



AIR SCIENCES INC.

DENVER ▲ PORTLAND

**Baseline
Meteorological and
Air Quality Data
Report
Resolution Copper
Mining Project
April 1 - June 30, 2012**

PREPARED FOR:
RESOLUTION COPPER
A MEMBER OF RIO TINTO
GROUP

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1.0 INTRODUCTION

This report summarizes the meteorological, nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), and particulate matter (PM) data collected at the Resolution Copper Project near Superior, Arizona for the second quarter, April 1 - June 30, 2012. Monitoring was performed in accordance with the *Resolution Copper Mining Monitoring Plan, November 2011* (approved by the Pinal County Air Quality Control District [PCAQCD] on November 15, 2011).

Resolution Copper Mining LLC (RCML) has implemented a meteorological and air quality monitoring program to support several efforts during the pre-feasibility and other mine development phases: environmental assessments, impact analyses, and documents required by the National Environmental Policy Act (NEPA); meteorological and air quality data to be processed and used as input for AERMOD (American Meteorological Society/Environmental Protection Agency Regulatory Model) dispersion modeling; air quality baseline data and AERMOD analyses to be used to support RCML's application to the PCAQCD for air permit(s).

1.1 Location

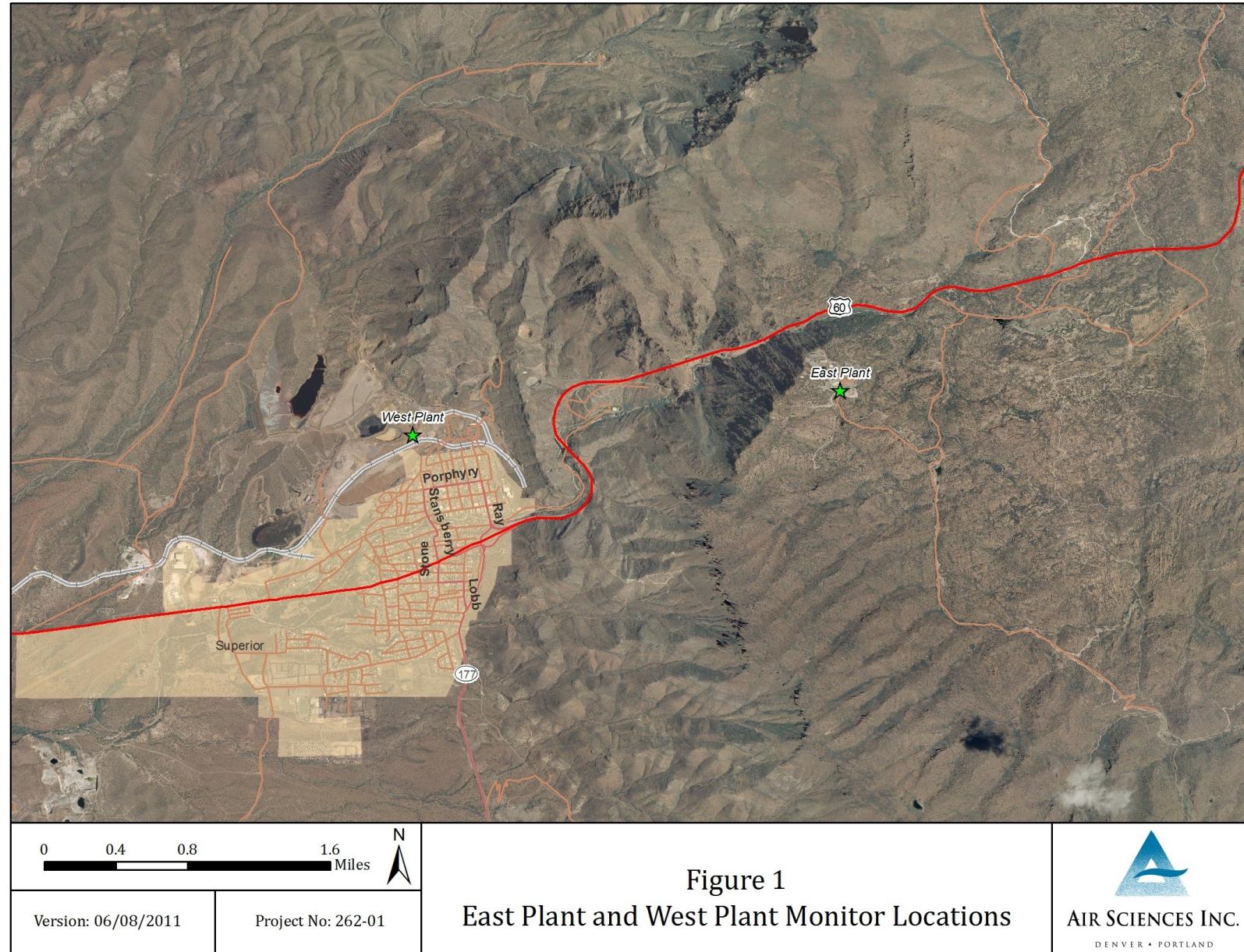
The Resolution Copper Project is located near Superior, Arizona. Currently there are two meteorological and air quality stations. The East Plant station is located at the main project site, east of Superior. The West Plant station is located at RCML's facilities directly north of Superior, Arizona. The topography ranges from hilly to mountainous.

