	8	4	16.6	3	304	0.9	140
24-Jun-09	19:00	3.6	7.3	9	6	3	16.3	2.1	303	3.3	147
24-Jun-09	20:00	0.1	2.1	4	4	2	15.3	2.5	310	2.8	249
24-Jun-09	21:00	0.1	1.5	2	3	2	15.1	1.3	319	1.1	203
24-Jun-09	22:00	0.1	2.9	3	2	2	15.1	1.4	296	1.6	229
24-Jun-09	23:00	2.9	12.6	13	3	2	14.9	1.3	293	2.6	249
24-Jun-09	0:00	0.1	3.8	3	3	2	14.5	0.6	220	3.4	229
25-Jun-09	1:00	0.1	12.8	5	3	4	12.6	1.2	181	6.2	254
25-Jun-09	2:00	0.1	5.6	4	4	3	11.8	1.6	264	9.6	275
25-Jun-09	3:00	0.1	0.8	2	4	2	12.2	1.6	297	8.3	284
25-Jun-09	4:00	0.1	1.3	2	2	2	12.5	0.6	268	8.8	284
25-Jun-09	5:00	0.1	4.0	2	3	2	11.8	1.4	214	6.6	296
25-Jun-09	6:00				3	2	11.4	1.4	218	5.6	294
25-Jun-09	7:00	3.6	20.7	7	3	2	11.9	1.9	215	5.5	283
25-Jun-09	8:00	2.6	12.4	6	2	3	12.9	1.4	226	3.0	260
25-Jun-09	9:00	2.1	12.8	4	4	3	12.3	1.3	229	2.5	133
25-Jun-09	10:00	4.7	11.3	3	7	5	14.2	1	244	4.3	234
25-Jun-09	11:00	34.4	20.9	42	8	6	15.5	2.7	274	6.9	268
25-Jun-09	12:00	67.7	32.0	84	8	5	16.4	3.5	292	3.5	251
25-Jun-09	13:00	134.2	45.0	162	6	4	16.2	4.2	291	3.5	206
25-Jun-09	14:00	122.5	45.8	157	12	6	16.1	3.6	292	4.9	196
25-Jun-09	15:00	151.6	50.2	188	9	6	16.1	4.5	291	6.4	191

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
25-Jun-09	16:00	180.5	57.4	210	14	9	15.5	5.4	292	6.1	194
25-Jun-09	17:00	148.6	50.9	171	15	10	15.1	4.7	291	6.1	197
25-Jun-09	18:00	5.5	13.0	7	11	8	14.2	5.7	289	5.0	202
25-Jun-09	19:00	18.1	36.4	32	12	9	13.8	4.1	293	7.0	234
25-Jun-09	20:00	3.2	13.6	12	12	9	12.2	4	288	9.5	254
25-Jun-09	21:00	0.5	6.5	4	12	9	11.3	3.7	286	10.2	255
25-Jun-09	22:00	0.6	5.7	5	12	9	11.1	3.1	289	10.5	253
25-Jun-09	23:00	0.1	1.9	3	12	9	11.1	2.9	295	11.2	254
25-Jun-09	0:00	0.1	4.6	5	12	9	10.8	2.3	296		
26-Jun-09	1:00	0.1	3.3	4	13	9	10.5	1.5	294		
26-Jun-09	2:00	0.1	6.5	4	15	11	10.5	1.7	286		
26-Jun-09	3:00	0.1	6.1	4	16	12	10.5	0.9	277		
26-Jun-09	4:00	0.1	4.6	2	15	11	10.3	0.4	291		
26-Jun-09	5:00				14	10	10	0.2	279		
26-Jun-09	6:00	3.7	20.5	2	15	11	10.1	0.2	344		
26-Jun-09	7:00	2.1	10.9	2	16	10	11	0.5	287		
26-Jun-09	8:00	3.2	9.4	2	17	10	12.8	0.5	283		
26-Jun-09	9:00	5.2	8.6	4	10	7	12.5	1.3	226		
26-Jun-09	10:00	4.6	9.4	5	8	6	12.8	1.3	221		
26-Jun-09	11:00	2.7	7.1	4	14	5	13.4	1.2	238		
26-Jun-09	12:00	1.4	5.0	3	3	2	14.9	1.4	228		
26-Jun-09	13:00	3.0	6.1	5	3	3	14.7	1.7	220		
26-Jun-09	14:00	1.9	5.7	3	5	3	14.8	2.7	208		
26-Jun-09	15:00	2.5	7.1	4	7	5	14.8	2.5	212		
26-Jun-09	16:00	2.1	7.7	5	16	9	13.3	2.2	227		
26-Jun-09	17:00	4.4	10.5	4	19	12	13.2	1.5	248		
26-Jun-09	18:00	4.4	10.0	4	19	10	13.2	1.1	256		
26-Jun-09	19:00	3.0	10.3	2	18	12	12.1	1.6	241		
26-Jun-09	20:00	1.1	9.4	2	16	10	12	1.2	234		
26-Jun-09	21:00	0.5	8.0	2	12	7	11.9	0.9	247		
26-Jun-09	22:00	2.6	20.3	6	11	7	11	1	242		
26-Jun-09	23:00	2.6	11.1	7	9	6	10.6	0.7	249		
26-Jun-09	0:00	0.0	2.7	3	7	5	10.6	0.9	273		
27-Jun-09	1:00	0.0	1.9	2	6	5	10.5	1.1	271		
27-Jun-09	2:00	0.0	2.7	2	7	6	10.3	0.6	257		
27-Jun-09	3:00	0.0	3.1	2	7	6	10	0.7	312		
27-Jun-09	4:00				7	5	9.6	0.6	271		
27-Jun-09	5:00	0.0	5.2	2	6	5	9.5	1.1	280		
27-Jun-09	6:00	2.6	12.3	2	6	5	10.6	0.5	268		
27-Jun-09	7:00	0.7	4.0	2	6	5	11	0.8	272		

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
27-Jun-09	8:00	3.4	9.0	3	7	5	11.7	0.7	253		
27-Jun-09	9:00	8.5	16.1	5	10	5	12.2	0.9	252		
27-Jun-09	10:00	11.1	20.7	9	12	5	12.6	1.6	222		
27-Jun-09	11:00	4.4	11.7	5	12	6	13.2	1.8	223		
27-Jun-09	12:00	7.1	15.3	6	10	4	14.1	1.4	236		
27-Jun-09	13:00	3.0	8.8	4	12	5	13.6	2.4	217		
27-Jun-09	14:00	1.6	6.5	2	10	5	14	2.1	239		
27-Jun-09	15:00	1.1	4.6	2	9	5	17.7	2.3	273		
27-Jun-09	16:00	1.7	5.4	3	15	7	15.5	1.4	260		
27-Jun-09	17:00	24.6	22.6	27	13	7	16.2	1.7	296		
27-Jun-09	18:00	39.4	32.7	51	10	5	18.3	0.8	252		
27-Jun-09	19:00	4.2	12.8	12	10	4	14.1	1.1	212		
27-Jun-09	20:00	2.4	21.8	6	4	3	13.5	0.6	311		
27-Jun-09	21:00	28.8	24.7	28	1	1	12.9	1.2	271		
27-Jun-09	22:00	0.7	12.6	3	1	1	11.9	1	237		
27-Jun-09	23:00	5.2	20.3	10	2	1	12.6	0.7	223		
27-Jun-09	0:00	7.0	29.9	14	1	1	12.6	0.8	239		
28-Jun-09	1:00	0.0	15.9	5	1	1	12	0.7	263		
28-Jun-09	2:00	0.0	1.7	3	4	4	12.6	2.1	300		
28-Jun-09	3:00				4	4	11.5	2.6	292		
28-Jun-09	4:00	0.0	1.9	2	8	7	10.9	2.6	290		
28-Jun-09	5:00	0.0	2.9	2	10	9	10.4	1.9	295		
28-Jun-09	6:00	0.5	4.6	2	10	8	10.9	1.5	296		
28-Jun-09	7:00	0.4	3.1	2	10	8	11.6	1.6	294		
28-Jun-09	8:00	0.5	2.9	2	10	8	12.2	2.2	289		
28-Jun-09	9:00	1.1	4.2	2	12	10	13.5	2.1	289		
28-Jun-09	10:00	2.5	7.7	4	13	9	14.5	1.5	281		
28-Jun-09	11:00	3.2	8.0	2	11	7	15.4	1.4	281		
28-Jun-09	12:00	1.1	4.6	2	6	4	16.3	1.2	280		
28-Jun-09	13:00	2.0	6.5	2	3	2	16.5	1	254		
28-Jun-09	14:00	3.0	8.8	2	4	2	17.2	1	254		
28-Jun-09	15:00	1.4	5.0	2	3	2	17.7	1.2	230		
28-Jun-09	16:00	1.1	5.6	2	13	3	18.1	1.4	219		
28-Jun-09	17:00	0.6	4.6	2	17	5	17.1	1.5	229		
28-Jun-09	18:00	0.5	4.0	2	8	5	17.4	1.3	278		
28-Jun-09	19:00	0.9	4.8	2	8	6	15.5	2.7	285		
28-Jun-09	20:00	0.1	4.4	2	10	7	13.9	2	284		
28-Jun-09	21:00	0.0	2.9	2	11	8	11.9	1.4	280		
28-Jun-09	22:00	0.0	3.3	2	11	8	11.5	1.3	281		
28-Jun-09	23:00	0.0	4.4	2	11	8	11.1	1.1	275		

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
28-Jun-09	0:00	0.0	5.2	2	12	8	11.2	0.4	275		
29-Jun-09	1:00	0.0	7.7	2	11	8	10.6	0.6	271		
29-Jun-09	2:00				11	8	10	0.4	265		
29-Jun-09	3:00	0.0	9.4	2	10	7	9.1	0.3	181		
29-Jun-09	4:00	0.2	12.6	2	10	8	9	0.1	38		
29-Jun-09	5:00	6.4	20.1	1	9	7	9.3	0.2	23		
29-Jun-09	6:00	9.2	17.4	2	9	7	11.1	0.3	36		
29-Jun-09	7:00	9.2	17.6	2	9	7	12.7	0.3	292		
29-Jun-09	8:00	5.6	10.5	2	9	6	12.7	0.5	244		
29-Jun-09	9:00	2.9	6.7	2	9	6	13.4	0.8	238		
29-Jun-09	10:00	4.7	11.1	3	10	6	14.7	1.2	221		
29-Jun-09	11:00	5.5	11.9	7	11	6	14.2	1.4	226		
29-Jun-09	12:00	3.6	8.8	4	13	7	14.4	1.2	228		
29-Jun-09	13:00	2.7	6.9	3	11	8	13.8	1.6	227		
29-Jun-09	14:00	3.2	7.5	4	13	9	12.8	2.8	207		
29-Jun-09	15:00	1.7	5.7	3	16	11	13.2	2.1	204		
29-Jun-09	16:00	1.4	4.8	3	15	9	13	2.5	212		
29-Jun-09	17:00			2	16	8	14.1	1.8	211		
29-Jun-09	18:00	1.6	10.1	1	16	6	15.7	1.1	221		
29-Jun-09	19:00	1.7	13.4	2	7	3	18.5	1.3	303		
29-Jun-09	20:00	1.1	11.1	2	7	4	16.9	1.4	342		
29-Jun-09	21:00	0.0	6.1	1	9	6	13.7	0.5	254		
29-Jun-09	22:00	0.1	6.7	2	11	7	12.3	0.9	275		
29-Jun-09	23:00	0.0	5.0	1	10	7	12.4	1.5	284		
29-Jun-09	0:00				12	9	11.5	0.6	261		
30-Jun-09	1:00	0.0	7.8	1	11	9	10.7	0.3	241		
30-Jun-09	2:00	0.7	33.7	1	12	9	10.3	0.1	255		
30-Jun-09	3:00	0.0	13.8	1	9	7	10.3	0.2	225		
30-Jun-09	4:00	0.0	12.3	1	9	7	9.9	0.3	115		
30-Jun-09	5:00	0.4	16.7	2	10	8	9.8	0.1	99		
30-Jun-09	6:00	5.2	19.7	1	12	9	12.1	0.3	157		
30-Jun-09	7:00	5.7	13.0	2	11	8	13	0.6	207		
30-Jun-09	8:00	7.6	12.6	1	11	7	12.8	0.5	239		
30-Jun-09	9:00	6.2	10.7	2	12	8	12.8	0.9	235		
30-Jun-09	10:00	5.6	10.7	2	23	9	13.6	0.9	246		
30-Jun-09	11:00	10.5	18.0	4	18	9	14.1	0.9	266		
30-Jun-09	12:00				11	7	14.7	0.9	258		
30-Jun-09	13:00	6.1	15.5	4	11	7	15.1	1.1	244		
30-Jun-09	14:00	5.6	15.1	4	11	7	15.3	1.3	233		
30-Jun-09	15:00	7.6	17.4	3	11	7	16.3	0.9	248		

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
30-Jun-09	16:00	3.5	12.3	3	12	6	16.8	0.8	265		
30-Jun-09	17:00	4.1	16.7	3	12	7	16.6	0.8	268		
30-Jun-09	18:00	2.0	12.4	2	15	6	17.4	0.6	265		
30-Jun-09	19:00	2.0	13.6	2	9	5	17.1	0.7	267		
30-Jun-09	20:00	0.2	10.9	2	11	5	15	0.6	241		
30-Jun-09	21:00	0.0	10.5	1	10	5	13	0.6	255		
30-Jun-09	22:00	0.0	8.0	1	7	4	13	0.5	287		
30-Jun-09	23:00	0.0	16.8	1	7	5	12.7	0.3	45		
30-Jun-09	0:00				9	6	12.3	0.3	33		
1-Jul-09	1:00	22.3	50.3	2	11	8	11.9	0.3	8		
1-Jul-09	2:00	22.7	48.2	2	10	8	11.7	1	71		
1-Jul-09	3:00	24.6	46.1	2	10	7	11	0.5	83		
1-Jul-09	4:00	19.8	42.3	2	9	7	10	0.4	52		
1-Jul-09	5:00	13.8	36.2	2	8	6	10	0.5	53		
1-Jul-09	6:00	13.5	33.3	2	11	6	12.8	0.3	74		
1-Jul-09	7:00	20.5	37.3	4	14	8	14.6	0.3	259		
1-Jul-09	8:00	9.4	19.1	6	10	6	13.7	0.6	252		
1-Jul-09	9:00	13.5	22.8	5	10	6	15.1	0.7	280		
1-Jul-09	10:00	4.2	10.1	3	11	7	18.7	1.5	72		
1-Jul-09	11:00	3.0	9.6	3	9	7	19.4	2.4	85		
1-Jul-09	12:00	1.9	7.3	3	9	7	20.3	2	75		
1-Jul-09	13:00	8.7	19.5	4	12	7	20.7	1.1	10		
1-Jul-09	14:00	6.4	17.0	5	13	8	18.2	1.1	255		
1-Jul-09	15:00	4.9	15.3	4	11	8	17.4	1.3	274		
1-Jul-09	16:00	2.7	12.1	3	11	7	19.4	0.9	276		
1-Jul-09	17:00	3.1	14.0	2	11	8	19.9	0.8	256		
1-Jul-09	18:00	2.1	13.6	2	12	8	19.5	0.8	236		
1-Jul-09	19:00	0.5	10.9	2	10	7	20	0.7	223		
1-Jul-09	20:00	0.4	16.3	2	11	8	17.7	0.4	237		
1-Jul-09	21:00	0.0	14.5	2	14	8	14.7	0.2	240		
1-Jul-09	22:00	0.5	25.7	2	12	8	14.4	0.4	180		
1-Jul-09	23:00				20	10	14.6	0.3	10		
1-Jul-09	0:00	18.2	61.8	2	16	11	14.1	0.3	33		
2-Jul-09	1:00	23.2	56.1	2	16	12	14	0.5	66		
2-Jul-09	2:00	25.2	52.5	2	15	12	13.1	0.8	72		
2-Jul-09	3:00	11.2	50.0	2	13	10	12.5	0.4	41		
2-Jul-09	4:00	5.0	45.2	2	15	12	11.7	0.3	355		
2-Jul-09	5:00	6.9	35.4	2	12	10	11.6	0.6	53		
2-Jul-09	6:00	11.1	35.6	2	10	7	13.5	0.5	57		
2-Jul-09	7:00	20.8	40.8	2	18	8	16.7	0.3	3		

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
2-Jul-09	8:00	44.2	55.5	5	16	8	17	0.5	282		
2-Jul-09	9:00	25.3	39.6	7	12	7	17	0.7	266		
2-Jul-09	10:00	11.0	21.1	5	12	6	19	1.7	52		
2-Jul-09	11:00	2.9	9.2	2	11	6	21.1	2.7	81		
2-Jul-09	12:00	2.0	7.8	2	10	6	21.8	2.6	76		
2-Jul-09	13:00	5.1	14.2	2	13	6	22.6	1.7	52		
2-Jul-09	14:00	16.5	30.6	7	15	8	19.4	1.2	280		
2-Jul-09	15:00	8.6	21.4	9	10	7	18.5	1.5	275		
2-Jul-09	16:00	4.9	18.6	7	14	7	19.9	0.9	256		
2-Jul-09	17:00	2.9	14.7	5	12	6	21.2	0.6	259		
2-Jul-09	18:00	2.5	19.3	5	14	7	22.7	0.4	261		
2-Jul-09	19:00	5.2	35.4	5	15	7	20.7	0.6	254		
2-Jul-09	20:00	1.9	35.4	10	13	7	19.3	0.6	219		
2-Jul-09	21:00	0.0	16.3	2	13	7	17.1	0.5	228		
2-Jul-09	22:00				16	8	16.1	0.3	241		
2-Jul-09	23:00	0.0	20.5	2	11	7	14.8	0.6	206		
2-Jul-09	0:00	0.0	13.2	2	11	7	13.7	0.3	195		
3-Jul-09	1:00	3.0	35.0	2	11	8	14.3	0.4	30		
3-Jul-09	2:00	13.0	61.1	4	15	9	14.8	0.9	66		
3-Jul-09	3:00	0.5	46.7	3	14	9	14.6	0.5	94		
3-Jul-09	4:00	0.0	32.0	4	11	9	13	0.4	184		
3-Jul-09	5:00	2.5	26.0	5	10	8	12.7	0.1	176		
3-Jul-09	6:00	10.1	36.4	9	12	9	15.3	0.1	19		
3-Jul-09	7:00	26.3	48.8	14	17	9	17.3	0.2	19		
3-Jul-09	8:00	22.3	44.8	14	18	9	18	0.7	281		
3-Jul-09	9:00	9.0	26.6	18	10	6	18.6	1	223		
3-Jul-09	10:00	11.9	29.1	17	10	6	18.9	1.1	221		
3-Jul-09	11:00	20.1	33.9	9	12	7	18.1	0.9	256		
3-Jul-09	12:00	12.3	24.7	8	11	7	19.5	0.8	248		
3-Jul-09	13:00	3.2	14.2	5	9	6	20.3	1.1	233		
3-Jul-09	14:00	4.7	17.6	5	10	7	20.2	0.9	238		
3-Jul-09	15:00	12.3	32.5	23	18	7	20.3	0.8	256		
3-Jul-09	16:00	2.0	16.3	5	22	8	20.6	0.8	247		
3-Jul-09	17:00	1.7	15.9	6	14	8	20.6	1.1	228		
3-Jul-09	18:00	2.2	18.4	4	14	8	21.1	1	248		
3-Jul-09	19:00	2.5	17.2	2	16	10	18.4	1.2	245		
3-Jul-09	20:00	0.6	17.2	2	17	10	17.5	1.3	222		
3-Jul-09	21:00				15	8	18.1	1.1	220		
3-Jul-09	22:00	0.1	18.8	4	16	9	16.7	0.5	243		
3-Jul-09	23:00	2.1	34.8	15	17	10	17.3	0.6	231		

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
3-Jul-09	0:00	0.0	18.0	4	17	12	14.4	0.7	173	11.9	254
4-Jul-09	1:00	0.0	33.9	6	17	12	14.5	0.5	190	2.4	174
4-Jul-09	2:00	0.0	29.9	4	18	13	14	0.3	128	3.8	215
4-Jul-09	3:00	0.0	26.0	3	20	15	13.4	0.2	154	5.2	214
4-Jul-09	4:00	0.2	25.3	3	18	14	12.8	0.2	319	3.4	178
4-Jul-09	5:00	0.4	23.2	3	15	11	12.3	0.2	320	1.4	199
4-Jul-09	6:00	4.7	24.1	3	17	12	14.5	0.1	342	4.8	233
4-Jul-09	7:00	9.6	23.7	3	12	9	15	0.3	249	1.9	265
4-Jul-09	8:00	12.6	22.0	10	9	7	14.6	0.5	247	1.8	230
4-Jul-09	9:00	9.2	17.4	10	6	5	14.9	0.6	242	1.6	119
4-Jul-09	10:00	13.1	20.9	5	7	5	16	0.6	232	1.1	115
4-Jul-09	11:00	8.7	17.2	6	7	5	15.2	1	235	2.7	141
4-Jul-09	12:00	3.0	11.9	3	8	6	16.6	0.6	247	1.2	127
4-Jul-09	13:00	8.2	18.4	5	10	6	17.7	0.7	262	0.2	301
4-Jul-09	14:00	5.5	18.8	4	9	6	19	0.8	266	0.4	123
4-Jul-09	15:00	3.2	14.9	3	9	6	19.4	0.7	259	1.5	166
4-Jul-09	16:00	2.7	14.2	4	10	6	19.4	0.7	265	1.2	165
4-Jul-09	17:00	2.5	18.0	2	13	7	20.4	0.6	261	1.9	167
4-Jul-09	18:00	15.7	46.9	29	14	8	20.1	0.9	261	1.5	174
4-Jul-09	19:00	3.1	25.7	7	13	9	17.9	0.6	248	1.9	191
4-Jul-09	20:00				14	9	17.1	0.7	235	1.3	192
4-Jul-09	21:00	0.0	20.1	3	17	9	16	0.7	229	1.0	193
4-Jul-09	22:00	0.0	24.3	6	14	10	14.9	0.4	237	1.1	220
4-Jul-09	23:00	1.6	48.4	13	16	12	14.8	0.3	218	1.6	219
4-Jul-09	0:00	4.9	46.5	4	20	14	15.1	0.4	32	1.3	221
5-Jul-09	1:00	18.7	63.0	8	26	18	16.5	0.3	40	1.1	209
5-Jul-09	2:00	2.4	39.6	5	21	17	14.6	0.2	279	1.6	234
5-Jul-09	3:00	1.9	35.8	3	17	14	13.2	0.3	34	1.3	206
5-Jul-09	4:00	6.9	42.3	3	15	12	13.9	0.8	60	1.5	204
5-Jul-09	5:00	2.1	30.1	3	15	12	13.9	0.2	359	1.1	196
5-Jul-09	6:00	5.4	24.5	3	17	14	14.9	0.2	92	0.5	218
5-Jul-09	7:00	12.0	29.7	5	16	12	17	0.3	56	0.9	123
5-Jul-09	8:00	10.9	29.1	7	20	15	17.9	0.4	294	0.7	117
5-Jul-09	9:00	3.4	16.1	6	15	11	19.6	0.6	169	1.1	53
5-Jul-09	10:00	13.5	26.4	7	15	10	20.3	0.9	206	2.2	151
5-Jul-09	11:00	15.2	30.4	7	17	12	18	1.2	246	1.6	156
5-Jul-09	12:00	22.6	33.5	16	16	12	17.4	0.9	251	2.1	32
5-Jul-09	13:00	15.1	25.3	12	14	11	18.1	1.1	267	1.2	128
5-Jul-09	14:00	8.5	24.5	6	12	9	18.7	0.9	264	1.2	101
5-Jul-09	15:00	7.5	26.4	6	14	9	18.6	0.9	270	1.1	125

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
5-Jul-09	16:00	1.2	10.0	3	14	10	18.6	0.9	265	1.0	164
5-Jul-09	17:00	9.2	25.3	7	14	9	20.1	0.6	251	2.4	141
5-Jul-09	18:00	39.3	39.4	11	14	10	19.1	0.9	261	1.9	169
5-Jul-09	19:00				16	10	18.7	1.1	258	2.3	193
5-Jul-09	20:00	26.4	39.6	8	14	10	17.7	1.4	261	1.9	224
5-Jul-09	21:00	15.2	20.9	6	14	10	16.1	1.2	260	2.4	234
5-Jul-09	22:00	0.0	4.8	1	11	7	14.6	0.9	252	3.8	228
5-Jul-09	23:00	3.4	10.9	2	10	7	14.7	1	268	7.5	233
5-Jul-09	0:00	0.0	2.3	1	9	6	15.4	1	301	7.8	222
6-Jul-09	1:00	0.0	2.1	1	6	5	15.4	1.4	299	7.3	240
6-Jul-09	2:00	0.0	6.5	2	7	5	12.9	0.9	224	8.1	248
6-Jul-09	3:00	0.0	6.9	2	8	6	12.6	0.4	248	7.0	254
6-Jul-09	4:00	0.0	11.5	5	7	5	12.4	0.8	189	6.1	249
6-Jul-09	5:00	0.0	12.8	4	6	5	12.7	1.5	182	6.7	241
6-Jul-09	6:00	0.2	11.1	4	6	5	13.6	1.9	192	7.5	232
6-Jul-09	7:00	1.4	10.7	2	6	5	13.7	0.5	231	6.2	240
6-Jul-09	8:00	3.1	23.9	2	9	5	14.2	0.3	65	3.7	286
6-Jul-09	9:00	3.7	22.6	1	9	6	14.2	0.4	183	2.1	327
6-Jul-09	10:00	4.5	17.6	1	8	5	13.3	0.5	226	5.0	201
6-Jul-09	11:00	9.2	20.5	2	9	4	15.9	1	212	5.0	220
6-Jul-09	12:00	4.9	11.9	2	7	2	15.8	1.1	242	2.0	165
6-Jul-09	13:00	11.7	13.6	2	18	2	16.4	2.5	291	3.5	146
6-Jul-09	14:00	18.2	17.8	3	16	2	17.5	3	293	3.5	142
6-Jul-09	15:00	25.1	26.0	6	13	2	18.2	2.3	286	1.1	155
6-Jul-09	16:00	2.0	4.2	1	31	4	17.5	3	296	0.7	115
6-Jul-09	17:00	1.5	5.6	1	7	2	16.5	3.2	303	2.3	146
6-Jul-09	18:00				7	2	16.3	2.8	308	1.4	176
6-Jul-09	19:00	0.4	2.3	1	3	1	16.1	2.7	307	2.1	148
6-Jul-09	20:00	0.0	0.8	1	3	1	15.3	2.8	304	2.4	156
6-Jul-09	21:00	0.0	1.1	1	2	1	14.5	2.2	301	6.9	268
6-Jul-09	22:00	0.0	2.9	1	1	1	14	1.8	297	7.5	260
6-Jul-09	23:00	16.0	14.4	4	1	1	13.6	2.1	292	7.4	253
6-Jul-09	0:00	4.2	7.1	3	1	0	13.2	2.1	288	10.0	274
7-Jul-09	1:00	3.7	9.4	2	2	1	12.7	0.8	266	9.0	282
7-Jul-09	2:00	0.0	0.6	1	1	1	11.8	1	228	9.4	289
7-Jul-09	3:00	0.0	4.2	1	2	1	11.8	0.7	264	9.4	287
7-Jul-09	4:00	0.2	4.6	1	1	1	11.6	0.7	254	8.8	286
7-Jul-09	5:00	24.8	22.8	7	1	1	12.4	1.6	288	9.1	285
7-Jul-09	6:00	5.6	14.4	2	1	1	12.1	1.2	252	6.9	282
7-Jul-09	7:00	2.0	10.1	2	2	2	11.6	0.6	248	7.5	271

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
7-Jul-09	8:00	5.0	13.2	1	3	2	11.8	0.7	239	7.0	265
7-Jul-09	9:00	4.5	14.9	2	4	3	12.2	0.8	232	4.2	234
7-Jul-09	10:00	3.7	15.3	3	3	2	12.2	1.8	198	4.3	202
7-Jul-09	11:00	3.0	9.8	3	3	2	13	1.8	195	4.6	221
7-Jul-09	12:00	1.4	8.4	3	2	2	12.7	2	201	4.1	225
7-Jul-09	13:00	3.7	14.9	5	3	3	12.4	0.8	220	5.9	249
7-Jul-09	14:00	4.5	16.5	4	2	2	11.9	0.8	222	5.5	235
7-Jul-09	15:00	3.6	11.9	2	2	2	12.3	0.4	224	6.0	212
7-Jul-09	16:00	4.7	14.0	2	2	2	13.2	0.3	241	4.8	211
7-Jul-09	17:00				2	1	13.1	0.7	214	4.5	220
7-Jul-09	18:00	4.5	20.1	2	2	2	12.4	0.5	227	3.3	166
7-Jul-09	19:00	1.2	14.0	1	2	1	12	0.7	216	2.9	149
7-Jul-09	20:00	2.7	13.0	1	2	2	11.7	0.6	237	2.5	145
7-Jul-09	21:00	0.7	14.2	2	2	1	11.5	0.5	233	1.6	176
7-Jul-09	22:00	2.0	27.4	5	2	1	11.3	0.7	215	1.5	181
7-Jul-09	23:00	3.1	28.1	5	2	1	11.1	0.6	226	1.0	214
7-Jul-09	0:00	0.0	18.4	3	2	1	11.3	0.3	211	0.1	230
8-Jul-09	1:00	0.2	17.4	4	2	1	11.3	0.3	239	1.2	175
8-Jul-09	2:00	1.2	24.1	6	1	1	11.3	0.2	233	1.1	202
8-Jul-09	3:00	0.6	23.7	4	2	1	11.2	0.3	225	1.7	196
8-Jul-09	4:00	0.1	19.5	3	2	1	11.2	0.2	224	4.2	216
8-Jul-09	5:00	0.0	9.8	3	2	2	11.2	0.8	216	4.5	221
8-Jul-09	6:00	0.0	7.5	2	3	3	11.2	0.7	202	4.4	217
8-Jul-09	7:00	3.1	12.6	2	3	2	11.6	0.1	318	4.0	211
8-Jul-09	8:00	4.7	15.7	2	2	2	12	0.2	151	1.2	178
8-Jul-09	9:00	4.2	12.1	1	2	2	12.9	0.9	111	0.4	205
8-Jul-09	10:00	5.6	13.8	2	3	3	13.2	0.6	148	0.1	228
8-Jul-09	11:00	5.1	10.5	2	4	4	14.2	0.6	138	0.4	190
8-Jul-09	12:00	2.6	7.5	2	3	2	15.2	0.7	151	0.2	102
8-Jul-09	13:00	3.2	10.0	2	3	3	15.2	0.6	140	1.4	168
8-Jul-09	14:00	15.5	20.5	3	5	4	15.4	0.9	316	1.4	170
8-Jul-09	15:00	10.0	20.5	3	5	3	15.6	0.6	233	0.3	66
8-Jul-09	16:00				4	2	15.7	0.6	155	0.8	154
8-Jul-09	17:00	58.1	43.6	14	7	5	14.2	0.8	288	2.1	87
8-Jul-09	18:00	20.7	32.0	4	6	4	13.4	0.3	251	2.6	105
8-Jul-09	19:00	17.6	31.8	4	7	5	14.4	0.2	268	1.7	131
8-Jul-09	20:00	8.1	29.7	2	8	6	13.8	0.3	227	2.1	148
8-Jul-09	21:00	7.1	29.3	2	10	8	13.1	0.2	278	2.1	146
8-Jul-09	22:00	11.4	29.9	3	7	5	13.5	0.7	53	1.2	228
8-Jul-09	23:00	0.4	22.6	2	5	4	13.7	1.1	75	0.9	203

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
8-Jul-09	0:00	0.0	23.4	3	4	4	13.3	1.1	85	0.9	223
9-Jul-09	1:00	0.2	22.8	4	5	4	13.1	0.6	54	2.1	247
9-Jul-09	2:00	0.2	19.5	3	7	6	12.4	0.1	291	2.0	245
9-Jul-09	3:00	5.6	28.3	4	8	7	11.3	0.3	287	0.3	251
9-Jul-09	4:00	3.0	27.2	4	8	7	11.8	0	0	1.0	162
9-Jul-09	5:00	13.6	26.6	4	8	7	12.5	0.1	324	2.3	149
9-Jul-09	6:00	14.0	26.6	4	8	7	12.3	0.5	257	1.0	137
9-Jul-09	7:00	18.2	25.5	7	7	6	12.7	0.2	260	2.0	30
9-Jul-09	8:00	13.8	19.5	5	7	5	13.3	0.5	240	1.3	54
9-Jul-09	9:00	14.7	19.0	5	7	5	14.1	0.4	254	1.0	152
9-Jul-09	10:00	19.6	18.4	4	10	6	14.7	0.5	267	1.4	159
9-Jul-09	11:00	30.9	24.1	5	10	6	15.9	0.6	275	0.7	297
9-Jul-09	12:00	21.7	20.5	6	8	5	16.3	0.9	246		
9-Jul-09	13:00	13.8	18.8	8	8	5	16.4	1.1	240	0.1	310
9-Jul-09	14:00	13.7	18.2	4	6	4	16.2	1	249	1.1	238
9-Jul-09	15:00				7	4	16.9	0.9	263	0.4	248
9-Jul-09	16:00	4.1	12.4	2	8	4	17.2	0.9	268	0.8	200
9-Jul-09	17:00	4.7	12.3	2	7	4	17.8	0.9	269	0.7	195
9-Jul-09	18:00	7.5	18.0	5	7	4	17.7	0.9	277	0.8	207
9-Jul-09	19:00	10.6	25.7	5	8	5	17.2	0.6	272	0.7	199
9-Jul-09	20:00	6.0	24.3	2	8	4	15.4	0.8	248	1.6	204
9-Jul-09	21:00	1.0	11.3	1	5	4	14.2	0.7	257	1.4	176
9-Jul-09	22:00	1.4	17.4	2	6	4	12.8	0.6	240	2.3	201
9-Jul-09	23:00	4.1	19.3	2	6	5	12.9	0.3	282	4.5	219
9-Jul-09	0:00	8.4	18.0	4	6	5	13.1	0.6	285	6.8	222
10-Jul-09	1:00	7.9	17.6	3	7	5	12.4	0.5	235	7.8	225
10-Jul-09	2:00	8.7	20.5	2	7	6	11.8	0.3	229	7.7	231
10-Jul-09	3:00	1.5	18.2	1	8	6	11.6	0	21	5.5	236
10-Jul-09	4:00	9.4	18.2	1	8	6	11.8	0.1	27	5.0	236
10-Jul-09	5:00	23.9	19.9	1	9	7	12.1	0.6	63	5.2	231
10-Jul-09	6:00	33.8	23.4	2	10	7	13.3	0.6	44	5.0	228
10-Jul-09	7:00	27.4	25.7	2	11	9	16.2	0.3	218	4.8	233
10-Jul-09	8:00	22.6	23.7	5	13	9	15.9	0.5	257	4.1	257
10-Jul-09	9:00	11.0	15.3	4	11	8	15.3	0.9	233	1.7	255
10-Jul-09	10:00	11.2	15.3	6	11	8	15.7	1	238	1.1	261
10-Jul-09	11:00	8.7	12.8	3	11	8	15.8	1	243		
10-Jul-09	12:00	17.1	17.8	3	10	7	15.9	0.9	253	0.1	29
10-Jul-09	13:00	17.8	20.7	6	9	6	16.3	1	256	1.4	33
10-Jul-09	14:00				9	6	17.9	0.8	258	1.9	27
10-Jul-09	15:00	7.2	19.5	6	8	6	18.1	1.1	264	0.2	3

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
10-Jul-09	16:00	2.6	14.0	5	8	5	19	1	262	0.9	207
10-Jul-09	17:00	6.2	27.6	7	8	5	20.3	0.7	274	1.4	191
10-Jul-09	18:00	8.5	37.7	4	9	6	20	0.7	280	1.6	186
10-Jul-09	19:00	5.6	37.7	6	9	5	19.6	0.5	282	1.7	203
10-Jul-09	20:00	3.7	31.8	4	14	5	18.3	0.4	242	1.8	218
10-Jul-09	21:00	0.0	16.1	2	7	5	14.9	0.5	217	1.9	237
10-Jul-09	22:00	0.0	18.0	1	8	6	14	0.6	209	2.2	255
10-Jul-09	23:00	0.1	29.3	1	8	6	13.3	0.4	208	2.9	251
10-Jul-09	0:00	0.0	21.2	1	8	7	12.8	0.3	255	3.1	246
11-Jul-09	1:00	0.0	14.0	1	8	6	12.4	0.4	164	3.5	248
11-Jul-09	2:00	0.7	22.4	1	9	7	12.6	0.4	81	3.4	240
11-Jul-09	3:00	3.4	24.1	1	10	8	12	0.4	213	2.5	241
11-Jul-09	4:00	1.7	23.0	1	9	8	11.8	0.3	62	0.6	195
11-Jul-09	5:00	3.4	24.5	1	11	9	11.9	0.1	321	0.7	155
11-Jul-09	6:00	20.8	25.7	2	12	10	13.8	0.3	20	0.8	157
11-Jul-09	7:00	11.2	16.8	2	10	8	14.8	0.5	225	0.6	181
11-Jul-09	8:00	4.7	11.1	2	7	5	13.9	0.5	259	0.3	252
11-Jul-09	9:00	13.0	22.8	10	9	6	17.3	0.4	267	0.7	202
11-Jul-09	10:00	47.3	32.5	33	8	5	15.5	0.8	251	0.9	107
11-Jul-09	11:00	12.6	21.2	9	7	5	16.3	1.5	231	1.3	94
11-Jul-09	12:00	7.6	17.6	4	9	5	18	0.6	264	0.7	30
11-Jul-09	13:00				8	5	18.1	1.1	239	0.4	145
11-Jul-09	14:00	7.1	17.4	6	9	6	18.3	0.7	257	0.2	321
11-Jul-09	15:00	3.5	12.1	2	12	6	20.6	0.6	252	1.8	196
11-Jul-09	16:00	13.5	28.5	6	10	6	20.4	1	233	1.1	192
11-Jul-09	17:00	10.9	29.1	4	11	6	21.5	1.1	249	0.7	138
11-Jul-09	18:00	10.4	27.2	7	13	9	17	1.8	216	1.4	197
11-Jul-09	19:00	7.1	25.8	11	13	9	17.4	1.8	223	2.0	166
11-Jul-09	20:00	13.1	30.4	28	12	7	19	1	225	0.9	186
11-Jul-09	21:00	18.2	22.8	28	11	7	16.2	1.7	237	1.8	166
11-Jul-09	22:00	17.7	26.0	31	11	7	17.9	1.3	266	1.3	189
11-Jul-09	23:00	80.5	26.0	114	13	9	17.4	1.8	301	2.4	216
11-Jul-09	0:00	15.2	23.2	32	11	7	16.9	1.8	263	1.6	185
12-Jul-09	1:00	0.0	2.5	2	10	6	15.8	1.2	262	4.0	226
12-Jul-09	2:00	0.0	2.1	1	9	6	15.6	1.4	281	2.3	173
12-Jul-09	3:00	0.2	6.7	1	11	7	14.2	1.4	221	4.2	208
12-Jul-09	4:00	0.2	2.1	1	9	7	11.9	1.7	215	4.7	236
12-Jul-09	5:00	0.0	2.9	1	7	6	11.7	1	249	6.5	225
12-Jul-09	6:00	1.1	6.5	1	7	5	12.9	0.9	235	5.0	272
12-Jul-09	7:00	12.7	10.7	2	8	6	14	0.9	258	7.4	248

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
12-Jul-09	8:00	13.7	12.4	3	7	6	14.9	1.1	279	6.4	252
12-Jul-09	9:00	6.1	10.7	2	6	5	15.1	1.1	269	9.4	250
12-Jul-09	10:00	2.1	7.1	1	7	5	13.8	1.8	220	7.5	256
12-Jul-09	11:00	7.6	12.8	3	10	7	13.6	1.8	250	3.7	162
12-Jul-09	12:00				10	6	14.8	3.4	217	6.0	206
12-Jul-09	13:00	0.9	4.0	2	9	7	12.9	2.7	233	7.0	226
12-Jul-09	14:00	0.9	3.4	1	10	7	13.2	3.1	219	5.5	226
12-Jul-09	15:00	0.9	4.0	1	12	9	13.2	1.5	239	6.6	228
12-Jul-09	16:00	3.6	7.8	1	14	10	13.5	1.9	246	5.2	248
12-Jul-09	17:00	1.2	7.1	1	15	10	15.3	2.7	235	6.0	240
12-Jul-09	18:00	6.5	13.0	1	14	10	15.9	1.5	273	7.2	210
12-Jul-09	19:00	5.7	14.4	1	13	9	15	1.5	268	8.7	213
12-Jul-09	20:00	0.6	5.2	1	11	7	14.3	1.9	225	7.6	210
12-Jul-09	21:00	0.1	3.4	2	9	7	13.2	2.5	220	11.2	194
12-Jul-09	22:00	0.1	3.6	2	8	6	12.9	1.8	248	9.7	200
12-Jul-09	23:00	0.1	2.9	1	6	5	12.7	1.1	270	9.9	206
12-Jul-09	0:00	10.9	22.0	2	5	5	12.6	2.1	280	9.5	207
13-Jul-09	1:00	12.2	22.8	2	4	4	13.1	2.9	281	8.5	222
13-Jul-09	2:00	1.0	5.2	1	2	2	13.2	2.9	285	10.0	232
13-Jul-09	3:00	0.0	1.0	1	2	2	13.4	3.2	297	8.5	241
13-Jul-09	4:00	0.0	1.7	1	1	1	13	1.6	289	7.1	221
13-Jul-09	5:00	8.6	20.3	2	2	2	12.8	2	286	8.5	208
13-Jul-09	6:00	11.0	23.5	2	3	3	12.9	1.7	282	10.4	212
13-Jul-09	7:00	6.2	13.6	1	2	2	13.4	1	274	10.4	235
13-Jul-09	8:00	22.5	28.7	3	4	3	14.5	1.5	279	9.7	238
13-Jul-09	9:00	15.3	21.4	2	3	2	14.9	2.2	286	7.7	254
13-Jul-09	10:00	7.6	13.0	1	4	2	15.3	2.9	288	8.1	268
13-Jul-09	11:00				5	3	16	3.1	292	8.5	286
13-Jul-09	12:00	11.7	16.7	2	8	5	16.5	1.9	259	6.1	275
13-Jul-09	13:00	1.9	5.2	2	12	5	13.9	2.7	227	6.8	255
13-Jul-09	14:00	2.0	5.6	1	9	4	13.5	3	230	7.2	254
13-Jul-09	15:00	1.9	5.2	1	14	6	13.5	2.2	233	6.3	239
13-Jul-09	16:00	1.4	3.4	1	12	5	14.2	1.3	245	6.5	244
13-Jul-09	17:00	1.1	4.0	1	10	5	14	1.2	254	7.1	253
13-Jul-09	18:00	2.1	6.5	1	8	5	13.6	1.4	256	8.1	260
13-Jul-09	19:00	2.7	7.5	1	8	6	13.2	1.5	246	8.5	270
13-Jul-09	20:00	0.7	5.0	1	8	5	12.6	1.3	246	8.2	247
13-Jul-09	21:00	3.4	12.4	1	5	4	13.4	1.6	270	9.0	200
13-Jul-09	22:00	1.2	7.3	1	3	2	13.5	2.5	285	10.6	200
13-Jul-09	23:00	0.1	3.6	1	2	2	13.1	2.3	283	11.0	201

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
13-Jul-09	0:00	0.0	1.0	1	2	1	12.8	2.5	289	11.5	210
14-Jul-09	1:00	0.0	0.6	1	2	2	12.4	1.6	287	11.5	212
14-Jul-09	2:00	0.0	1.1	1	1	1	12.1	1.7	289	10.8	217
14-Jul-09	3:00	7.9	22.0	1	3	2	11.8	0.8	281	9.8	212
14-Jul-09	4:00	0.0	7.1	1	2	2	11.3	0.5	296	8.1	209
14-Jul-09	5:00	14.6	30.6	2	4	4	11.1	0.3	249	6.5	244
14-Jul-09	6:00	15.0	30.1	1	3	3	11.4	0.3	261	7.5	262
14-Jul-09	7:00	11.5	21.8	1	4	3	12.4	0.3	280	6.6	267
14-Jul-09	8:00	13.2	15.1	1	4	3	13.8	0.5	257	7.4	268
14-Jul-09	9:00	4.1	8.4	1	4	3	14.3	0.7	259	6.6	270
14-Jul-09	10:00				5	3	14	0.9	262	5.9	266
14-Jul-09	11:00	6.0	9.4	2	7	4	14.8	0.9	261	4.6	259
14-Jul-09	12:00	2.9	6.9	2	6	4	14.7	0.9	266	3.7	267
14-Jul-09	13:00	4.5	10.1	2	7	5	15.5	0.8	261	4.1	251
14-Jul-09	14:00	3.4	10.7	1	9	5	16.4	0.8	258	3.3	250
14-Jul-09	15:00	4.1	10.5	1	16	6	16.1	0.9	247	2.9	249
14-Jul-09	16:00	1.7	6.3	1	19	6	15	1.2	231	1.7	242
14-Jul-09	17:00	1.4	6.3	1	10	5	14.7	1.1	227	2.5	217
14-Jul-09	18:00	2.7	6.1	1	9	6	15.8	1.1	254	5.5	226
14-Jul-09	19:00	4.6	11.9	1	9	6	15.4	0.8	254	4.9	225
14-Jul-09	20:00	1.0	5.6	1	7	6	14.6	0.6	259	5.4	223
14-Jul-09	21:00	4.0	10.7	1	9	8	13.5	0.5	250	4.9	222
14-Jul-09	22:00	1.0	9.0	1	7	6	12.5	1	218	4.5	219
14-Jul-09	23:00	3.7	10.9	1	8	7	12	0.6	238	4.5	214
14-Jul-09	0:00	10.7	20.3	2	8	8	11.4	0.9	273	4.9	216
15-Jul-09	1:00	1.6	5.9	1	8	7	10.7	0.5	252	4.9	216
15-Jul-09	2:00	2.5	13.2	1	7	6	10.8	0.3	265	6.1	224
15-Jul-09	3:00	9.4	13.6	1	6	6	10.8	0.7	297	6.1	228
15-Jul-09	4:00	0.6	11.5	1	6	5	10.5	0.4	236	6.6	235
15-Jul-09	5:00	1.9	16.1	1	6	5	10.3	0.2	177	6.4	239
15-Jul-09	6:00	9.7	17.6	1	8	7	11.5	0.2	41	5.6	236
15-Jul-09	7:00	22.7	21.4	2	12	9	13.2	0.4	322	5.7	236
15-Jul-09	8:00	16.5	18.2	2	14	10	14	0.6	149	8.8	234
15-Jul-09	9:00				10	6	14.5	0.7	269	5.7	229
15-Jul-09	10:00	18.3	13.8	13	5	4	13.1	2	219	3.2	239
15-Jul-09	11:00	8.9	10.0	10	7	5	13.3	1.6	220	3.5	264
15-Jul-09	12:00	3.5	7.5	3	9	6	14.5	1	245	0.9	246
15-Jul-09	13:00	1.6	6.7	2	9	7	15.8	1	234	0.6	293
15-Jul-09	14:00	3.4	10.0	2	14	8	17.5	0.8	233	0.3	127
15-Jul-09	15:00	4.5	10.3	2	8	6	17.4	0.8	237	1.4	150

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
15-Jul-09	16:00	2.6	8.2	1	10	6	17.2	1.1	230	3.1	157
15-Jul-09	17:00	3.5	9.6	1	13	7	16.5	1.4	229	2.8	162
15-Jul-09	18:00	3.1	8.8	1	14	7	15.3	1.8	220	3.5	163
15-Jul-09	19:00	1.1	5.2	1	9	7	13.7	1.6	229	1.9	161
15-Jul-09	20:00	1.4	5.7	1	6	5	11.4	2.1	212	1.5	203
15-Jul-09	21:00	12.2	17.0	1	8	6	12.1	0.7	271	1.3	191
15-Jul-09	22:00	40.2	37.3	2	9	7	12.5	0.6	263	1.1	171
15-Jul-09	23:00	10.2	19.3	2	10	8	13.5	0.7	250	1.3	186
15-Jul-09	0:00	0.4	7.7	1	7	5	13.1	0.5	200	1.4	181
16-Jul-09	1:00	16.8	30.1	2	7	6	13.3	0.3	212	3.1	202
16-Jul-09	2:00	14.0	29.1	1	9	7	13.3	0.5	78	6.6	215
16-Jul-09	3:00	3.9	18.6	1	6	5	12.4	0.4	144	7.6	218
16-Jul-09	4:00	0.1	14.2	1	5	4	12.1	0.2	156	8.3	213
16-Jul-09	5:00	0.4	11.9	1	4	4	11.6	0.2	184	4.6	218
16-Jul-09	6:00	11.2	15.3	1	5	4	13.2	0.3	85	3.2	260
16-Jul-09	7:00	22.5	19.5	2	7	5	15.1	0.4	309	3.0	246
16-Jul-09	8:00				9	4	16.3	0.7	268	0.9	311
16-Jul-09	9:00	11.6	12.4	5	9	4	17.3	1.3	204	0.4	75
16-Jul-09	10:00	7.0	10.5	5	8	5	16.4	1.8	215	1.0	43
16-Jul-09	11:00	7.5	9.2	3	6	3	14.8	1.3	228	2.6	124
16-Jul-09	12:00	7.7	10.0	2	6	3	15.8	1.3	228	1.3	114
16-Jul-09	13:00	15.2	13.0	7	13	3	15.4	1.3	224	1.4	128
16-Jul-09	14:00	23.7	17.6	5	6	3	16.6	0.9	231	1.4	107
16-Jul-09	15:00	9.6	10.7	3	10	3	17.4	1.3	224	1.7	115
16-Jul-09	16:00	6.5	9.4	2	9	3	18.4	0.8	247	3.9	141
16-Jul-09	17:00	6.5	9.6	2	9	3	20	0.9	255	4.3	139
16-Jul-09	18:00	8.6	11.5	3	11	3	18.8	1	235	3.2	151
16-Jul-09	19:00	3.5	8.2	3	11	4	17.6	1.1	238	1.6	179
16-Jul-09	20:00	5.1	13.6	1	17	3	17.5	0.8	247	1.6	179
16-Jul-09	21:00	1.1	7.8	1	7	2	16.9	0.9	229	1.7	163
16-Jul-09	22:00	2.4	10.0	1	5	3	14.5	0.8	251	1.6	165
16-Jul-09	23:00	0.7	10.1	1	5	4	14.4	0.3	263	1.7	156
16-Jul-09	0:00	0.0	5.7	1	4	3	14.1	0.6	188	1.9	171
17-Jul-09	1:00	0.2	8.6	1	4	3	14.2	0.5	164	2.8	205
17-Jul-09	2:00	0.1	12.4	1	6	4	14.8	0.2	172	4.2	212
17-Jul-09	3:00	10.2	18.6	1	7	5	15	0.3	29	5.7	212
17-Jul-09	4:00	2.5	17.0	1	5	4	13.6	0.5	223	3.7	220
17-Jul-09	5:00	3.7	18.6	2	4	3	12.5	0.6	187	3.5	198
17-Jul-09	6:00	13.3	17.0	2	6	4	14.6	0.3	42	3.8	205
17-Jul-09	7:00				5	4	16	0.3	243	2.2	239

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
17-Jul-09	8:00	23.8	17.0	3	12	5	18	0.3	328	0.8	126
17-Jul-09	9:00	22.3	19.5	9	10	3	20.9	1	205	0.4	156
17-Jul-09	10:00	12.2	10.9	4	6	3	19.9	1.1	226	0.8	115
17-Jul-09	11:00	15.1	13.4	3	7	3	21.1	0.8	232	0.5	18
17-Jul-09	12:00	5.4	10.0	2	5	2	21.1	1	229	1.7	164
17-Jul-09	13:00	7.4	9.6	2	5	2	19.3	1.6	217	2.7	151
17-Jul-09	14:00	7.4	9.4	2	8	3	18.3	1.5	225	0.5	117
17-Jul-09	15:00	14.6	13.2	2	19	6	16.2	1.8	221	1.4	152
17-Jul-09	16:00	6.0	8.4	1	17	6	17.7	1.1	233	1.9	150
17-Jul-09	17:00	7.6	11.1	4	12	5	20.6	1	244	4.1	147
17-Jul-09	18:00	81.7	36.9	115	10	4	24.1	2.4	280	2.9	151
17-Jul-09	19:00	227.0	50.0	220	7	5	24.2	2.3	282	2.6	150
17-Jul-09	20:00	60.0	24.7	49	12	4	20.2	1.4	248	3.0	146
17-Jul-09	21:00	123.4	30.8	111	5	3	19.1	1.7	273	3.1	149
17-Jul-09	22:00	37.2	18.2	34	3	1	17.4	1.8	268	2.8	175
17-Jul-09	23:00	3.4	7.8	3	4	2	16.3	1.1	246	9.3	218
17-Jul-09	0:00	13.1	11.5	15	6	3	15.2	0.8	244	9.3	223
18-Jul-09	1:00	0.1	4.4	1	6	3	14.6	0.9	248	7.3	234
18-Jul-09	2:00	0.0	5.4	1	7	4	14.6	0.8	259	8.1	261
18-Jul-09	3:00	0.1	4.8	1	5	3	13.8	1.1	249	8.4	255
18-Jul-09	4:00	0.4	3.1	1	2	2	13.2	0.9	262	6.4	252
18-Jul-09	5:00	0.9	3.3	1	1	1	13.7	1.8	278	8.9	247
18-Jul-09	6:00				1	1	14	1.7	288	8.6	241
18-Jul-09	7:00	0.6	2.3	1	2	1	14.8	1.2	245	8.3	239
18-Jul-09	8:00	1.2	2.7	1	2	1	15.3	1.2	274	8.4	236
18-Jul-09	9:00	3.7	5.2	1	3	2	16.4	1.8	283	7.5	229
18-Jul-09	10:00	2.9	5.6	1	4	3	17.8	4	288	7.4	231
18-Jul-09	11:00	2.5	4.6	1	5	3	19	4.1	286	8.7	233
18-Jul-09	12:00	5.1	9.2	2	12	4	19.7	1.2	254	8.0	236
18-Jul-09	13:00	1.5	4.6	1	22	4	20	1.9	240	9.3	237
18-Jul-09	14:00	1.4	4.2	1	8	3	20.8	3.6	290	9.8	249
18-Jul-09	15:00	2.5	5.6	1	6	2	20.7	3.7	288	9.1	262
18-Jul-09	16:00	40.7	27.4	44	9	3	20.2	3.7	287	9.7	253
18-Jul-09	17:00	112.5	37.3	120	12	6	19.4	3.7	298	9.8	240
18-Jul-09	18:00	341.3	58.8	381	9	6	18.5	4.8	288	9.9	260
18-Jul-09	19:00	311.7	57.0	354	7	5	17.6	5.2	288	9.6	263
18-Jul-09	20:00	166.4	45.9	198	7	4	15.6	3.9	294	6.5	236
18-Jul-09	21:00	173.5	46.1	201	6	4	14.3	4.4	301	4.8	234
18-Jul-09	22:00	57.6	29.7	77	5	4	13.7	3	295	11.2	275
18-Jul-09	23:00	141.2	40.8	165	6	5	13.6	2.9	289	9.8	262

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
18-Jul-09	0:00	71.6	25.7	89	6	5	12.9	1.8	278	8.8	263
19-Jul-09	1:00	0.2	6.3	3	6	5	12.8	0.9	275	10.4	265
19-Jul-09	2:00	0.6	6.3	2	6	5	12.8	1	283	11.2	257
19-Jul-09	3:00	0.0	3.1	2	7	6	12.6	1.4	281	10.9	255
19-Jul-09	4:00	0.1	5.4	1	7	6	12.4	0.9	270	11.7	253
19-Jul-09	5:00				6	6	12.2	0.6	270	11.2	264
19-Jul-09	6:00	1.9	6.7	1	6	6	13.2	1.1	291	9.1	267
19-Jul-09	7:00	0.5	3.3	1	6	5	14.6	0.6	289	8.7	266
19-Jul-09	8:00	1.5	4.4	1	6	5	15.6	0.7	254	8.2	257
19-Jul-09	9:00	4.7	9.2	1	6	4	16.4	0.6	274	6.4	249
19-Jul-09	10:00	4.6	9.2	1	6	4	16.9	0.8	271	5.2	264
19-Jul-09	11:00	5.5	10.3	1	7	4	18	0.7	268	5.6	256
19-Jul-09	12:00	1.6	5.0	1	7	4	18.5	1	258	5.4	253
19-Jul-09	13:00	2.9	7.5	1	9	5	18.5	1	262	5.0	247
19-Jul-09	14:00	3.5	8.4	1	12	7	15.3	2	231	3.9	257
19-Jul-09	15:00	3.4	7.5	1	15	10	14.4	2.1	233	0.8	285
19-Jul-09	16:00	1.2	3.3	1	15	10	13.8	2.5	221	1.6	197
19-Jul-09	17:00	1.6	5.9	1	18	12	14.4	2.3	211	5.3	240
19-Jul-09	18:00	2.1	7.1	1	8	4	16.9	1.4	233	6.2	238
19-Jul-09	19:00	0.9	5.6	1	5	3	16.7	1.1	231	6.4	240
19-Jul-09	20:00	1.7	9.6	1	5	3	15.7	0.9	223	5.9	239
19-Jul-09	21:00	0.0	3.1	1	6	3	15	0.5	252	6.3	232
19-Jul-09	22:00	0.0	4.0	1	5	4	14	0.7	262	6.0	211
19-Jul-09	23:00	0.2	9.0	1	5	4	13.3	0.5	278	8.5	208
19-Jul-09	0:00	0.0	5.2	1	5	4	12.5	0.4	245	8.3	203
20-Jul-09	1:00	0.0	6.9	1	6	5	12.7	0.1	352	6.8	199
20-Jul-09	2:00	0.5	17.2	1	6	5	13.1	0.3	357	6.1	223
20-Jul-09	3:00	0.0	6.3	1	6	5	11.5	0.4	215	6.1	229
20-Jul-09	4:00				6	5	11.5	0.5	212	7.2	239
20-Jul-09	5:00	0.1	9.8	1	5	4	11	0.5	52	6.6	249
20-Jul-09	6:00	4.2	15.3	1	3	3	11.6	0.6	229	4.0	263
20-Jul-09	7:00	10.4	19.3	1	4	3	13	0.4	264	3.1	257
20-Jul-09	8:00	11.2	19.3	2	12	5	15.7	0.5	297	1.9	259
20-Jul-09	9:00	10.0	17.2	5	9	4	16.6	0.8	272	0.8	211
20-Jul-09	10:00	5.9	11.7	3	8	3	20.6	1.7	71	0.4	130
20-Jul-09	11:00	16.0	23.2	3	12	4	19.6	1	303	0.5	209
20-Jul-09	12:00	5.9	13.6	2	10	4	17.3	1.9	287	0.7	152
20-Jul-09	13:00	4.6	13.2	2	23	6	18.2	1.3	286	0.9	73
20-Jul-09	14:00	5.0	13.4	3	8	4	17.8	1.5	276	1.3	177
20-Jul-09	15:00	8.7	18.2	5	7	4	18.5	0.8	263	0.3	224

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
20-Jul-09	16:00	2.1	11.3	3	7	3	19.6	0.8	268	0.7	259
20-Jul-09	17:00	4.2	18.4	5	7	3	21	0.7	262	1.1	200
20-Jul-09	18:00	7.5	32.9	15	9	3	22.1	0.6	236	1.7	195
20-Jul-09	19:00	2.7	23.2	7	12	3	21.7	0.5	229	2.3	231
20-Jul-09	20:00	0.9	28.1	4	11	4	18.2	0.4	248	3.7	253
20-Jul-09	21:00	0.0	14.7	1	9	4	16.3	0.4	274	4.0	242
20-Jul-09	22:00	0.0	14.7	1	8	4	15.3	0.5	253	4.0	242
20-Jul-09	23:00	0.0	22.2	1	6	5	15.2	0.3	227	3.1	250
20-Jul-09	0:00	0.0	12.6	1	6	5	15.4	0.3	138	3.7	241
21-Jul-09	1:00	0.0	21.2	1	8	5	16.1	0.2	74	2.6	239
21-Jul-09	2:00	0.7	40.2	1	10	7	15.7	0.1	6	0.8	211
21-Jul-09	3:00				9	7	14.8	0.2	14	0.4	169
21-Jul-09	4:00	11.5	43.5	1	9	7	15.3	0.4	105	0.9	223
21-Jul-09	5:00	14.0	43.5	3	9	6	14.8	0.2	25	0.9	253
21-Jul-09	6:00	45.7	51.5	5	11	8	15.8	0.3	28	1.5	235
21-Jul-09	7:00	40.8	54.0	5	27	9	18.5	0.2	357	0.6	239
21-Jul-09	8:00	43.7	38.7	4	28	8	16.5	0.5	279	0.6	279
21-Jul-09	9:00	14.2	18.6	4	10	5	15.2	0.6	246	0.8	57
21-Jul-09	10:00	16.2	20.3	4	9	5	16.1	0.7	246	0.4	67
21-Jul-09	11:00	26.7	29.7	10	11	6	18.1	0.6	232	0.4	351
21-Jul-09	12:00	16.0	26.6	10	10	6	18.3	0.8	233	1.5	43
21-Jul-09	13:00	4.0	13.6	6	10	5	18.7	0.9	243	0.7	91
21-Jul-09	14:00	6.0	19.0	5	10	6	19.7	0.6	249	1.3	24
21-Jul-09	15:00	5.0	17.2	3	11	5	19.9	1	247	0.6	111
21-Jul-09	16:00	0.6	5.4	1	21	9	19.4	1.1	238	1.9	179
21-Jul-09	17:00	1.4	6.1	1	18	13	15.1	2.4	215	1.8	167
21-Jul-09	18:00	0.7	4.4	1	18	13	15.5	1.8	225	1.7	164
21-Jul-09	19:00	1.0	4.8	1	18	12	14.5	1.9	214	1.2	191
21-Jul-09	20:00	1.2	6.3	1	16	11	14.2	1.4	212	1.1	187
21-Jul-09	21:00	0.0	4.8	1	15	10	15.3	0.8	244	1.5	185
21-Jul-09	22:00	0.0	5.9	1	15	9	16.5	0.5	262	1.1	199
21-Jul-09	23:00	0.0	7.7	1	16	9	14.9	0.8	183	2.3	206
21-Jul-09	0:00	0.0	13.6	1	13	9	14.9	0.5	159	4.0	205
22-Jul-09	1:00	0.0	9.4	1	14	10	13.6	0.7	180	8.5	214
22-Jul-09	2:00				9	7	12.9	0.7	185	4.5	189
22-Jul-09	3:00	0.0	1.9	0	8	6	11.8	0.8	200	7.8	215
22-Jul-09	4:00	0.0	5.4	0	6	5	12.1	0.3	168	5.7	201
22-Jul-09	5:00	0.6	11.9	1	10	7	12.3	0.1	333	3.2	213
22-Jul-09	6:00	5.7	16.8	1	12	8	14	0.2	57	2.4	250
22-Jul-09	7:00	16.5	22.2	4	13	9	16.1	0.5	186	1.3	213

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
22-Jul-09	8:00	13.1	18.6	4	12	6	15.7	0.5	278	2.2	114
22-Jul-09	9:00	6.6	10.7	3	8	4	15.7	1.7	193	2.7	132
22-Jul-09	10:00	2.1	4.4	1	7	4	12.7	2.6	195	1.1	139
22-Jul-09	11:00	4.6	9.2	4	9	6	16.4	1.7	172	1.2	206
22-Jul-09	12:00	2.2	6.7	3	8	6	17	2.2	191	0.7	124
22-Jul-09	13:00	1.2	5.9	2	9	6	18.9	1.7	173	1.2	143
22-Jul-09	14:00	2.1	7.1	2	11	5	19.1	1.3	216	1.1	136
22-Jul-09	15:00	2.2	6.3	1	9	5	17.7	1.2	226	2.8	140
22-Jul-09	16:00	2.7	6.5	1	13	7	16.4	1.3	231	2.1	161
22-Jul-09	17:00	2.1	5.4	0	12	7	16.5	1.6	225	3.4	150
22-Jul-09	18:00	2.7	6.5	1	14	9	16.1	1.5	235	3.1	146
22-Jul-09	19:00	1.2	5.4	1	12	7	17.1	1.2	238	4.1	134
22-Jul-09	20:00	0.7	4.0	1	10	6	17.3	0.8	251	3.3	132
22-Jul-09	21:00	0.5	3.4	1	8	5	15.6	1	279	3.9	133
22-Jul-09	22:00	0.1	5.0	1	6	5	13.9	1.8	276	3.7	140
22-Jul-09	23:00	2.2	9.4	4	5	4	12.7	1.7	285	2.6	158
22-Jul-09	0:00				4	3	12.8	0.7	279	4.8	211
23-Jul-09	1:00	0.0	3.1	1	5	4	12.6	0.7	270	6.8	215
23-Jul-09	2:00	0.0	3.8	0	4	3	12.6	0.7	274	8.1	216
23-Jul-09	3:00	0.0	1.3	0	3	2	12.4	0.7	287	6.9	225
23-Jul-09	4:00	0.0	2.1	0	2	1	12.3	0.8	292	8.5	242
23-Jul-09	5:00	0.0	4.4	0	2	1	11.9	0.4	208	8.9	245
23-Jul-09	6:00	8.7	8.4	0	2	2	12.6	0.8	290	9.8	244
23-Jul-09	7:00	3.2	8.0	1	3	2	13.6	0.6	248	9.4	245
23-Jul-09	8:00	3.7	5.7	2	5	3	13.9	0.8	234	7.5	250
23-Jul-09	9:00	6.4	9.0	6	6	4	13.8	1.4	228	6.2	252
23-Jul-09	10:00	9.9	11.1	8	8	4	13.6	1.7	230	5.3	255
23-Jul-09	11:00	11.2	12.1	7	7	4	13.8	1.6	227	4.8	256
23-Jul-09	12:00	3.4	5.6	2	6	3	13.8	2.5	203	4.3	263
23-Jul-09	13:00	4.1	6.7	2	8	5	14.2	1.6	212	1.1	258
23-Jul-09	14:00	3.4	6.3	1	13	5	14.8	1.6	214	3.4	254
23-Jul-09	15:00	4.2	7.7	1	10	5	14.5	1.9	233	2.1	242
23-Jul-09	16:00	1.7	4.0	0	9	5	14.4	1.7	235	2.8	203
23-Jul-09	17:00	2.9	6.3	0	18	10	15.4	0.9	252	3.6	195
23-Jul-09	18:00	7.2	13.2	6	13	8	13.7	1	244	6.9	201
23-Jul-09	19:00	2.6	13.4	3	13	10	12.6	1.7	227	7.8	205
23-Jul-09	20:00	1.7	11.7	3	11	8	13.5	1.7	247	7.3	201
23-Jul-09	21:00	13.5	15.7	22	4	3	13.6	1.8	285	8.1	209
23-Jul-09	22:00	7.0	11.1	7	4	3	13.4	1.1	272	9.1	202
23-Jul-09	23:00				3	3	13.2	1.1	282	9.9	202

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
23-Jul-09	0:00	0.6	12.4	5	4	3	13.2	0.3	248	9.1	202
24-Jul-09	1:00	0.0	6.3	1	3	3	12.7	0.9	282	9.1	211
24-Jul-09	2:00	0.1	8.4	1	4	3	12.3	0.4	212	9.1	208
24-Jul-09	3:00	0.0	2.9	0	2	2	11.4	0.6	219	8.0	200
24-Jul-09	4:00	0.1	6.9	1	2	2	10.6	0.5	271	7.1	209
24-Jul-09	5:00	0.4	9.0	0	2	2	10.7	0.3	171	9.2	247
24-Jul-09	6:00	3.9	15.3	0	3	2	12.1	0.1	328	6.6	245
24-Jul-09	7:00	9.4	15.5	1	5	4	13.9	0.4	244	6.7	250
24-Jul-09	8:00	10.1	13.4	1	6	4	14.3	0.9	258	1.8	271
24-Jul-09	9:00	6.1	8.2	2	6	3	15.2	1.3	219	3.2	255
24-Jul-09	10:00	11.5	11.5	3	7	4	15.1	2.2	201	1.5	237
24-Jul-09	11:00	9.6	10.0	3	15	5	14.2	1.3	229	0.9	213
24-Jul-09	12:00	12.2	13.2	6	5	4	13.5	1.3	241	3.4	228
24-Jul-09	13:00	6.5	9.6	4	24	6	15.2	1.9	219	1.9	236
24-Jul-09	14:00	2.6	5.9	2	4	3	14.3	1.4	235	1.3	137
24-Jul-09	15:00	5.4	11.9	5	8	4	15.4	1.4	290	2.1	151
24-Jul-09	16:00	3.5	11.5	5	7	4	18.4	0.8	281	1.6	162
24-Jul-09	17:00	4.6	18.2	4	10	5	18.7	0.6	258	2.9	156
24-Jul-09	18:00	1.5	13.8	3	8	5	19	0.8	231	2.8	170
24-Jul-09	19:00	1.0	14.2	1	12	7	16.7	1.2	226	3.1	186
24-Jul-09	20:00	0.5	13.8	1	9	7	13.1	1.8	222	2.4	202
24-Jul-09	21:00	0.1	18.4	1	5	4	11	2.8	214	2.2	175
24-Jul-09	22:00				6	5	10.8	1.2	275	2.1	201
24-Jul-09	23:00	5.0	40.4	11	7	5	11.6	0.2	13	2.0	259
24-Jul-09	0:00	6.1	43.5	6	9	7	14.2	0.7	68	2.1	246
25-Jul-09	1:00	0.0	30.1	3	9	7	15.7	0.7	136	2.2	225
25-Jul-09	2:00	1.7	37.5	11	7	6	12.8	0.7	146	0.8	169
25-Jul-09	3:00	3.1	41.5	9	8	6	13	0.5	14	2.8	191
25-Jul-09	4:00	0.6	36.0	11	8	6	14	0.6	288	7.3	210
25-Jul-09	5:00	5.0	36.9	5	8	6	12.3	0.3	284	7.3	202
25-Jul-09	6:00	5.7	32.9	5	9	7	14.2	0.6	64	3.2	228
25-Jul-09	7:00	7.4	27.0	5	10	7	15.5	0.6	274	1.3	310
25-Jul-09	8:00	7.6	20.5	3	10	7	14.7	0.4	254	1.8	339
25-Jul-09	9:00	8.9	22.6	5	11	6	16.5	0.7	192	3.8	83
25-Jul-09	10:00	19.6	24.1	6	10	5	15.7	0.7	252	3.4	118
25-Jul-09	11:00	3.4	12.3	6	13	6	19.1	1.2	224	1.7	21
25-Jul-09	12:00	20.1	34.8	22	12	6	19.8	1.1	240	2.8	336
25-Jul-09	13:00	15.2	28.5	18	12	5	18.5	0.9	251	1.4	263
25-Jul-09	14:00	8.0	19.7	8	12	6	18.9	0.8	253	1.1	12
25-Jul-09	15:00	5.5	20.3	6	13	6	20	0.7	250	1.5	307

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
25-Jul-09	16:00	3.7	17.6	4	15	6	18.2	0.7	245	1.6	174
25-Jul-09	17:00	1.6	13.6	2	13	6	16.4	0.9	236	3.1	148
25-Jul-09	18:00	11.7	21.8	11	10	6	14.1	1.7	232	2.3	189
25-Jul-09	19:00	19.5	32.9	19	10	7	14.7	1.8	218	1.5	182
25-Jul-09	20:00	83.8	31.4	93	6	5	13.7	0.9	288	2.1	201
25-Jul-09	21:00				16	10	16.3	1.4	13	1.3	209
25-Jul-09	22:00	28.8	26.0	26	20	13	15.6	1	266	1.2	195
25-Jul-09	23:00	26.4	29.9	8	14	9	16.5	0.7	80	1.4	188
25-Jul-09	0:00	1.5	29.3	5	15	10	15.9	0.8	86	1.5	209
26-Jul-09	1:00	1.2	25.7	3	14	10	15.3	0.5	46	2.0	180
26-Jul-09	2:00	1.7	26.4	2	12	8	14	0.7	242	7.2	213
26-Jul-09	3:00	0.6	19.5	2	9	7	13.7	0.9	232	4.3	166
26-Jul-09	4:00	0.4	16.7	1	11	9	15.1	0.6	122	2.1	269
26-Jul-09	5:00	2.6	19.5	1	12	9	15.3	0.8	49	3.5	15
26-Jul-09	6:00	3.5	15.9	3	8	6	12.6	0.9	225	4.4	237
26-Jul-09	7:00	8.9	14.9	3	10	8	16.2	0.5	298	2.1	94
26-Jul-09	8:00	9.1	12.6	3	8	6	15.9	0.7	238	2.7	79
26-Jul-09	9:00	10.7	13.8	2	11	7	18.7	0.7	261	1.3	124
26-Jul-09	10:00	7.2	11.7	3	10	7	20.4	0.8	231	1.7	241
26-Jul-09	11:00	11.6	14.9	11	10	6	19.2	1.3	219	3.1	234
26-Jul-09	12:00	21.7	20.1	29	10	6	18.6	0.8	241	2.4	124
26-Jul-09	13:00	8.5	15.1	11	10	6	18.4	0.8	229	1.3	10
26-Jul-09	14:00	6.1	10.7	2	8	6	19.7	0.7	246	2.9	243
26-Jul-09	15:00	3.1	12.6	2	9	6	20.5	0.6	247	1.3	150
26-Jul-09	16:00	1.1	6.5	1	8	6	19.7	1	235	1.5	192
26-Jul-09	17:00	1.1	7.3	1	9	6	18.7	1.4	226	2.4	160
26-Jul-09	18:00	1.9	9.2	1	10	7	17.2	1.1	234	3.7	146
26-Jul-09	19:00	1.9	12.8	1	8	6	14.5	1	225	3.2	160
26-Jul-09	20:00				9	6	13.6	0.8	214	2.0	170
26-Jul-09	21:00	0.0	14.9	1	9	6	14	0.7	191	1.7	178
26-Jul-09	22:00	0.0	13.6	1	10	7	14.4	0.6	201	1.7	167
26-Jul-09	23:00	0.2	23.4	1	12	8	14.9	0.4	195	1.3	175
26-Jul-09	0:00	1.4	26.8	1	12	8	15.4	0.1	6	1.5	183
27-Jul-09	1:00	1.0	17.2	1	13	9	14.1	0.4	228	2.3	160
27-Jul-09	2:00	0.0	15.3	1	10	8	14.6	0.3	105	3.1	176
27-Jul-09	3:00	0.1	16.7	3	9	7	14.7	0.3	111	2.5	191
27-Jul-09	4:00									1.3	199
27-Jul-09	5:00									1.2	139
27-Jul-09	6:00	17.6	27.6	3	11	9	16.3	0.5	340	0.9	139
27-Jul-09	7:00	14.7	23.2	12	11	9	14.5	0.4	247	2.3	147

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
27-Jul-09	8:00	28.9	26.4	35	12	9	16.6	0.5	246	2.0	136
27-Jul-09	9:00	32.8	27.2	41	10	6	17.1	0.7	242	2.3	153
27-Jul-09	10:00	12.5	19.5	24	10	6	19.4	0.6	244	1.4	125
27-Jul-09	11:00	9.7	17.8	10	13	6	19.6	0.8	243	2.1	131
27-Jul-09	12:00	5.1	13.8	7	13	6	19.3	0.8	265	0.5	192
27-Jul-09	13:00	8.7	20.7	12	9	6	20.8	0.7	277	1.4	340
27-Jul-09	14:00	7.0	19.5	9	9	6	21.9	0.9	277	1.7	356
27-Jul-09	15:00	7.7	22.4	9	10	5	24.6	0.6	241	1.3	225
27-Jul-09	16:00	3.6	21.8	12	10	6	25.7	0.9	245	0.8	203
27-Jul-09	17:00	1.2	14.2	3	12	6	25.4	0.6	256	1.3	207
27-Jul-09	18:00	3.1	24.1	4	13	7	23.8	0.6	244	0.9	177
27-Jul-09	19:00				19	8	23.3	1	209	1.9	167
27-Jul-09	20:00	0.2	21.8	2	16	9	20.8	0.6	238	1.1	175
27-Jul-09	21:00	0.0	13.4	1	14	9	17.7	0.6	216	1.7	223
27-Jul-09	22:00	0.0	13.0	1	12	9	17.3	0.7	194	1.6	227
27-Jul-09	23:00	0.4	25.3	1	11	9	18.9	0.2	40	1.4	218
27-Jul-09	0:00	12.7	40.0	1	13	10	20	0.1	77	1.3	209
28-Jul-09	1:00	2.2	27.4	1	16	11	18.7	0.2	350	1.7	225
28-Jul-09	2:00	0.6	26.4	1	13	10	18.9	0.4	33	0.8	201
28-Jul-09	3:00	1.9	25.8	1	15	11	16.5	0.3	255	1.8	154
28-Jul-09	4:00	0.5	27.4	1	14	11	14.9	0.3	309	1.3	168
28-Jul-09	5:00	3.0	29.1	2	13	10	13.3	0.5	290	0.8	183
28-Jul-09	6:00	5.7	24.9	2	14	10	15.1	0.2	313	1.2	154
28-Jul-09	7:00	13.5	28.3	7	15	11	17	0.4	278	1.5	108
28-Jul-09	8:00	26.6	34.1	15	18	11	18.9	0.5	283	1.4	112
28-Jul-09	9:00	26.1	34.3	18	16	9	19.1	0.5	262	0.8	110
28-Jul-09	10:00	26.8	35.6	18	16	9	20.3	0.9	275	1.1	347
28-Jul-09	11:00	22.7	30.2	11	19	9	20.5	1	267	1.0	240
28-Jul-09	12:00	13.1	23.9	6	28	10	21.6	0.7	255	1.1	266
28-Jul-09	13:00	10.0	24.3	4	19	10	22.1	0.9	263	1.3	257
28-Jul-09	14:00	6.1	23.0	4	18	10	22.9	0.9	270	0.6	297
28-Jul-09	15:00	1.2	13.4	5	18	11	25	0.8	268	0.7	235
28-Jul-09	16:00	0.9	15.5	9	26	12	27.2	0.8	284	0.8	255
28-Jul-09	17:00	0.7	18.0	4	34	13	28.7	1.1	258	0.7	225
28-Jul-09	18:00				19	13	27.4	0.6	242	0.7	240
28-Jul-09	19:00	0.1	15.3	3	21	14	25.6	0.7	218	1.2	240
28-Jul-09	20:00	0.0	21.4	3	25	16	22.9	0.5	233	1.9	237
28-Jul-09	21:00	0.0	19.1	2	25	18	20.1	0.4	204	2.6	232
28-Jul-09	22:00	0.0	25.7	2	29	20	20.8	0.1	48	2.3	242
28-Jul-09	23:00	0.0	45.9	2	33	24	21.5	0.2	215	2.2	236