The monitoring station locations are shown in Figure 1 and listed by coordinates in Table 1.

Table 1. Monitoring Station Locations

Parameter	Location	Latitude (Deg)	Longitude (Deg)	Elevation (ft)	Method of Determination
West Plant	01S12E35NWSE	33.2994	-111.1021	2,949	GPS
East Plant	01S13E32SWNW	33.3030	-111.0676	4,199	GPS

Figure 1. Resolution Monitoring Stations Locations



1.2 Monitoring Program Description

1.2.1 Meteorological Data

Meteorological sensors and air quality instrumentation at the East Plant and West Plant stations are mounted on 10-meter, open-lattice towers or housed in climate-controlled insulated shelters, and are listed by height, from ground level, in Table 2.

Table 2. Sensors and Heights

		Height (m)	West Plant	East Plant
AERMOD Meteorological Data	Horizontal wind speed (meters per second [m/s])	10	✓	✓
	Horizontal wind direction (degrees [°])	10	✓	✓
	Horizontal wind direction standard deviation (sigma theta)	10	✓	✓
	Air temperature (degrees Celsius [°C])	2	✓	✓
	Vertical temperature difference (ΔT , Delta T, [°C])	2,10	✓	✓
	Relative Humidity (percent [%])	2	✓	✓
	Solar Radiation (watts per square meter [W/m ²])	2	✓	✓
	Barometric pressure (millimeters of mercury [mmHg])	1	✓	✓
Ambient Air Data	Precipitation (inches [in])	Ground	✓	✓
	FEM Particulate Matter less than 10 Microns (PM ₁₀)	2,3	✓	✓
	FEM Particulate Matter less than 2.5 Microns (PM _{2.5})	2,3	✓	✓
	Sulfur Dioxide (SO ₂)	3		✓
	Ozone (O ₃)	3		✓
	Nitrogen Dioxide (NO ₂)	3		✓

The meteorological data are recorded by digital data acquisition systems equipped with broadband modems for data transfer. The meteorological parameters are sampled on-site at two-second intervals and are digitally processed into 15-minute averages. The 15-minute averages are transmitted to Air Sciences Inc. (Air Sciences) for quality assurance checks and are used as input for the calculation of one-hour averages.

Atmospheric stability is calculated using the Solar Radiation/Delta-T method (SRDT) (EPA-454/R-99-005, Table 6-7). Wind speed and solar radiation measurements are used for calculation of daytime atmospheric stability, and wind speed and delta temperature measurements are used for calculation of nighttime atmospheric stability.