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
28-Jul-09	0:00	0.6	38.7	2	32	23	19.1	0.1	359	1.9	253
29-Jul-09	1:00	1.0	46.9	2	28	21	19.4	0.3	81	1.0	223
29-Jul-09	2:00	0.7	36.6	2	22	17	17.2	0.2	332	1.0	209
29-Jul-09	3:00	0.4	36.4	2	22	18	17	0.3	70	1.2	155
29-Jul-09	4:00	0.9	36.4	3	21	17	17.5	0.4	303	1.5	188
29-Jul-09	5:00	3.7	39.4	3	20	16	16.1	0.3	296	0.6	171
29-Jul-09	6:00	7.0	34.8	4	22	17	17.2	0.3	232	0.5	320
29-Jul-09	7:00	27.1	41.0	8	28	18	18.6	0.4	260	2.8	134
29-Jul-09	8:00	14.8	28.3	7	20	14	16.9	0.5	247	1.5	145
29-Jul-09	9:00	23.8	31.0	12	21	13	18.2	0.5	254	1.1	116
29-Jul-09	10:00	37.5	36.0	10	20	13	18.4	0.6	256	2.1	144
29-Jul-09	11:00	31.8	37.5	12	24	14	22.1	0.6	278	1.3	110
29-Jul-09	12:00	16.7	33.3	10	25	14	26.7	1.2	339	0.5	340
29-Jul-09	13:00	12.3	29.5	7	22	15	21.4	0.8	262	1.8	297
29-Jul-09	14:00	14.0	38.9	10	28	17	23.1	0.7	270	0.7	264
29-Jul-09	15:00	13.8	43.6	16	23	17	23.4	0.7	270	2.1	151
29-Jul-09	16:00	5.5	40.0	23	37	18	26.4	0.6	265	1.5	213
29-Jul-09	17:00				30	19	25.7	0.7	250	1.0	234
29-Jul-09	18:00	1.4	24.1	3	28	18	25.1	0.6	238	1.7	218
29-Jul-09	19:00	0.7	21.2	2	26	18	22.2	0.8	217	1.2	230
29-Jul-09	20:00	0.5	30.2	2	30	20	19.1	0.5	204	1.9	222
29-Jul-09	21:00	0.0	19.9	3	31	22	20.4	0.8	210	2.4	254
29-Jul-09	22:00	0.0	10.9	2	26	20	18.1	0.9	211	1.6	246
29-Jul-09	23:00	0.1	19.9	2	15	12	14.6	1.4	210	2.4	247
29-Jul-09	0:00	0.0	15.9	2	17	13	14.6	0.4	183	1.7	250
30-Jul-09	1:00	0.0	11.1	2	20	15	15.6	0.3	247	2.2	227
30-Jul-09	2:00	1.2	18.8	2	25	18	16.4	0.2	348	1.3	165
30-Jul-09	3:00	0.1	21.1	2	20	15	16	0.3	344	1.9	152
30-Jul-09	4:00	0.1	15.3	1	13	10	14	0.5	279	1.1	145
30-Jul-09	5:00	0.4	19.1	2	14	11	13.5	0.3	215	1.3	147
30-Jul-09	6:00	1.2	14.9	2	15	12	14.1	0.6	212	2.2	160
30-Jul-09	7:00	5.0	17.0	2	17	12	16.7	0.4	194	2.6	165
30-Jul-09	8:00	14.8	33.9	2	28	14	18.9	0.4	270	1.0	125
30-Jul-09	9:00	12.1	18.6	2	20	11	19.3	1.4	208	1.2	151
30-Jul-09	10:00	7.4	12.1	2	14	9	17.9	1.5	224	3.2	143
30-Jul-09	11:00	3.4	7.7	1	13	8	19.2	0.8	234	2.0	127
30-Jul-09	12:00	3.1	7.8	1	13	8	19.2	1	241	1.2	246
30-Jul-09	13:00	5.1	11.1	1	17	11	21.6	0.9	231	0.4	161
30-Jul-09	14:00	3.7	9.0	1	19	12	22	1.1	237	1.3	164
30-Jul-09	15:00	10.7	12.4	7	20	12	22.1	1.9	265	2.1	143

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
30-Jul-09	16:00				19	12	18.9	1.9	246	1.7	133
30-Jul-09	17:00	2.9	7.1	0	21	13	17.3	1.9	239	3.5	144
30-Jul-09	18:00	4.2	12.1	4	25	15	18.5	1	232	2.8	166
30-Jul-09	19:00	1.5	8.0	0	20	11	21.1	1.2	264	2.3	151
30-Jul-09	20:00	1.5	7.8	2	17	10	20.6	1.3	264	1.7	173
30-Jul-09	21:00	0.5	4.6	0	14	9	19.6	1.5	269	1.5	196
30-Jul-09	22:00	3.4	7.7	3	17	13	19	1	246	2.8	202
30-Jul-09	23:00	0.9	4.6	0	20	16	18.8	1.2	236	6.9	223
30-Jul-09	0:00	0.5	4.6	0	21	16	17.6	1	253	9.2	225
31-Jul-09	1:00	0.0	1.1	0	19	15	17.9	0.9	260	9.0	217
31-Jul-09	2:00	0.0	1.1	0	16	13	18.3	1.7	270	9.4	221
31-Jul-09	3:00	0.1	2.5	0	11	8	15.3	1.8	232	10.4	232
31-Jul-09	4:00	0.0	1.1	0	8	6	13.9	1.7	243	10.9	238
31-Jul-09	5:00	0.2	2.5	0	6	5	13.2	1.5	242	10.9	238
31-Jul-09	6:00	2.2	7.8	1	5	4	13.5	1.1	267	9.8	241
31-Jul-09	7:00	2.9	6.3	0	6	5	14.2	0.8	235	9.3	240
31-Jul-09	8:00	2.7	4.8	0	6	4	15	0.9	242	9.1	238
31-Jul-09	9:00	3.0	5.4	0	6	4	14.9	1.3	233	7.0	241
31-Jul-09	10:00	2.9	5.2	0	7	4	15.3	1	247	7.8	256
31-Jul-09	11:00	4.5	7.3	0	8	4	15.9	1.2	235	8.0	226
31-Jul-09	12:00	8.1	9.6	0	8	4	16.6	0.9	258	9.7	216
31-Jul-09	13:00	4.1	7.7	1	8	4	17.2	0.8	254	10.2	213
31-Jul-09	14:00	3.1	5.6	0	8	5	17.5	1.5	228	10.0	224
31-Jul-09	15:00				9	6	17.1	1.9	222	6.6	223
31-Jul-09	16:00	3.5	7.8	1	9	5	17.5	1.9	222	5.8	220
31-Jul-09	17:00	4.9	9.8	4	10	6	17.2	1.8	228	6.5	217
31-Jul-09	18:00	3.5	8.8	2	12	9	16.8	1.3	240	7.4	218
31-Jul-09	19:00	1.2	8.2	1	14	10	15.5	1.9	232	7.3	218
31-Jul-09	20:00	1.1	7.7	0	14	10	15.1	1.8	233	7.2	219
31-Jul-09	21:00	0.5	9.4	0	15	9	16.8	0.8	253	7.6	219
31-Jul-09	22:00	0.0	11.3	0	14	9	14.9	0.9	195	7.0	219
31-Jul-09	23:00	0.6	11.5	3	12	8	14.2	0.8	219	6.7	215
31-Jul-09	0:00	0.6	9.6	3	12	9	14.1	0.7	227	6.8	215
1-Aug-09	1:00	0.0	5.2	1	13	9	14.4	0.9	201	7.5	214
1-Aug-09	2:00	0.0	5.2	0	9	7	13.9	0.4	137	7.7	219
1-Aug-09	3:00	0.0	4.4	0	9	7	12.8	0.8	201	8.1	218
1-Aug-09	4:00	1.1	10.5	3	7	5	12	0.6	233	8.2	220
1-Aug-09	5:00	0.0	5.4	1	8	6	11.8	0.6	193	5.6	243
1-Aug-09	6:00	4.5	14.7	1	10	8	13.5	0.2	79	0.9	187
1-Aug-09	7:00	10.2	17.8	2	12	9	15.8	0.4	219	2.7	217

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
1-Aug-09	8:00	3.7	8.4	1	8	6	16.3	0.8	226	2.9	256
1-Aug-09	9:00	3.5	7.3	1	6	4	15.4	0.8	241	1.7	222
1-Aug-09	10:00	9.9	11.9	3	6	4	16.1	0.7	237	1.3	29
1-Aug-09	11:00	7.2	10.5	1	7	5	16.7	0.9	239	1.2	216
1-Aug-09	12:00	5.7	10.1	1	7	5	18.1	0.7	247	4.7	225
1-Aug-09	13:00	3.5	7.7	1	7	5	17.7	0.9	235	2.4	215
1-Aug-09	14:00				8	6	18.2	1	233	1.0	45
1-Aug-09	15:00	2.7	7.7	1	8	6	19.6	1	222	1.0	143
1-Aug-09	16:00	3.0	8.4	3	10	7	19.4	1.2	225	1.7	154
1-Aug-09	17:00	6.4	13.4	7	12	8	18.9	0.9	225	3.9	217
1-Aug-09	18:00	1.5	8.4	1	10	8	17.2	0.9	222	3.6	219
1-Aug-09	19:00	1.0	12.3	1	10	8	16.1	0.8	220	2.0	206
1-Aug-09	20:00	1.6	21.6	1	15	11	15.1	0.9	197	1.2	202
1-Aug-09	21:00	2.7	18.2	5	19	15	16.1	0.7	244	1.6	192
1-Aug-09	22:00	6.4	16.7	15	15	12	15.2	0.9	210	1.9	203
1-Aug-09	23:00	0.1	9.6	1	12	10	13.6	0.9	216	1.7	189
1-Aug-09	0:00	0.0	14.7	4	12	9	13.5	0.6	187	1.7	175
2-Aug-09	1:00	2.4	28.7	9	13	10	14.5	0.7	173	2.1	182
2-Aug-09	2:00	0.6	23.2	7	11	9	13.9	0.6	131	2.4	186
2-Aug-09	3:00	0.7	22.6	5	11	9	13.5	0.7	206	1.2	188
2-Aug-09	4:00	0.2	22.2	5	9	7	13.5	0.7	79	1.0	116
2-Aug-09	5:00	0.5	19.9	3	7	6	13.1	0.9	148	1.4	209
2-Aug-09	6:00	4.2	22.0	3	8	7	13.8	0.3	61	1.4	221
2-Aug-09	7:00	5.0	14.7	2	8	6	14	0.5	293	1.9	210
2-Aug-09	8:00	4.9	10.9	2	9	7	15.1	0.5	262	0.8	168
2-Aug-09	9:00	5.2	9.8	2	7	5	15.2	0.8	243	2.0	113
2-Aug-09	10:00	8.4	11.9	4	5	4	15.5	0.9	232	1.9	118
2-Aug-09	11:00	6.6	11.7	3	7	5	17.6	1	235	2.5	157
2-Aug-09	12:00	7.5	16.5	8	7	5	18.9	0.9	228	2.1	28
2-Aug-09	13:00				10	7	19.4	0.7	255	2.8	129
2-Aug-09	14:00	4.1	11.3	1	8	6	20.2	0.8	244	0.9	129
2-Aug-09	15:00	3.9	10.7	1	9	6	20.6	1	242	1.1	174
2-Aug-09	16:00	1.2	5.6	1	12	9	17.8	1.7	227	1.5	162
2-Aug-09	17:00	1.0	4.8	0	15	13	16.3	2.2	227	2.4	169
2-Aug-09	18:00	1.7	8.8	1	16	14	14.5	1.4	211	2.1	172
2-Aug-09	19:00	0.7	10.1	1	17	14	15.2	0.9	214	1.8	166
2-Aug-09	20:00	0.2	14.0	0	19	14	14.5	1	199	1.3	179
2-Aug-09	21:00	0.0	14.0	0	21	15	14.2	0.5	177	1.1	197
2-Aug-09	22:00	13.1	39.4	1	22	16	15.5	0.4	120	1.2	208
2-Aug-09	23:00	6.9	29.5	1	19	15	14.9	0.4	173	2.7	210

MAML – JAMES BAY AIR QUALITY STUDY
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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
2-Aug-09	0:00	0.0	15.1	0	17	13	13.3	0.5	218	5.5	205
3-Aug-09	1:00	0.0	3.4	0	10	8	11.6	0.7	231	9.9	217
3-Aug-09	2:00	0.0	4.0	0	9	7	11.3	0.7	221	9.6	215
3-Aug-09	3:00	0.0	5.7	0	11	8	11.4	0.4	201	2.9	195
3-Aug-09	4:00	0.0	6.1	0	8	7	11.8	0.4	121	1.4	159
3-Aug-09	5:00	0.0	9.2	0	11	9	11.8	0.3	188	1.6	132
3-Aug-09	6:00	1.1	12.6	0	5	5	11.3	0.7	134	2.2	131
3-Aug-09	7:00	1.9	10.7	1	6	6	12.2	0.6	273	3.0	136
3-Aug-09	8:00	2.9	7.8	1	6	5	13.4	1.2	239	1.6	176
3-Aug-09	9:00	3.1	8.4	1	7	6	15.2	1	198	2.7	212
3-Aug-09	10:00	2.1	6.5	1	8	6	16.2	1.4	221	2.4	224
3-Aug-09	11:00	2.7	8.4	3	9	7	17.5	2.2	186	1.4	268
3-Aug-09	12:00				9	8	17.2	2.3	186	0.8	42
3-Aug-09	13:00	0.5	4.0	1	9	7	18.1	1.2	230	0.9	119
3-Aug-09	14:00	1.6	7.5	1	9	7	19.2	1	234	2.1	95
3-Aug-09	15:00	6.4	14.7	2	11	8	18.5	0.9	241	1.6	178
3-Aug-09	16:00	0.6	3.8	0	12	8	18.9	1.1	250	1.9	149
3-Aug-09	17:00	3.6	11.5	0	16	10	19.4	0.9	250	2.9	144
3-Aug-09	18:00	1.6	6.7	0	16	12	18.8	1.1	236	2.8	154
3-Aug-09	19:00	1.6	9.2	0	18	13	17.7	1.1	234	3.8	150
3-Aug-09	20:00	0.4	5.7	0	19	15	15.8	1.3	226	4.0	137
3-Aug-09	21:00	0.2	7.1	0	19	14	15.3	1.3	243	2.2	150
3-Aug-09	22:00	0.1	4.2	0	17	13	16.5	1	270	1.4	175
3-Aug-09	23:00	0.1	6.5	1	16	13	15.5	1	289	2.3	204
3-Aug-09	0:00	0.0	3.3	0	16	13	14.3	1	275	6.0	223
4-Aug-09	1:00	0.0	4.2	0	17	14	13.4	1.1	284	7.7	227
4-Aug-09	2:00	0.0	5.6	0	17	15	12.6	0.4	229	7.5	230
4-Aug-09	3:00	0.0	7.3	0	17	15	12.6	0.2	346	7.5	231
4-Aug-09	4:00	0.0	10.3	1	17	15	12.2	0.4	166	7.2	230
4-Aug-09	5:00	0.0	16.7	2	19	16	12.4	0.3	88	6.5	231
4-Aug-09	6:00	6.2	27.6	2	22	18	13.2	0.3	18	7.5	238
4-Aug-09	7:00	3.6	15.3	2	19	16	13.7	0.4	241	6.9	247
4-Aug-09	8:00	3.7	8.4	1	15	13	14.2	0.7	237	3.4	269
4-Aug-09	9:00	1.0	3.8	1	13	11	14.4	1.8	213	4.2	246
4-Aug-09	10:00	3.7	7.3	0	13	11	13.8	2.2	210	1.5	282
4-Aug-09	11:00				14	11	14.3	2.7	196	0.5	108
4-Aug-09	12:00	1.9	5.6	2	12	11	14.7	3.1	203	1.1	144
4-Aug-09	13:00	1.5	5.0	3	12	11	15	2.7	214	0.8	116
4-Aug-09	14:00	0.9	3.6	1	10	9	14.9	2.6	214	0.2	360
4-Aug-09	15:00	0.7	3.8	1	9	8	15.1	2.8	202	0.8	201

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
4-Aug-09	16:00	3.4	10.7	1	16	11	16.1	1.2	235	1.3	168
4-Aug-09	17:00	3.9	12.6	0	20	14	16.3	1.5	232	2.6	155
4-Aug-09	18:00	2.2	10.3	0	23	17	16.7	1.2	239	4.3	188
4-Aug-09	19:00	1.1	7.5	0	24	16	17.9	0.9	258	4.6	167
4-Aug-09	20:00	2.0	8.4	0	42	27	15.5	1.7	281	4.6	151
4-Aug-09	21:00	0.0	3.3	0	36	32	14	1.2	251	4.8	174
4-Aug-09	22:00	0.0	5.7	0	33	30	13.6	1	260	3.8	182
4-Aug-09	23:00	0.4	5.2	0	32	28	13.4	0.8	238	3.5	144
4-Aug-09	0:00	0.0	2.3	0	31	28	13.4	1.1	272	1.8	159
5-Aug-09	1:00	0.0	3.4	0	26	24	13.4	0.7	290	4.8	228
5-Aug-09	2:00	0.0	1.3	0	19	18	13.3	1	295	7.0	224
5-Aug-09	3:00	0.0	1.0	0	12	11	13.4	1.1	276	7.2	245
5-Aug-09	4:00	0.0	1.3	0	15	13	13.2	0.6	267	7.9	257
5-Aug-09	5:00	0.1	8.6	0	18	16	12.9	0.7	266	6.4	228
5-Aug-09	6:00	1.0	12.3	1	19	17	11.8	1.1	236	6.7	239
5-Aug-09	7:00	2.1	12.4	1	19	16	12.3	1.1	240	5.8	252
5-Aug-09	8:00	2.2	8.8	3	18	16	13.2	1.6	230	5.5	247
5-Aug-09	9:00	4.9	11.5	4	19	16	13.6	1.7	228	4.5	256
5-Aug-09	10:00				25	17	14	1	253	4.8	257
5-Aug-09	11:00	4.6	10.1	1	18	15	14.5	1.7	231	4.6	257
5-Aug-09	12:00	9.0	16.3	6	15	13	14.3	2.1	227	5.3	247
5-Aug-09	13:00	4.6	11.3	3	14	12	14.6	2.3	223	6.0	242
5-Aug-09	14:00	3.5	10.3	3	14	12	14.5	3	217	6.2	213
5-Aug-09	15:00	3.2	10.1	1	14	12	14.6	2.7	217	6.9	204
5-Aug-09	16:00	1.2	5.6	1	16	11	16.6	1.3	247	6.8	201
5-Aug-09	17:00	1.6	7.5	0	16	11	17.1	1	272	7.6	197
5-Aug-09	18:00	5.9	12.4	14	24	12	17.2	2.3	291	8.5	206
5-Aug-09	19:00	6.6	16.1	26	19	14	16.3	2.2	287	7.7	201
5-Aug-09	20:00	1.1	10.5	1	18	13	15.5	1.1	284	7.8	200
5-Aug-09	21:00	0.6	6.9	4	9	7	14.5	2.4	287	8.3	200
5-Aug-09	22:00	0.0	4.2	1	9	8	14.3	1.2	288	8.0	193
5-Aug-09	23:00	1.4	15.3	8	10	9	13.8	1.1	270	7.8	194
5-Aug-09	0:00	0.0	7.1	1	11	10	13.3	0.5	270	5.8	215
6-Aug-09	1:00	0.0	1.5	1	10	9	13.3	0.5	284	8.3	238
6-Aug-09	2:00	0.0	2.9	0	10	9	13.3	0.4	293	8.8	257
6-Aug-09	3:00	0.0	3.1	0	11	10	12.4	0.4	233	7.2	274
6-Aug-09	4:00	0.0	1.7	0	10	10	12.1	0.2	288	5.9	251
6-Aug-09	5:00	0.0	7.7	0	11	10	11.9	0.2	239	7.5	269
6-Aug-09	6:00	0.2	8.8	0	13	11	12	0.1	260	4.3	283
6-Aug-09	7:00	1.2	15.1	0	13	11	12.4	0.7	216	4.7	273

MAML – JAMES BAY AIR QUALITY STUDY
Data Collection Report

January 25th, 2010

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
6-Aug-09	8:00	0.9	15.9	2	16	14	11.8	0.7	227	4.3	264
6-Aug-09	9:00				17	15	12.3	0.5	244	3.1	264
6-Aug-09	10:00	3.6	23.9	3	16	14	12.4	0.6	239	2.2	285
6-Aug-09	11:00	9.6	29.3	4	20	15	12.9	1.1	292	2.2	233
6-Aug-09	12:00	6.4	20.3	2	23	15	14.7	0.9	272	2.1	264
6-Aug-09	13:00	5.9	15.3	3	20	14	16.5	0.9	267	2.1	243
6-Aug-09	14:00	3.7	11.7	1	15	11	17.3	0.8	263	1.9	247
6-Aug-09	15:00	5.7	13.8	1	18	13	16.8	0.9	263	0.9	195
6-Aug-09	16:00	2.9	13.0	1	25	16	14.9	1.1	244	3.5	215
6-Aug-09	17:00	2.5	14.4	1	20	15	14.4	1.3	238	2.2	220
6-Aug-09	18:00	3.7	22.4	1	20	16	14.9	1.1	259	0.8	195
6-Aug-09	19:00	2.9	22.4	2	21	16	14.8	0.7	247	3.3	244
6-Aug-09	20:00	6.5	30.1	11	24	17	15.3	1.6	277	6.4	242
6-Aug-09	21:00	58.0	66.8	110	25	19	15.7	2.7	287	5.8	225
6-Aug-09	22:00	95.3	75.0	157	22	18	15.5	3.3	289	5.4	227
6-Aug-09	23:00	10.0	31.8	35	19	17	14.7	2	283	6.0	218
6-Aug-09	0:00	1.7	9.0	7	16	14	14.3	2	284	7.2	207
7-Aug-09	1:00	0.0	2.9	1	13	12	13.6	1.4	289	7.1	212
7-Aug-09	2:00	0.0	2.5	1	12	11	13.2	1.2	287	6.5	219
7-Aug-09	3:00	0.0	3.6	1	9	9	12.8	0.8	280	6.4	220
7-Aug-09	4:00	0.0	11.7	0	9	8	12.5	0.5	247	7.8	232
7-Aug-09	5:00	0.0	7.7	0	7	6	12.5	0.4	248	9.2	251
7-Aug-09	6:00	0.6	17.0	0	8	6	12.3	0.4	227	9.0	255
7-Aug-09	7:00	0.6	12.8	0	6	6	13.3	0.3	254	8.3	249
7-Aug-09	8:00				6	5	14.1	0.5	242	7.8	261
7-Aug-09	9:00	3.1	15.1	1	7	5	14.9	0.5	259	6.5	278
7-Aug-09	10:00	3.0	12.4	0	9	6	15.7	0.8	244	5.6	281
7-Aug-09	11:00	2.7	10.9	0	10	7	16	0.9	244	4.8	272
7-Aug-09	12:00	2.7	10.5	0	10	8	14.8	1.8	229	2.6	272
7-Aug-09	13:00	5.9	17.4	7	9	7	14.1	2.3	214	2.9	271
7-Aug-09	14:00	9.1	23.9	10	9	7	13.8	2.5	209	2.8	260
7-Aug-09	15:00	4.4	14.5	3	9	7	14.3	2.5	212	2.9	251
7-Aug-09	16:00	3.4	14.9	4	10	8	13.8	2.1	213	2.4	227
7-Aug-09	17:00	5.2	17.0	3	11	8	14.2	1.4	239	3.2	241
7-Aug-09	18:00	3.9	17.8	3	12	10	14.2	1.2	232	4.4	231
7-Aug-09	19:00	1.7	17.2	2	15	12	13.9	1.1	233	4.9	217
7-Aug-09	20:00	3.0	16.8	2	17	15	14.3	0.8	270	6.5	209
7-Aug-09	21:00	1.1	11.3	1	18	16	13.7	0.6	275	8.4	200
7-Aug-09	22:00	0.9	10.0	2	16	15	13.2	0.9	281	8.5	197
7-Aug-09	23:00	2.5	15.7	5	15	14	13.4	0.9	278	8.4	199

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
7-Aug-09	0:00	2.2	13.2	5	16	15	13.5	0.6	258	8.5	203
8-Aug-09	1:00	0.6	19.5	5	15	14	11.8	1.9	221	8.6	212
8-Aug-09	2:00	0.0	21.1	6	14	13	11.4	2.1	216	7.1	205
8-Aug-09	3:00	2.5	12.6	4	17	15	11.7	1.8	226	6.1	205
8-Aug-09	4:00	2.0	19.0	7	19	17	11.9	1.5	231	7.4	227
8-Aug-09	5:00	0.0	20.9	5	18	16	11.7	1.8	220	8.1	228
8-Aug-09	6:00	1.7	19.7	3	19	17	11.7	1.7	224	8.2	226
8-Aug-09	7:00				20	18	12.1	1.9	218	8.2	233
8-Aug-09	8:00	0.6	4.8	1	17	15	13.1	1.6	228	7.2	231
8-Aug-09	9:00	2.7	11.3	1	16	14	13	1.8	221	7.0	204
8-Aug-09	10:00	6.2	17.0	9	22	18	13.5	2.5	201	8.2	197
8-Aug-09	11:00	6.1	23.7	8	22	19	13.3	2.1	209	8.3	199
8-Aug-09	12:00	2.2	11.5	2	21	19	13.1	1.9	216	8.0	202
8-Aug-09	13:00	3.6	15.7	3	15	15	13	2.2	207	7.4	196
8-Aug-09	14:00	1.4	5.9	1	9	8	14.5	2.9	203	7.7	198
8-Aug-09	15:00	3.2	9.0	4	7	7	15.9	2.8	202	7.4	194
8-Aug-09	16:00	2.4	10.0	1	8	7	15.4	2.2	211	6.5	199
8-Aug-09	17:00	4.0	16.3	3	10	9	15.4	1.8	214	5.1	195
8-Aug-09	18:00	3.6	23.9	7	11	10	14.7	1.3	217	3.8	179
8-Aug-09	19:00	5.4	35.4	11	13	11	14.4	1.6	207	4.4	179
8-Aug-09	20:00	4.5	41.2	11	9	8	13.3	0.6	231	4.0	184
8-Aug-09	21:00	6.1	50.3	14	8	7	12.8	0.8	221	4.3	184
8-Aug-09	22:00	10.2	49.2	18	7	6	12.9	0.8	238	4.9	172
8-Aug-09	23:00	12.2	28.1	23	4	4	13.4	1.2	252	5.2	170
8-Aug-09	0:00	18.0	35.2	22	3	3	13.2	0.8	231	4.4	167
9-Aug-09	1:00	3.6	26.4	5	2	2	13.4	0.2	293	4.5	195
9-Aug-09	2:00	0.9	21.8	3	1	1	13.2	0.5	211	4.0	202
9-Aug-09	3:00	6.5	32.9	6	1	1	12.9	0.2	243	4.1	198
9-Aug-09	4:00	0.6	24.5	2	4	3	12.6	0.5	205	4.2	206
9-Aug-09	5:00	2.6	24.1	1	4	4	13	0.3	59	2.9	200
9-Aug-09	6:00				3	3	12.9	0.1	311	1.9	165
9-Aug-09	7:00	6.7	24.3	1	3	3	12.6	0.1	281	5.1	217
9-Aug-09	8:00	19.0	22.0	1	4	3	13.9	0.2	276	4.8	216
9-Aug-09	9:00	7.9	13.6	1	4	3	14	0.6	232	2.9	249
9-Aug-09	10:00	5.6	11.3	1	3	2	15	0.3	265	1.0	171
9-Aug-09	11:00	6.5	13.4	1	2	1	15.7	0.7	235	0.9	151
9-Aug-09	12:00	4.7	10.5	1	4	3	15.8	1.3	225	1.0	155
9-Aug-09	13:00	6.2	13.0	3	7	5	15.2	1.6	223	1.3	100
9-Aug-09	14:00	9.9	18.6	4	8	5	15.1	1.4	234	1.3	146
9-Aug-09	15:00	6.7	15.1	2	9	6	14.5	1.8	230	1.0	159

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
9-Aug-09	16:00	1.7	5.9	1	6	3	17.8	1.4	264	1.7	155
9-Aug-09	17:00	3.1	8.2	1	6	3	18.2	2.6	289	1.4	191
9-Aug-09	18:00	3.1	8.6	0	5	3	18.8	2.2	286	1.1	145
9-Aug-09	19:00	3.0	9.2	0	4	3	17.1	2.2	286	1.4	165
9-Aug-09	20:00	0.4	6.3	0	4	3	16.4	1.4	285	2.4	164
9-Aug-09	21:00	0.1	6.5	0	4	3	15.6	0.8	252	3.9	198
9-Aug-09	22:00	0.5	7.5	0	4	3	15	0.7	240	6.6	212
9-Aug-09	23:00	0.0	5.4	0	4	4	13.4	1	232	7.6	209
9-Aug-09	0:00	0.0	8.4	1	6	5	12.4	1.6	208	7.9	232
10-Aug-09	1:00	0.0	17.0	3	6	5	12.1	1.7	206	8.0	255
10-Aug-09	2:00	0.0	21.4	3	5	4	12.2	1	216	6.4	257
10-Aug-09	3:00	0.0	5.9	1	3	2	13.1	0.7	290	6.9	269
10-Aug-09	4:00	0.0	1.7	0	2	2	12.9	0.4	214	5.3	278
10-Aug-09	5:00				3	3	12	0.4	242	3.7	254
10-Aug-09	6:00	0.0	6.9	0	3	3	12.1	0.1	329	3.5	240
10-Aug-09	7:00	0.7	16.1	0	3	3	12.9	0	18	4.9	224
10-Aug-09	8:00	1.2	13.0	1	4	3	13.1	0.5	167	5.1	220
10-Aug-09	9:00	3.1	17.0	2	4	4	12.8	0.9	158	4.8	211
10-Aug-09	10:00	1.7	9.2	1	5	4	13.3	0.9	160	4.6	215
10-Aug-09	11:00	1.6	10.9	1	5	4	14.1	1.4	165	3.2	263
10-Aug-09	12:00	2.6	14.4	1	5	4	14.2	1.2	153	1.0	183
10-Aug-09	13:00	5.2	19.3	1	5	4	14.6	0.8	134	1.1	206
10-Aug-09	14:00	6.4	22.6	1	6	5	15.4	0.7	113	0.6	174
10-Aug-09	15:00	4.9	20.5	1	6	5	16.2	0.4	99	0.5	127
10-Aug-09	16:00			1	9	8	16.2	0.6	337	1.5	130
10-Aug-09	17:00			1	10	8	15.8	0.7	227	2.4	124
10-Aug-09	18:00			1	7	7	12.8	1.3	233	2.9	110
10-Aug-09	19:00			1	7	7	12.5	0.5	228	2.7	126
10-Aug-09	20:00			5	7	7	13.2	0.8	196	3.8	113
10-Aug-09	21:00	0.9	26.4	3	7	7	13	1.2	210	3.1	99
10-Aug-09	22:00	3.0	34.5	6	8	8	12.8	1.1	195	1.3	83
10-Aug-09	23:00	4.4	40.8	7	7	7	12.8	0.7	210	1.1	166
10-Aug-09	0:00	1.2	35.8	6	7	7	13.4	0.3	253	1.3	287
11-Aug-09	1:00	0.6	29.9	5	6	6	13.6	0.2	323	2.5	165
11-Aug-09	2:00	0.0	10.0	2	4	4	14.5	0.5	327	4.4	207
11-Aug-09	3:00	0.0	10.5	1	5	4	14.1	0.8	203	3.4	224
11-Aug-09	4:00				4	4	13.6	1.3	208	1.3	141
11-Aug-09	5:00	0.0	15.5	1	3	3	12.2	1.4	225	2.2	152
11-Aug-09	6:00	0.2	15.7	1	5	5	11.9	1.1	197	3.0	144
11-Aug-09	7:00	1.1	10.3	1	6	5	11.5	1.7	204	1.3	147

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
11-Aug-09	8:00	7.6	12.8	1	5	4	12.6	1	205	0.7	191
11-Aug-09	9:00	5.7	12.1	1	3	2	12.9	1.6	211	0.8	285
11-Aug-09	10:00	7.6	13.8	2	3	2	13.5	0.8	258	1.3	303
11-Aug-09	11:00	6.1	11.9	2	5	4	14.9	0.8	227	2.9	148
11-Aug-09	12:00	4.1	11.1	4	7	5	16	1.8	213	3.2	159
11-Aug-09	13:00	4.0	12.3	9	6	5	16.3	2.4	214	5.0	208
11-Aug-09	14:00	2.6	9.2	3	7	5	16.8	2.1	217	2.9	157
11-Aug-09	15:00	6.7	17.2	12	5	4	17.8	1.4	221	4.1	190
11-Aug-09	16:00	4.6	17.2	13	7	5	18	1.2	221	1.3	155
11-Aug-09	17:00	1.6	10.5	5	6	5	17.5	1.3	221	2.6	180
11-Aug-09	18:00	6.0	17.4	3	8	6	17	0.4	260	3.2	222
11-Aug-09	19:00	0.6	12.6	1	8	5	17	0.3	266	1.5	215
11-Aug-09	20:00	0.6	22.6	1	7	5	15.8	0.4	247	3.3	175
11-Aug-09	21:00	0.6	27.2	1	7	5	13.9	0.3	203	4.5	163
11-Aug-09	22:00	0.7	24.1	1	7	5	14.2	0.4	271	5.2	179
11-Aug-09	23:00	0.5	18.4	1	6	5	13	0.6	236	3.3	172
11-Aug-09	0:00	0.0	16.5	1	7	6	12.1	0.2	169	3.2	147
12-Aug-09	1:00	0.0	20.3	1	10	8	12	0.3	298	2.9	149
12-Aug-09	2:00	0.5	24.5	1	9	7	12.7	0.9	354	1.0	188
12-Aug-09	3:00				8	6	12.3	0.3	21	0.5	242
12-Aug-09	4:00	1.1	15.9	0	7	5	12.4	0	2	1.1	206
12-Aug-09	5:00	3.7	21.8	1	9	6	11.8	0.4	215	0.9	184
12-Aug-09	6:00	13.3	23.2	2	9	7	11.7	0.3	312	0.7	242
12-Aug-09	7:00	23.0	22.2	5	10	7	13	0.2	325	1.7	227
12-Aug-09	8:00	15.1	16.8	4	9	6	14.6	0.5	234	0.7	113
12-Aug-09	9:00	12.2	12.6	4	13	8	15.7	0.5	254	1.4	147
12-Aug-09	10:00	13.2	13.4	16	8	5	16.1	1.4	215	2.1	344
12-Aug-09	11:00	5.4	9.4	3	7	5	17	1.1	225	1.4	316
12-Aug-09	12:00	6.7	10.1	3	6	4	15.6	1.6	220	0.2	289
12-Aug-09	13:00	11.7	13.2	7	7	5	15.2	2.2	213	1.0	146
12-Aug-09	14:00	9.7	11.5	3	10	6	14.7	2.2	211	0.4	194
12-Aug-09	15:00	6.5	10.9	1	12	7	16.1	1.4	246	0.4	153
12-Aug-09	16:00	2.7	8.4	1	13	7	16.5	1.1	258	0.8	187
12-Aug-09	17:00	2.7	9.8	0	12	6	17.9	1	267	1.1	180
12-Aug-09	18:00	2.6	10.1	0	8	3	18.6	1.5	275	2.2	161
12-Aug-09	19:00	2.1	10.5	0	12	4	17	3.5	278	2.5	149
12-Aug-09	20:00	0.6	7.3	0	7	4	15.1	2	284	2.8	163
12-Aug-09	21:00	0.0	2.9	0	6	5	13.5	2.7	285	3.9	176
12-Aug-09	22:00	0.0	3.4	0	6	5	12.9	1.6	288	7.0	204
12-Aug-09	23:00	0.0	2.1	0	8	7	12.9	2.6	298	8.2	218

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
12-Aug-09	0:00	0.0	3.8	0	8	8	12.8	1.9	280	9.8	219
13-Aug-09	1:00	0.0	4.2	1	8	7	12.9	1.2	277	8.8	230
13-Aug-09	2:00				8	8	13	1.1	279	8.2	241
13-Aug-09	3:00	0.0	4.8	0	9	8	13	0.7	258	10.1	239
13-Aug-09	4:00	0.0	7.5	0	9	8	13.1	0.5	271	9.7	245
13-Aug-09	5:00	0.0	6.1	0	8	7	13.4	1.1	284	10.0	257
13-Aug-09	6:00	1.7	11.1	0	8	7	13.5	1.6	282	8.6	264
13-Aug-09	7:00	3.0	16.5	0	9	7	13.7	1.5	291	9.5	272
13-Aug-09	8:00	11.6	27.2	2	11	9	14.3	1.2	285	8.1	266
13-Aug-09	9:00	20.7	27.6	10	10	8	15.7	1	279	7.6	259
13-Aug-09	10:00	11.4	16.3	11	10	7	16.2	2.5	293	6.6	269
13-Aug-09	11:00	44.4	27.9	46	11	8	16.4	2.3	292	5.3	275
13-Aug-09	12:00	49.9	28.5	56	9	7	16	1.8	293	4.4	277
13-Aug-09	13:00	9.1	14.0	11	7	5	18.6	1.2	280	4.9	274
13-Aug-09	14:00	8.2	18.4	7	11	6	18.3	1.6	281	5.2	268
13-Aug-09	15:00	4.0	14.5	4	9	6	18.4	1.7	109	5.4	270
13-Aug-09	16:00	5.2	20.9	1	9	7	15.5	2.5	52	4.5	270
13-Aug-09	17:00	9.5	32.4	1	10	8	14.4	1.2	62	4.5	252
13-Aug-09	18:00	8.4	33.5	1	10	8	14.3	0.8	253	8.2	266
13-Aug-09	19:00	2.9	31.8	2	11	9	13.3	0.6	218	7.3	261
13-Aug-09	20:00	6.1	32.9	11	9	7	13.4	0.9	268	5.8	257
13-Aug-09	21:00	5.9	21.6	20	9	7	13.5	1.7	291	2.8	251
13-Aug-09	22:00	5.7	19.3	24	6	5	13.3	1.2	295	3.8	235
13-Aug-09	23:00	0.5	17.4	2	7	6	13	0.3	254	2.7	54
13-Aug-09	0:00				6	6	13.4	0.4	264		
14-Aug-09	1:00	0.1	3.4	1	6	5	13.3	0.6	290		
14-Aug-09	2:00	0.0	3.4	1	7	6	12.8	0.7	283		
14-Aug-09	3:00	0.1	8.4	1	8	7	12.6	0.7	273		
14-Aug-09	4:00	0.0	5.0	1	9	8	12.3	0.8	281		
14-Aug-09	5:00	0.0	7.1	1	9	8	12.6	0.8	282		
14-Aug-09	6:00	2.2	16.1	1	10	9	12.7	0.5	268		
14-Aug-09	7:00	1.7	13.8	1	12	10	13	0.3	256		
14-Aug-09	8:00	3.0	11.5	1	12	10	14.4	0.3	249		
14-Aug-09	9:00	3.1	11.5	1	10	8	14.9	0.6	218		
14-Aug-09	10:00	2.2	6.9	1	8	7	16.2	0.7	230		
14-Aug-09	11:00	1.7	5.6	1	8	7	17.5	2.2	196		
14-Aug-09	12:00	1.6	4.8	1	8	5	18.5	1.9	190		
14-Aug-09	13:00	2.4	6.9	5	6	4	18	2.4	205		
14-Aug-09	14:00	3.1	7.8	1	6	4	17.9	2	218		
14-Aug-09	15:00	3.0	7.7	1	9	7	15.5	2.2	215		

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
14-Aug-09	16:00	1.4	5.4	1	10	8	15	2.2	223		
14-Aug-09	17:00	3.5	9.4	3	13	10	15.1	1.9	226		
14-Aug-09	18:00	2.5	10.1	2	20	14	15	1.1	254		
14-Aug-09	19:00	2.0	10.7	1	13	9	14.1	1.1	256		
14-Aug-09	20:00	4.0	22.0	3	11	9	13.3	1.8	277		
14-Aug-09	21:00	5.6	14.4	7	9	7	14.2	2.4	288		
14-Aug-09	22:00	33.6	20.7	58	8	6	13.9	2.6	302		
14-Aug-09	23:00				8	6	13.4	0.6	290		
14-Aug-09	0:00	0.0	6.5	1	7	6	12.9	1	235	5.5	41
15-Aug-09	1:00	0.0	5.2	1	7	6	12.4	0.8	248	8.0	201
15-Aug-09	2:00	0.0	2.7	1	7	6	12.5	0.6	258	10.0	216
15-Aug-09	3:00	0.0	2.9	1	8	7	12	0.7	235	10.0	214
15-Aug-09	4:00	0.0	11.3	1	10	8	11.1	1.1	226	10.0	225
15-Aug-09	5:00	2.1	12.6	1	9	8	11	0.6	230	9.0	240
15-Aug-09	6:00	1.5	14.2	1	9	8	11	0.7	229	7.8	274
15-Aug-09	7:00	6.7	20.7	3	11	9	11.6	0.8	244	4.8	279
15-Aug-09	8:00	4.7	11.1	2	10	8	12	0.8	241	2.5	254
15-Aug-09	9:00	6.4	10.7	4	10	8	13	1.5	216	4.6	222
15-Aug-09	10:00	3.7	9.4	6	10	8	13.8	1.6	209	5.1	237
15-Aug-09	11:00	10.9	18.0	15	11	8	14.7	1.8	206	4.9	236
15-Aug-09	12:00	5.5	11.5	7	11	8	15	1.7	222	4.1	205
15-Aug-09	13:00	5.7	11.3	6	11	8	15.3	1.6	224	2.3	232
15-Aug-09	14:00	4.2	8.2	3	9	7	16.4	1.3	232	1.1	256
15-Aug-09	15:00	0.5	3.6	2	8	6	17.3	1.3	232	4.9	219
15-Aug-09	16:00	2.2	9.6	2	10	7	16.6	1.3	229	5.5	211
15-Aug-09	17:00	8.7	25.1	3	15	11	14.7	0.7	245	4.5	197
15-Aug-09	18:00	5.1	29.5	4	11	9	13.9	0.8	222	2.6	169
15-Aug-09	19:00	2.5	28.1	1	13	10	13.4	0.4	248	2.1	153
15-Aug-09	20:00	4.0	40.4	2	15	11	13.6	0.1	298	2.1	169
15-Aug-09	21:00	0.1	24.5	2	12	10	13.4	0.5	202	2.4	175
15-Aug-09	22:00				12	10	13.5	0.5	216	2.2	171
15-Aug-09	23:00	0.0	20.1	1	14	12	12.7	0.5	201	1.3	171
15-Aug-09	0:00	0.0	7.7	1	14	12	11.9	0.3	230	2.0	209
16-Aug-09	1:00	0.5	7.7	0	12	10	11.6	0.2	283	3.0	211
16-Aug-09	2:00	5.7	17.0	0	14	11	11.7	0.2	48	2.2	193
16-Aug-09	3:00	40.8	26.0	1	16	14	11.7	0.1	23	0.6	166
16-Aug-09	4:00	54.9	22.6	1	17	14	11.4	0.1	17	0.3	285
16-Aug-09	5:00	67.9	20.3	1	18	15	11.2	0.2	10	0.7	157
16-Aug-09	6:00	45.7	14.9	1	16	13	11.3	0.2	358	1.1	167
16-Aug-09	7:00	19.3	13.8	1	15	12	12.2	0.1	324	0.8	158

MAML – JAMES BAY AIR QUALITY STUDY
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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET			Ogden Point MET	
Day	Time	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
16-Aug-09	8:00	14.6	16.1	1	14	11	15	0.5	22	0.8	220
16-Aug-09	9:00	11.6	12.4	3	13	11	15.2	0.7	265	0.6	282
16-Aug-09	10:00	11.1	13.0	6	13	11	14.3	1	240	0.3	20
16-Aug-09	11:00	19.2	18.8	14	12	9	15.5	0.7	247	0.2	45
16-Aug-09	12:00	11.9	16.8	8	12	10	15.8	0.9	259	0.5	37
16-Aug-09	13:00	5.5	13.0	3	12	10	16.1	1.2	261	0.4	6
16-Aug-09	14:00	4.7	13.6	5	12	10	17.3	1.1	277	0.2	335
16-Aug-09	15:00	7.5	18.2	6	11	9	17.9	0.7	264	0.3	250
16-Aug-09	16:00	5.0	18.2	5	12	9	18	0.7	256	0.6	286
16-Aug-09	17:00	1.7	12.4	2	12	10	17.6	1.1	236	2.2	210
16-Aug-09	18:00	2.2	16.1	2	14	11	16.7	0.9	244	3.1	208
16-Aug-09	19:00	0.2	9.4	1	11	9	16.4	0.6	248	1.6	218
16-Aug-09	20:00	0.0	15.1	1	11	9	14.7	1	221	2.3	238
16-Aug-09	21:00				12	9	13.8	0.6	272	2.9	238
16-Aug-09	22:00	0.1	8.8	1	10	8	14.3	1	281	4.6	243
16-Aug-09	23:00	0.0	10.3	1	11	9	13.9	0.4	292	4.3	231
16-Aug-09	0:00	0.0	19.9	1	13	10	13.8	0.3	195	3.8	222
17-Aug-09	1:00	0.0	12.3	1	12	10	13.4	0.3	211	2.8	200
17-Aug-09	2:00	0.0	14.2	1	11	10	13.6	0	12	6.6	221
17-Aug-09	3:00	1.7	23.4	1	12	11	13.9	0.1	54	6.6	240
17-Aug-09	4:00	6.7	26.2	1	13	12	13.7	0.2	1	4.3	221
17-Aug-09	5:00	27.2	27.8	2	15	13	12.8	0.2	28	1.4	217
17-Aug-09	6:00	45.3	28.5	2	16	14	13	0.1	354	2.5	257
17-Aug-09	7:00	55.3	34.1	2	20	15	14	0.2	323	2.1	273
17-Aug-09	8:00	55.9	35.8	3	34	17	15.9	0.3	290	0.5	211
17-Aug-09	9:00	4.0	14.0	3	13	12	13.9	0.8	233	0.4	156
17-Aug-09	10:00	7.2	15.3	9	12	10	14.4	0.8	239	0.5	113
17-Aug-09	11:00	27.9	26.6	22	12	10	16.4	0.8	254	0.8	46
17-Aug-09	12:00	22.5	23.7	21	11	9	16.8	1	238	0.9	117
17-Aug-09	13:00	14.0	20.5	10	12	9	17	0.8	250	0.6	74
17-Aug-09	14:00	11.1	21.4	11	10	8	18	0.9	269	0.2	148
17-Aug-09	15:00	9.5	22.2	18	9	7	18.6	0.8	241	0.2	238
17-Aug-09	16:00	7.9	19.1	11	10	7	19.2	0.8	238	0.6	263
17-Aug-09	17:00	3.9	17.8	8	10	8	18.5	0.7	273	1.6	180
17-Aug-09	18:00	2.2	17.0	3	11	8	18.2	0.5	256	0.5	169
17-Aug-09	19:00	0.7	22.2	3	11	9	16.7	0.3	227	0.1	231
17-Aug-09	20:00				11	9	15.4	0.3	235	1.3	196
17-Aug-09	21:00	0.0	17.2	2	9	7	13.5	0.5	235	2.4	240
17-Aug-09	22:00	1.6	23.9	2	7	6	12.6	0.1	6	2.6	259
17-Aug-09	23:00	0.0	17.0	1	8	6	12.8	0.3	251	0.9	211

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
17-Aug-09	0:00	0.6	23.9	1	8	7	13.4	0.6	80	0.7	225
18-Aug-09	1:00	0.7	30.6	4	11	9	16.2	1	65	1.0	224
18-Aug-09	2:00	0.4	26.6	3	11	9	15.1	0.4	26	1.4	218
18-Aug-09	3:00	0.0	21.6	3	10	9	13.1	0.3	188	0.5	159
18-Aug-09	4:00	4.9	30.4	6	9	8	12.7	0.4	90	1.6	150
18-Aug-09	5:00	54.6	47.3	5	12	10	12.6	0.3	36	1.3	189
18-Aug-09	6:00	39.8	39.6	3	14	10	13.2	0.6	60	0.1	70
18-Aug-09	7:00	44.4	41.0	4	16	11	14.7	0.3	22	0.7	197
18-Aug-09	8:00	10.2	25.1	7	13	9	17.7	0.2	14	0.8	16
18-Aug-09	9:00	4.2	14.9	8	8	6	18.5	0.6	241	1.5	36
18-Aug-09	10:00	10.9	22.6	16	9	7	17.5	0.9	235	0.7	201
18-Aug-09	11:00	6.1	16.1	10	9	6	18.7	0.7	255	2.7	137
18-Aug-09	12:00	8.9	20.9	6	10	6	19.8	0.8	257	1.6	136
18-Aug-09	13:00	10.2	20.3	5	10	6	18.9	0.9	242	0.6	18
18-Aug-09	14:00	4.9	16.7	2	10	7	18.8	1	254	1.7	29
18-Aug-09	15:00	5.1	19.7	7	9	7	19.1	0.9	267	0.7	2
18-Aug-09	16:00	2.0	13.4	5	10	6	20	0.7	255	0.5	2
18-Aug-09	17:00	2.7	18.0	8	9	7	20.6	0.6	253	0.8	222
18-Aug-09	18:00	3.4	26.8	9	10	7	20.2	0.6	238	2.2	183
18-Aug-09	19:00				12	7	20.2	0.5	269	1.1	209
18-Aug-09	20:00	0.1	22.6	3	11	7	19.4	0.7	277	1.9	229
18-Aug-09	21:00	0.0	10.0	2	9	7	17.9	0.6	246	4.1	215
18-Aug-09	22:00	0.0	13.4	1	11	8	16.8	0.4	248	2.3	240
18-Aug-09	23:00	0.0	24.7	1	13	10	16.9	0.1	359	3.1	239
18-Aug-09	0:00	0.0	19.7	3	11	9	15.5	0.2	84	1.7	247
19-Aug-09	1:00	0.0	27.4	3	11	9	15.9	0.8	61	0.6	216
19-Aug-09	2:00	0.0	22.4	3	11	9	16.7	1	77	0.8	192
19-Aug-09	3:00	0.0	21.4	2	11	9	16.3	0.6	44	1.4	223
19-Aug-09	4:00	0.0	20.7	2	11	9	13.1	0.3	266	4.1	252
19-Aug-09	5:00	2.4	27.8	3	11	9	12.3	0.4	300	4.0	237
19-Aug-09	6:00	3.0	26.4	3	12	10	12.9	0.3	39	1.3	263
19-Aug-09	7:00	20.7	39.6	5	17	12	14.8	0.4	54	1.3	130
19-Aug-09	8:00	15.8	35.2	8	12	9	17.3	0.4	246	3.1	131
19-Aug-09	9:00	9.5	23.9	5	10	7	17.5	0.5	239	1.2	49
19-Aug-09	10:00	13.3	23.0	3	11	7	17.1	0.7	287	2.5	34
19-Aug-09	11:00	14.8	19.1	4	10	6	17.7	1	288	2.7	70
19-Aug-09	12:00	31.2	25.1	6	10	6	18.7	0.8	273	1.9	154
19-Aug-09	13:00	12.3	15.9	4	7	4	18.9	0.7	255	1.1	264
19-Aug-09	14:00	7.1	14.9	5	7	4	19.5	0.9	268	0.8	319
19-Aug-09	15:00	5.2	14.7	3	7	5	19.9	0.9	260	1.1	27

MAML – JAMES BAY AIR QUALITY STUDY
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MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
19-Aug-09	16:00	4.0	15.5	6	7	4	20.8	0.7	256	0.5	159
19-Aug-09	17:00	2.7	15.5	5	8	5	22.5	0.7	249	1.4	175
19-Aug-09	18:00				9	6	22.7	0.5	254	1.6	255
19-Aug-09	19:00	0.9	20.5	7	13	8	22.4	0.7	284	2.4	251
19-Aug-09	20:00	0.4	27.4	4	17	10	20.2	0.1	325	1.4	224
19-Aug-09	21:00	3.2	54.4	3	21	14	20.1	0.2	44	2.3	233
19-Aug-09	22:00	2.2	57.4	3	20	14	20.2	0.1	40	2.5	239
19-Aug-09	23:00	5.7	57.8	2	19	14	18.4	0.3	324	2.8	242
19-Aug-09	0:00	1.6	50.0	4	15	12	15.5	0.3	317	3.3	246
20-Aug-09	1:00	3.1	49.4	3	17	13	17.7	0.4	91	1.1	253
20-Aug-09	2:00	0.6	30.4	3	15	13	15.1	0.9	214	0.8	252
20-Aug-09	3:00	0.0	20.1	3	17	14	14.3	0.3	246	1.0	279
20-Aug-09	4:00	0.0	27.0	3	15	13	13.7	0.2	22	0.9	253
20-Aug-09	5:00	0.4	25.5	2	17	14	13.8	0.2	279	0.7	350
20-Aug-09	6:00	0.9	21.2	2	18	14	13.8	0.3	234	0.5	21
20-Aug-09	7:00	10.2	30.8	19	17	13	14.7	0.5	271	1.5	137
20-Aug-09	8:00	9.2	19.7	18	9	7	16	0.9	275	1.0	275
20-Aug-09	9:00	13.5	21.8	27	9	6	17.3	0.6	262	1.1	38
20-Aug-09	10:00	3.6	9.2	2	8	4	17.2	1.1	240	2.0	150
20-Aug-09	11:00	4.2	8.0	1	13	7	15.3	1.5	239	3.1	140
20-Aug-09	12:00	6.1	10.1	3	10	4	18.2	1	258	1.4	129
20-Aug-09	13:00	6.2	10.3	2	10	4	19.4	1.3	252	1.6	141
20-Aug-09	14:00	22.1	20.3	27	10	4	21.3	2.4	278	1.3	142
20-Aug-09	15:00	74.5	34.3	88	13	5	21.4	2.4	287	1.6	250
20-Aug-09	16:00	102.0	41.0	130	11	4	21.5	4	289	5.8	239
20-Aug-09	17:00				15	4	21.8	3.8	300	4.9	229
20-Aug-09	18:00	11.5	23.7	4	6	3	20.3	3.7	293	3.4	187
20-Aug-09	19:00	7.7	21.8	2	6	3	19	3.3	287	8.2	209
20-Aug-09	20:00	7.1	20.1	6	3	1	18.3	3.3	296	8.4	223
20-Aug-09	21:00	4.0	12.8	4	2	1	18	2	296	8.7	234
20-Aug-09	22:00	2.6	11.3	10	2	1	17.1	2.7	289	10.2	243
20-Aug-09	23:00	0.0	1.1	1	1	0	16.8	2.5	289	11.1	247
20-Aug-09	0:00	0.0	2.1	1	2	2	16.4	1.5	278	11.2	254
21-Aug-09	1:00	0.0	1.7	0	3	2	16.4	2.1	286	11.6	267
21-Aug-09	2:00	0.0	1.5	1	5	4	15.6	1.6	281	10.2	266
21-Aug-09	3:00	0.0	1.0	1	6	5	15.2	2.3	292	8.6	267
21-Aug-09	4:00	0.0	1.0	0	4	4	15.3	2.2	298	9.7	276
21-Aug-09	5:00	0.0	1.7	1	6	5	14.4	1.7	277	7.1	283
21-Aug-09	6:00	0.6	8.0	1	6	5	14.4	1.3	264	7.0	273
21-Aug-09	7:00	2.2	8.6	1	7	6	13.2	0.9	251	8.0	274

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
21-Aug-09	8:00	4.5	12.6	1	6	5	14.1	1.2	258	6.8	256
21-Aug-09	9:00	7.9	13.4	3	7	6	13.6	1.7	214	7.2	260
21-Aug-09	10:00	6.7	14.5	6	7	6	13.7	1.4	226	6.9	258
21-Aug-09	11:00	5.1	14.7	4	5	5	13.9	1.7	215	7.6	266
21-Aug-09	12:00	9.7	17.4	6	5	4	14.4	1.4	210	8.0	280
21-Aug-09	13:00	4.7	10.7	2	4	2	16.2	1.5	227	7.3	266
21-Aug-09	14:00	16.2	18.0	18	4	3	17.6	1.4	226	6.8	258
21-Aug-09	15:00	17.6	18.8	18	4	3	16.4	2	222	6.5	220
21-Aug-09	16:00				5	3	16.7	1.7	227	5.0	242
21-Aug-09	17:00	4.9	9.4	3	7	4	17	1.7	226	2.8	177
21-Aug-09	18:00	82.1	25.8	143	8	5	18.5	2.7	287	1.8	149
21-Aug-09	19:00	126.0	41.7	148	5	2	16.8	2.5	289	2.5	171
21-Aug-09	20:00	258.2	59.7	305	8	6	15.1	3.2	296	5.0	198
21-Aug-09	21:00	246.2	55.9	313	9	8	13.9	3.2	298	6.4	211
21-Aug-09	22:00	124.2	38.3	178	12	10	13.4	3.5	298	6.2	201
21-Aug-09	23:00	15.2	18.8	42	14	12	12.9	2.1	290	7.6	202
21-Aug-09	0:00	18.0	14.5	32	14	13	12.8	2.6	299	7.5	203
22-Aug-09	1:00	0.0	4.2	3	12	11	12.6	2.3	287	5.1	226
22-Aug-09	2:00	0.0	2.7	2	11	10	12.8	1.6	283	8.3	257
22-Aug-09	3:00	0.0	1.9	1	9	8	12.7	1.7	283	9.6	239
22-Aug-09	4:00	0.0	1.7	1	7	7	12.6	0.7	274	10.9	243
22-Aug-09	5:00	0.0	3.8	1	7	6	12.3	0.7	259	8.7	250
22-Aug-09	6:00	4.2	9.4	1	8	7	11.9	0.7	289	7.5	275
22-Aug-09	7:00	3.5	16.5	1	7	6	12.3	0.3	322	8.7	268
22-Aug-09	8:00	1.7	9.0	1	7	6	13.6	0.5	273	10.4	268
22-Aug-09	9:00	3.4	11.1	2	10	8	14.4	0.6	268	8.1	269
22-Aug-09	10:00	2.7	8.2	1	11	7	15.4	0.5	271	6.1	271
22-Aug-09	11:00	5.2	11.9	1	11	7	16.4	0.8	264	6.3	265
22-Aug-09	12:00	2.1	7.8	1	12	8	16.7	1	237	5.4	276
22-Aug-09	13:00	0.1	3.4	1	11	8	18.5	1.1	218	4.0	269
22-Aug-09	14:00	0.4	4.4	1	12	9	18.8	2.3	188	5.6	256
22-Aug-09	15:00				12	9	20.5	0.9	221	1.9	308
22-Aug-09	16:00	4.5	15.5	8	12	8	20.9	1.4	277	1.2	253
22-Aug-09	17:00	9.7	23.0	13	12	8	20.2	0.8	237	3.8	240
22-Aug-09	18:00	12.5	27.2	15	12	8	18.8	1	267	4.8	236
22-Aug-09	19:00	20.5	29.9	35	11	9	17.5	1.7	280	4.8	230
22-Aug-09	20:00	30.3	36.9	55	11	9	15.5	1.1	269	4.8	212
22-Aug-09	21:00	25.6	32.5	43	8	8	14.5	2.4	285	3.3	177
22-Aug-09	22:00	3.9	13.8	10	8	7	14.1	2.3	298	4.4	136
22-Aug-09	23:00	46.4	32.4	78	9	8	13.8	2	294	2.1	147

MAML 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)							MAML MET		Ogden Point MET		
Day	Time	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
22-Aug-09	0:00	23.6	18.6	47	9	8	12.9	2.9	291	5.0	272
23-Aug-09	1:00	0.0	2.1	2	8	7	12.5	3.5	286	4.5	231
23-Aug-09	2:00	0.0	3.1	2	7	7	11.9	2.5	292	5.9	243
23-Aug-09	3:00	0.0	2.3	1	7	7	11.7	2.7	286	6.7	257
23-Aug-09	4:00	0.0	3.1	1	10	9	12.2	2.6	294	5.4	251
23-Aug-09	5:00	0.0	2.5	1	9	9	12.4	2.1	288	6.0	258
23-Aug-09	6:00	0.4	4.8	1	7	6	12.6	2	288	6.4	267
23-Aug-09	7:00	0.0	3.1	1	9	7	13	1.2	279	7.7	264
23-Aug-09	8:00	0.5	4.0	1	8	7	13.6	1.8	284	9.2	263
23-Aug-09	9:00	1.2	5.7	1	10	8	14.4	2.6	289	9.7	264
23-Aug-09	10:00	3.2	8.8	1	11	8	15.7	1.5	284	10.4	252
23-Aug-09	11:00	1.7	6.9	1	11	7	17.1	0.9	283	8.1	261
23-Aug-09	12:00	1.4	5.0	1	10	7	17.8	1	272	6.8	272
23-Aug-09	13:00	2.2	8.6	1	9	6	17.9	0.8	241	6.2	273
23-Aug-09	14:00				9	5	18	1	246	6.4	270
23-Aug-09	15:00	2.1	7.3	1	12	8	15.5	1.8	237	5.6	268
23-Aug-09	16:00	2.0	8.0	3	12	9	14.6	1.7	234	4.9	269
23-Aug-09	17:00	2.1	9.6	3	16	10	14.5	0.9	248	6.8	263
23-Aug-09	18:00	1.2	9.0	1	14	10	14.2	1.2	233	6.6	252
23-Aug-09	19:00	0.5	9.0	1	12	9	14.1	0.7	257	6.8	245
23-Aug-09	20:00	0.1	6.3	1	9	8	14.5	1	274	6.2	239
23-Aug-09	21:00	0.0	6.5	2	11	9	13	0.6	258	4.1	215
23-Aug-09	22:00	0.1	7.7	1	13	11	12.7	0.9	260	4.8	220
23-Aug-09	23:00	0.0	5.7	1	12	10	12.7	0.8	271	6.4	212
23-Aug-09	0:00	0.0	5.2	1	11	10	12.5	0.7	277	7.8	212
24-Aug-09	1:00	0.0	6.3	1	11	10	12	0.5	265	9.1	218
24-Aug-09	2:00	0.0	3.8	1	11	10	11.7	0.4	289	7.8	219
24-Aug-09	3:00	0.0	6.5	1	11	10	10.9	0.3	247	7.2	228
24-Aug-09	4:00	0.0	6.9	1	10	9	10.4	0.1	323	7.3	243
24-Aug-09	5:00	1.2	13.2	1	12	10	10.4	0.4	66	7.3	229
24-Aug-09	6:00	10.7	18.8	1	12	10	10	0.1	342	7.2	235
24-Aug-09	7:00	18.7	21.8	1	14	11	10.9	0.2	20	7.1	243
24-Aug-09	8:00	8.5	14.5	3	12	10	12.8	0.4	234	6.4	245

Appendix V. MAML 24-hour data

MAML 24-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	NO	NO_2	SO_2	PM_{10}	$\text{PM}_{2.5}$
30-May-09	6.2	24.1	4	10	7
31-May-09	10.7	28.3	7	13	9
1-Jun-09	4.4	23.9	4	17	8
2-Jun-09	5.6	26.0	4	25	17
3-Jun-09	2.6	26.6	4	27	15
4-Jun-09	4.0	32.2	4	21	13
5-Jun-09	29.3	16.3	43	20	14
6-Jun-09	4.4	18.3	9	21	15
7-Jun-09	2.0	6.9	3	15	11
8-Jun-09	1.4	7.1	4	15	10
9-Jun-09	8.8	19.3	28	14	10
10-Jun-09	48.5	40.0	122	14	9
11-Jun-09	28.7	26.1	56	8	7
12-Jun-09	21.7	15.4	30	8	6
13-Jun-09	67.7	24.8	99	6	5
14-Jun-09	1.0	3.3	4	6	5
15-Jun-09	2.7	5.6	5	5	3
16-Jun-09	2.3	6.1	3	6	4
17-Jun-09	26.5	13.8	39	4	2
18-Jun-09	10.5	18.4	21	5	3
19-Jun-09	53.6	24.9	69	7	5
20-Jun-09	20.9	15.9	29	7	4
21-Jun-09	4.0	6.8	10	7	4
22-Jun-09	0.6	4.3	3	8	4
23-Jun-09	3.0	11.1	4	10	7
24-Jun-09	4.2	14.7	6	9	6
25-Jun-09	38.3	20.2	49	8	6
26-Jun-09	2.2	8.7	4	12	8
27-Jun-09	6.9	13.2	9	8	4
28-Jun-09	0.8	5.1	2	9	6
29-Jun-09	2.9	10.1	2	11	7
30-Jun-09	3.3	14.5	2	11	7
1-Jul-09	9.4	25.4	3	11	8
2-Jul-09	10.3	29.9	4	13	8
3-Jul-09	7.1	29.0	8	14	8
4-Jul-09	4.7	24.9	6	13	9
5-Jul-09	10.5	27.4	6	15	11
6-Jul-09	4.6	11.0	2	8	3
7-Jul-09	3.7	13.9	3	2	2

MAML 24-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}
8-Jul-09	7.8	20.3	3	4	3
9-Jul-09	10.0	20.6	4	7	5
10-Jul-09	10.2	21.8	3	9	6
11-Jul-09	14.1	22.8	15	10	7
12-Jul-09	3.3	7.3	1	9	7
13-Jul-09	5.0	10.2	1	6	3
14-Jul-09	5.1	11.8	1	7	5
15-Jul-09	7.8	12.8	2	9	6
16-Jul-09	8.1	13.4	2	8	4
17-Jul-09	30.3	17.2	26	8	4
18-Jul-09	62.6	18.8	71	6	3
19-Jul-09	1.7	6.3	1	8	5
20-Jul-09	4.3	16.6	3	8	4
21-Jul-09	10.8	21.6	3	14	8
22-Jul-09	3.2	8.3	2	10	6
23-Jul-09	4.2	8.0	3	7	4
24-Jul-09	4.4	14.0	3	7	4
25-Jul-09	12.6	27.3	13	11	7
26-Jul-09	4.6	15.9	4	10	7
27-Jul-09	8.0	21.0	9	12	8
28-Jul-09	7.1	26.4	5	21	13
29-Jul-09	9.3	31.8	6	24	17
30-Jul-09	3.6	12.5	2	18	12
31-Jul-09	2.2	6.6	1	10	7
1-Aug-09	3.3	10.9	2	10	8
2-Aug-09	3.4	16.4	3	12	9
3-Aug-09	1.3	7.3	1	12	9
4-Aug-09	1.6	8.3	1	20	17
5-Aug-09	2.3	8.9	3	17	13
6-Aug-09	9.6	19.8	15	17	14
7-Aug-09	2.4	12.9	2	11	9
8-Aug-09	4.3	21.8	7	14	12
9-Aug-09	4.3	14.7	1	4	3
10-Aug-09	2.1	18.5	2	6	5
11-Aug-09	2.7	15.6	3	6	5
12-Aug-09	5.8	12.4	2	9	6
13-Aug-09	9.5	19.7	10	9	7
14-Aug-09	3.3	9.5	4	9	8
15-Aug-09	3.2	14.7	3	11	9
16-Aug-09	14.4	15.4	3	13	11
17-Aug-09	13.3	21.9	6	12	10

MAML 24-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	NO	NO ₂	SO ₂	PM ₁₀	PM _{2.5}
18-Aug-09	9.3	23.6	5	11	8
19-Aug-09	6.8	28.5	4	12	8
20-Aug-09	12.6	20.5	16	10	6
21-Aug-09	41.3	17.7	53	7	5
22-Aug-09	8.7	14.2	14	10	8
23-Aug-09	0.8	5.8	1	10	8

Appendix VI. TOPAZ 1-hour data

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)								
Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
30-May-09	1:00	0.0	23.9	1	2	11.5	0.7	245
30-May-09	2:00	0.5	20.3	1	3	11.2	1.0	341
30-May-09	3:00	2.1	19.7	1	4	10.5	0.7	110
30-May-09	4:00	0.0	17.2	1	4	10.5	0.6	336
30-May-09	5:00	1.0	20.7	1	5	9.9	0.2	318
30-May-09	6:00	7.5	20.9	2	6	10.9	0.1	66
30-May-09	7:00	4.4	13.4	3	6	13.0	1.1	48
30-May-09	8:00	1.7	7.1	4	3	14.5	2.0	91
30-May-09	9:00	1.9	6.5	3	4	14.5	2.3	112
30-May-09	10:00	2.7	9.0	3	4	15.9	1.5	116
30-May-09	11:00	9.5	18.8	4	4	15.9	1.7	230
30-May-09	12:00	13.5	27.2	10	5	15.9	2.0	227
30-May-09	13:00	12.1	27.4	9	6	17.5	1.6	228
30-May-09	14:00	12.0	28.3	6	5	16.1	2.1	232
30-May-09	15:00	8.4	25.7	5	4	16.2	2.1	227
30-May-09	16:00	7.6	25.5	6	5	17.5	2.3	223
30-May-09	17:00	60.6	61.5	71	9	18.4	1.9	231
30-May-09	18:00	78.5	77.9	117	15	17.9	1.2	234
30-May-09	19:00				10	17.6	0.9	244
30-May-09	20:00	3.0	51.1	4	4	17.6	0.6	243
30-May-09	21:00	2.1	51.9	9	7	16.6	1.5	215
30-May-09	22:00	10.7	65.7	19	8	16.7	0.1	219
30-May-09	23:00	15.6	60.9	9	10	16.8	0.0	307
30-May-09	0:00	28.9	55.5	4	13	15.4	0.7	311
31-May-09	1:00	13.2	50.7	3	11	15.0	0.5	5
31-May-09	2:00	8.1	43.3	3	10	14.4	0.4	12
31-May-09	3:00	3.4	45.2	9	8	13.6	0.4	60
31-May-09	4:00	0.7	41.0	7	8	12.4	0.8	126
31-May-09	5:00	2.4	34.6	5	7	12.0	1.1	91
31-May-09	6:00	6.9	32.7	6	10	13.6	0.0	118
31-May-09	7:00	6.1	23.9	5	9	15.5	0.3	40
31-May-09	8:00	6.5	17.2	5	5	17.3	0.4	55
31-May-09	9:00	0.6	5.7	2	1	17.8	1.6	43
31-May-09	10:00	0.6	5.4	3	2	18.1	2.3	50
31-May-09	11:00	17.7	24.9	13	11	17.2	1.3	220
31-May-09	12:00	28.1	36.4	20	11	16.6	1.6	234
31-May-09	13:00	16.5	33.9	16	7	18.1	1.9	225
31-May-09	14:00	9.0	28.5	9	6	19.1	2.3	226
31-May-09	15:00	8.5	30.6	7	3	19.9	1.8	218

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
31-May-09	16:00	4.4	20.7	5	5	18.8	2.8	221
31-May-09	17:00	2.9	19.5	4	4	19.4	2.2	209
31-May-09	18:00				8	20.4	1.2	216
31-May-09	19:00	1.1	22.8	4	7	20.0	1.2	200
31-May-09	20:00	1.1	30.8	3	8	19.6	0.2	28
31-May-09	21:00	4.9	51.9	3	12	19.3	0.2	277
31-May-09	22:00	3.4	53.8	3	10	17.0	0.8	220
31-May-09	23:00	0.1	35.8	3	7	16.0	0.5	169
31-May-09	0:00	0.2	32.0	2	7	15.0	0.6	16
1-Jun-09	1:00	0.1	33.5	2	11	14.6	1.4	6
1-Jun-09	2:00	0.5	29.5	3	9	14.8	0.2	255
1-Jun-09	3:00	0.0	33.1	3	9	14.1	0.3	180
1-Jun-09	4:00	0.0	22.6	3	9	12.9	0.8	37
1-Jun-09	5:00	2.7	29.3	3	11	12.8	1.6	308
1-Jun-09	6:00	20.8	36.9	3	12	13.7	1.0	315
1-Jun-09	7:00	32.7	38.7	4	9	15.4	1.6	349
1-Jun-09	8:00	6.0	26.6	4	6	18.3	2.3	10
1-Jun-09	9:00	28.9	36.2	6	9	18.3	1.1	19
1-Jun-09	10:00	20.7	23.4	6	5	20.9	1.0	359
1-Jun-09	11:00	29.7	41.9	22	14	18.5	2.1	221
1-Jun-09	12:00	20.5	42.7	29	10	18.2	2.5	229
1-Jun-09	13:00	20.7	50.2	23	12	21.2	1.6	225
1-Jun-09	14:00	17.5	50.2	13	12	22.1	2.2	226
1-Jun-09	15:00	8.5	39.2	8	10	20.6	3.0	220
1-Jun-09	16:00	5.6	34.6	6	10	22.6	2.4	228
1-Jun-09	17:00				12	22.9	2.1	228
1-Jun-09	18:00	2.9	36.6	6	10	23.3	1.9	225
1-Jun-09	19:00	1.1	28.9	6	13	23.2	1.9	221
1-Jun-09	20:00	0.6	39.2	4	9	22.1	1.1	229
1-Jun-09	21:00	0.1	51.1	5	12	21.6	0.5	240
1-Jun-09	22:00	3.9	87.7	5	19	20.9	1.0	321
1-Jun-09	23:00	8.6	86.9	4	22	20.1	0.7	323
1-Jun-09	0:00	11.1	76.2	4	19	18.4	0.4	219
2-Jun-09	1:00	9.7	67.2	3	19	17.6	1.5	343
2-Jun-09	2:00	7.5	59.7	2	18	16.7	1.6	343
2-Jun-09	3:00	1.7	45.4	2	17	16.6	1.6	98
2-Jun-09	4:00	0.0	14.5	2	10	13.5	0.5	52
2-Jun-09	5:00	0.0	21.6	2	13	14.2	1.0	7
2-Jun-09	6:00	4.7	28.3	3	14	16.1	0.8	38
2-Jun-09	7:00	3.1	23.9	3	16	17.4	0.8	49

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
2-Jun-09	8:00	3.0	20.1	3	19	18.5	2.3	32
2-Jun-09	9:00	2.2	15.7	2	20	20.4	2.3	15
2-Jun-09	10:00	1.1	10.3	4	16	22.1	2.9	13
2-Jun-09	11:00	1.5	12.1	5	14	23.2	2.1	18
2-Jun-09	12:00	0.9	10.1	7	11	24.6	2.4	35
2-Jun-09	13:00	1.1	10.3	5	12	26.2	2.0	21
2-Jun-09	14:00	35.2	55.5	22	26	25.8	1.0	247
2-Jun-09	15:00	15.8	57.8	21	17	27.3	0.7	229
2-Jun-09	16:00			0	28.9	1.2	15	
2-Jun-09	17:00	6.7	46.3	10	20	22.9	2.5	223
2-Jun-09	18:00	2.0	31.6	8	15	23.1	2.5	215
2-Jun-09	19:00	0.9	27.0	3	15	23.0	1.6	208
2-Jun-09	20:00	0.4	33.9	2	12	20.6	1.4	209
2-Jun-09	21:00	0.0	34.3	2	12	19.2	1.0	207
2-Jun-09	22:00	1.4	51.3	2	15	19.4	0.4	207
2-Jun-09	23:00	3.0	72.6	2	15	20.0	0.8	233
2-Jun-09	0:00	4.0	58.8	3	15	19.3	0.7	233
3-Jun-09	1:00	0.0	43.5	3	15	18.2	0.2	183
3-Jun-09	2:00	0.0	30.1	3	15	18.2	0.7	15
3-Jun-09	3:00	0.2	37.3	3	17	16.4	0.7	348
3-Jun-09	4:00	0.0	24.9	4	12	16.7	1.6	51
3-Jun-09	5:00	0.6	19.3	3	11	16.6	1.3	7
3-Jun-09	6:00	1.2	21.8	6	13	17.9	2.8	24
3-Jun-09	7:00	3.1	23.4	6	11	18.8	2.5	16
3-Jun-09	8:00	3.1	19.9	10	9	20.6	3.3	19
3-Jun-09	9:00	2.2	13.6	9	6	22.3	3.3	36
3-Jun-09	10:00	1.5	9.6	6	9	23.5	3.5	33
3-Jun-09	11:00	2.0	9.2	4	7	24.6	3.4	30
3-Jun-09	12:00	0.5	6.7	3	7	25.6	2.9	33
3-Jun-09	13:00	10.1	25.1	11	18	26.5	0.6	1
3-Jun-09	14:00	31.3	75.0	48	25	26.0	1.6	239
3-Jun-09	15:00			21	26.8	2.2	213	
3-Jun-09	16:00	2.9	23.4	5	4	29.2	0.5	158
3-Jun-09	17:00	2.4	18.2	4	5	29.6	0.7	16
3-Jun-09	18:00	14.2	66.8	42	17	24.5	1.8	224
3-Jun-09	19:00	2.1	38.1	23	9	24.9	1.4	236
3-Jun-09	20:00	1.1	54.6	9	11	24.0	1.1	257
3-Jun-09	21:00	0.0	47.1	5	11	23.9	1.0	236
3-Jun-09	22:00	3.7	78.9	5	18	23.0	0.7	274
3-Jun-09	23:00	26.7	100.3	6	20	21.7	1.0	306

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
3-Jun-09	0:00	26.4	83.3	5	19	20.3	0.7	284
4-Jun-09	1:00	12.1	63.9	3	13	19.3	0.8	346
4-Jun-09	2:00	3.6	61.6	3	15	18.4	0.2	132
4-Jun-09	3:00	1.1	48.8	3	13	17.0	0.4	341
4-Jun-09	4:00	0.0	32.9	5	10	16.1	1.1	357
4-Jun-09	5:00	2.5	23.0	5	8	17.5	1.8	29
4-Jun-09	6:00	7.5	24.9	3	10	18.3	1.2	12
4-Jun-09	7:00	2.2	19.0	5	8	20.5	2.9	10
4-Jun-09	8:00	3.1	19.3	6	10	22.2	2.7	9
4-Jun-09	9:00	1.7	14.7	6	7	23.5	2.8	27
4-Jun-09	10:00	1.1	9.2	2	11	24.4	2.7	29
4-Jun-09	11:00	1.5	8.8	2	8	25.1	2.5	16
4-Jun-09	12:00	17.7	55.3	23	23	23.7	1.7	227
4-Jun-09	13:00	8.0	34.6	9	12	26.7	0.9	19
4-Jun-09	14:00				13	27.9	0.7	8
4-Jun-09	15:00	0.6	7.3	2	5	29.4	1.8	29
4-Jun-09	16:00	1.9	14.5	5	7	29.7	2.6	39
4-Jun-09	17:00	0.4	8.0	2	9	29.6	2.9	33
4-Jun-09	18:00	13.1	69.5	26	18	26.8	2.0	217
4-Jun-09	19:00	4.9	54.2	16	13	25.2	1.8	227
4-Jun-09	20:00	1.4	42.7	7	10	25.3	1.6	226
4-Jun-09	21:00	2.2	68.0	27	20	23.7	2.1	228
4-Jun-09	22:00	0.4	41.4	11	26	22.1	2.4	222
4-Jun-09	23:00	0.0	34.3	15	18	20.8	2.5	208
4-Jun-09	0:00	0.0	14.5	9	15	18.4	5.6	226
5-Jun-09	1:00	0.0	5.6	2	7	19.6	2.8	245
5-Jun-09	2:00	0.0	7.5	2	11	19.6	2.1	234
5-Jun-09	3:00	0.0	6.3	2	14	14.8	3.6	210
5-Jun-09	4:00	0.0	14.4	4	13	13.0	4.6	211
5-Jun-09	5:00	0.0	10.3	2	11	13.8	1.8	243
5-Jun-09	6:00	4.5	32.5	2	12	15.8	2.7	227
5-Jun-09	7:00	8.6	35.0	3	12	15.7	1.7	232
5-Jun-09	8:00	9.6	33.7	13	14	16.1	1.8	209
5-Jun-09	9:00	7.0	25.8	6	9	17.4	1.7	188
5-Jun-09	10:00	6.7	23.4	2	8	18.5	2.6	188
5-Jun-09	11:00	7.4	20.9	3	7	17.7	3.3	210
5-Jun-09	12:00	7.5	18.8	3	8	18.8	4.5	198
5-Jun-09	13:00				7	19.1	4.8	190
5-Jun-09	14:00	7.7	20.9	2	8	18.7	4.7	189
5-Jun-09	15:00	8.0	21.2	2	7	20.1	3.7	194