Stability classes A, B, and C indicate the frequency of daytime low-speed winds, which are categorized as unstable or high-dispersion-potential winds with class A being the least stable. Stability classes E and F indicate the frequency of nighttime low-speed winds, which are categorized as stable or low-dispersion-

potential winds with class E being the least stable. The D stability class is a mixture of daytime and nighttime winds, generally at higher speeds. This class is also referred to as neutral stability.

The frequency distribution of instantaneous winds by speed during each month of the quarter is collected at the monitoring stations. These winds can have a pronounced effect on the natural generation of airborne dust. The wind speed data are collected every two seconds and then binned based on wind speed classes to build a frequency distribution. The wind speed classes are:

- Wind speeds less than 5 meters per second (m/s) (11.2 miles per hour [mph])
- Wind speeds from 5 to 19 m/s, categorized in increments of 2 m/s
- Wind speeds greater than 19 m/s (42.5 mph)

The wind frequency distributions are compiled every eight hours and then converted to daily percentages. Appendix A contains the frequency distributions of winds by speed, direction, and stability. Appendix B includes monthly wind speed frequencies and instantaneous daily maximum wind speeds. Appendix C lists hourly meteorological data from February 2 through June 30, 2012.

Meteorological parameters are collected in support of air quality data. All meteorological sensors are audited and data undergo quality control procedures according to the guidelines outlined in the Quality Assurance Project Plan.

1.2.2 NO₂ Data

NO₂ is measured at the East Plant using the Teledyne T200 Chemiluminescence NO₂ Analyzer, which holds an EPA equivalency designation as a Reference Method (RFNA-1194-099). This instrument is designed to measure oxides of nitrogen (NO_x) (with nitrogen dioxide, NO₂, as an indicator) at trace levels in ambient air. The instrument is operated continuously to collect hourly NO, NO₂, and NO_x concentrations. Data are transferred via FTP script every hour to the Air Sciences server and made available to authorized persons via a data web-portal. Appendix E lists hourly NO₂ data from April 1 through June 30, 2012.

Zero/span checks are run every morning at 1 a.m. and these data are invalidated. Level 1 zeros and spans are conducted by the site operator every two weeks or as needed. Second-party audits, adjustments, and general maintenance on the NO₂ monitor are performed according to the guidelines outlined in the Quality Assurance Project Plan.

1.2.3 SO₂ Data

SO₂ is measured at the East Plant using the Teledyne T100 UV Fluorescence SO₂ Analyzer, which holds an EPA designation as an Automated Equivalent Method (EQSA-0495-100). The instrument is operated continuously to collect hourly SO₂ concentrations. Data are transferred via FTP script every hour to the

Air Sciences server and made available to authorized persons via a data web-portal. Appendix E lists hourly SO₂ data from April 1 through June 30, 2012.

Zero/span checks are run every night at midnight and these data are invalidated. Level 1 zeros and spans are conducted by the site operator every two weeks or as needed. Second-party audits, adjustments, and general maintenance on the SO₂ monitor are performed according to the guidelines outlined in the Quality Assurance Project Plan.

1.2.4 O₃ Data

O₃ is measured at the East Plant using the Teledyne T400 UV Absorption O₃ Analyzer, which holds an EPA designation as an Automated Equivalent Method (EQOA-0992-087). The instrument is operated continuously to collect hourly O₃ concentrations. Data are transferred via FTP script every hour to the Air Sciences server and made available to authorized persons via a data web-portal. Appendix E lists hourly O₃ data from April 1 through June 30, 2012.

Zero/span checks are run every morning at 2 a.m. and these data are invalidated. Level 1 zeros and spans are conducted by the site operator every two weeks or as needed. Second-party audits, adjustments, and general maintenance on the O₃ monitor are performed according to the guidelines outlined in the Quality Assurance Project Plan.