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
5-Jun-09	16:00	3.9	14.4	1	6	20.6	5.2	214
5-Jun-09	17:00	4.6	16.5	2	10	20.7	5.0	222
5-Jun-09	18:00	2.6	14.9	2	11	19.0	4.6	220
5-Jun-09	19:00	1.2	13.2	2	11	18.3	4.1	218
5-Jun-09	20:00	0.5	12.3	1	7	17.0	3.9	219
5-Jun-09	21:00	5.9	28.9	14	7	15.9	3.0	203
5-Jun-09	22:00	1.5	18.2	5	7	14.6	4.3	195
5-Jun-09	23:00	2.6	26.4	17	7	14.1	4.3	204
5-Jun-09	0:00	9.0	33.7	24	10	14.0	5.4	225
6-Jun-09	1:00	0.0	4.4	2	7	13.9	3.1	226
6-Jun-09	2:00	0.0	5.6	2	7	13.8	2.5	218
6-Jun-09	3:00	0.0	5.2	1	6	14.0	2.1	212
6-Jun-09	4:00	0.0	5.2	1	7	13.7	2.5	213
6-Jun-09	5:00	0.0	8.8	2	7	13.3	2.5	210
6-Jun-09	6:00	0.7	17.0	3	9	12.8	3.0	213
6-Jun-09	7:00	1.5	21.6	5	9	12.5	2.8	217
6-Jun-09	8:00	1.9	18.4	3	9	12.3	2.2	223
6-Jun-09	9:00	4.6	25.7	2	11	13.8	0.7	217
6-Jun-09	10:00	4.7	19.5	2	11	15.0	1.1	209
6-Jun-09	11:00	2.9	14.9	5	9	15.3	1.9	109
6-Jun-09	12:00				10	16.0	1.5	137
6-Jun-09	13:00	1.7	10.1	3	10	16.1	2.0	158
6-Jun-09	14:00	2.6	11.7	3	7	16.0	2.4	159
6-Jun-09	15:00	5.5	16.1	2	7	16.0	2.8	199
6-Jun-09	16:00	5.0	18.0	2	7	15.6	3.2	192
6-Jun-09	17:00	4.0	17.6	5	8	15.3	3.6	214
6-Jun-09	18:00	8.1	26.2	16	10	14.9	4.4	214
6-Jun-09	19:00	22.8	40.2	36	11	14.8	3.4	211
6-Jun-09	20:00	39.8	52.6	61	14	13.9	3.7	213
6-Jun-09	21:00	44.8	55.3	63	16	14.3	2.9	206
6-Jun-09	22:00	10.1	38.5	18	9	13.6	3.2	205
6-Jun-09	23:00	89.2	63.9	119	21	13.7	3.1	210
6-Jun-09	0:00	36.8	41.5	55	15	13.9	3.2	222
7-Jun-09	1:00	0.0	6.7	4	8	14.3	2.2	235
7-Jun-09	2:00	0.0	5.4	3	7	14.2	2.2	209
7-Jun-09	3:00	0.0	5.6	3	5	13.4	1.5	196
7-Jun-09	4:00	0.0	6.3	2	6	12.8	0.9	215
7-Jun-09	5:00	0.0	15.1	3	9	12.6	0.4	164
7-Jun-09	6:00	0.2	15.7	2	5	11.9	0.9	186
7-Jun-09	7:00	0.5	10.7	2	6	12.4	1.2	209

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
7-Jun-09	8:00	2.1	14.9	3	7	13.1	1.0	196
7-Jun-09	9:00	3.2	14.4	3	6	13.8	1.7	189
7-Jun-09	10:00	6.2	15.7	3	7	14.2	2.9	201
7-Jun-09	11:00				6	14.6	4.4	211
7-Jun-09	12:00	2.1	8.8	4	5	15.9	4.9	210
7-Jun-09	13:00	3.7	8.6	3	7	16.3	5.5	194
7-Jun-09	14:00	4.2	11.3	3	7	16.8	4.0	202
7-Jun-09	15:00	4.5	13.2	4	7	16.5	4.4	195
7-Jun-09	16:00	4.4	12.3	3	5	16.6	3.9	196
7-Jun-09	17:00	1.7	8.6	2	4	17.5	4.2	215
7-Jun-09	18:00	1.4	8.4	2	5	18.3	4.3	225
7-Jun-09	19:00	1.0	5.9	2	6	18.2	3.9	251
7-Jun-09	20:00	0.4	6.1	2	3	16.8	3.3	243
7-Jun-09	21:00	0.0	6.1	2	3	15.6	3.3	238
7-Jun-09	22:00	0.2	7.7	2	2	15.0	2.9	235
7-Jun-09	23:00	0.0	5.6	2	2	14.7	2.8	239
7-Jun-09	0:00	0.0	4.4	2	4	13.9	3.3	226
8-Jun-09	1:00	0.0	2.5	1	3	13.4	3.2	232
8-Jun-09	2:00	0.0	2.1	1	3	13.2	2.2	242
8-Jun-09	3:00	0.0	3.4	2	3	12.9	3.1	227
8-Jun-09	4:00	0.0	4.6	1	3	12.8	3.0	234
8-Jun-09	5:00	0.0	5.9	1	3	13.0	2.6	234
8-Jun-09	6:00	2.1	17.8	1	6	12.9	2.3	226
8-Jun-09	7:00	7.2	26.8	2	7	13.0	2.6	220
8-Jun-09	8:00	9.1	24.7	3	8	13.6	2.2	216
8-Jun-09	9:00	13.1	29.3	3	10	14.1	1.9	212
8-Jun-09	10:00				10	15.0	1.7	199
8-Jun-09	11:00	13.6	25.7	2	9	16.2	2.5	211
8-Jun-09	12:00	10.0	20.9	3	8	16.6	2.7	216
8-Jun-09	13:00	8.7	20.1	2	8	17.5	2.7	218
8-Jun-09	14:00	11.9	25.7	3	8	18.2	2.4	226
8-Jun-09	15:00	7.0	17.8	2	7	17.6	3.8	215
8-Jun-09	16:00	3.9	12.8	2	6	17.2	3.3	212
8-Jun-09	17:00	7.1	20.9	2	7	17.8	2.5	208
8-Jun-09	18:00	7.4	25.8	13	8	17.8	2.7	220
8-Jun-09	19:00	4.1	26.2	12	6	17.4	2.9	217
8-Jun-09	20:00	4.6	39.6	8	6	16.4	2.6	215
8-Jun-09	21:00	1.1	32.5	13	5	15.6	2.5	212
8-Jun-09	22:00	0.2	17.8	12	3	14.5	2.9	213
8-Jun-09	23:00	0.1	13.0	8	5	13.7	2.6	223

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
8-Jun-09	0:00	0.0	8.0	3	5	12.9	3.1	223
9-Jun-09	1:00	0.0	5.7	2	5	12.4	1.0	217
9-Jun-09	2:00	0.0	8.6	4	4	12.2	1.3	210
9-Jun-09	3:00	0.0	8.8	2	3	12.0	0.8	222
9-Jun-09	4:00	0.0	10.5	1	4	11.9	0.2	169
9-Jun-09	5:00	0.5	16.3	2	5	11.8	0.6	107
9-Jun-09	6:00	1.9	15.7	5	6	11.9	1.1	106
9-Jun-09	7:00	4.1	18.6	5	7	13.2	0.9	93
9-Jun-09	8:00	4.9	19.1	4	10	14.8	0.5	107
9-Jun-09	9:00				9	16.5	0.7	136
9-Jun-09	10:00	18.1	27.0	6	11	16.8	1.4	213
9-Jun-09	11:00	21.7	32.0	7	12	17.5	2.0	226
9-Jun-09	12:00	23.5	31.2	10	9	17.3	2.6	221
9-Jun-09	13:00	12.2	25.5	7	10	18.7	1.7	193
9-Jun-09	14:00	8.4	23.7	6	10	19.0	2.9	223
9-Jun-09	15:00	8.7	27.4	15	9	19.2	3.0	217
9-Jun-09	16:00	8.6	23.5	13	6	20.0	2.6	230
9-Jun-09	17:00	6.6	17.2	6	4	19.5	3.5	224
9-Jun-09	18:00	4.7	18.2	4	5	19.5	3.3	225
9-Jun-09	19:00	1.7	14.0	2	4	18.2	3.2	219
9-Jun-09	20:00	1.2	19.1	3	5	17.9	2.3	222
9-Jun-09	21:00	0.0	13.0	2	5	16.6	2.4	220
9-Jun-09	22:00	0.0	10.5	2	5	15.6	2.5	206
9-Jun-09	23:00	0.0	6.7	2	5	14.5	3.5	214
9-Jun-09	0:00	0.0	11.3	5	5	14.5	2.4	210
10-Jun-09	1:00	0.0	17.8	17	7	14.3	2.3	221
10-Jun-09	2:00	0.0	4.0	3	5	13.2	2.4	213
10-Jun-09	3:00	0.0	4.0	2	5	12.4	2.9	217
10-Jun-09	4:00	0.0	5.6	3	5	12.2	2.2	208
10-Jun-09	5:00	0.7	10.3	2	6	11.8	2.4	222
10-Jun-09	6:00	3.1	22.8	2	7	12.2	1.4	229
10-Jun-09	7:00	10.9	29.1	2	11	13.0	1.9	221
10-Jun-09	8:00				14	14.3	1.9	206
10-Jun-09	9:00	7.7	17.6	5	11	15.1	3.0	219
10-Jun-09	10:00	14.7	21.4	14	10	16.4	3.0	223
10-Jun-09	11:00	56.8	46.5	95	14	18.0	2.7	218
10-Jun-09	12:00	9.1	18.8	5	3	18.9	4.1	226
10-Jun-09	13:00	6.1	16.1	2	4	19.5	4.5	221
10-Jun-09	14:00	4.5	12.1	2	4	19.7	5.1	219
10-Jun-09	15:00	6.7	17.2	2	9	20.3	4.3	221

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
10-Jun-09	16:00	6.5	19.3	2	6	21.4	4.4	221
10-Jun-09	17:00	5.5	17.2	2	7	21.4	4.5	233
10-Jun-09	18:00	2.1	12.8	2	6	19.5	4.1	221
10-Jun-09	19:00	1.1	12.4	3	6	17.2	3.5	219
10-Jun-09	20:00	1.0	12.6	3	5	15.6	5.0	227
10-Jun-09	21:00	0.4	11.3	3	6	14.4	4.5	225
10-Jun-09	22:00	0.9	12.4	3	5	13.9	3.5	234
10-Jun-09	23:00	0.0	7.5	2	4	13.1	3.6	229
10-Jun-09	0:00	0.0	5.6	2	3	12.5	3.7	220
11-Jun-09	1:00	0.0	2.7	2	2	12.2	3.5	221
11-Jun-09	2:00	0.0	3.6	2	3	12.2	2.8	228
11-Jun-09	3:00	0.0	3.1	1	1	12.0	3.2	228
11-Jun-09	4:00	0.0	4.0	2	2	11.9	2.2	225
11-Jun-09	5:00	0.9	11.7	1	3	12.0	2.0	223
11-Jun-09	6:00	3.7	19.5	2	3	12.7	1.3	256
11-Jun-09	7:00				5	13.6	2.1	264
11-Jun-09	8:00	12.8	26.2	3	7	14.5	2.1	217
11-Jun-09	9:00	8.2	17.8	4	7	15.4	3.2	217
11-Jun-09	10:00	9.0	17.2	2	7	15.9	4.1	217
11-Jun-09	11:00	6.1	14.0	2	5	16.2	4.1	224
11-Jun-09	12:00	6.1	14.0	3	6	17.2	3.7	232
11-Jun-09	13:00	6.5	15.7	2	5	18.2	4.4	219
11-Jun-09	14:00	4.9	14.7	3	6	19.0	5.4	222
11-Jun-09	15:00	5.1	15.7	2	9	19.0	5.4	221
11-Jun-09	16:00	5.9	17.6	3	8	19.3	5.0	223
11-Jun-09	17:00	9.2	23.4	9	9	19.0	4.8	222
11-Jun-09	18:00	3.9	16.7	5	7	18.2	4.7	InVld
11-Jun-09	19:00	1.5	13.0	3	10	17.0	4.1	225
11-Jun-09	20:00	1.4	12.8	3	9	14.6	5.3	InVld
11-Jun-09	21:00	1.5	12.6	2	7	13.6	3.7	InVld
11-Jun-09	22:00	0.5	13.6	2	8	13.1	3.4	226
11-Jun-09	23:00	0.0	9.8	2	7	12.8	3.7	InVld
11-Jun-09	0:00	0.0	5.6	2	5	12.5	3.8	InVld
12-Jun-09	1:00	0.0	3.8	2	5	12.6	2.7	231
12-Jun-09	2:00	0.0	4.0	1	5	12.5	2.7	231
12-Jun-09	3:00	0.0	5.9	1	6	12.4	2.1	231
12-Jun-09	4:00	0.0	5.9	1	5	12.6	1.7	227
12-Jun-09	5:00	0.1	10.1	1	6	12.8	1.6	220
12-Jun-09	6:00				6	13.1	1.4	240
12-Jun-09	7:00	9.1	24.9	2	7	14.1	1.7	223

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
12-Jun-09	8:00	8.4	21.4	2	7	14.8	2.1	208
12-Jun-09	9:00	8.0	18.8	3	8	15.2	2.6	219
12-Jun-09	10:00	6.7	16.7	2	7	16.1	2.8	219
12-Jun-09	11:00	9.0	19.0	3	6	17.2	2.9	210
12-Jun-09	12:00	4.5	12.8	3	7	17.3	3.5	218
12-Jun-09	13:00	5.0	14.4	3	7	18.1	3.1	219
12-Jun-09	14:00	6.4	14.4	2	5	18.6	3.8	227
12-Jun-09	15:00	5.7	14.0	2	4	18.3	3.7	214
12-Jun-09	16:00	4.7	13.0	2	4	18.7	3.8	212
12-Jun-09	17:00	8.7	18.4	10	3	18.1	4.4	220
12-Jun-09	18:00	3.6	13.4	4	4	17.0	5.5	222
12-Jun-09	19:00	1.9	12.4	3	6	15.8	4.0	218
12-Jun-09	20:00	0.7	13.2	3	5	14.5	3.4	217
12-Jun-09	21:00	1.1	21.1	2	6	14.4	2.5	216
12-Jun-09	22:00	1.9	18.6	3	5	13.0	2.5	224
12-Jun-09	23:00	0.2	14.0	2	5	12.5	2.2	219
12-Jun-09	0:00	0.0	9.8	2	4	11.8	2.7	224
13-Jun-09	1:00	0.0	7.1	1	4	11.7	1.5	221
13-Jun-09	2:00	0.0	5.6	1	3	11.6	1.5	227
13-Jun-09	3:00	0.0	4.2	1	2	11.4	1.4	226
13-Jun-09	4:00	0.0	7.3	1	2	11.5	0.9	228
13-Jun-09	5:00				3	11.4	0.9	223
13-Jun-09	6:00	1.4	13.8	1	3	12.5	0.2	219
13-Jun-09	7:00	4.2	14.5	1	4	13.7	0.8	189
13-Jun-09	8:00	7.0	15.5	1	4	14.5	1.6	211
13-Jun-09	9:00	4.1	9.2	1	4	14.9	2.0	201
13-Jun-09	10:00	5.4	11.5	1	4	15.8	2.8	218
13-Jun-09	11:00	6.0	12.4	2	5	17.0	2.7	221
13-Jun-09	12:00	2.5	8.2	1	3	17.4	3.3	215
13-Jun-09	13:00	3.5	10.3	1	3	18.4	3.5	228
13-Jun-09	14:00	3.2	9.2	1	4	18.7	3.8	211
13-Jun-09	15:00	2.9	8.2	1	4	18.9	5.1	211
13-Jun-09	16:00	2.1	8.2	1	2	18.7	5.9	221
13-Jun-09	17:00	1.9	8.4	2	6	16.2	6.2	220
13-Jun-09	18:00	1.7	8.0	2	5	15.4	6.4	219
13-Jun-09	19:00	0.7	7.7	1	3	14.4	6.4	221
13-Jun-09	20:00	0.7	6.7	1	3	13.3	6.2	226
13-Jun-09	21:00	0.9	8.4	1	5	12.3	5.5	228
13-Jun-09	22:00	0.6	8.2	1	3	12.2	4.0	232
13-Jun-09	23:00	0.1	6.9	1	2	12.4	3.4	237

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
13-Jun-09	0:00	0.0	4.2	1	1	12.3	3.8	251
14-Jun-09	1:00	0.0	3.4	1	2	12.0	3.6	251
14-Jun-09	2:00	0.0	1.9	1	2	11.7	2.9	247
14-Jun-09	3:00	0.0	1.5	1	2	11.5	3.2	249
14-Jun-09	4:00				2	11.3	3.1	241
14-Jun-09	5:00	0.0	1.9	1	3	11.2	3.7	234
14-Jun-09	6:00	0.0	2.7	1	3	11.7	3.5	226
14-Jun-09	7:00	0.4	3.6	1	4	12.2	4.7	223
14-Jun-09	8:00	0.9	3.8	1	3	12.7	4.8	221
14-Jun-09	9:00	1.5	5.2	1	4	13.3	5.3	221
14-Jun-09	10:00	2.4	6.9	1	5	14.1	5.3	221
14-Jun-09	11:00	1.7	5.4	1	3	14.5	6.0	226
14-Jun-09	12:00	2.1	5.9	2	5	14.8	6.0	228
14-Jun-09	13:00	1.7	6.1	1	4	15.4	5.4	224
14-Jun-09	14:00	1.9	6.1	1	3	16.2	4.9	224
14-Jun-09	15:00	2.7	7.7	1	3	17.0	3.9	218
14-Jun-09	16:00	1.1	5.0	1	2	17.1	5.6	218
14-Jun-09	17:00	1.7	6.5	2	2	17.0	5.4	220
14-Jun-09	18:00	0.9	7.3	1	4	16.5	4.8	219
14-Jun-09	19:00	0.6	6.1	1	4	15.3	4.7	227
14-Jun-09	20:00	0.4	6.1	1	4	14.0	5.0	222
14-Jun-09	21:00	0.2	6.7	1	4	12.8	4.3	224
14-Jun-09	22:00	0.4	6.3	1	3	12.4	3.8	223
14-Jun-09	23:00	0.0	4.6	1	2	12.1	3.9	228
14-Jun-09	0:00	0.0	3.3	1	1	12.0	2.6	231
15-Jun-09	1:00	0.0	3.3	1	1	11.7	3.5	225
15-Jun-09	2:00	0.0	2.1	1	2	11.6	2.8	232
15-Jun-09	3:00				1	11.5	2.2	250
15-Jun-09	4:00	0.0	3.1	1	1	11.5	1.9	257
15-Jun-09	5:00	0.9	7.8	1	2	11.6	1.4	250
15-Jun-09	6:00	5.2	16.7	1	3	12.0	1.9	232
15-Jun-09	7:00	11.6	21.2	2	4	13.0	1.0	257
15-Jun-09	8:00	11.1	18.8	2	7	14.9	0.5	196
15-Jun-09	9:00	8.1	14.2	2	6	15.4	2.0	228
15-Jun-09	10:00	5.4	11.3	1	3	16.1	1.0	199
15-Jun-09	11:00	1.4	4.0	1	4	16.7	2.8	110
15-Jun-09	12:00	6.0	11.3	5	4	17.5	1.7	195
15-Jun-09	13:00	5.5	12.6	5	2	17.9	3.0	222
15-Jun-09	14:00	5.4	10.7	2	3	18.2	3.6	224
15-Jun-09	15:00	6.5	11.9	2	2	18.1	4.4	225

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
15-Jun-09	16:00	8.4	13.8	4	0	18.7	4.3	216
15-Jun-09	17:00	6.1	12.8	6	2	18.5	4.2	208
15-Jun-09	18:00	6.5	17.2	13	4	17.2	5.4	210
15-Jun-09	19:00	3.0	13.2	7	2	16.9	3.8	217
15-Jun-09	20:00	1.0	7.3	2	0	15.6	4.5	224
15-Jun-09	21:00	1.5	11.9	1	1	15.2	2.2	226
15-Jun-09	22:00	0.7	13.4	3	0	14.3	2.9	218
15-Jun-09	23:00	0.0	5.0	2	0	13.8	3.2	232
15-Jun-09	0:00	0.0	4.2	1	0	13.2	2.4	223
16-Jun-09	1:00	0.0	4.2	1	0	12.8	1.1	228
16-Jun-09	2:00				0	12.5	1.4	207
16-Jun-09	3:00	0.0	5.9	1	0	12.0	1.2	214
16-Jun-09	4:00	0.0	11.5	1	0	12.0	0.3	214
16-Jun-09	5:00	1.2	10.7	2	1	11.8	0.6	207
16-Jun-09	6:00	6.6	22.8	2	4	12.4	0.6	285
16-Jun-09	7:00	12.5	20.7	2	5	13.3	0.3	11
16-Jun-09	8:00	36.4	30.6	5	6	13.8	1.1	226
16-Jun-09	9:00	33.1	29.3	4	6	14.8	1.6	214
16-Jun-09	10:00	10.5	14.7	2	4	14.9	2.6	210
16-Jun-09	11:00	6.4	11.1	2	2	15.5	2.5	217
16-Jun-09	12:00	6.2	11.9	2	0	16.5	3.3	203
16-Jun-09	13:00	9.9	16.7	2	5	16.7	2.5	191
16-Jun-09	14:00	11.9	21.2	4	7	16.4	2.4	206
16-Jun-09	15:00	11.4	21.1	2	4	16.8	2.9	201
16-Jun-09	16:00	6.7	17.0	2	4	16.8	3.2	213
16-Jun-09	17:00	7.4	20.1	2	3	16.6	3.1	212
16-Jun-09	18:00	3.9	17.6	2	5	16.3	3.2	214
16-Jun-09	19:00	2.5	12.4	2	4	16.0	4.5	227
16-Jun-09	20:00	1.4	11.5	2	2	16.3	2.8	230
16-Jun-09	21:00	0.5	12.3	2	2	15.7	2.8	214
16-Jun-09	22:00	0.2	9.6	2	0	15.2	2.8	221
16-Jun-09	23:00	0.2	8.6	2	0	15.5	1.7	244
16-Jun-09	0:00				0	14.8	2.2	216
17-Jun-09	1:00	0.0	4.0	1	0	14.3	2.6	218
17-Jun-09	2:00	0.0	4.8	1	4	14.5	1.8	239
17-Jun-09	3:00	0.0	2.7	1	2	13.1	2.5	211
17-Jun-09	4:00	0.0	5.7	1	0	12.7	2.1	215
17-Jun-09	5:00	0.2	6.9	1	1	13.7	2.5	239
17-Jun-09	6:00	2.7	14.0	1	1	13.4	3.5	227
17-Jun-09	7:00	8.5	21.4	2	4	13.9	3.6	228

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
17-Jun-09	8:00	9.9	22.0	2	4	14.5	3.7	238
17-Jun-09	9:00	11.0	19.3	2	3	15.4	4.6	231
17-Jun-09	10:00	13.0	21.2	6	3	15.9	3.7	229
17-Jun-09	11:00	12.3	19.7	2	4	17.3	3.6	237
17-Jun-09	12:00	12.6	17.8	6	0	18.6	4.3	225
17-Jun-09	13:00	17.7	19.9	25	3	16.8	4.4	205
17-Jun-09	14:00	18.0	19.1	25	4	17.5	5.5	209
17-Jun-09	15:00	35.6	30.8	48	5	18.5	4.9	201
17-Jun-09	16:00	21.2	23.7	23	3	19.6	5.2	223
17-Jun-09	17:00	4.1	7.8	2	0	21.0	5.3	246
17-Jun-09	18:00	3.2	7.8	2	0	20.1	5.3	237
17-Jun-09	19:00	2.4	7.1	2	0	19.8	4.6	254
17-Jun-09	20:00	1.6	7.5	1	0	18.4	4.7	262
17-Jun-09	21:00	0.6	5.4	1	1	17.1	3.7	253
17-Jun-09	22:00	1.4	8.2	1	0	16.0	3.6	233
17-Jun-09	23:00				0	15.0	3.8	229
17-Jun-09	0:00	0.2	5.9	2	0	15.2	2.7	239
18-Jun-09	1:00	0.1	7.3	1	0	16.2	3.4	267
18-Jun-09	2:00	0.0	6.9	1	0	15.5	1.4	239
18-Jun-09	3:00	0.0	8.6	2	0	13.6	1.3	215
18-Jun-09	4:00	0.2	9.6	1	0	13.1	1.2	226
18-Jun-09	5:00	1.5	13.0	1	0	13.0	1.3	197
18-Jun-09	6:00	5.6	16.5	2	2	12.5	1.4	218
18-Jun-09	7:00	14.8	22.8	2	2	14.2	1.8	213
18-Jun-09	8:00	17.1	26.4	2	2	15.1	1.7	215
18-Jun-09	9:00	15.1	20.7	2	3	15.9	2.5	214
18-Jun-09	10:00	12.2	17.6	3	0	17.5	3.1	220
18-Jun-09	11:00				0	17.4	3.8	214
18-Jun-09	12:00	17.2	26.2	13	4	17.2	3.8	218
18-Jun-09	13:00	13.3	21.6	11	0	18.0	4.6	225
18-Jun-09	14:00	17.3	29.1	18	4	18.2	3.8	217
18-Jun-09	15:00	16.1	25.7	15	5	18.7	3.6	223
18-Jun-09	16:00	36.3	39.6	40	5	17.8	3.9	217
18-Jun-09	17:00	23.2	29.5	23	3	16.5	4.7	223
18-Jun-09	18:00	19.5	40.0	24	5	15.4	3.5	212
18-Jun-09	19:00	9.1	29.7	13	1	14.9	3.5	243
18-Jun-09	20:00	2.0	12.8	2	0	16.4	3.5	262
18-Jun-09	21:00	0.4	8.2	2	0	16.2	3.0	268
18-Jun-09	22:00	0.4	12.4	2	0	16.4	2.2	247
18-Jun-09	23:00	0.2	9.4	2	1	15.7	2.0	236

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
18-Jun-09	0:00	0.1	10.0	2	0	15.8	2.0	279
19-Jun-09	1:00	0.0	2.3	2	0	15.7	1.9	285
19-Jun-09	2:00	0.0	3.3	2	6	15.2	1.1	255
19-Jun-09	3:00	0.0	6.9	2	5	13.8	1.5	189
19-Jun-09	4:00	0.0	6.1	2	2	12.2	1.5	154
19-Jun-09	5:00	0.2	13.2	3	0	11.7	1.4	182
19-Jun-09	6:00	2.9	21.2	3	3	11.2	2.0	209
19-Jun-09	7:00	15.6	28.7	4	5	11.5	2.8	214
19-Jun-09	8:00	24.9	34.3	6	10	12.7	3.0	212
19-Jun-09	9:00	12.3	19.7	4	2	14.0	4.1	211
19-Jun-09	10:00				1	14.4	4.4	208
19-Jun-09	11:00	6.2	12.8	2	0	16.8	5.5	219
19-Jun-09	12:00	8.1	13.6	2	0	17.6	5.4	233
19-Jun-09	13:00	6.4	13.0	2	0	17.0	7.5	226
19-Jun-09	14:00	5.2	15.7	2	2	16.6	6.0	231
19-Jun-09	15:00	5.4	14.5	2	2	16.9	5.9	229
19-Jun-09	16:00	4.9	13.4	2	0	17.6	5.7	253
19-Jun-09	17:00	3.1	8.6	2	2	17.3	5.7	252
19-Jun-09	18:00	1.9	8.0	2	4	16.3	5.6	252
19-Jun-09	19:00	1.5	6.9	2	0	15.1	5.3	250
19-Jun-09	20:00	1.1	5.9	2	1	13.4	6.2	253
19-Jun-09	21:00	1.1	6.1	2	3	12.8	5.8	261
19-Jun-09	22:00	1.0	5.9	2	3	12.4	3.8	242
19-Jun-09	23:00	0.2	6.7	2	5	12.1	5.0	230
19-Jun-09	0:00	0.0	6.1	3	4	11.8	4.7	245
20-Jun-09	1:00	0.0	5.7	3	3	11.5	5.3	246
20-Jun-09	2:00	0.0	4.4	2	2	11.3	5.2	257
20-Jun-09	3:00	0.0	2.9	2	3	11.3	4.3	264
20-Jun-09	4:00	0.0	2.7	2	2	11.3	3.2	254
20-Jun-09	5:00	0.0	3.1	2	2	11.4	3.5	259
20-Jun-09	6:00	1.0	7.1	2	1	11.4	3.7	272
20-Jun-09	7:00	2.9	10.1	2	1	11.8	3.2	260
20-Jun-09	8:00	3.0	8.2		1	12.8	2.5	244
20-Jun-09	9:00				3	13.6	3.4	224
20-Jun-09	10:00	4.6	9.2	2	0	14.4	4.6	224
20-Jun-09	11:00	4.7	12.4	2	0	14.3	4.3	225
20-Jun-09	12:00	4.6	16.1	2	2	14.5	2.6	236
20-Jun-09	13:00	3.5	12.4	2	1	14.8	1.8	219
20-Jun-09	14:00	3.7	9.2	2	1	15.7	2.3	256
20-Jun-09	15:00	3.9	7.8	2	0	16.2	3.2	225

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
20-Jun-09	16:00	3.9	10.0	4	1	16.2	3.7	223
20-Jun-09	17:00	4.2	13.4	3	3	15.7	4.4	225
20-Jun-09	18:00	3.7	11.9	2	3	15.5	3.7	231
20-Jun-09	19:00	1.7	11.3	3	5	14.6	3.6	238
20-Jun-09	20:00	1.1	9.8	2	3	14.0	2.5	249
20-Jun-09	21:00	1.0	10.5	2	4	13.0	3.5	233
20-Jun-09	22:00	0.4	8.8	2	2	12.3	3.1	244
20-Jun-09	23:00	0.7	9.4	2	1	11.7	3.1	230
20-Jun-09	0:00	0.0	6.3	2	3	11.3	3.2	240
21-Jun-09	1:00	0.0	6.7	3	3	11.2	3.0	249
21-Jun-09	2:00	0.1	5.4	2	4	11.4	2.9	257
21-Jun-09	3:00	0.0	3.4	2	4	11.8	2.1	260
21-Jun-09	4:00	0.0	2.9	2	4	11.6	3.3	272
21-Jun-09	5:00	0.0	4.0	2	3	11.3	1.8	256
21-Jun-09	6:00	0.0	5.4	2	3	11.4	2.0	251
21-Jun-09	7:00	0.7	7.3	2	2	12.2	1.9	251
21-Jun-09	8:00				4	12.5	2.0	234
21-Jun-09	9:00	3.1	9.2	2	4	13.2	0.8	287
21-Jun-09	10:00	0.7	4.0	2	4	13.0	2.0	68
21-Jun-09	11:00	1.4	4.6	2	3	14.0	2.0	116
21-Jun-09	12:00	2.9	6.3	4		15.4	2.1	220
21-Jun-09	13:00	4.2	7.1	4	0	16.6	4.1	227
21-Jun-09	14:00	2.7	5.7	2	1	16.8	4.6	248
21-Jun-09	15:00	2.9	4.6	2	0	16.9	5.7	270
21-Jun-09	16:00	2.1	5.0	2	2	16.6	5.3	271
21-Jun-09	17:00	1.6	3.6	1	1	16.5	5.1	263
21-Jun-09	18:00	1.2	3.8	2	2	15.6	4.8	259
21-Jun-09	19:00	0.9	2.9	1	0	15.0	4.8	262
21-Jun-09	20:00	0.6	3.4	1	6	14.0	4.6	255
21-Jun-09	21:00	0.1	2.9	1	5	13.5	5.1	266
21-Jun-09	22:00	0.0	2.5	1	6	13.0	5.3	263
21-Jun-09	23:00	0.1	4.0	1	4	12.7	5.7	263
21-Jun-09	0:00	0.0	3.1	2	4	12.5	6.4	262
22-Jun-09	1:00	0.0	3.3	2	4	12.5	6.6	267
22-Jun-09	2:00	0.0	0.4	1	2	12.5	6.1	269
22-Jun-09	3:00	0.0	0.4	1	2	12.2	4.6	261
22-Jun-09	4:00	0.0	0.8	1	2	12.1	4.2	261
22-Jun-09	5:00	0.4	3.1	1	2	11.8	3.8	252
22-Jun-09	6:00	5.0	18.0	2	5	12.2	4.1	262
22-Jun-09	7:00				5	12.5	3.9	260

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
22-Jun-09	8:00	8.5	19.3	2	5	13.4	4.2	249
22-Jun-09	9:00	9.6	17.8	3	3	14.1	5.2	252
22-Jun-09	10:00	4.6	9.2	2	0	15.1	4.8	246
22-Jun-09	11:00	5.4	10.3	2		15.8	4.8	251
22-Jun-09	12:00	4.9	9.6	1		16.6	5.4	249
22-Jun-09	13:00	4.9	9.8	1		17.4	4.9	248
22-Jun-09	14:00	5.7	11.1	1		17.7	5.1	245
22-Jun-09	15:00	6.6	13.6	1		17.5	5.1	230
22-Jun-09	16:00	4.6	11.7	1		17.4	5.8	224
22-Jun-09	17:00	3.9	11.1	1		17.0	5.8	222
22-Jun-09	18:00	2.2	7.5	1		17.0	4.6	235
22-Jun-09	19:00	1.5	7.3	1		16.4	4.6	234
22-Jun-09	20:00	0.7	8.4	1		15.3	3.9	224
22-Jun-09	21:00	1.2	15.7	2		13.5	3.4	204
22-Jun-09	22:00	0.1	7.8	1		12.7	3.5	215
22-Jun-09	23:00	0.0	8.4	1		11.7	3.5	223
22-Jun-09	0:00	0.0	3.6	1		11.4	3.4	222
23-Jun-09	1:00	0.0	2.1	1		10.8	2.8	230
23-Jun-09	2:00	0.0	2.7	1		10.4	1.7	233
23-Jun-09	3:00	0.0	4.2	1		10.1	0.9	246
23-Jun-09	4:00	0.0	7.8	1		9.8	0.6	279
23-Jun-09	5:00	3.0	18.2	1		9.6	0.7	289
23-Jun-09	6:00					10.1	0.7	290
23-Jun-09	7:00	8.7	17.8	2		12.0	0.9	80
23-Jun-09	8:00	3.0	8.6	2		13.7	0.8	112
23-Jun-09	9:00	3.4	7.8	2		13.8	2.2	120
23-Jun-09	10:00	1.7	5.7	2		15.0	2.1	125
23-Jun-09	11:00	1.1	4.6	2		15.5	2.2	131
23-Jun-09	12:00	5.0	11.5	3		15.9	2.3	173
23-Jun-09	13:00	11.1	21.4	6		16.1	2.6	232
23-Jun-09	14:00	9.6	20.7	5		16.2	2.9	231
23-Jun-09	15:00	8.6	19.1	3		15.6	2.8	221
23-Jun-09	16:00	6.2	16.5	2		15.6	2.7	213
23-Jun-09	17:00	5.9	17.2	2		16.1	2.8	211
23-Jun-09	18:00	4.4	18.6	2		16.2	2.3	213
23-Jun-09	19:00	1.6	16.5	2		16.0	2.2	211
23-Jun-09	20:00	4.9	33.5	4		15.0	2.0	210
23-Jun-09	21:00	0.9	17.8	2		13.6	1.8	222
23-Jun-09	22:00	0.7	28.5	2		14.6	0.7	202
23-Jun-09	23:00	0.0	23.4	3		14.0	1.2	151

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
23-Jun-09	0:00	0.0	18.2	3		13.4	0.8	125
24-Jun-09	1:00	0.0	8.8	2		12.4	0.8	157
24-Jun-09	2:00	0.0	10.3	2		12.9	0.4	106
24-Jun-09	3:00	0.0	7.7	2		12.3	1.3	108
24-Jun-09	4:00	0.0	10.9	3		12.2	1.3	99
24-Jun-09	5:00					10.7	1.5	109
24-Jun-09	6:00	0.0	10.9	3		11.1	0.6	61
24-Jun-09	7:00	3.4	18.8	3		12.1	0.9	33
24-Jun-09	8:00	9.4	29.1	4		12.6	0.8	349
24-Jun-09	9:00	28.4	40.0	5		12.1	0.7	232
24-Jun-09	10:00	17.6	32.4	4		12.9	0.9	44
24-Jun-09	11:00	8.1	15.7	3		13.0	1.6	35
24-Jun-09	12:00	20.2	28.5	4	6	12.2	1.3	237
24-Jun-09	13:00	10.0	20.1	4	9	14.1	0.8	68
24-Jun-09	14:00	8.4	17.0	4	7	15.3	0.3	80
24-Jun-09	15:00	30.4	36.0	9	11	14.6	1.2	234
24-Jun-09	16:00	25.1	36.2	11	12	16.3	1.9	228
24-Jun-09	17:00	9.5	16.1	6	2	17.1	3.3	247
24-Jun-09	18:00	2.7	6.9	2	0	17.4	5.1	271
24-Jun-09	19:00	2.0	6.5	2	0	16.8	4.5	270
24-Jun-09	20:00	1.6	5.0	2	1	16.0	5.2	276
24-Jun-09	21:00	1.1	6.5	2	1	15.4	3.2	277
24-Jun-09	22:00	0.6	4.8	2	1	15.5	3.2	268
24-Jun-09	23:00	0.4	5.9	2	1	15.7	1.9	264
24-Jun-09	0:00	0.0	5.4	2	3	14.2	1.2	110
25-Jun-09	1:00	0.0	9.4	3	3	12.5	1.8	138
25-Jun-09	2:00	0.1	16.1	4	5	12.2	1.0	242
25-Jun-09	3:00	0.0	1.9	2	1	13.1	2.6	268
25-Jun-09	4:00				1	12.9	1.3	204
25-Jun-09	5:00	0.0	9.6	1	2	12.4	1.9	166
25-Jun-09	6:00	3.1	21.8	2	2	12.5	2.5	184
25-Jun-09	7:00	11.4	28.9	5	4	12.4	3.7	193
25-Jun-09	8:00	14.1	25.3	6	5	13.4	3.4	208
25-Jun-09	9:00	11.0	24.9	4	4	13.0	4.0	203
25-Jun-09	10:00	15.5	22.6	6	6	13.8	3.1	205
25-Jun-09	11:00	12.0	18.0	6	6	15.4	4.4	230
25-Jun-09	12:00	8.4	12.4	2	5	16.5	4.8	237
25-Jun-09	13:00	9.6	14.4	2	5	16.6	5.4	250
25-Jun-09	14:00	7.1	10.9	2	2	16.3	5.7	237
25-Jun-09	15:00	6.2	10.1	2	2	16.5	5.7	235

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
25-Jun-09	16:00	5.4	10.1	2	5	16.4	5.7	241
25-Jun-09	17:00	3.6	8.0	2	5	15.6	6.2	241
25-Jun-09	18:00	2.2	6.1	2	5	14.6	6.6	248
25-Jun-09	19:00	0.9	5.0	2	4	14.0	6.0	247
25-Jun-09	20:00	1.4	7.1	2	5	12.6	4.9	248
25-Jun-09	21:00	0.6	6.7	2	5	11.4	4.4	242
25-Jun-09	22:00	0.5	7.3	1	4	11.2	3.7	250
25-Jun-09	23:00	0.4	5.2	1	5	11.1	4.0	257
25-Jun-09	0:00	0.4	5.7	2	5	10.9	3.5	263
26-Jun-09	1:00	0.1	7.3	2	5	10.7	2.6	266
26-Jun-09	2:00	0.0	5.0	2	6	10.5	2.6	250
26-Jun-09	3:00				6	10.6	2.2	252
26-Jun-09	4:00	0.4	10.0	2	6	10.5	1.6	275
26-Jun-09	5:00	0.6	15.7	1	6	10.2	0.7	256
26-Jun-09	6:00	8.0	28.5	2	8	10.2	0.1	239
26-Jun-09	7:00	18.1	29.9	2	8	11.0	0.9	224
26-Jun-09	8:00	7.0	17.4	2	7	12.3	0.9	114
26-Jun-09	9:00	1.1	4.2	1	5	13.6	2.3	120
26-Jun-09	10:00	2.4	5.6	2	6	13.9	2.7	152
26-Jun-09	11:00	4.1	7.5	1	6	14.3	2.7	162
26-Jun-09	12:00	3.0	5.9	1	4	14.9	2.7	165
26-Jun-09	13:00	6.4	10.9	2	5	15.2	3.5	177
26-Jun-09	14:00	3.7	7.7	2	4	15.5	3.9	165
26-Jun-09	15:00	5.6	9.8	2	8	14.7	4.2	181
26-Jun-09	16:00	7.6	14.5	4	10	13.2	4.5	210
26-Jun-09	17:00	4.4	11.3	4	6	12.8	5.3	214
26-Jun-09	18:00	4.5	11.5	4	5	13.1	4.9	214
26-Jun-09	19:00	3.2	13.0	2	5	13.2	3.8	210
26-Jun-09	20:00	4.2	25.5	10	5	14.0	3.2	208
26-Jun-09	21:00	3.2	26.4	13	4	12.9	4.1	210
26-Jun-09	22:00	2.6	26.8	12	4	11.8	4.2	InVld
26-Jun-09	23:00	8.9	37.9	28	7	11.3	3.4	InVld
26-Jun-09	0:00	0.4	8.0	3	4	10.9	3.6	222
27-Jun-09	1:00	0.0	4.8	1	4	10.6	3.5	226
27-Jun-09	2:00				2	10.5	2.0	240
27-Jun-09	3:00	0.0	7.3	1	3	10.1	1.1	194
27-Jun-09	4:00	0.0	4.8	1	3	9.7	1.9	214
27-Jun-09	5:00	0.7	10.9	1	4	9.3	1.0	224
27-Jun-09	6:00	3.1	13.2	1	5	10.0	1.0	222
27-Jun-09	7:00	2.7	7.5	1	3	10.7	1.3	199

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
27-Jun-09	8:00	3.7	8.6	1	5	11.8	1.5	203
27-Jun-09	9:00	8.1	14.7	2	5	12.9	2.0	214
27-Jun-09	10:00	7.6	14.2	4	5	14.5	2.3	161
27-Jun-09	11:00	8.4	16.1	4	3	14.7	3.7	185
27-Jun-09	12:00	6.4	13.8	3	4	16.2	3.8	205
27-Jun-09	13:00	5.9	12.4	2	5	16.3	4.3	198
27-Jun-09	14:00	5.4	12.1	2	4	16.6	4.6	210
27-Jun-09	15:00	3.6	8.6	2	3	18.4	6.3	225
27-Jun-09	16:00	8.1	15.5	11	6	16.7	7.0	213
27-Jun-09	17:00	16.8	28.1	25	9	16.9	2.5	225
27-Jun-09	18:00	0.5	10.1	2	9	17.7	1.6	42
27-Jun-09	19:00	11.6	22.0	11	7	16.3	0.7	174
27-Jun-09	20:00	0.6	10.3	2	6	14.7	2.6	303
27-Jun-09	21:00	3.5	12.3	2	3	13.2	2.1	235
27-Jun-09	22:00	33.2	41.4	32	6	12.7	1.8	210
27-Jun-09	23:00	9.4	25.7	12	2	13.3	2.0	238
27-Jun-09	0:00				0	13.5	2.3	271
28-Jun-09	1:00	0.7	10.5	2	0	13.1	2.2	281
28-Jun-09	2:00	0.0	2.9	1	0	12.9	4.4	283
28-Jun-09	3:00	0.0	2.7	1	1	11.9	3.2	248
28-Jun-09	4:00	0.0	2.1	1	2	10.9	3.0	251
28-Jun-09	5:00	0.0	2.5	1	5	10.2	2.7	260
28-Jun-09	6:00	0.4	4.4	1	5	10.5	1.9	253
28-Jun-09	7:00	1.7	6.3	1	5	11.3	2.3	261
28-Jun-09	8:00	1.5	3.8	1	5	12.8	1.8	246
28-Jun-09	9:00	2.6	6.1	1	7	13.4	3.4	217
28-Jun-09	10:00	3.1	6.9	2	6	13.9	4.4	221
28-Jun-09	11:00	3.2	6.7	2	4	14.7	3.8	221
28-Jun-09	12:00	1.7	5.4	1	2	15.2	3.6	226
28-Jun-09	13:00	2.2	5.7	1	1	16.0	3.4	214
28-Jun-09	14:00	1.9	5.2	1	0	16.3	3.8	210
28-Jun-09	15:00	2.7	7.3	1	1	16.8	3.4	202
28-Jun-09	16:00	2.1	5.9	1	0	17.3	2.8	211
28-Jun-09	17:00	2.5	7.1	1	1	17.6	2.5	197
28-Jun-09	18:00	1.4	6.1	1	5	16.9	3.6	214
28-Jun-09	19:00	1.1	8.0	1	5	16.4	3.5	219
28-Jun-09	20:00	0.7	8.8	1	5	14.7	3.5	218
28-Jun-09	21:00	0.6	10.3	1	5	12.8	3.0	221
28-Jun-09	22:00	0.5	10.9	1	4	12.2	2.1	233
28-Jun-09	23:00				5	11.5	2.0	224

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
28-Jun-09	0:00	0.0	11.5	1	4	11.7	1.2	265
29-Jun-09	1:00	0.0	7.3	1	4	11.3	1.0	241
29-Jun-09	2:00	0.0	7.1	1	4	10.7	0.8	215
29-Jun-09	3:00	0.0	11.3	1	4	10.4	0.7	319
29-Jun-09	4:00	0.0	16.5	1	4	9.8	0.4	302
29-Jun-09	5:00	6.0	16.3	2	4	9.2	0.7	320
29-Jun-09	6:00	29.4	19.0	3	8	9.9	0.6	333
29-Jun-09	7:00	36.4	25.8	3	8	12.8	0.1	143
29-Jun-09	8:00	5.9	12.1	2	6	14.6	0.8	115
29-Jun-09	9:00	17.6	20.9	2	7	14.7	1.8	211
29-Jun-09	10:00	5.0	10.7	2	4	15.2	2.2	161
29-Jun-09	11:00	5.0	11.1	2	3	15.4	2.7	168
29-Jun-09	12:00	3.4	8.4	2	2	15.7	3.0	169
29-Jun-09	13:00	3.1	7.5	2	3	15.8	3.5	163
29-Jun-09	14:00	5.1	8.6	2	7	15.8	3.4	162
29-Jun-09	15:00	9.1	16.3	3	10	14.9	3.1	180
29-Jun-09	16:00	12.0	17.4	3	7	14.0	3.5	197
29-Jun-09	17:00	9.2	18.8	4	3	15.5	2.6	175
29-Jun-09	18:00	4.6	18.2	3	0	18.2	1.4	183
29-Jun-09	19:00	1.6	11.7	2	6	18.6	1.4	17
29-Jun-09	20:00	0.4	6.9	2	5	16.8	1.4	348
29-Jun-09	21:00	0.1	13.8	1	1	14.5	1.6	207
29-Jun-09	22:00				4	13.0	2.1	214
29-Jun-09	23:00	0.6	18.6	2	4	12.8	1.1	224
29-Jun-09	0:00	0.0	10.1	2	5	12.3	1.6	221
30-Jun-09	1:00	0.0	13.6	1	5	11.8	0.5	267
30-Jun-09	2:00	0.0	14.7	1	4	11.4	1.0	296
30-Jun-09	3:00	0.5	22.0	1	4	11.1	0.7	314
30-Jun-09	4:00	0.0	19.0	1	4	10.5	0.6	0
30-Jun-09	5:00	2.2	19.7	1	4	9.9	0.5	103
30-Jun-09	6:00	7.2	16.8	2	7	11.4	0.4	113
30-Jun-09	7:00	7.9	20.5	2	9	13.0	0.6	139
30-Jun-09	8:00	3.1	8.4	2	4	14.7	1.2	91
30-Jun-09	9:00	1.5	5.4	2	3	15.7	1.2	72
30-Jun-09	10:00	11.0	14.5	2	8	15.9	0.9	210
30-Jun-09	11:00	15.8	21.1	3	9	15.0	2.9	226
30-Jun-09	12:00	14.1	20.1	3	8	15.5	2.9	234
30-Jun-09	13:00	15.2	23.4	4	8	16.7	2.8	229
30-Jun-09	14:00	9.9	20.1	4	7	18.0	2.4	201
30-Jun-09	15:00	12.7	24.5	3	8	18.5	2.2	229

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
30-Jun-09	16:00	12.8	26.2	2	6	18.3	2.8	229
30-Jun-09	17:00	9.4	26.0	2	4	17.6	3.0	226
30-Jun-09	18:00	6.6	24.9	2	3	17.6	2.7	228
30-Jun-09	19:00	2.0	15.1	2	1	17.8	3.0	225
30-Jun-09	20:00	2.0	17.2	1	2	16.9	2.3	223
30-Jun-09	21:00				4	15.1	1.7	214
30-Jun-09	22:00	0.7	24.1	1	3	14.2	1.2	220
30-Jun-09	23:00	1.0	36.6	2	4	14.1	0.5	314
30-Jun-09	0:00	3.7	45.0	2	6	13.4	0.7	333
1-Jul-09	1:00	21.3	41.2	2	7	12.4	1.0	318
1-Jul-09	2:00	8.7	34.1	2	6	12.6	0.6	23
1-Jul-09	3:00	5.0	34.8	2	5	12.4	0.6	39
1-Jul-09	4:00	4.6	29.7	2	4	10.5	0.5	296
1-Jul-09	5:00	5.9	25.7	1	4	10.0	1.0	322
1-Jul-09	6:00	14.5	23.2	2	6	11.7	0.6	357
1-Jul-09	7:00	9.4	18.4	2	5	15.0	0.3	22
1-Jul-09	8:00	0.6	3.6	1	3	16.3	1.2	31
1-Jul-09	9:00	0.9	3.1	2	5	16.8	3.2	39
1-Jul-09	10:00	0.4	2.3	2	5	17.5	4.0	37
1-Jul-09	11:00	1.4	4.6	3	5	18.3	3.9	38
1-Jul-09	12:00	0.2	2.7	2	6	19.2	3.3	36
1-Jul-09	13:00	0.0	2.3	2	4	19.9	3.3	38
1-Jul-09	14:00	0.6	4.0	3	5	20.8	3.0	39
1-Jul-09	15:00	13.1	23.4	4	10	19.1	2.2	232
1-Jul-09	16:00	6.4	18.4	3	5	18.9	2.6	227
1-Jul-09	17:00	4.5	16.1	3	6	20.1	2.2	225
1-Jul-09	18:00	3.4	16.3	2	5	20.1	2.4	222
1-Jul-09	19:00	3.6	22.6	2	6	20.5	1.7	219
1-Jul-09	20:00				5	20.1	1.6	212
1-Jul-09	21:00	1.0	35.6	2	8	18.2	1.0	206
1-Jul-09	22:00	6.7	56.9	2	8	17.2	0.7	215
1-Jul-09	23:00	21.2	60.5	3	11	16.5	0.6	315
1-Jul-09	0:00	33.4	54.8	4	12	15.5	1.0	316
2-Jul-09	1:00	20.8	48.1	3	10	14.6	0.7	324
2-Jul-09	2:00	18.2	45.0	3	9	14.3	0.8	22
2-Jul-09	3:00	2.6	30.6	2	7	13.5	1.1	0
2-Jul-09	4:00	0.9	28.5	2	8	12.8	0.2	293
2-Jul-09	5:00	3.1	27.4	2	6	12.4	1.4	334
2-Jul-09	6:00	10.0	25.8	2	6	13.3	0.7	346
2-Jul-09	7:00	5.0	19.5	2	4	16.9	0.2	10

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
2-Jul-09	8:00	3.1	7.8	3	6	17.8	2.0	18
2-Jul-09	9:00	1.5	5.2	2	5	18.5	3.2	19
2-Jul-09	10:00	0.9	2.9	2	6	19.8	2.7	26
2-Jul-09	11:00	1.6	3.1	2	5	20.1	3.3	29
2-Jul-09	12:00	0.6	3.6	2	4	20.5	3.8	39
2-Jul-09	13:00	0.9	3.4	2	5	21.7	3.3	31
2-Jul-09	14:00	1.4	4.6	3	4	22.5	2.7	42
2-Jul-09	15:00	6.5	9.6	6	5	23.6	1.7	44
2-Jul-09	16:00	55.8	46.5	60	16	20.5	2.3	232
2-Jul-09	17:00	45.8	52.5	57	14	22.6	1.7	240
2-Jul-09	18:00	6.6	25.7	11	7	24.2	1.6	230
2-Jul-09	19:00				8	23.6	1.9	222
2-Jul-09	20:00	12.1		26	8	21.8	1.1	186
2-Jul-09	21:00	6.0	53.6	25	11	20.1	1.8	213
2-Jul-09	22:00	3.1	62.2	5	10	18.9	1.0	240
2-Jul-09	23:00	8.5	63.4	4	8	18.0	0.6	211
2-Jul-09	0:00	3.0	64.7	4	8	17.1	0.1	326
3-Jul-09	1:00	6.4	62.2	3	10	16.2	0.8	348
3-Jul-09	2:00	1.1	48.8	4	10	16.0	1.0	1
3-Jul-09	3:00	0.0	25.1	4	9	16.0	0.8	24
3-Jul-09	4:00	0.0	23.9	5	9	14.1	1.4	124
3-Jul-09	5:00	1.9	30.1	5	9	13.7	0.3	282
3-Jul-09	6:00	14.1	33.7	5	11	14.0	0.6	345
3-Jul-09	7:00	28.8	40.4	7	12	16.4	0.4	359
3-Jul-09	8:00	15.2	27.0	4	8	19.5	0.5	344
3-Jul-09	9:00	30.7	42.1	12	11	19.5	1.6	221
3-Jul-09	10:00	17.5	34.8	10	10	19.8	2.3	235
3-Jul-09	11:00	12.6	31.2	7	12	20.7	2.3	239
3-Jul-09	12:00	8.7	27.2	6	10	21.5	2.2	235
3-Jul-09	13:00	7.9	29.3	5	12	22.9	2.2	226
3-Jul-09	14:00	11.9	33.3	5	15	23.3	2.7	222
3-Jul-09	15:00	14.1	38.3	8	10	23.0	2.7	221
3-Jul-09	16:00	9.7	32.2	6	9	22.1	2.6	223
3-Jul-09	17:00	8.0	34.3	9	6	23.1	2.4	208
3-Jul-09	18:00				14	23.7	2.2	215
3-Jul-09	19:00	35.9	65.3	50	15	22.9	2.6	221
3-Jul-09	20:00	31.1	59.7	49	15	21.7	2.3	211
3-Jul-09	21:00	9.4	59.9	27	9	21.0	1.3	223
3-Jul-09	22:00	13.7	64.3	29	11	20.1	1.0	167
3-Jul-09	23:00	9.4	51.7	12	14	18.1	1.2	110

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
3-Jul-09	0:00	2.9	47.3	9	9	17.8	0.1	125
4-Jul-09	1:00	2.4	37.5	7	14	16.1	1.0	120
4-Jul-09	2:00	0.2	29.7	4	13	15.1	1.1	105
4-Jul-09	3:00	0.0	16.8	3	9	13.5	1.4	113
4-Jul-09	4:00	3.5	28.1	8	10	13.3	0.5	110
4-Jul-09	5:00	9.0	37.3	11	12	13.8	0.4	286
4-Jul-09	6:00	11.0	29.3	7	13	15.0	0.2	86
4-Jul-09	7:00	11.5	26.6	13	13	17.6	0.3	119
4-Jul-09	8:00	15.6	26.0	7	13	19.1	0.7	205
4-Jul-09	9:00	15.0	25.7	7	8	19.6	1.3	224
4-Jul-09	10:00	8.7	18.6	6	7	20.2	1.4	179
4-Jul-09	11:00	16.8	26.6	8	8	19.9	2.7	224
4-Jul-09	12:00	13.8	25.8	7	8	19.6	2.6	228
4-Jul-09	13:00	13.3	29.5	6	9	19.8	2.2	226
4-Jul-09	14:00	7.9	21.6	5	8	20.1	2.9	217
4-Jul-09	15:00	3.6	15.7	4	8	20.6	3.1	220
4-Jul-09	16:00	4.6	19.3	6	7	20.6	2.9	216
4-Jul-09	17:00				11	22.3	1.8	219
4-Jul-09	18:00	24.1	51.9	44	12	21.8	2.2	225
4-Jul-09	19:00	60.6	57.0	82	16	20.8	1.7	216
4-Jul-09	20:00	99.4	73.5	131	23	19.5	1.5	216
4-Jul-09	21:00	45.3	72.7	71	15	18.5	1.3	210
4-Jul-09	22:00	13.7	53.8	31	10	17.5	0.7	220
4-Jul-09	23:00	9.5	60.7	23	10	17.6	0.8	103
4-Jul-09	0:00	14.8	62.0	28	14	17.5	0.3	63
5-Jul-09	1:00	16.2	60.5	19	15	17.4	0.2	337
5-Jul-09	2:00	7.2	45.2	10	14	15.8	1.1	123
5-Jul-09	3:00	0.4	25.5	4	10	14.7	0.7	88
5-Jul-09	4:00	0.0	24.3	4	10	15.2	1.1	355
5-Jul-09	5:00	0.5	26.8	4	11	15.3	0.8	354
5-Jul-09	6:00	3.4	22.8	4	11	15.2	0.3	87
5-Jul-09	7:00	6.0	20.1	5	9	16.6	0.2	71
5-Jul-09	8:00	4.9	18.8	9	9	18.3	1.2	117
5-Jul-09	9:00	2.9	13.0	7	13	18.5	1.4	114
5-Jul-09	10:00	2.6	10.1	6	10	19.9	1.6	114
5-Jul-09	11:00	3.0	11.5	5	10	21.1	0.6	89
5-Jul-09	12:00	12.7	25.8	7	12	21.3	1.2	226
5-Jul-09	13:00	15.2	28.1	13	12	20.2	2.6	223
5-Jul-09	14:00	12.2	27.0	14	12	19.7	3.2	215
5-Jul-09	15:00	6.5	22.4	12	9	19.3	3.7	228

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
5-Jul-09	16:00				13	20.8	3.2	224
5-Jul-09	17:00	9.2	28.1	19	12	21.2	3.6	221
5-Jul-09	18:00	1.9	10.3	3	8	19.6	4.7	219
5-Jul-09	19:00	1.2	10.0	2	5	19.1	3.2	218
5-Jul-09	20:00	1.2	13.8	3	5	18.5	3.2	215
5-Jul-09	21:00	0.9	13.2	3	6	17.2	3.7	216
5-Jul-09	22:00	0.6	15.7	3	4	15.8	4.5	217
5-Jul-09	23:00	1.2	21.1	3	3	15.6	4.2	219
5-Jul-09	0:00	0.0	2.1	2	2	16.0	4.5	270
6-Jul-09	1:00	0.0	1.9	2	2	15.8	3.1	256
6-Jul-09	2:00	0.0	5.4	2	4	14.5	2.3	223
6-Jul-09	3:00	0.0	14.5	3	4	13.1	2.1	213
6-Jul-09	4:00	0.0	9.4	3	3	13.1	1.7	140
6-Jul-09	5:00	0.0	11.9	4	5	12.7	2.1	134
6-Jul-09	6:00	0.5	13.0	4	5	13.5	1.6	147
6-Jul-09	7:00	10.0	23.0	3	6	13.9	1.2	206
6-Jul-09	8:00	5.1	18.8	3	5	14.0	1.0	100
6-Jul-09	9:00	0.9	12.1	2	4	13.6	1.3	104
6-Jul-09	10:00	4.1	19.1	2	4	14.5	0.8	104
6-Jul-09	11:00	7.9	19.9	2	4	15.6	1.1	152
6-Jul-09	12:00	8.9	16.5	2	6	15.7	1.4	189
6-Jul-09	13:00	10.9	16.7	2	0	16.9	3.1	243
6-Jul-09	14:00	7.0	12.4	2	0	17.5	4.1	241
6-Jul-09	15:00				1	17.7	4.9	229
6-Jul-09	16:00	7.2	11.3	2	0	18.3	4.9	263
6-Jul-09	17:00	4.0	8.4	1	0	16.8	6.0	272
6-Jul-09	18:00	2.5	6.5	1	0	16.5	4.8	283
6-Jul-09	19:00	1.7	4.4	1	0	16.2	5.1	282
6-Jul-09	20:00	1.0	4.4	1	0	15.3	5.7	278
6-Jul-09	21:00	0.6	4.4	1	0	14.7	5.0	279
6-Jul-09	22:00	0.2	3.8	1	0	14.2	4.8	270
6-Jul-09	23:00	0.2	2.7	1	0	14.0	3.7	262
6-Jul-09	0:00	0.0	4.0	1	0	13.5	2.9	257
7-Jul-09	1:00	0.0	4.2	1	0	13.1	2.4	224
7-Jul-09	2:00	0.0	5.2	1	0	12.5	2.8	206
7-Jul-09	3:00	0.0	5.6	2	0	12.2	2.2	223
7-Jul-09	4:00	0.2	16.8	2	0	12.0	2.3	214
7-Jul-09	5:00	1.5	8.2	2	0	12.4	2.5	249
7-Jul-09	6:00	2.7	15.7	2	0	12.5	2.4	212
7-Jul-09	7:00	10.1	20.9	2	3	11.7	2.8	209

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
7-Jul-09	8:00	24.2	30.6	4	4	12.1	2.4	216
7-Jul-09	9:00	26.8	32.5	4	3	12.6	2.1	197
7-Jul-09	10:00	15.1	23.5	4	3	12.5	2.1	169
7-Jul-09	11:00	9.6	18.6	3	2	13.0	1.9	153
7-Jul-09	12:00	4.1	13.2	3	2	13.0	2.2	157
7-Jul-09	13:00	12.3	19.0	4	3	12.7	1.3	192
7-Jul-09	14:00			4		12.2	1.1	183
7-Jul-09	15:00	18.0	24.7	3	3	InVld	1.0	223
7-Jul-09	16:00	23.8	25.5	3	3	13.1	1.0	266
7-Jul-09	17:00	15.3	21.1	2	1	13.5	1.2	243
7-Jul-09	18:00	23.1	29.5	4	2	13.1	1.5	221
7-Jul-09	19:00	14.8	26.2	3	2	InVld	1.4	212
7-Jul-09	20:00	6.7	21.2	2	0	12.3	1.6	212
7-Jul-09	21:00	23.8	34.3	4	3	11.9	1.0	203
7-Jul-09	22:00	29.2	34.1	6	3	12.1	0.8	203
7-Jul-09	23:00	15.1	31.2	6	2	11.8	1.1	217
7-Jul-09	0:00	39.4	32.7	8	4	11.9	0.6	206
8-Jul-09	1:00	12.2	22.4	5	2	11.9	1.2	218
8-Jul-09	2:00	22.7	30.4	7	3	11.9	0.8	217
8-Jul-09	3:00	30.6	29.1	7	4	12.1	0.9	218
8-Jul-09	4:00	22.5	25.1	5	5	11.8	0.5	150
8-Jul-09	5:00	1.2	12.8	3	1	11.3	1.2	172
8-Jul-09	6:00	3.1	17.8	3	3	11.3	1.1	185
8-Jul-09	7:00	4.2	14.7	2	2	11.4	0.6	110
8-Jul-09	8:00	4.4	11.1	2	1	InVld	1.7	100
8-Jul-09	9:00	2.1	6.5	2	1	12.1	2.3	87
8-Jul-09	10:00	4.2	10.1	3	2	12.4	1.9	100
8-Jul-09	11:00	4.4	8.0	3	3	12.9	1.8	108
8-Jul-09	12:00	5.7	7.8	3	2	13.8	1.6	99
8-Jul-09	13:00				1	14.0	1.3	91
8-Jul-09	14:00	1.5	5.6	2	1	14.9	1.1	72
8-Jul-09	15:00	2.5	8.2	3	2	15.2	1.7	63
8-Jul-09	16:00	2.5	10.3	2	0	14.8	2.1	101
8-Jul-09	17:00	4.6	15.7	3	2	14.8	1.4	112
8-Jul-09	18:00	17.0	24.1	4	4	14.7	0.3	108
8-Jul-09	19:00	8.6	20.3	3	3	15.1	0.8	38
8-Jul-09	20:00	2.7	18.2	2	0	14.8	1.3	76
8-Jul-09	21:00	3.0	22.0	3	2	14.1	1.1	75
8-Jul-09	22:00	1.2	21.2	3	3	13.6	1.4	36
8-Jul-09	23:00	0.6	17.2	2	2	13.0	1.3	36

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
8-Jul-09	0:00	0.1	18.4	3	2	12.8	0.7	39
9-Jul-09	1:00	1.1	18.4	3	3	12.7	0.6	7
9-Jul-09	2:00	0.6	16.5	3	3	12.9	0.4	33
9-Jul-09	3:00	0.6	15.9	3	3	12.8	0.1	53
9-Jul-09	4:00	1.9	20.3	3	4	12.8	0.4	1
9-Jul-09	5:00	1.1	16.3	3	4	13.0	0.6	9
9-Jul-09	6:00	2.9	15.9	2	4	13.6	0.9	355
9-Jul-09	7:00	36.2	24.7	4	7	14.0	0.3	330
9-Jul-09	8:00	7.2	15.9	2	3	14.8	0.4	28
9-Jul-09	9:00	61.4	29.7	6	11	15.0	0.9	232
9-Jul-09	10:00	52.5	27.8	7	11	15.3	1.5	228
9-Jul-09	11:00	112.4	34.5	41	15	15.4	1.8	237
9-Jul-09	12:00				10	16.8	2.2	226
9-Jul-09	13:00	21.6	23.4	12	5	17.8	2.7	225
9-Jul-09	14:00	11.6	19.5	5	3	17.7	2.9	227
9-Jul-09	15:00	10.2	17.8	4	0	17.5	3.4	201
9-Jul-09	16:00	18.0	23.7	17	3	17.8	3.5	209
9-Jul-09	17:00	39.2	44.0	45	8	18.9	3.4	213
9-Jul-09	18:00	13.5	25.5	15	3	18.4	3.5	228
9-Jul-09	19:00	3.1	11.3	2	0	17.7	3.3	231
9-Jul-09	20:00	4.4	17.2	2	1	16.9	3.0	226
9-Jul-09	21:00	11.5	36.4	8	3	16.2	2.6	222
9-Jul-09	22:00	8.4	35.2	7	3	15.1	2.3	227
9-Jul-09	23:00	7.4	34.8	4	4	14.2	1.4	232
9-Jul-09	0:00	2.4	24.3	2	3	13.9	0.7	226
10-Jul-09	1:00	3.1	26.8	2	3	13.7	0.6	150
10-Jul-09	2:00	8.4	28.3	3	4	13.1	0.4	282
10-Jul-09	3:00	11.0	22.2	2	3	12.7	0.6	327
10-Jul-09	4:00	13.5	19.7	2	3	12.4	0.0	59
10-Jul-09	5:00	10.9	21.4	2	4	12.6	0.5	85
10-Jul-09	6:00	29.6	19.5	3	6	12.9	0.7	335
10-Jul-09	7:00	67.2	28.7	5	10	15.1	0.0	308
10-Jul-09	8:00	30.4	24.1	3	10	17.3	0.7	337
10-Jul-09	9:00	2.6	5.9	2	3	18.8	2.2	12
10-Jul-09	10:00	2.5	5.6	2	5	19.4	2.7	40
10-Jul-09	11:00				5	20.3	2.4	41
10-Jul-09	12:00	2.2	6.1	2	7	21.0	2.5	43
10-Jul-09	13:00	1.6	5.9	2	5	21.5	2.8	56
10-Jul-09	14:00	1.4	5.9	2	5	22.7	1.7	44
10-Jul-09	15:00	9.9	19.5	4	7	22.0	0.4	204

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
10-Jul-09	16:00	12.5	30.4	5	8	20.7	2.4	228
10-Jul-09	17:00	19.1	31.4	30	6	20.4	2.4	233
10-Jul-09	18:00	18.0	34.3	29	7	20.8	2.2	219
10-Jul-09	19:00	19.5	44.0	34	4	20.8	1.5	232
10-Jul-09	20:00	10.2	50.0	11	7	20.8	1.2	222
10-Jul-09	21:00	9.6	54.8	21	8	19.3	1.6	226
10-Jul-09	22:00	11.7	54.4	14	7	17.7	0.9	232
10-Jul-09	23:00	10.9	54.9	5	6	17.0	0.4	273
10-Jul-09	0:00	26.6	56.3	5	9	16.2	0.7	275
11-Jul-09	1:00	22.7	48.8	4	6	15.4	0.6	300
11-Jul-09	2:00	24.2	42.1	4	8	15.5	0.6	37
11-Jul-09	3:00	12.7	34.5	3	7	14.4	0.5	322
11-Jul-09	4:00	15.3	30.6	2	6	13.7	0.4	54
11-Jul-09	5:00	17.1	28.3	2	8	13.5	0.6	296
11-Jul-09	6:00	24.9	21.8	3	8	13.9	0.7	319
11-Jul-09	7:00	18.2	20.7	3	7	16.3	0.1	266
11-Jul-09	8:00	32.3	25.1	16	7	16.2	1.3	226
11-Jul-09	9:00	37.0	34.1	37	12	18.7	0.8	242
11-Jul-09	10:00				7	21.6	1.2	347
11-Jul-09	11:00	10.1	19.3	9	4	20.5	2.1	233
11-Jul-09	12:00	38.2	34.1	42	10	19.1	2.5	220
11-Jul-09	13:00	11.0	26.0	17	9	21.4	2.9	221
11-Jul-09	14:00	10.1	24.5	14	6	21.3	3.0	215
11-Jul-09	15:00	4.7	18.0	4	5	22.9	2.6	224
11-Jul-09	16:00	9.4	27.0	13	2	24.6	3.4	217
11-Jul-09	17:00	9.7	28.3	13	4	25.5	3.1	228
11-Jul-09	18:00	60.4	49.0	72	9	22.8	2.6	215
11-Jul-09	19:00	30.7	45.6	37	9	22.5	2.3	215
11-Jul-09	20:00	21.3	45.4	30	9	21.4	1.3	209
11-Jul-09	21:00	47.8	40.2	59	14	19.3	2.9	217
11-Jul-09	22:00	9.1	24.9	13	4	19.8	1.7	241
11-Jul-09	23:00	9.1	17.0	14	4	18.5	2.6	236
11-Jul-09	0:00	1.6	16.3	8	2	18.2	2.6	220
12-Jul-09	1:00	0.2	7.5	3	3	16.6	2.3	221
12-Jul-09	2:00	0.0	4.4	2	1	16.5	2.0	231
12-Jul-09	3:00	0.0	5.7	2	3	15.6	1.2	165
12-Jul-09	4:00	0.0	4.0	2	2	13.8	2.7	196
12-Jul-09	5:00	0.0	3.6	1	1	12.5	2.6	220
12-Jul-09	6:00	1.4	11.1	2	2	13.5	1.5	189
12-Jul-09	7:00	4.0	10.1	2	3	14.3	1.6	201

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
12-Jul-09	8:00	6.0	10.0	2	4	16.1	0.7	203
12-Jul-09	9:00				4	16.5	1.8	209
12-Jul-09	10:00	6.0	11.7	2	3	15.1	3.8	191
12-Jul-09	11:00	4.9	9.0	4	1	13.6	4.5	208
12-Jul-09	12:00	2.9	5.7	2	3	15.7	5.0	188
12-Jul-09	13:00	3.5	7.7	3	1	13.4	5.7	201
12-Jul-09	14:00	4.1	9.6	2	3	14.0	4.8	185
12-Jul-09	15:00	3.0	9.6	2	3	14.4	5.6	208
12-Jul-09	16:00	4.4	13.0	2	3	15.6	4.4	210
12-Jul-09	17:00	2.9	12.8	2	5	16.3	3.1	175
12-Jul-09	18:00	1.7	7.1	2	4	16.9	5.5	221
12-Jul-09	19:00	1.7	6.9	2	4	15.9	6.1	218
12-Jul-09	20:00	0.9	10.5	1	3	14.9	3.5	177
12-Jul-09	21:00	0.5	9.0	1	2	14.6	4.6	191
12-Jul-09	22:00	0.1	5.9	2	2	13.8	5.8	208
12-Jul-09	23:00	0.0	4.8	1	1	13.1	5.7	217
12-Jul-09	0:00	0.0	2.1	1	0	12.9	6.8	220
13-Jul-09	1:00	0.0	0.4	1	0	13.3	4.7	235
13-Jul-09	2:00	0.0	0.6	1	0	13.3	4.1	262
13-Jul-09	3:00	0.0	1.7	1	0	13.2	3.5	272
13-Jul-09	4:00	0.0	2.9	1	0	13.1	2.0	250
13-Jul-09	5:00	0.2	3.6	1	0	12.8	3.3	237
13-Jul-09	6:00	2.5	10.7	1	0	12.9	3.5	250
13-Jul-09	7:00	10.6	20.3	1	3	13.8	3.2	235
13-Jul-09	8:00				1	14.4	3.2	233
13-Jul-09	9:00	10.7	18.2	2	2	14.8	4.0	232
13-Jul-09	10:00	7.9	14.0	1	1	15.4	4.2	242
13-Jul-09	11:00	9.0	14.9	2	2	16.2	4.3	244
13-Jul-09	12:00	6.5	10.5	1	3	16.3	5.6	214
13-Jul-09	13:00	10.4	14.2	2	4	14.9	5.9	191
13-Jul-09	14:00	8.7	13.8	2	3	14.5	5.4	196
13-Jul-09	15:00	9.9	15.3	2	3	14.6	5.0	197
13-Jul-09	16:00	3.9	8.2	1	1	13.9	6.3	210
13-Jul-09	17:00					13.8	6.0	211
13-Jul-09	18:00					13.9	5.9	216
13-Jul-09	19:00					13.3	5.7	212
13-Jul-09	20:00					13.4	4.7	213
13-Jul-09	21:00					14.0	3.6	235
13-Jul-09	22:00					13.8	4.1	249
13-Jul-09	23:00					13.3	3.2	250

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
13-Jul-09	0:00					12.9	2.9	242
14-Jul-09	1:00					12.5	2.5	252
14-Jul-09	2:00					12.1	2.5	254
14-Jul-09	3:00					11.8	1.6	234
14-Jul-09	4:00					11.3	1.3	286
14-Jul-09	5:00	1.5	15.7	1	2	11.3	1.1	235
14-Jul-09	6:00	11.6	23.5	2	2	11.4	0.8	243
14-Jul-09	7:00				4	11.9	0.7	216
14-Jul-09	8:00	20.7	23.9	3	4	13.5	0.5	204
14-Jul-09	9:00	20.6	21.6	2	5	15.0	1.5	216
14-Jul-09	10:00	11.7	14.7	2	3	14.8	2.3	209
14-Jul-09	11:00	9.2	13.4	2	3	15.5	2.1	225
14-Jul-09	12:00	8.0	11.9	2	3	15.6	3.0	218
14-Jul-09	13:00	10.1	16.3	2	3	15.6	3.0	215
14-Jul-09	14:00	5.0	12.1	2	4	16.1	3.0	215
14-Jul-09	15:00	4.4	13.4	2	5	16.5	3.3	214
14-Jul-09	16:00	3.6	13.4	2	4	16.4	3.7	221
14-Jul-09	17:00	4.6	16.7	2	4	16.6	3.2	215
14-Jul-09	18:00	7.1	19.1	2	4	17.1	2.6	219
14-Jul-09	19:00	6.9	21.6	2	3	17.2	2.2	225
14-Jul-09	20:00	4.2	17.2	2	3	15.7	3.0	220
14-Jul-09	21:00	1.9	14.4	2	3	14.6	3.1	221
14-Jul-09	22:00	1.7	18.2	2	3	14.0	2.7	217
14-Jul-09	23:00	2.0	20.1	1	2	13.2	2.4	209
14-Jul-09	0:00	0.0	4.4	1	1	11.8	3.2	227
15-Jul-09	1:00	0.0	7.3	1	1	11.0	2.0	219
15-Jul-09	2:00	0.0	16.5	1	2	11.0	0.8	198
15-Jul-09	3:00	1.7	19.9	1	2	11.1	0.7	216
15-Jul-09	4:00	0.0	16.3	1	2	11.2	0.2	221
15-Jul-09	5:00	2.6	17.0	1	3	10.7	0.7	120
15-Jul-09	6:00				6	10.7	0.5	77
15-Jul-09	7:00	10.5	13.4	3	5	12.4	0.8	94
15-Jul-09	8:00	10.4	10.9	3	4	11.8	2.1	108
15-Jul-09	9:00	8.2	9.4	3	5	14.7	1.5	123
15-Jul-09	10:00	10.7	11.1	4	3	16.4	1.9	141
15-Jul-09	11:00	32.7	20.7	11	7	16.7	1.9	184
15-Jul-09	12:00	16.2	20.1	5	7	18.0	2.3	181
15-Jul-09	13:00	12.1	23.4	5	8	18.3	2.2	213
15-Jul-09	14:00	9.6	24.1	3	8	19.6	1.8	233
15-Jul-09	15:00	12.3	27.0	3	7	19.9	2.8	227

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
15-Jul-09	16:00	9.4	23.2	2	4	20.1	2.9	222
15-Jul-09	17:00	7.9	23.4	2	4	20.4	3.0	216
15-Jul-09	18:00	4.7	18.0	2	5	19.7	3.2	213
15-Jul-09	19:00	4.7	17.4	2	5	17.0	4.1	215
15-Jul-09	20:00	3.4	18.2	2	2	13.9	1.7	209
15-Jul-09	21:00	3.9	28.5	2	3	13.9	1.6	206
15-Jul-09	22:00	2.5	22.6	2	2	13.4	1.3	208
15-Jul-09	23:00	10.2	33.7	2	2	14.4	0.9	218
15-Jul-09	0:00	6.2	31.8	2	4	14.8	0.8	111
16-Jul-09	1:00	8.7	30.1	2	4	14.6	0.7	115
16-Jul-09	2:00	3.0	24.7	2	4	13.7	0.4	79
16-Jul-09	3:00	0.2	12.3	2	2	12.0	1.7	116
16-Jul-09	4:00	0.0	7.1	2	1	11.6	1.3	108
16-Jul-09	5:00				1	11.4	1.1	118
16-Jul-09	6:00	3.0	9.6	2	3	12.0	1.1	104
16-Jul-09	7:00	11.0	12.4	4	6	14.4	0.8	130
16-Jul-09	8:00	13.6	12.4	3	5	16.0	1.4	121
16-Jul-09	9:00	11.6	10.3	4	5	16.6	1.8	125
16-Jul-09	10:00	10.5	11.3	4	5	18.6	1.5	130
16-Jul-09	11:00	24.7	23.4	6	8	19.6	1.7	208
16-Jul-09	12:00	13.0	20.5	3	7	21.1	1.8	171
16-Jul-09	13:00	6.2	14.2	4	6	20.9	2.5	159
16-Jul-09	14:00	28.9	23.9	6	8	22.0	2.2	206
16-Jul-09	15:00	27.6	22.2	5	5	22.4	2.6	218
16-Jul-09	16:00	51.9	22.0	38	5	22.7	2.6	214
16-Jul-09	17:00	50.1	20.9	43	6	23.5	2.8	215
16-Jul-09	18:00	54.0	20.1	47	6	22.9	3.3	213
16-Jul-09	19:00	42.3	20.1	51	5	21.4	2.4	213
16-Jul-09	20:00	34.6	21.4	33	3	20.9	2.6	219
16-Jul-09	21:00	35.3	26.2	34	1	20.6	2.6	214
16-Jul-09	22:00	32.3	27.6	39	5	17.6	1.8	211
16-Jul-09	23:00	33.6	25.3	39	6	16.4	1.3	190
16-Jul-09	0:00	28.9	25.5	28	5	17.1	0.3	206
17-Jul-09	1:00	31.3	24.9	14	3	17.5	0.2	66
17-Jul-09	2:00	30.4	22.8	12	4	17.4	0.0	125
17-Jul-09	3:00	28.2	21.1	10	5	16.6	0.1	336
17-Jul-09	4:00				3	15.5	0.9	145
17-Jul-09	5:00	15.8	19.5	5	4	14.7	0.6	166
17-Jul-09	6:00	26.2	19.0	5	5	15.4	0.1	142
17-Jul-09	7:00	29.2	21.8	6	7	17.2	0.6	129