1.2.5 PM Data

PM₁₀ and PM_{2.5} are measured at both the East Plant and West Plant using Met One Instruments' Beta Attenuation Monitors (BAM). One BAM at each site is configured as a PM_{2.5} Federal Equivalent Method (FEM), which holds the EPA designation (EQPM-0308-170). The other BAM is configured as a PM_{2.5} FEM, but is set to monitor PM₁₀. The instruments are operated continuously to collect hourly PM_{2.5} and PM₁₀ concentrations. Data are transferred via FTP script every hour to the Air Sciences server and made available to authorized persons via a data web-portal. Appendix E lists hourly PM_{2.5} and Appendix E lists hourly PM₁₀ data from April 1 through June 30, 2012.

Comparability requirements for PM_{10-2.5} are assured through the EPA designation EPA EQPM-0308-170. The accuracy of the monitor is assessed through monthly audits of the flow rate by using a certified flow transfer standard.

Second-party audits, adjustments, and general maintenance on the PM monitors are performed according to the guidelines outlined in the Quality Assurance Project Plan.

2.0 DATA RECOVERY RATES

Data recovery rates for all parameters are presented in Table 3. Meteorological data recoveries are calculated by dividing the amount of valid hourly averages by the available hourly periods in the quarter. Air quality and particulate data recoveries are calculated by dividing the amount of valid 24-hour averages (for PM₁₀, PM_{2.5}), valid 24-hour maximum value (for SO₂, NO₂), or valid daily rolling 8-hour maximum (O₃) values by the number of days in the quarter. Particulate and air quality 24-hour averages or maximums are valid if greater than 75 percent of the hourly readings are valid for that day (at least 18 out of 24 hours).

Table 3. Data Recovery Rates, East Plant and West Plant
April 1 – June 30, 2012
(percent)

Parameter*	East Plant		West Plant		Minimum Required Recovery Rate	
	Recorded		Recorded			
	Observations	Recovery Rate	Observations	Recovery Rate		
Meteorological						
Wind speed (10 m)	2,184	100	2,184	100	90	
Wind direction (10 m)	2,184	100	2,184	100	90	
Temperature (2 m)	2,184	100	2,184	100	90	
Delta temperature	2,184	100	2,184	100	90	
Relative humidity	2,184	100	2,184	100	90	
Barometric pressure	2,184	100	2,184	100	90	
Precipitation	2,184	100	2,184	100	90	
Solar radiation	2,184	100	2,184	100	90	
NO ₂	91	100	--	--	75	
O ₃	85	93.4	--	--	75	
SO ₂	91	100	--	--	75	
PM ₁₀	88	96.7	85	93.4	75	
PM _{2.5}	85	93.4	82	90.1	75	

*Meteorological parameters are observed hourly (2,184 hours in this period).

NO₂, O₃ and SO₂, and PM parameters are observed every 24 hours (91 days in this period).

2.1 Data Loss

2.1.1 Meteorological Data Loss

2.1.1.1 East Plant

No meteorological data were invalidated at the East Plant station for this quarter. The initial calibration was performed during installation, just prior to the beginning of the second quarter 2012.

2.1.1.2 West Plant

No meteorological data were invalidated at the West Plant station for this quarter. The initial calibration was performed during installation, just prior to the beginning of the second quarter 2012.

2.1.2 NO₂ Data Loss

No 24-hour maximum NO₂ data were invalidated at the East Plant station this quarter.

Invalid hourly NO₂ data were due to daily zero/span checks, Level 1 zero/span checks, and regularly scheduled maintenance.

2.1.3 SO₂ Data Loss

No 24-hour maximum SO₂ data were invalidated at the East Plant station this quarter.

Invalid hourly SO₂ data were due to daily zero/span checks, Level 1 zero/span checks, and regularly scheduled maintenance.

2.1.4 O₃ Data Loss

Ozone 24-hour maximum values were invalidated for May 24, 2012, due to an improper zero/span performed by the site operator, and June 7 through June 11, 2012 as a result of failed span and zero values. Maintenance which occurred on June 11, 2012 restored the instrument to acceptable parameters.

Additional invalid hourly O₃ data were due to daily zero/span checks, Level 1 zero/span checks, and regularly scheduled maintenance.