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
17-Jul-09	8:00	42.2	23.9	7	11	19.6	0.9	135
17-Jul-09	9:00	13.8	15.7	7	5	20.4	1.9	120
17-Jul-09	10:00	11.0	16.3	8	6	21.7	1.8	125
17-Jul-09	11:00	6.2	16.7	4	7	23.2	1.8	180
17-Jul-09	12:00	7.1	18.4	4	9	23.5	2.2	161
17-Jul-09	13:00	2.0	7.8	3	5	23.7	2.9	158
17-Jul-09	14:00	18.0	17.4	15	1	23.8	2.7	203
17-Jul-09	15:00	29.4	21.2	24	9	21.7	3.5	210
17-Jul-09	16:00	26.1	20.9	22	7	22.1	2.5	207
17-Jul-09	17:00	18.0	19.3	14	6	24.9	4.1	221
17-Jul-09	18:00	3.9	8.8	2	0	26.8	4.2	246
17-Jul-09	19:00	2.5	9.8	2		25.4	3.7	240
17-Jul-09	20:00	3.1	14.2	2	1	22.1	4.5	220
17-Jul-09	21:00	1.9	10.3	2	3	19.9	4.6	226
17-Jul-09	22:00	2.7	6.9	2	2	18.1	4.7	226
17-Jul-09	23:00	29.6	23.7	30	1	17.7	4.0	218
17-Jul-09	0:00	22.8	18.6	26	2	16.7	3.1	223
18-Jul-09	1:00	0.2	7.7	2	0	15.9	1.9	211
18-Jul-09	2:00	0.5	11.5	2	0	15.6	2.4	199
18-Jul-09	3:00				2	15.3	2.3	220
18-Jul-09	4:00	0.0	4.6	2	3	14.3	2.7	223
18-Jul-09	5:00	0.4	2.1	2	3	13.7	3.9	228
18-Jul-09	6:00	0.9	4.0	2	2	14.4	3.7	229
18-Jul-09	7:00	2.7	5.4	2	2	15.0	3.9	221
18-Jul-09	8:00	2.1	4.0	2	1	15.5	3.9	213
18-Jul-09	9:00	4.7	5.9	2	1	16.4	5.0	217
18-Jul-09	10:00	5.6	7.7	2	2	19.8	4.2	230
18-Jul-09	11:00	4.1	6.3	2	2	20.6	4.2	243
18-Jul-09	12:00	4.2	7.3	2	0	20.5	5.6	217
18-Jul-09	13:00	4.1	8.6	3	0	21.8	4.2	218
18-Jul-09	14:00	2.9	5.9	2	0	23.3	5.0	259
18-Jul-09	15:00	3.6	6.5	2	0	23.1	4.8	242
18-Jul-09	16:00	3.4	7.1	2	1	22.1	4.8	228
18-Jul-09	17:00	3.5	6.9	2	0	21.4	4.7	240
18-Jul-09	18:00	2.1	5.4	2	0	19.9	5.1	253
18-Jul-09	19:00	1.6	4.6	2	0	18.7	5.5	251
18-Jul-09	20:00	1.2	5.2	2	2	16.5	4.5	248
18-Jul-09	21:00	0.5	3.4	2	3	14.9	5.6	252
18-Jul-09	22:00	1.4	6.5	2	1	14.4	3.6	240
18-Jul-09	23:00	1.4	8.6	2	2	13.8	4.1	223

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
18-Jul-09	0:00	0.4	4.2	1	1	13.2	3.7	237
19-Jul-09	1:00	0.0	4.4	1	1	13.2	3.1	231
19-Jul-09	2:00				2	13.1	2.1	244
19-Jul-09	3:00	0.0	3.3	1	3	13.1	1.9	242
19-Jul-09	4:00	0.0	4.6	1	3	12.8	1.5	240
19-Jul-09	5:00	0.0	6.1	1	3	12.4	1.3	228
19-Jul-09	6:00	0.5	5.7	1	4	13.0	1.5	260
19-Jul-09	7:00	1.7	4.8	1	3	14.1	2.6	269
19-Jul-09	8:00	1.9	4.4	2	3	15.5	1.9	233
19-Jul-09	9:00	1.9	4.2	2	3	16.0	2.0	215
19-Jul-09	10:00	3.9	7.3	2	2	16.9	2.8	226
19-Jul-09	11:00	3.7	6.5	2	1	17.7	3.0	227
19-Jul-09	12:00	3.4	6.1	2	1	18.5	3.5	227
19-Jul-09	13:00	2.4	5.4	2	2	18.6	4.5	224
19-Jul-09	14:00	2.5	5.7	1	2	18.2	4.7	212
19-Jul-09	15:00	6.1	11.1	2	4	17.1	3.6	218
19-Jul-09	16:00	5.1	10.3	2	4	16.4	3.2	185
19-Jul-09	17:00	3.6	9.8	2	1	18.5	2.6	206
19-Jul-09	18:00	3.0	9.0	2	1	19.0	3.2	208
19-Jul-09	19:00	2.1	9.6	2	1	18.6	2.4	205
19-Jul-09	20:00	1.6	12.8	2	0	17.2	1.9	205
19-Jul-09	21:00	0.2	14.0	2	2	16.2	1.4	204
19-Jul-09	22:00	0.6	20.7	1	2	15.8	0.7	219
19-Jul-09	23:00	4.7	35.6	2	3	15.4	0.8	192
19-Jul-09	0:00				3	14.5	0.6	228
20-Jul-09	1:00	0.0	21.2	1	2	14.5	0.2	294
20-Jul-09	2:00	0.5	27.4	1	4	14.5	0.6	2
20-Jul-09	3:00	4.2	24.7	1	3	13.9	0.3	283
20-Jul-09	4:00	4.6	23.4	1	4	13.6	0.2	273
20-Jul-09	5:00	7.7	21.4	2	3	12.8	0.2	9
20-Jul-09	6:00	38.7	26.2	3	8	13.5	0.7	231
20-Jul-09	7:00	42.8	27.9	4	7	14.7	0.5	247
20-Jul-09	8:00	34.1	27.2	4	9	17.0	0.9	321
20-Jul-09	9:00	1.1	3.3	2	1	19.5	3.3	7
20-Jul-09	10:00	0.4	2.3	1	2	20.7	2.8	7
20-Jul-09	11:00	0.6	3.4	2	2	21.8	2.7	31
20-Jul-09	12:00	1.2	3.1	2	3	22.2	3.3	47
20-Jul-09	13:00	0.0	2.3	2	1	22.6	3.3	33
20-Jul-09	14:00	4.2	9.2	2	4	22.9	1.7	14
20-Jul-09	15:00	15.6	27.2	10	10	23.1	0.5	228

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
20-Jul-09	16:00	10.6	24.3	5	4	20.4	2.5	228
20-Jul-09	17:00	5.9	18.2	2	2	20.9	2.4	226
20-Jul-09	18:00	3.5	17.0	3	3	22.8	1.8	225
20-Jul-09	19:00	6.1	26.8	9	1	22.0	2.2	224
20-Jul-09	20:00	5.2	28.9	8	0	21.2	1.9	220
20-Jul-09	21:00	0.5	25.7	2	4	19.4	1.2	225
20-Jul-09	22:00	0.9	30.1	2	4	18.7	1.4	219
20-Jul-09	23:00				5	18.5	1.3	217
20-Jul-09	0:00	0.0	15.5	2	3	17.9	0.3	285
21-Jul-09	1:00	0.1	20.9	2	6	18.2	0.8	68
21-Jul-09	2:00	0.0	26.2	2	6	17.3	0.6	109
21-Jul-09	3:00	0.4	30.1	2	6	16.7	0.9	355
21-Jul-09	4:00	0.0	17.2	4	4	16.5	1.3	58
21-Jul-09	5:00	0.2	32.5	8	5	14.8	1.7	107
21-Jul-09	6:00	8.9	33.3	6	8	15.9	0.3	93
21-Jul-09	7:00	13.8	28.1	6	8	17.7	1.0	112
21-Jul-09	8:00	12.0	23.0	6	7	19.7	0.8	144
21-Jul-09	9:00	33.7	33.5	6	10	20.0	2.0	214
21-Jul-09	10:00	11.5	18.6	5	5	20.7	1.8	173
21-Jul-09	11:00	11.7	20.7	5	6	21.8	1.7	194
21-Jul-09	12:00	17.2	29.9	6	8	21.6	2.5	229
21-Jul-09	13:00	12.2	27.8	10	8	21.9	2.8	228
21-Jul-09	14:00	15.5	29.5	14	10	21.6	2.9	225
21-Jul-09	15:00	7.6	25.8	7	7	21.8	3.2	219
21-Jul-09	16:00	7.4	22.4	3	7	22.8	2.7	208
21-Jul-09	17:00	5.4	17.2	2	7	20.6	4.2	214
21-Jul-09	18:00	4.9	15.5	2	7	20.0	3.6	213
21-Jul-09	19:00	3.9	14.4	2	4	18.6	3.2	213
21-Jul-09	20:00	2.2	15.9	2	5	18.4	2.4	216
21-Jul-09	21:00	3.2	24.7	2	6	18.8	1.3	234
21-Jul-09	22:00				5	18.7	0.8	194
21-Jul-09	23:00	2.0	26.8	2	6	18.2	0.8	143
21-Jul-09	0:00	0.5	20.9	2	6	16.1	1.3	113
22-Jul-09	1:00	0.0	10.0	2	5	14.1	1.6	119
22-Jul-09	2:00	0.0	12.4	3	5	13.8	1.1	112
22-Jul-09	3:00	0.0	13.4	3	4	13.6	1.3	122
22-Jul-09	4:00	0.0	15.9	3	4	13.7	0.4	52
22-Jul-09	5:00	2.4	21.4	3	6	13.2	0.8	125
22-Jul-09	6:00	12.6	21.1	10	8	13.4	0.6	95
22-Jul-09	7:00	20.5	21.2	8	9	15.6	0.6	134

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
22-Jul-09	8:00	18.5	18.2	6	10	18.0	1.1	97
22-Jul-09	9:00	8.2	11.3	5	5	17.0	2.7	124
22-Jul-09	10:00	4.4	7.1	2	2	14.4	2.7	143
22-Jul-09	11:00	2.4	5.7	3	4	16.1	3.2	132
22-Jul-09	12:00	3.4	7.1	6	6	17.0	2.7	135
22-Jul-09	13:00	2.7	7.3	3	5	19.2	2.2	141
22-Jul-09	14:00	3.2	9.0	3	4	20.0	2.1	158
22-Jul-09	15:00	8.0	15.1	3	6	21.2	2.2	210
22-Jul-09	16:00	8.0	14.0	3	3	19.8	3.5	216
22-Jul-09	17:00	9.0	14.2	9	5	20.5	3.3	210
22-Jul-09	18:00	9.5	15.5	13	5	20.4	4.4	213
22-Jul-09	19:00	9.7	20.5	18	4	20.4	3.7	216
22-Jul-09	20:00	2.9	11.3	4	2	19.2	4.2	219
22-Jul-09	21:00				2	16.5	4.0	218
22-Jul-09	22:00	0.1	6.7	2	2	14.5	4.1	221
22-Jul-09	23:00	0.5	9.4	2	2	13.2	2.7	220
22-Jul-09	0:00	0.0	7.1	2	2	13.1	2.1	223
23-Jul-09	1:00	0.0	5.2	1	1	12.9	2.2	217
23-Jul-09	2:00	0.0	6.9	1	2	12.9	1.2	216
23-Jul-09	3:00	0.0	8.2	1	1	12.9	1.1	227
23-Jul-09	4:00	0.5	12.6	2	1	13.1	0.5	238
23-Jul-09	5:00	0.0	10.0	1	1	12.6	1.1	118
23-Jul-09	6:00	13.2	18.0	2	3	13.2	0.3	228
23-Jul-09	7:00	24.4	22.6	2	5	14.6	0.1	179
23-Jul-09	8:00	25.3	19.0	7	4	14.7	2.2	219
23-Jul-09	9:00	33.1	20.1	20	8	14.7	2.7	213
23-Jul-09	10:00	24.6	19.1	9	3	14.6	3.1	206
23-Jul-09	11:00	20.5	17.2	7	4	14.8	3.1	208
23-Jul-09	12:00	14.0	13.2	3	5	15.2	3.1	176
23-Jul-09	13:00	12.3	13.0	4	3	15.5	2.6	168
23-Jul-09	14:00	9.0	11.3	2	3	15.3	3.3	181
23-Jul-09	15:00	10.0	12.3	3	4	15.3	4.4	205
23-Jul-09	16:00	13.2	14.5	2	3	15.5	5.1	190
23-Jul-09	17:00	7.1	10.0	2	2	15.6	4.3	203
23-Jul-09	18:00	11.1	17.4	9	3	14.5	4.0	202
23-Jul-09	19:00	10.9	21.6	7	4	14.6	3.4	186
23-Jul-09	20:00				4	14.7	4.4	207
23-Jul-09	21:00	1.1	6.7	2	2	13.7	4.8	221
23-Jul-09	22:00	1.2	8.2	1	1	13.6	3.1	223
23-Jul-09	23:00	0.9	10.1	2	1	13.6	2.1	223

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
23-Jul-09	0:00	0.0	8.4	2	1	14.2	0.0	292
24-Jul-09	1:00	0.0	11.5	2	0	13.9	0.8	223
24-Jul-09	2:00	0.0	11.1	2	2	13.6	0.7	102
24-Jul-09	3:00	0.7	12.3	2	1	12.5	0.8	156
24-Jul-09	4:00	0.0	5.9	2	0	11.5	1.4	211
24-Jul-09	5:00	0.1	10.7	1	0	11.1	0.4	136
24-Jul-09	6:00	2.9	13.0	2	5	12.2	0.8	66
24-Jul-09	7:00	11.6	14.7	3	5	13.8	0.4	131
24-Jul-09	8:00	11.2	12.1	3	9	15.9	1.3	22
24-Jul-09	9:00	3.4	6.3	3	3	16.9	1.7	11
24-Jul-09	10:00	2.6	5.2	3	2	17.7	2.5	35
24-Jul-09	11:00	2.1	4.6	3	3	18.7	2.5	26
24-Jul-09	12:00	7.9	9.2	3	6	19.6	0.9	23
24-Jul-09	13:00	22.0	19.5	5	6	19.4	1.3	189
24-Jul-09	14:00	15.8	19.1	6	5	19.2	2.0	199
24-Jul-09	15:00	17.1	23.0	5	5	17.8	2.5	231
24-Jul-09	16:00	9.0	20.5	6	5	18.7	2.4	234
24-Jul-09	17:00	5.6	19.9	3	5	19.2	2.7	225
24-Jul-09	18:00	5.9	23.4	12	5	20.3	2.4	218
24-Jul-09	19:00				5	20.1	2.3	207
24-Jul-09	20:00	2.0	27.4	3	5	17.7	2.9	197
24-Jul-09	21:00	0.6	26.2	2	3	14.8	2.8	180
24-Jul-09	22:00	31.2	44.2	24	6	12.5	1.7	224
24-Jul-09	23:00	3.1	39.6	6	4	13.7	1.6	305
24-Jul-09	0:00	0.5	32.4	4	6	15.6	1.6	340
25-Jul-09	1:00	0.0	15.7	2	6	17.3	1.1	95
25-Jul-09	2:00	1.1	30.2	10	2	13.1	2.4	104
25-Jul-09	3:00	0.7	37.7	10	4	12.8	0.7	326
25-Jul-09	4:00	0.2	31.8	8	8	14.1	0.4	3
25-Jul-09	5:00	1.5	32.4	6	8	14.6	1.1	307
25-Jul-09	6:00	4.0	31.0	5	9	15.1	0.9	338
25-Jul-09	7:00	10.2	27.4	4	12	16.7	0.4	348
25-Jul-09	8:00	18.8	28.9	5	9	17.9	0.6	162
25-Jul-09	9:00	12.0	23.2	6	6	17.8	1.3	123
25-Jul-09	10:00	9.0	18.4	7	6	18.8	0.7	170
25-Jul-09	11:00	13.6	18.8	6	12	21.2	1.3	168
25-Jul-09	12:00	3.6	10.7	4	5	22.7	1.1	147
25-Jul-09	13:00	13.2	31.4	13	7	21.9	2.4	229
25-Jul-09	14:00	11.7	27.8	8	8	22.5	2.5	208
25-Jul-09	15:00	7.9	26.0	7	9	22.1	3.1	223

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
25-Jul-09	16:00	5.4	25.1	7	5	20.4	3.1	222
25-Jul-09	17:00	2.2	21.8	5	4	20.1	2.4	209
25-Jul-09	18:00				4	18.4	3.1	202
25-Jul-09	19:00	38.0	41.2	50	15	20.1	2.3	179
25-Jul-09	20:00	16.1	25.5	19	4	15.1	0.8	193
25-Jul-09	21:00	12.6	28.1	5	18	17.2	1.2	287
25-Jul-09	22:00	10.6	28.1	4	10	18.8	1.8	245
25-Jul-09	23:00	3.9	25.3	4	2	17.5	1.7	77
25-Jul-09	0:00	1.5	25.5	4	6	16.4	1.3	65
26-Jul-09	1:00	0.9	22.8	3	8	17.0	0.5	317
26-Jul-09	2:00	1.4	23.4	2	3	17.1	1.1	238
26-Jul-09	3:00	0.6	20.9	3	0	14.6	0.5	147
26-Jul-09	4:00	0.7	17.8	2	10	16.1	0.6	115
26-Jul-09	5:00	1.4	18.4	2	8	16.6	0.9	339
26-Jul-09	6:00	9.6	20.5	2	16	15.4	0.7	195
26-Jul-09	7:00	4.4	10.9	2	15	17.8	1.2	97
26-Jul-09	8:00	1.6	7.8	2	8	18.5	2.1	123
26-Jul-09	9:00	1.0	6.9	3	10	20.0	1.7	119
26-Jul-09	10:00	2.6	10.1	3	10	21.5	1.1	142
26-Jul-09	11:00	4.0	13.0	4	4	22.1	1.3	179
26-Jul-09	12:00	8.6	20.3	8	8	21.7	2.4	211
26-Jul-09	13:00	6.7	19.3	6	5	22.5	2.5	221
26-Jul-09	14:00	4.4	16.1	3	7	23.0	2.1	200
26-Jul-09	15:00	3.1	14.5	2	10	22.4	2.9	222
26-Jul-09	16:00	2.4	14.7	2	5	22.9	2.9	219
26-Jul-09	17:00				1	23.3	2.4	214
26-Jul-09	18:00	1.7	13.2	2	0	21.4	2.3	205
26-Jul-09	19:00	5.4	22.6	2	0	18.2	1.5	216
26-Jul-09	20:00	4.5	27.4	2	1	16.3	1.3	213
26-Jul-09	21:00	8.9	37.7	2	6	17.8	0.3	159
26-Jul-09	22:00	22.1	40.2	2	8	18.4	0.2	117
26-Jul-09	23:00	4.4	30.6	1	5	17.6	0.8	129
26-Jul-09	0:00	2.6	26.4	1	6	17.6	0.5	71
27-Jul-09	1:00	0.2	20.3	2	1	17.1	0.6	117
27-Jul-09	2:00	0.0	17.0	3	2	15.6	1.6	115
27-Jul-09	3:00	0.0	14.2	6	3	14.3	1.3	108
27-Jul-09	4:00	0.0	16.3	10	6	14.9	0.2	113
27-Jul-09	5:00	1.0	19.1	6	8	15.5	0.9	330
27-Jul-09	6:00	17.6	22.8	4	10	16.7	0.7	334
27-Jul-09	7:00	64.1	35.8	9	12	18.1	0.6	232

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
27-Jul-09	8:00	90.9	40.2	11	22	20.3	0.5	205
27-Jul-09	9:00	31.7	19.3	11	10	23.0	0.5	297
27-Jul-09	10:00	62.0	37.9	22	19	23.0	1.1	228
27-Jul-09	11:00	17.5	23.9	7	10	25.0	0.9	246
27-Jul-09	12:00	23.3	33.3	9	8	22.9	1.6	233
27-Jul-09	13:00	27.6	37.3	18	13	22.9	2.0	227
27-Jul-09	14:00	18.0	30.8	12	13	22.6	2.5	237
27-Jul-09	15:00	7.1	25.3	7	16	24.9	2.4	222
27-Jul-09	16:00	3.7	23.9	5	17	27.7	1.8	220
27-Jul-09	17:00	4.5	29.3	4	11	27.3	2.3	230
27-Jul-09	18:00	4.9	30.4	6	5	25.5	1.9	225
27-Jul-09	19:00	2.5	37.3	5	12	27.2	1.0	198
27-Jul-09	20:00	2.6	44.4	7	7	25.5	1.4	211
27-Jul-09	21:00	1.9	44.2	6	2	22.3	1.4	209
27-Jul-09	22:00	4.5	46.3	9	8	21.8	1.0	203
27-Jul-09	23:00	4.4	44.6	5	12	22.9	0.5	127
27-Jul-09	0:00				14	22.7	0.6	76
28-Jul-09	1:00	0.0	21.4	4	4	20.9	1.4	93
28-Jul-09	2:00	0.0	16.7	3	9	20.3	0.6	37
28-Jul-09	3:00	0.0	22.0	3	8	20.1	0.3	87
28-Jul-09	4:00	2.7	30.4	3	6	18.9	0.2	263
28-Jul-09	5:00	3.4	28.5	2	9	18.0	0.2	142
28-Jul-09	6:00	79.1	41.5	5	14	18.2	0.6	327
28-Jul-09	7:00	93.8	42.7	6	21	20.2	0.4	257
28-Jul-09	8:00	61.6	35.8	7	27	22.8	1.0	357
28-Jul-09	9:00	2.9	7.8	2	5	25.6	3.2	9
28-Jul-09	10:00	1.1	5.4	2	8	26.3	4.0	9
28-Jul-09	11:00	1.1	6.3	2	13	28.0	3.3	18
28-Jul-09	12:00	1.1	9.0	2	17	29.8	1.9	31
28-Jul-09	13:00	12.8	22.8	4	10	29.5	0.4	4
28-Jul-09	14:00	19.8	41.5	8	14	26.1	1.7	235
28-Jul-09	15:00	7.2	32.2	6	17	25.9	2.1	240
28-Jul-09	16:00	4.1	30.4	9	19	27.4	2.0	231
28-Jul-09	17:00	1.7	23.2	5	14	29.2	1.7	233
28-Jul-09	18:00	2.0	34.3	14	18	29.4	1.9	224
28-Jul-09	19:00	2.6	46.5	7	13	28.4	1.3	222
28-Jul-09	20:00	0.0	30.6	4	10	26.9	1.5	207
28-Jul-09	21:00	0.4	37.1	4	13	25.7	0.1	254
28-Jul-09	22:00	19.6	94.6	5	22	25.6	0.8	317
28-Jul-09	23:00				24	24.7	1.0	116

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
28-Jul-09	0:00	11.4	64.5	3	16	23.4	0.0	137
29-Jul-09	1:00	5.0	56.1	3	21	22.7	0.3	39
29-Jul-09	2:00	0.0	23.9	4	10	21.0	0.7	86
29-Jul-09	3:00	0.0	23.9	7	8	19.6	1.7	112
29-Jul-09	4:00	0.0	24.5	9	18	19.0	0.4	26
29-Jul-09	5:00	0.7	30.4	5	17	19.5	0.7	312
29-Jul-09	6:00	9.1	36.9	5	20	20.3	0.4	351
29-Jul-09	7:00	33.3	40.4	11	17	20.5	0.4	125
29-Jul-09	8:00	53.9	41.4	9	30	24.0	0.7	36
29-Jul-09	9:00	45.4	36.8	10	25	25.5	1.2	358
29-Jul-09	10:00	3.2	14.9	7	13	27.3	2.0	10
29-Jul-09	11:00	1.0	12.1	11	13	28.4	3.1	35
29-Jul-09	12:00	0.4	10.0	9	15	29.4	2.8	37
29-Jul-09	13:00	0.0	8.4	10	19	30.8	1.8	42
29-Jul-09	14:00	4.9	16.8	9	14	33.0	0.7	46
29-Jul-09	15:00	15.0	34.3	9	19	32.1	0.3	243
29-Jul-09	16:00	21.7	68.3	19	27	30.9	1.4	241
29-Jul-09	17:00	7.0	53.4	24	20	27.6	2.1	219
29-Jul-09	18:00	1.4	27.8	5	12	28.9	2.2	217
29-Jul-09	19:00	2.4	45.9	4	16	29.2	1.4	213
29-Jul-09	20:00	0.9	42.3	4	14	25.4	1.5	215
29-Jul-09	21:00	0.0	43.8	4	22	26.4	1.4	201
29-Jul-09	22:00				18	25.4	0.9	200
29-Jul-09	23:00	0.6	50.0	3	8	21.6	1.3	166
29-Jul-09	0:00	7.6	42.9	4	7	19.0	0.3	113
30-Jul-09	1:00	1.5	34.3	3	10	20.2	0.6	126
30-Jul-09	2:00	0.0	19.5	3	3	17.9	1.3	114
30-Jul-09	3:00	0.0	17.8	4	5	16.9	1.2	102
30-Jul-09	4:00	0.0	14.9	4	12	18.1	0.6	29
30-Jul-09	5:00	1.1	19.3	4	13	18.3	1.0	333
30-Jul-09	6:00	6.5	25.5	4	8	18.4	0.2	131
30-Jul-09	7:00	16.8	22.8	3	5	16.9	1.0	136
30-Jul-09	8:00	13.5	28.1	3	16	20.9	0.4	113
30-Jul-09	9:00	13.0	19.0	5	5	21.2	1.6	127
30-Jul-09	10:00	7.1	13.8	6	7	21.3	2.0	129
30-Jul-09	11:00	18.6	23.9	8	12	21.7	2.0	200
30-Jul-09	12:00	34.9	30.2	29	14	23.4	2.7	214
30-Jul-09	13:00	42.3	34.1	37	19	25.7	2.7	209
30-Jul-09	14:00	58.3	36.9	59	18	27.1	2.4	209
30-Jul-09	15:00	35.4	25.5	33	16	25.5	4.2	219

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
30-Jul-09	16:00	54.1	30.4	54	10	24.5	3.8	214
30-Jul-09	17:00	56.0	33.7	55	9	22.8	2.8	209
30-Jul-09	18:00	42.0	41.0	51	11	23.5	2.7	207
30-Jul-09	19:00	13.3	27.8	14	5	24.2	3.8	219
30-Jul-09	20:00	4.6	16.8	8	6	22.3	5.2	222
30-Jul-09	21:00				5	21.0	4.0	225
30-Jul-09	22:00	10.6	24.5	14	5	20.5	2.9	223
30-Jul-09	23:00	0.2	9.8	2	7	20.4	3.8	217
30-Jul-09	0:00	0.1	6.5	2	8	19.9	2.9	212
31-Jul-09	1:00	0.0	5.4	2	8	19.4	1.6	200
31-Jul-09	2:00	0.0	5.0	1	8	19.3	2.0	217
31-Jul-09	3:00	0.0	2.7	1	2	17.4	3.6	203
31-Jul-09	4:00	0.0	1.9	1	1	15.3	3.8	205
31-Jul-09	5:00	0.0	3.3	1	0	14.2	4.3	209
31-Jul-09	6:00	7.6	14.2	9	3	14.0	3.2	215
31-Jul-09	7:00	31.1	23.5	29	6	14.9	1.8	208
31-Jul-09	8:00	28.3	21.2	30	7	15.7	2.1	211
31-Jul-09	9:00	27.4	19.0	25	5	16.4	2.4	204
31-Jul-09	10:00	22.1	17.2	21	4	16.6	2.4	208
31-Jul-09	11:00	22.8	19.0	23	4	17.3	2.7	196
31-Jul-09	12:00	37.7	24.3	44	7	18.5	2.5	213
31-Jul-09	13:00	39.5	25.3	47	8	19.5	2.2	193
31-Jul-09	14:00	42.0	25.1	52	9	20.8	2.3	204
31-Jul-09	15:00	14.0	15.9	12	8	21.0	3.0	215
31-Jul-09	16:00	9.5	14.5	3	0	22.3	2.8	212
31-Jul-09	17:00	8.9	15.3	6	4	21.5	3.1	211
31-Jul-09	18:00	44.4	30.2	65	8	20.6	2.0	205
31-Jul-09	19:00	70.9	35.8	91	11	19.8	1.6	192
31-Jul-09	20:00				6	18.6	1.2	202
31-Jul-09	21:00	33.7	40.4	50	10	18.4	0.8	174
31-Jul-09	22:00	27.8	36.4	33	16	18.6	0.3	40
31-Jul-09	23:00	7.2	32.4	9	6	17.5	0.6	142
31-Jul-09	0:00	35.9	34.8	47	9	16.5	0.9	155
1-Aug-09	1:00	0.6	19.5	7	6	15.5	1.8	104
1-Aug-09	2:00	0.4	17.4	5	6	14.6	1.2	101
1-Aug-09	3:00	0.1	15.3	4	5	14.0	0.9	136
1-Aug-09	4:00	0.0	7.8	2	2	13.0	1.6	188
1-Aug-09	5:00	3.0	22.8	8	3	12.9	0.9	167
1-Aug-09	6:00	9.2	23.2	8	5	13.7	0.5	54
1-Aug-09	7:00	10.6	17.0	7	7	15.7	0.7	121

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
1-Aug-09	8:00	8.0	12.3	5	7	18.0	0.6	124
1-Aug-09	9:00	12.6	14.9	4	5	19.0	0.9	189
1-Aug-09	10:00	16.7	18.2	4	4	18.6	2.0	214
1-Aug-09	11:00	13.3	15.7	3	5	19.9	2.0	194
1-Aug-09	12:00	9.0	16.5	2	5	21.9	1.6	200
1-Aug-09	13:00	9.7	19.9	2	5	22.5	2.3	210
1-Aug-09	14:00	5.4	12.8	2	5	22.0	3.2	218
1-Aug-09	15:00	6.0	15.1	2	4	23.3	2.5	218
1-Aug-09	16:00	12.1	18.8	18	5	24.2	2.9	217
1-Aug-09	17:00	62.7	36.9	90	13	23.2	2.4	205
1-Aug-09	18:00	125.5	43.1	170	22	20.8	2.0	205
1-Aug-09	19:00				22	19.8	1.1	197
1-Aug-09	20:00	78.7	44.6	99	21	19.3	1.1	167
1-Aug-09	21:00	23.2	44.0	39	15	18.8	1.5	210
1-Aug-09	22:00	52.3	39.8	72	16	18.1	1.1	205
1-Aug-09	23:00	46.0	39.8	54	16	18.1	0.7	156
1-Aug-09	0:00	59.1	39.1	78	16	17.0	0.6	165
2-Aug-09	1:00	21.2	32.5	30	11	17.1	1.1	112
2-Aug-09	2:00	1.7	24.3	10	5	15.3	0.8	105
2-Aug-09	3:00	0.7	20.9	6	3	14.9	1.2	126
2-Aug-09	4:00	1.1	19.5	5	4	14.1	1.1	20
2-Aug-09	5:00	1.9	23.5	5	3	13.9	1.2	111
2-Aug-09	6:00	1.0	14.7	4	3	13.6	0.6	78
2-Aug-09	7:00	4.4	13.0	5	4	15.6	0.2	124
2-Aug-09	8:00	4.5	9.8	5	7	18.6	0.2	117
2-Aug-09	9:00	13.1	17.2	4	5	19.8	1.0	191
2-Aug-09	10:00	17.0	18.6	4	4	20.2	1.2	220
2-Aug-09	11:00	12.2	16.7	5	6	22.1	2.0	196
2-Aug-09	12:00	9.9	20.5	5	8	22.8	1.9	216
2-Aug-09	13:00	12.5	29.5	17	10	23.6	2.7	217
2-Aug-09	14:00	4.4	16.3	4	4	23.1	3.0	223
2-Aug-09	15:00	3.6	13.6	3	2	23.1	3.5	222
2-Aug-09	16:00	2.0	10.0	2	2	23.7	3.8	212
2-Aug-09	17:00	2.1	9.2	2	9	21.1	3.8	207
2-Aug-09	18:00				4	17.3	3.5	215
2-Aug-09	19:00	5.1	25.3	2	7	17.2	1.1	197
2-Aug-09	20:00	3.7	32.4	2	9	17.8	0.5	212
2-Aug-09	21:00	8.0	47.1	2	11	18.1	0.7	135
2-Aug-09	22:00	6.5	40.6	2	13	18.3	1.1	110
2-Aug-09	23:00	2.1	28.1	2	19	16.8	1.4	118

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
2-Aug-09	0:00	1.1	27.9	2	9	16.3	0.4	211
3-Aug-09	1:00	1.0	19.0	2	1	14.1	1.5	197
3-Aug-09	2:00	0.0	8.2	1	2	12.6	0.7	165
3-Aug-09	3:00	0.0	10.3	1	3	13.0	0.7	142
3-Aug-09	4:00	0.0	12.1	1	4	13.2	0.6	33
3-Aug-09	5:00	0.0	10.7	2	4	12.4	1.4	79
3-Aug-09	6:00	0.0	6.9	1	4	10.8	1.6	103
3-Aug-09	7:00	3.0	10.1	2	4	13.1	0.3	279
3-Aug-09	8:00	5.1	12.1	2	4	14.3	0.6	209
3-Aug-09	9:00	4.5	9.4	2	3	14.8	1.4	165
3-Aug-09	10:00	1.6	6.3	2	3	17.2	2.0	127
3-Aug-09	11:00	2.0	7.7	4	5	17.4	2.6	119
3-Aug-09	12:00	0.6	4.8	2	3	18.0	2.7	143
3-Aug-09	13:00	1.4	6.5	2	7	19.1	1.7	167
3-Aug-09	14:00	2.5	12.6	3	12	20.7	1.6	190
3-Aug-09	15:00	4.2	13.0	2	5	20.7	2.7	213
3-Aug-09	16:00	2.6	9.4	1	8	21.3	2.1	214
3-Aug-09	17:00				6	22.2	2.1	209
3-Aug-09	18:00	3.2	13.4	2	7	22.0	2.6	214
3-Aug-09	19:00	2.0	13.8	1	9	20.7	2.7	215
3-Aug-09	20:00	1.7	16.3	2	8	19.2	3.0	220
3-Aug-09	21:00	0.2	11.3	1	7	17.4	2.5	214
3-Aug-09	22:00	0.1	7.7	1	5	17.1	2.7	224
3-Aug-09	23:00	0.1	21.2	2	7	16.4	0.7	191
3-Aug-09	0:00	0.5	18.4	2	9	15.8	0.4	76
4-Aug-09	1:00	0.0	12.3	2	7	14.3	1.5	109
4-Aug-09	2:00	0.0	5.7	2	7	13.1	1.4	106
4-Aug-09	3:00	0.0	8.2	2	7	13.3	0.4	3
4-Aug-09	4:00	0.0	10.9	2	8	12.7	1.1	94
4-Aug-09	5:00	0.1	11.7	2	6	12.2	0.3	33
4-Aug-09	6:00	1.0	16.8	4	12	12.6	0.8	344
4-Aug-09	7:00	2.5	12.1	4	9	13.1	1.0	26
4-Aug-09	8:00	7.1	14.4	4	12	14.9	0.5	140
4-Aug-09	9:00	10.4	16.7	3	11	15.2	2.2	151
4-Aug-09	10:00	3.0	7.3	2	6	15.1	2.6	148
4-Aug-09	11:00	2.9	7.3	2	6	14.5	3.5	154
4-Aug-09	12:00	1.7	5.4	2	7	14.6	3.8	150
4-Aug-09	13:00	5.5	9.8	2	6	15.0	3.5	194
4-Aug-09	14:00	7.4	12.6	2	5	16.0	2.4	193
4-Aug-09	15:00	4.2	9.6	4	4	16.6	3.0	164

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
4-Aug-09	16:00				5	17.1	2.2	169
4-Aug-09	17:00	7.0	17.6	2	5	18.5	2.6	220
4-Aug-09	18:00	2.7	11.7	1	6	18.3	3.6	216
4-Aug-09	19:00	1.6	12.4	1	8	19.0	3.3	212
4-Aug-09	20:00	1.5	13.0	1	9	16.8	3.6	224
4-Aug-09	21:00	0.1	7.5	1	17	15.0	3.5	212
4-Aug-09	22:00	0.2	7.3	1	17	14.1	3.3	219
4-Aug-09	23:00	0.1	7.5	1	15	14.0	2.8	221
4-Aug-09	0:00	0.0	5.4	1	16	14.0	2.1	230
5-Aug-09	1:00	0.0	5.4	1	16	14.1	2.0	252
5-Aug-09	2:00	0.0	2.3	1	10	13.9	3.0	262
5-Aug-09	3:00	0.0	2.3	1	5	13.8	2.1	241
5-Aug-09	4:00	0.0	3.3	1	5	13.5	2.3	221
5-Aug-09	5:00	0.0	7.8	1	9	13.3	3.7	221
5-Aug-09	6:00	2.1	18.8	1	10	12.6	3.4	203
5-Aug-09	7:00	3.5	17.6	1	11	12.9	3.9	210
5-Aug-09	8:00	6.0	17.4	4	9	13.7	4.2	213
5-Aug-09	9:00	6.9	14.7	3	9	14.1	4.8	212
5-Aug-09	10:00	7.7	16.7	3	9	14.1	5.0	211
5-Aug-09	11:00	4.6	10.9	2	6	14.7	5.1	212
5-Aug-09	12:00	5.4	11.7	3	5	15.3	4.9	208
5-Aug-09	13:00	8.0	15.9	3	5	15.9	4.5	204
5-Aug-09	14:00	10.4	17.2	4	8	15.6	4.9	188
5-Aug-09	15:00				6	16.1	4.4	192
5-Aug-09	16:00	6.1	15.1	6	3	17.1	5.0	217
5-Aug-09	17:00	4.5	13.0	3	5	17.0	5.9	222
5-Aug-09	18:00	2.0	10.5	1	3	17.4	4.3	229
5-Aug-09	19:00	1.6	9.6	2	5	17.4	3.2	256
5-Aug-09	20:00	0.7	12.1	1	5	16.1	3.3	229
5-Aug-09	21:00	0.9	11.3	1	3	15.5	2.5	252
5-Aug-09	22:00	0.7	11.3	1	3	15.1	3.0	263
5-Aug-09	23:00	0.0	8.6	1	3	14.7	2.1	261
5-Aug-09	0:00	0.0	7.3	1	4	14.2	1.7	239
6-Aug-09	1:00	0.0	5.0	1	4	13.8	0.9	241
6-Aug-09	2:00	0.0	4.6	1	3	13.7	0.9	276
6-Aug-09	3:00	0.0	8.4	1	4	13.3	0.8	212
6-Aug-09	4:00	0.0	6.5	1	4	12.9	0.9	252
6-Aug-09	5:00	0.9	12.1	1	5	12.6	1.3	230
6-Aug-09	6:00	2.4	21.8	1	7	12.7	0.6	224
6-Aug-09	7:00	11.2	36.9	2	8	13.3	0.6	223