2.1.5 PM Data Loss

2.1.5.1 East Plant

PM₁₀ 24-hour average values were invalidated from June 15 through June 18, 2012, due to the instrument being left in a non-operational error log screen. The PM₁₀ instrument was restored to its operational status during a site check on June 18, 2012, at 1:00 p.m.

PM_{2.5} 24-hour average values were invalidated from April 23 through April 26, 2012 due to a planned 72-hour background test, and from May 22 through May 23, 2012 due to a tape error.

Additional invalid hourly PM data at the East Plant were due to monthly flow verifications, and regularly scheduled maintenance.

2.1.5.2 West Plant

PM₁₀ 24-hour average values were invalidated from April 8 through April 11, and April 14 through April 16, 2012, due to power outages, and May 30 through May 31, 2012 due to a tape error.

PM_{2.5} 24-hour average values were invalidated from April 8 through April 11 and April 13 through April 16, 2012 due to power outages, and April 23 through April 26, 2012 due to a planned 72-hour background test.

Additional invalid hourly PM data at the West Plant were due to monthly flow verifications, and regularly scheduled maintenance.

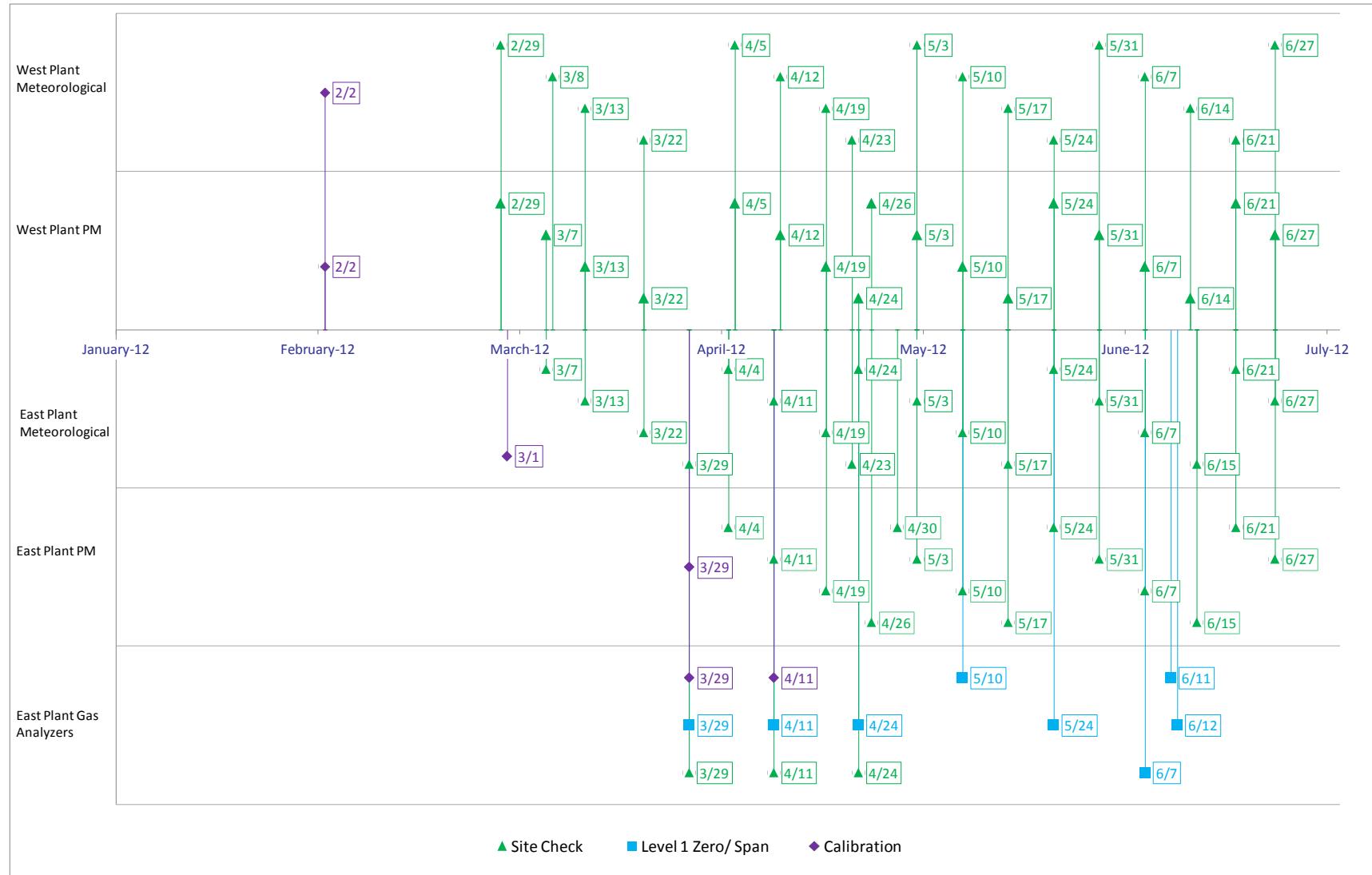
2.2 Quality Control

Quality assurance, equipment calibration, and audit procedures are conducted in accordance with the following documents:

- Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Quality Monitoring Program (EPA-454/B-08-003, December 2008)
- Quality Assurance Handbook of Air Pollution Measurement Systems, Volume IV: Meteorological Measurements (EPA-454/B-08-002, March 2008)
- Transfer Standards for the Calibration of Ambient Air Monitoring Analyzers for Ozone (EPA-454/B-10-001)
- Code of Federal Regulations (40 CFR Parts 50 and 58)
- Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD) (EPA-450/4-87-007, May 1987)
- Meteorological Monitoring Guidance for Regulatory Modeling Applications (EPA-454/R-99-005, February 2000)
- Meteorological Monitoring Guidance for Regulatory Modeling Applications (EPA-454/R-99-005, February 2000)