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
6-Aug-09	8:00	13.5	40.8	4	13	12.6	1.6	209
6-Aug-09	9:00	31.9	47.3	17	17	12.7	1.4	228
6-Aug-09	10:00	30.8	47.9	14	19	12.8	1.9	224
6-Aug-09	11:00	23.6	43.6	6	22	InVld	2.2	232
6-Aug-09	12:00	15.6	22.8	4	23	14.8	2.7	220
6-Aug-09	13:00	8.4	17.0	6	10	16.3	2.9	212
6-Aug-09	14:00				16	16.8	3.3	226
6-Aug-09	15:00	12.8	23.2	14	10	17.3	3.9	215
6-Aug-09	16:00	6.2	18.6	2	8	16.9	3.7	213
6-Aug-09	17:00	16.2	32.9	14	10	16.7	2.9	203
6-Aug-09	18:00	23.2	43.1	34	13	17.2	3.1	214
6-Aug-09	19:00	30.2	52.5	55	14	16.6	3.4	208
6-Aug-09	20:00	6.7	32.4	22	9	16.1	4.9	218
6-Aug-09	21:00	1.0	11.9	3	9	16.1	3.9	227
6-Aug-09	22:00	0.0	6.1	2	7	15.6	4.1	233
6-Aug-09	23:00	0.0	6.9	2	9	15.0	4.1	223
6-Aug-09	0:00	0.0	4.8	2	7	14.7	3.0	225
7-Aug-09	1:00	0.0	4.0	1	6	14.5	2.5	243
7-Aug-09	2:00	0.0	4.4	1	6	13.6	2.2	256
7-Aug-09	3:00	0.0	4.4	1	5	13.5	1.5	254
7-Aug-09	4:00	0.0	6.9	1	4	13.3	1.1	247
7-Aug-09	5:00	0.0	14.0	1	3	13.1	0.9	251
7-Aug-09	6:00	3.7	30.4	1	4	13.0	0.9	222
7-Aug-09	7:00	12.2	35.4	2	4	13.5	1.1	228
7-Aug-09	8:00	7.7	23.5	2	4	14.0	1.5	226
7-Aug-09	9:00	6.7	20.3	1	4	14.9	1.3	216
7-Aug-09	10:00	6.9	19.3	2	5	15.8	1.6	209
7-Aug-09	11:00	6.7	18.6	2	5	16.5	2.4	210
7-Aug-09	12:00	5.9	14.7	2	5	16.5	3.4	214
7-Aug-09	13:00				6	15.2	4.1	197
7-Aug-09	14:00	11.1	22.2	8	7	14.5	4.7	195
7-Aug-09	15:00	9.7	19.7	4	6	14.7	5.3	193
7-Aug-09	16:00	9.6	23.0	5	4	14.1	4.2	189
7-Aug-09	17:00	7.2	19.3	4	5	14.8	3.3	206
7-Aug-09	18:00	13.7	25.5	16	8	15.9	3.0	203
7-Aug-09	19:00	9.6	25.8	14	8	15.9	3.1	202
7-Aug-09	20:00	26.2	40.6	49	13	15.1	3.7	214
7-Aug-09	21:00	32.2	52.8	63	15	14.4	3.7	208
7-Aug-09	22:00	31.1	50.0	61	14	13.9	3.9	211
7-Aug-09	23:00	20.0	52.3	53	12	13.8	3.6	204

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
7-Aug-09	0:00	4.2	16.1	14	8	13.9	4.2	207
8-Aug-09	1:00	0.0	10.1	5	9	13.1	3.7	200
8-Aug-09	2:00	0.0	14.5	6	8	12.0	5.0	193
8-Aug-09	3:00	0.0	11.7	5	10	12.1	4.5	194
8-Aug-09	4:00	0.0	14.7	6	11	12.4	3.6	198
8-Aug-09	5:00	0.1	17.4	6	12	12.3	4.5	192
8-Aug-09	6:00	1.5	14.9	4	11	12.1	4.5	193
8-Aug-09	7:00	2.2	14.2	2	12	12.4	5.1	192
8-Aug-09	8:00	2.2	9.4	2	9	13.2	4.0	203
8-Aug-09	9:00	3.1	10.9	2	7	13.2	3.7	203
8-Aug-09	10:00	5.2	11.5	3	10	13.7	3.7	176
8-Aug-09	11:00	18.1	24.3	17	14	13.9	3.6	174
8-Aug-09	12:00				9	14.1	3.2	177
8-Aug-09	13:00	7.6	16.5	3	8	14.1	2.8	184
8-Aug-09	14:00	5.0	11.3	2	2	14.8	3.5	173
8-Aug-09	15:00	4.1	8.2	2	3	15.7	3.9	172
8-Aug-09	16:00	3.9	9.8	4	0	15.8	3.7	176
8-Aug-09	17:00	1.5	8.8	2	6	15.9	3.1	164
8-Aug-09	18:00	1.0	11.1	4	10	15.7	2.7	165
8-Aug-09	19:00	2.0	20.5	6	10	15.5	2.3	164
8-Aug-09	20:00	2.6	24.3	6	8	14.9	2.2	207
8-Aug-09	21:00	17.0	34.5	22	5	14.4	2.9	212
8-Aug-09	22:00	95.7	41.2	105	17	14.3	2.1	213
8-Aug-09	23:00	13.0	26.4	16	7	14.2	2.0	230
8-Aug-09	0:00	52.4	33.1	56	9	14.0	1.8	211
9-Aug-09	1:00	11.2	25.7	16	4	14.2	1.0	254
9-Aug-09	2:00	0.6	17.6	4	2	14.6	0.1	359
9-Aug-09	3:00	2.2	22.6	4	0	14.2	0.4	127
9-Aug-09	4:00	5.2	23.4	4	0	14.0	0.8	130
9-Aug-09	5:00	5.0	23.7	4	2	13.6	0.4	100
9-Aug-09	6:00	4.7	19.1	2	6	14.2	0.1	298
9-Aug-09	7:00	11.2	19.3	2	9	14.8	0.2	300
9-Aug-09	8:00	9.5	15.3	2	7	15.4	0.4	127
9-Aug-09	9:00	17.0	16.3	2	0	15.4	1.1	191
9-Aug-09	10:00	6.5	11.3	2	1	15.1	1.2	165
9-Aug-09	11:00				1	16.3	1.5	228
9-Aug-09	12:00	3.7	7.7	2		17.2	1.9	177
9-Aug-09	13:00	4.9	9.4	2	0	17.2	3.0	219
9-Aug-09	14:00	5.2	11.3	3		17.0	3.1	214
9-Aug-09	15:00	6.0	12.8	2	0	16.7	3.5	213

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
9-Aug-09	16:00	2.7	6.3	2	1	18.7	4.4	222
9-Aug-09	17:00	2.4	6.9	1	0	19.1	3.9	233
9-Aug-09	18:00	2.4	6.5	1	0	19.4	3.4	233
9-Aug-09	19:00	1.0	5.4	1	0	19.0	3.0	260
9-Aug-09	20:00	1.0	6.3	1	0	17.7	3.0	264
9-Aug-09	21:00	1.4	9.8	1	0	17.0	2.1	241
9-Aug-09	22:00	0.5	8.0	1	0	16.5	1.7	240
9-Aug-09	23:00	0.2	10.5	1	0	15.4	2.5	216
9-Aug-09	0:00	0.0	7.8	1	0	14.5	1.8	207
10-Aug-09	1:00	0.0	10.3	2	0	14.1	1.8	199
10-Aug-09	2:00	0.0	12.8	3	0	13.8	1.7	205
10-Aug-09	3:00	0.0	7.1	1	10	13.8	1.3	259
10-Aug-09	4:00	0.0	3.6	1	1	13.3	0.4	216
10-Aug-09	5:00	0.4	7.5	1	0	12.9	1.1	224
10-Aug-09	6:00	1.0	22.8	1	1	12.6	0.3	168
10-Aug-09	7:00	1.0	14.4	1	2	12.8	0.6	128
10-Aug-09	8:00	2.6	14.2	1	0	12.8	1.8	110
10-Aug-09	9:00	2.2	12.4	2	0	12.1	2.6	120
10-Aug-09	10:00				2	12.4	2.3	119
10-Aug-09	11:00				0	13.4	2.6	122
10-Aug-09	12:00				3	13.7	2.7	117
10-Aug-09	13:00				3	13.8	2.4	112
10-Aug-09	14:00				4	14.8	0.8	88
10-Aug-09	15:00				4	15.4	0.3	87
10-Aug-09	16:00				3	16.0	0.8	104
10-Aug-09	17:00			2	5	16.1	1.5	128
10-Aug-09	18:00	5.5	24.1	2		14.5	2.0	179
10-Aug-09	19:00	4.6	32.2	4	2	12.9	1.1	191
10-Aug-09	20:00	2.5	29.9	3	5	13.4	1.5	151
10-Aug-09	21:00	1.5	30.4	3	4	13.9	2.0	167
10-Aug-09	22:00	1.1	29.9	4	0	13.2	1.7	165
10-Aug-09	23:00	10.2	43.1	6	7	13.3	0.7	175
10-Aug-09	0:00	5.7	37.9	6	6	13.9	1.1	229
11-Aug-09	1:00	1.5	28.5	5	2	14.4	1.0	289
11-Aug-09	2:00	0.2	13.8	3	2	14.8	1.4	294
11-Aug-09	3:00	0.0	5.9	2	0	15.2	1.3	211
11-Aug-09	4:00	0.0	11.3	1	0	14.7	2.0	204
11-Aug-09	5:00	2.2	15.9	1	0	13.6	1.5	209
11-Aug-09	6:00	6.0	27.8	2	0	13.0	1.0	140
11-Aug-09	7:00	12.2	26.6	2	2	12.7	1.2	154

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
11-Aug-09	8:00	14.6	23.2	2	2	14.0	1.0	137
11-Aug-09	9:00				3	15.8	1.6	163
11-Aug-09	10:00	21.3	24.3	4	2	14.9	3.1	213
11-Aug-09	11:00	13.6	19.0	3	3	15.1	2.9	220
11-Aug-09	12:00	12.1	19.7	3	0	16.2	3.2	204
11-Aug-09	13:00	6.6	13.6	4	0	17.6	2.7	167
11-Aug-09	14:00	8.2	14.7	2	5	18.2	4.0	182
11-Aug-09	15:00	3.5	9.6	4	3	18.0	3.5	162
11-Aug-09	16:00	9.4	20.1	6	1	18.0	2.9	185
11-Aug-09	17:00	5.4	16.5	3	0	18.0	2.8	172
11-Aug-09	18:00	5.4	22.0	3	3	17.7	1.7	223
11-Aug-09	19:00	2.7	16.1	2	0	16.9	1.8	238
11-Aug-09	20:00	1.6	21.6	2	1	16.9	1.2	228
11-Aug-09	21:00	5.4	32.7	2	0	16.7	0.9	266
11-Aug-09	22:00	13.1	42.3	2	0	16.3	1.3	266
11-Aug-09	23:00	9.0	35.8	2	0	15.8	0.8	310
11-Aug-09	0:00	9.0	31.2	2	3	14.4	0.4	56
12-Aug-09	1:00	2.9	21.1	2	1	14.1	0.7	8
12-Aug-09	2:00	0.6	14.9	1	4	13.4	1.0	348
12-Aug-09	3:00	1.0	19.0	1	2	13.2	0.2	326
12-Aug-09	4:00	1.9	19.9	1	3	12.9	0.6	343
12-Aug-09	5:00	7.0	18.8	1	2	12.8	0.4	270
12-Aug-09	6:00	33.1	20.1	2	5	13.1	0.2	298
12-Aug-09	7:00	58.3	23.4	4	6	14.1	0.2	356
12-Aug-09	8:00				5	15.6	0.5	252
12-Aug-09	9:00	24.4	30.4	3	5	17.2	0.6	277
12-Aug-09	10:00	11.2	17.0	9	0	17.2	2.4	165
12-Aug-09	11:00	6.4	13.4	9	1	18.0	2.1	155
12-Aug-09	12:00	13.0	15.7	3	0	18.1	2.7	183
12-Aug-09	13:00	15.1	17.6	4	3	18.2	3.2	201
12-Aug-09	14:00	24.1	21.2	5	10	17.2	2.9	200
12-Aug-09	15:00	12.2	18.0	3	1	18.8	3.5	212
12-Aug-09	16:00	6.9	15.9	3		19.1	4.9	212
12-Aug-09	17:00	7.5	17.8	2	0	19.5	4.4	216
12-Aug-09	18:00	4.1	12.6	2	0	20.0	5.1	233
12-Aug-09	19:00	1.9	9.8	1	0	17.6	4.9	232
12-Aug-09	20:00	1.6	10.9	2	3	15.8	4.3	228
12-Aug-09	21:00	1.7	13.8	1	3	14.8	2.6	227
12-Aug-09	22:00	0.9	8.8	1	3	14.2	3.1	243
12-Aug-09	23:00	1.0	6.5	1	4	13.4	2.7	256

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
12-Aug-09	0:00	0.1	4.8	1	3	12.9	3.3	230
13-Aug-09	1:00	0.0	3.4	1	1	13.0	2.9	227
13-Aug-09	2:00	0.0	3.4	1	2	13.1	2.2	237
13-Aug-09	3:00	0.1	7.8	2	2	13.4	1.8	242
13-Aug-09	4:00	0.0	5.6	2	3	13.6	1.6	242
13-Aug-09	5:00	0.9	9.6	1	3	13.6	2.0	237
13-Aug-09	6:00	3.1	14.7	1	3	13.7	2.7	238
13-Aug-09	7:00				5	14.0	2.3	244
13-Aug-09	8:00	30.9	34.5	4	6	14.8	1.7	256
13-Aug-09	9:00			2	4	15.9	0.9	247
13-Aug-09	10:00	17.1	15.9	2	8	16.6	3.3	248
13-Aug-09	11:00			2	1	16.7	0.5	249
13-Aug-09	12:00			2	7	16.2	2.4	242
13-Aug-09	13:00			2	0	17.6	1.3	210
13-Aug-09	14:00			2	9	16.6	2.5	74
13-Aug-09	15:00			2	4	16.2	3.3	79
13-Aug-09	16:00			2	10	14.3	2.4	9
13-Aug-09	17:00			1	6	13.6	1.4	22
13-Aug-09	18:00			1	3	14.4	0.5	15
13-Aug-09	19:00			2	4	13.6	0.9	164
13-Aug-09	20:00			5	6	13.7	1.4	239
13-Aug-09	21:00			2	0	13.6	2.3	252
13-Aug-09	22:00			1	0	13.4	2.0	253
13-Aug-09	23:00			1	1	13.7	1.6	256
13-Aug-09	0:00			1	0	13.6	2.3	264
14-Aug-09	1:00			1	1	13.5	1.5	253
14-Aug-09	2:00			1	0	13.0	1.7	255
14-Aug-09	3:00			1	1	12.7	1.1	248
14-Aug-09	4:00			1	3	12.5	1.2	244
14-Aug-09	5:00			1	2	12.8	1.0	242
14-Aug-09	6:00				5	InVld	0.7	232
14-Aug-09	7:00			2	5	InVld	1.0	235
14-Aug-09	8:00			3	9	13.9	0.7	233
14-Aug-09	9:00			2	7	15.1	0.2	255
14-Aug-09	10:00			2	6	16.6	1.2	126
14-Aug-09	11:00			1	3	17.0	3.1	116
14-Aug-09	12:00			1	1	17.0	3.4	137
14-Aug-09	13:00			1	1	17.4	3.1	154
14-Aug-09	14:00			1	3	17.8	3.9	184
14-Aug-09	15:00			2	6	17.0	4.8	201

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
14-Aug-09	16:00			2	4	16.0	5.3	193
14-Aug-09	17:00	10.4	18.8	4	4	16.1	4.5	197
14-Aug-09	18:00	4.7	14.2	4	4	15.1	4.5	208
14-Aug-09	19:00	2.7	13.2	1	3	14.6	4.8	207
14-Aug-09	20:00	7.7	28.3	13	6	13.8	4.6	224
14-Aug-09	21:00	1.4	10.3	3	2	14.4	4.2	239
14-Aug-09	22:00	1.7	10.7	2	1	14.2	3.2	253
14-Aug-09	23:00	0.9	8.2	1	2	13.9	2.2	254
14-Aug-09	0:00	0.0	7.3	1	2	13.6	2.2	215
15-Aug-09	1:00	0.0	7.3	1	2	13.2	2.8	209
15-Aug-09	2:00	0.0	3.6	1	2	12.9	3.1	213
15-Aug-09	3:00	0.0	4.4	1	3	12.4	2.0	211
15-Aug-09	4:00	0.0	10.3	1	4	11.7	1.6	194
15-Aug-09	5:00				3	11.4	1.1	212
15-Aug-09	6:00	8.4	27.9	2	8	11.6	0.7	217
15-Aug-09	7:00	6.2	18.6	3	5	11.7	2.4	215
15-Aug-09	8:00	6.4	15.5	3	4	11.8	2.5	215
15-Aug-09	9:00	11.0	14.9	4	5	12.9	2.1	216
15-Aug-09	10:00	13.2	17.8	5	7	14.1	1.5	224
15-Aug-09	11:00	12.2	15.5	7	5	15.3	1.9	179
15-Aug-09	12:00	7.2	11.5	5	2	15.6	2.8	185
15-Aug-09	13:00	5.9	9.4	2	3	15.9	3.0	189
15-Aug-09	14:00	4.1	8.2	2	5	16.3	2.3	177
15-Aug-09	15:00	2.1	6.1	2	5	17.5	1.6	154
15-Aug-09	16:00	2.0	8.6	2	4	17.7	2.1	175
15-Aug-09	17:00	6.6	20.9	5	4	16.1	2.2	216
15-Aug-09	18:00	6.0	27.8	8	5	15.2	2.0	220
15-Aug-09	19:00	8.4	32.7	8	7	15.6	1.2	232
15-Aug-09	20:00	3.2	36.4	3	6	15.5	0.6	237
15-Aug-09	21:00	3.7	36.6	2	24	15.4	0.9	225
15-Aug-09	22:00	6.4	41.4	4	8	15.1	0.6	198
15-Aug-09	23:00	20.1	40.4	3	8	14.2	0.4	136
15-Aug-09	0:00	22.3	35.2	3	8	13.3	0.5	254
16-Aug-09	1:00	20.5	35.2	3	7	12.9	0.5	280
16-Aug-09	2:00	25.9	24.1	2	7	12.6	0.8	305
16-Aug-09	3:00	21.0	21.1	2	6	12.1	0.4	5
16-Aug-09	4:00				7	12.0	0.3	333
16-Aug-09	5:00	14.0	16.5	2	5	11.5	0.7	330
16-Aug-09	6:00	17.2	14.5	2	7	11.5	0.4	295
16-Aug-09	7:00	27.2	15.1	2	17	12.5	0.6	304

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
16-Aug-09	8:00	8.2	13.6	2	5	14.9	1.0	352
16-Aug-09	9:00	1.7	5.0	2	1	16.6	3.5	12
16-Aug-09	10:00	0.7	3.8	1	3	17.4	3.1	21
16-Aug-09	11:00	0.6	3.1	1	3	18.4	2.5	28
16-Aug-09	12:00	1.9	4.8	2	7	19.1	1.4	38
16-Aug-09	13:00	12.3	20.3	4	11	18.6	2.5	230
16-Aug-09	14:00	7.0	15.5	4	6	17.1	2.9	234
16-Aug-09	15:00	5.9	16.5	4	4	18.7	2.8	220
16-Aug-09	16:00	3.1	11.9	3	3	18.4	3.3	211
16-Aug-09	17:00	2.5	12.3	2	3	18.6	2.9	214
16-Aug-09	18:00	2.5	16.8	2	6	18.7	2.4	208
16-Aug-09	19:00	2.1	19.9	2	4	18.1	2.2	220
16-Aug-09	20:00	0.4	20.3	1	4	17.5	1.7	198
16-Aug-09	21:00	1.2	22.4	2	6	15.8	1.5	216
16-Aug-09	22:00	0.9	25.3	1	6	15.5	1.1	217
16-Aug-09	23:00	0.5	24.5	1	6	15.3	0.3	209
16-Aug-09	0:00	1.4	31.2	1	7	15.5	0.4	57
17-Aug-09	1:00	0.7	26.4	2	7	15.0	0.8	119
17-Aug-09	2:00	0.1	18.0	2	5	14.2	0.6	110
17-Aug-09	3:00				7	14.5	0.4	86
17-Aug-09	4:00	0.4	21.6	2	8	14.6	0.4	314
17-Aug-09	5:00	2.4	24.9	1	9	14.0	0.9	337
17-Aug-09	6:00	12.6	25.3	2	9	14.0	0.1	108
17-Aug-09	7:00	50.4	31.2	3	13	15.1	0.2	339
17-Aug-09	8:00	21.5	26.0	3	9	17.3	0.7	65
17-Aug-09	9:00	1.9	8.6	3	3	18.2	1.8	44
17-Aug-09	10:00	15.8	15.5	3	4	17.6	1.4	21
17-Aug-09	11:00	42.5	32.2	12	12	18.3	1.2	226
17-Aug-09	12:00	21.5	19.1	9	8	20.5	0.6	227
17-Aug-09	13:00	35.6	30.6	9	12	19.3	2.2	231
17-Aug-09	14:00	24.9	30.8	10	10	19.4	2.3	230
17-Aug-09	15:00	23.5	33.9	10	10	20.6	2.3	225
17-Aug-09	16:00	18.3	32.0	8	5	21.0	2.3	231
17-Aug-09	17:00	10.5	27.4	6	8	20.2	2.1	231
17-Aug-09	18:00	7.1	29.1	6	4	19.3	1.7	224
17-Aug-09	19:00	5.9	37.9	6	4	18.8	1.1	233
17-Aug-09	20:00	1.4	34.8	3	6	18.4	0.7	233
17-Aug-09	21:00	10.9	53.4	3	7	17.6	0.9	225
17-Aug-09	22:00	2.5	39.8	2	7	16.0	0.7	340
17-Aug-09	23:00	14.7	50.9	4	8	17.0	0.3	336

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
17-Aug-09	0:00	8.6	42.9	3	9	16.4	0.8	7
18-Aug-09	1:00	1.2	23.5	4	6	15.7	0.6	352
18-Aug-09	2:00				6	16.1	0.3	5
18-Aug-09	3:00	1.4	28.7	4	5	15.3	0.4	212
18-Aug-09	4:00	0.9	27.2	4	2	13.5	0.5	135
18-Aug-09	5:00	2.1	26.4	5	4	13.3	0.3	84
18-Aug-09	6:00	13.5	29.7	5	8	13.5	0.9	336
18-Aug-09	7:00	59.4	34.5	6	12	14.8	0.7	316
18-Aug-09	8:00	28.6	34.8	6	9	17.2	0.4	289
18-Aug-09	9:00	8.5	17.2	4	4	19.7	0.8	11
18-Aug-09	10:00	13.1	17.8	6	4	20.3	0.4	349
18-Aug-09	11:00	30.1	36.2	12	9	20.5	1.3	232
18-Aug-09	12:00	4.9	10.7	3	6	23.0	0.7	39
18-Aug-09	13:00	23.1	32.2	6	8	21.0	1.9	233
18-Aug-09	14:00	6.4	16.1	3	6	23.9	1.3	126
18-Aug-09	15:00	16.2	35.0	6		20.9	2.7	229
18-Aug-09	16:00	11.7	33.9	9	10	21.0	2.1	233
18-Aug-09	17:00	8.0	30.2	5	7	21.6	2.0	232
18-Aug-09	18:00	5.0	29.5	7	6	21.4	2.0	221
18-Aug-09	19:00	2.2	29.5	4	4	20.8	1.9	224
18-Aug-09	20:00	1.6	30.4	3	4	20.9	2.1	234
18-Aug-09	21:00	1.2	27.2	3	4	20.2	2.2	226
18-Aug-09	22:00	0.5	24.9	2	5	19.1	0.2	197
18-Aug-09	23:00	0.0	25.1	3	6	17.5	1.1	109
18-Aug-09	0:00				7	15.1	0.8	86
19-Aug-09	1:00	0.0	18.4	3	8	16.2	1.1	359
19-Aug-09	2:00	0.0	15.1	4	7	16.8	1.4	3
19-Aug-09	3:00	0.0	14.9	3	7	17.7	1.1	14
19-Aug-09	4:00	3.0	31.2	3	9	17.0	0.4	5
19-Aug-09	5:00	4.2	36.0	3	8	14.3	0.5	241
19-Aug-09	6:00	20.7	41.7	5	9	13.7	0.9	308
19-Aug-09	7:00	49.8	40.2	6	13	15.5	0.6	333
19-Aug-09	8:00	18.8	19.0	5	10	19.0	1.8	22
19-Aug-09	9:00	5.0	9.0	4	4	20.5	2.0	28
19-Aug-09	10:00	17.5	17.8	5	5	21.3	1.2	40
19-Aug-09	11:00	2.9	6.1	4	3	22.2	3.4	37
19-Aug-09	12:00	1.2	4.2	3	3	22.8	3.8	35
19-Aug-09	13:00	1.9	6.7	4	5	24.0	3.2	38
19-Aug-09	14:00	1.0	5.2	4	4	24.9	2.8	36
19-Aug-09	15:00	0.6	4.2	3	5	25.9	2.1	36

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO ₂	SO ₂	PM _{2.5}	Temp (°C)	WS (m/s)	WD (deg)
19-Aug-09	16:00	18.8	31.4	8	7	22.1	2.0	233
19-Aug-09	17:00	24.3	43.8	9	10	24.7	1.2	233
19-Aug-09	18:00	7.4	34.6	13	7	23.0	1.7	235
19-Aug-09	19:00	4.0	41.2	17	10	22.9	1.2	233
19-Aug-09	20:00	2.4	50.2	12	11	22.0	0.9	241
19-Aug-09	21:00	1.6	55.5	6	11	22.0	0.9	298
19-Aug-09	22:00	1.7	64.3	7	13	21.7	0.4	311
19-Aug-09	23:00				14	21.1	0.5	150
19-Aug-09	0:00	28.8	60.9	6	16	19.8	0.9	286
20-Aug-09	1:00	21.0	49.2	5	13	19.0	0.4	3
20-Aug-09	2:00	19.5	49.8	5	13	18.4	1.1	140
20-Aug-09	3:00	2.2	35.2	6	11	16.6	1.2	130
20-Aug-09	4:00	0.7	29.7	5	11	16.2	0.6	129
20-Aug-09	5:00	3.2	31.0	4	11	15.7	0.4	152
20-Aug-09	6:00	12.7	35.0	4	12	15.2	0.3	173
20-Aug-09	7:00	43.5	47.7	12	18	16.0	0.9	216
20-Aug-09	8:00	37.8	32.4	20	10	16.8	1.9	205
20-Aug-09	9:00	29.4	29.7	21	10	18.3	2.4	210
20-Aug-09	10:00	49.9	34.1	56	11	19.3	2.6	205
20-Aug-09	11:00	26.4	24.1	24	6	18.6	3.2	203
20-Aug-09	12:00	46.0	30.2	47	10	20.7	3.7	210
20-Aug-09	13:00	28.1	22.0	25	5	21.6	4.3	218
20-Aug-09	14:00	11.7	14.2	6	4	22.0	5.8	220
20-Aug-09	15:00	7.6	11.7	2	3	21.8	6.2	220
20-Aug-09	16:00	7.0	12.4	2	1	22.7	5.4	234
20-Aug-09	17:00	5.2	11.7	2	2	23.0	4.3	243
20-Aug-09	18:00	3.1	9.2	2	1	22.8	4.3	248
20-Aug-09	19:00	3.2	10.5	2	0	21.2	4.0	241
20-Aug-09	20:00	2.0	8.6	2	2	19.4	4.2	251
20-Aug-09	21:00	1.4	8.8	2	1	18.9	2.8	264
20-Aug-09	22:00				2	18.1	3.6	247
20-Aug-09	23:00	0.2	3.3	2	0	17.5	3.7	253
20-Aug-09	0:00	0.1	4.0	1	1	16.9	4.0	232
21-Aug-09	1:00	0.0	2.5	1	1	16.8	3.5	249
21-Aug-09	2:00	0.0	1.3	1	2	16.2	3.5	246
21-Aug-09	3:00	0.1	1.5	1	4	15.7	3.9	244
21-Aug-09	4:00	0.0	1.7	1	2	15.7	4.4	259
21-Aug-09	5:00	0.2	3.1	1	3	15.6	3.6	245
21-Aug-09	6:00	3.6	14.2	2	3	15.5	2.9	237
21-Aug-09	7:00	10.6	24.5	2	5	14.9	3.4	217

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
21-Aug-09	8:00	16.7	27.0	2	5	15.5	3.4	240
21-Aug-09	9:00	17.3	23.5	3	4	15.7	2.7	223
21-Aug-09	10:00	18.8	23.2	4	6	15.3	2.3	197
21-Aug-09	11:00	21.3	25.8	5	6	15.7	2.1	197
21-Aug-09	12:00	22.8	24.7	5	6	16.5	2.6	193
21-Aug-09	13:00	12.7	16.3	3	4	17.6	3.9	200
21-Aug-09	14:00	9.4	14.0	3	3	18.0	4.6	187
21-Aug-09	15:00	14.0	18.2	5	6	17.9	4.8	188
21-Aug-09	16:00	10.4	13.8	3	3	17.7	5.5	198
21-Aug-09	17:00	9.7	12.8	5	1	18.0	4.9	225
21-Aug-09	18:00	6.0	10.7	4	0	18.9	4.1	232
21-Aug-09	19:00	2.7	11.5	2	0	16.8	4.8	228
21-Aug-09	20:00	0.9	8.4	2	0	15.2	3.8	234
21-Aug-09	21:00				1	14.3	3.7	240
21-Aug-09	22:00	1.2	8.8	1	2	13.8	3.7	249
21-Aug-09	23:00	0.6	7.7	2	5	13.7	2.9	247
21-Aug-09	0:00	0.0	7.5	2	8	13.1	3.0	255
22-Aug-09	1:00	0.1	6.5	2	6	12.8	3.2	228
22-Aug-09	2:00	0.0	4.0	2	4	13.0	3.6	236
22-Aug-09	3:00	0.0	2.5	1	4	12.9	3.2	249
22-Aug-09	4:00	0.0	2.7	1	2	12.8	2.5	244
22-Aug-09	5:00	0.0	5.9	1	2	12.7	1.7	233
22-Aug-09	6:00	3.2	17.0	1	4	12.1	1.4	246
22-Aug-09	7:00	19.8	26.8	2	5	11.6	0.9	298
22-Aug-09	8:00	7.9	17.4	2	4	13.6	0.9	249
22-Aug-09	9:00	5.1	14.0	2	6	14.7	1.4	206
22-Aug-09	10:00	5.9	12.6	2	6	15.5	2.4	215
22-Aug-09	11:00	5.5	11.9	2	4	17.0	2.8	208
22-Aug-09	12:00	3.2	8.8	2	5	17.2	3.6	216
22-Aug-09	13:00	1.5	5.4	2	3	18.3	1.8	153
22-Aug-09	14:00	0.4	3.4	2	6	18.6	2.9	138
22-Aug-09	15:00	0.6	4.2	2	6	19.0	1.8	127
22-Aug-09	16:00	1.5	6.5	2	7	19.9	2.0	104
22-Aug-09	17:00	0.6	5.4	2	5	19.5	2.7	107
22-Aug-09	18:00	2.1	15.9	7	7	19.8	1.6	120
22-Aug-09	19:00	1.2	14.4	2	7	18.4	2.7	216
22-Aug-09	20:00				6	16.5	2.8	218
22-Aug-09	21:00	2.0	16.7	2	6	15.1	2.6	231
22-Aug-09	22:00	2.0	12.4	2	5	14.8	2.6	246
22-Aug-09	23:00	1.6	11.5	1	5	13.9	2.4	239

TOPAZ 1-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	Time	NO	NO_2	SO_2	$\text{PM}_{2.5}$	Temp (°C)	WS (m/s)	WD (deg)
22-Aug-09	0:00	0.0	5.2	2	4	13.4	3.0	256
23-Aug-09	1:00	0.1	5.4	2	5	12.7	4.6	262
23-Aug-09	2:00	0.0	4.0	2	4	12.1	3.5	241
23-Aug-09	3:00	0.0	3.1	2	3	11.8	3.7	234
23-Aug-09	4:00	0.0	2.1	2	5	12.2	3.2	247
23-Aug-09	5:00	0.0	2.3	1	5	12.6	2.7	245
23-Aug-09	6:00	0.0	4.2	1	5	12.8	2.2	246
23-Aug-09	7:00	0.5	6.1	2	5	13.4	2.2	240
23-Aug-09	8:00	1.5	6.1	2	5	14.1	2.7	251
23-Aug-09	9:00	2.4	6.5	1	6	15.2	3.0	244
23-Aug-09	10:00	2.6	6.9	2	6	15.3	4.1	219
23-Aug-09	11:00	2.5	7.3	2	5	16.2	4.6	220
23-Aug-09	12:00	2.5	7.3	2	4	17.1	3.8	225
23-Aug-09	13:00	2.7	6.9	2	3	18.0	3.5	217
23-Aug-09	14:00	2.4	6.5	2	2	18.6	3.7	216
23-Aug-09	15:00	2.6	7.5	2	4	18.0	4.3	216
23-Aug-09	16:00	2.7	9.4	3	6	15.7	4.4	217
23-Aug-09	17:00	2.6	10.7	3	7	14.7	3.3	206
23-Aug-09	18:00	2.4	12.6	2	5	15.3	3.1	211
23-Aug-09	19:00				4	15.6	3.1	217
23-Aug-09	20:00	0.9	13.8	2	4	15.3	3.8	226
23-Aug-09	21:00	0.2	8.0	2	6	13.9	4.1	215
23-Aug-09	22:00	0.6	14.4	2	7	13.3	3.5	223
23-Aug-09	23:00	0.5	11.3	2	6	12.9	2.8	226
23-Aug-09	0:00	0.0	6.5	2	6	12.5	1.8	233
24-Aug-09	1:00	0.0	5.4	2	5	12.3	1.6	216
24-Aug-09	2:00	0.0	5.0	2	4	12.0	0.9	216
24-Aug-09	3:00	0.2	16.3	1	5	11.6	0.4	271
24-Aug-09	4:00	3.6	20.7	2	5	10.9	0.6	294
24-Aug-09	5:00	3.0	20.3	2	5	10.6	0.7	11
24-Aug-09	6:00	26.9	23.0	2	7	10.4	0.1	112
24-Aug-09	7:00	22.5	22.2	3	13	11.5	0.4	106
24-Aug-09	8:00	11.7	16.8	3	8	13.4	0.9	126

Appendix VII. TOPAZ 24-hour data

TOPAZ 24-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	NO	NO ₂	SO ₂	PM _{2.5}
30-May-09	11.1	30.0	12.6	5.7
31-May-09	6.6	31.3	6.3	7.4
1-Jun-09	10.1	40.5	7.4	10.9
2-Jun-09	4.9	35.9	5.2	15.2
3-Jun-09	4.9	36.8	9.6	12.8
4-Jun-09	4.9	36.5	8.3	12.8
5-Jun-09	4.1	19.1	4.2	9.3
6-Jun-09	11.3	23.1	16.5	9.7
7-Jun-09	3.2	11.1	5.0	6.0
8-Jun-09	4.8	18.3	4.3	6.1
9-Jun-09	5.5	17.4	4.9	6.6
10-Jun-09	6.3	15.9	7.9	7.0
11-Jun-09	3.8	13.3	2.7	5.8
12-Jun-09	3.7	13.7	2.5	5.6
13-Jun-09	2.1	9.1	1.3	3.5
14-Jun-09	0.9	5.0	1.3	3.1
15-Jun-09	4.3	11.1	3.0	2.3
16-Jun-09	7.3	15.0	2.1	2.7
17-Jun-09	8.0	13.5	7.2	1.8
18-Jun-09	9.7	19.1	8.1	1.5
19-Jun-09	4.4	12.0	2.5	2.3
20-Jun-09	2.2	8.9	2.3	1.9
21-Jun-09	1.1	4.8	2.1	3.0
22-Jun-09	3.0	9.0	1.6	3.1
23-Jun-09	3.5	14.3	2.4	
24-Jun-09	7.8	17.1	3.7	4.3
25-Jun-09	5.2	12.8	2.8	4.0
26-Jun-09	4.3	14.7	4.5	5.9
27-Jun-09	6.1	14.0	5.5	4.6
28-Jun-09	1.4	6.2	1.4	3.1
29-Jun-09	6.7	13.7	2.1	4.7
30-Jun-09	6.2	19.7	2.0	5.2
1-Jul-09	6.0	22.8	2.1	5.8
2-Jul-09	10.8	28.3	9.9	7.7
3-Jul-09	12.6	41.7	12.0	10.8
4-Jul-09	17.1	36.1	21.7	11.1
5-Jul-09	5.0	22.5	7.2	9.7
6-Jul-09	3.2	10.5	2.2	2.3
7-Jul-09	12.0	20.3	3.0	1.8

TOPAZ 24-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	NO	NO ₂	SO ₂	PM _{2.5}
8-Jul-09	8.7	17.0	3.5	2.2
9-Jul-09	18.6	23.6	8.7	4.7
10-Jul-09	13.9	27.0	8.5	5.8
11-Jul-09	21.9	32.2	18.1	7.3
12-Jul-09	2.2	8.5	2.2	2.6
13-Jul-09	5.0	9.5	1.5	1.4
14-Jul-09	7.5	17.1	1.9	3.4
15-Jul-09	7.9	19.2	2.9	4.2
16-Jul-09	21.8	19.6	16.3	4.6
17-Jul-09	17.7	17.6	9.9	4.7
18-Jul-09	3.2	6.7	3.0	1.2
19-Jul-09	2.1	8.9	1.7	2.2
20-Jul-09	8.6	19.1	3.2	3.7
21-Jul-09	7.6	23.9	4.5	6.4
22-Jul-09	5.5	13.4	4.9	4.8
23-Jul-09	10.1	13.2	4.0	2.9
24-Jul-09	6.7	16.9	4.5	3.8
25-Jul-09	8.9	26.7	8.9	7.5
26-Jul-09	4.4	19.8	2.8	6.4
27-Jul-09	16.4	30.0	7.7	9.7
28-Jul-09	14.4	30.0	4.9	13.7
29-Jul-09	9.4	35.1	8.0	17.2
30-Jul-09	19.5	25.0	18.3	9.6
31-Jul-09	20.7	18.9	24.2	6.2
1-Aug-09	23.5	23.9	28.4	8.9
2-Aug-09	8.6	22.7	8.8	7.0
3-Aug-09	1.6	11.8	1.9	5.4
4-Aug-09	2.7	10.8	2.1	8.5
5-Aug-09	3.1	11.3	2.1	7.0
6-Aug-09	10.2	23.9	9.2	10.3
7-Aug-09	9.6	23.1	12.9	6.7
8-Aug-09	8.3	16.6	10.6	8.6
9-Aug-09	4.8	13.4	2.8	1.6
10-Aug-09	2.0	18.9	2.3	2.4
11-Aug-09	6.9	21.7	2.9	1.5
12-Aug-09	10.7	17.3	2.8	2.8
13-Aug-09	5.8	11.1	1.8	3.8
14-Aug-09	4.2	14.8	2.4	3.4
15-Aug-09	5.8	18.4	3.2	5.5
16-Aug-09	8.7	17.3	2.2	5.9
17-Aug-09	14.2	29.6	4.8	7.6

TOPAZ 24-HOUR DATA ($\mu\text{g}/\text{m}^3$)

Day	NO	NO_2	SO_2	$\text{PM}_{2.5}$
18-Aug-09	10.8	28.0	4.9	6.3
19-Aug-09	8.5	26.9	5.9	8.0
20-Aug-09	17.0	26.1	11.5	7.2
21-Aug-09	7.8	13.0	2.6	3.0
22-Aug-09	2.8	10.1	2.0	5.1
23-Aug-09	1.3	7.3	1.9	4.8
24-Aug-09	7.5	16.3	3.4	6.3