Audits and/or calibrations of meteorological instrumentation are required every six months. Audits and/or calibrations of the ambient air quality monitors and analyzers are required every three months. At the East Plant, Air Sciences performed an initial calibration on the meteorological sensors and particulate instruments on March 1, 2012, as well as a multi-point calibration of the O₃, SO₂, and NO₂ monitor on March 29, 2012 and April 11, 2012. At the West Plant, Air Sciences performed an initial calibration on the meteorological sensors and particulate instruments on February 2, 2012. A zero test on the PM_{2.5} instruments was performed on April 23-26, 2012. Site checks on the meteorological sensors, particulate instruments, and gas analyzers continued to be conducted throughout the remainder of the second quarter on a weekly interval.

Figure 2. Dates of Site Checks, Audits and Calibrations
February 1 – June 30, 2012



3.0 METEOROLOGICAL DATA SUMMARY AND DISCUSSION

3.1 Meteorological Data Summary

Meteorological data from a portion of the first quarter and the second quarter have been compiled and summarized in graphical and tabular form. A schematic of meteorology and upper-air data summary sheets is shown in Figure 3. Meteorological summary sheets (Figure 4 and Figure 5) are comprised of the following:

Wind Rose – Graphically depicts the percentage of winds that come from each of the 16 directions for the reported period. Wind speeds are divided into six subcategories ranging from less than 0.5 m/s (the measurement threshold of the instrument) to greater than 11.75 m/s.

Wind Frequency Table – A two-part table. The left part of the Wind Frequency Table shows the percentage of occurrence of winds for each of the 16 directions that occur in each of the six Wind Speed Class Intervals. The right part shows the percentage of occurrence of winds for each of the 16 directions that occur in each of the six Stability Classes.

Meteorology Charts – Graphically summarize recorded hourly meteorological parameters by month. Chart types include stock-ticker charts (with high, low, and average hourly values for each month) and bar charts.

Instantaneous Wind Frequency and Maximum Chart – Graphically summarizes instantaneous (two-second) wind speeds as a percentage of occurrences for each of the nine wind speed intervals and the magnitude, date, and time of the maximum instantaneous wind speed for each month.

Figure 3. Schematic of Meteorological Data Sheets

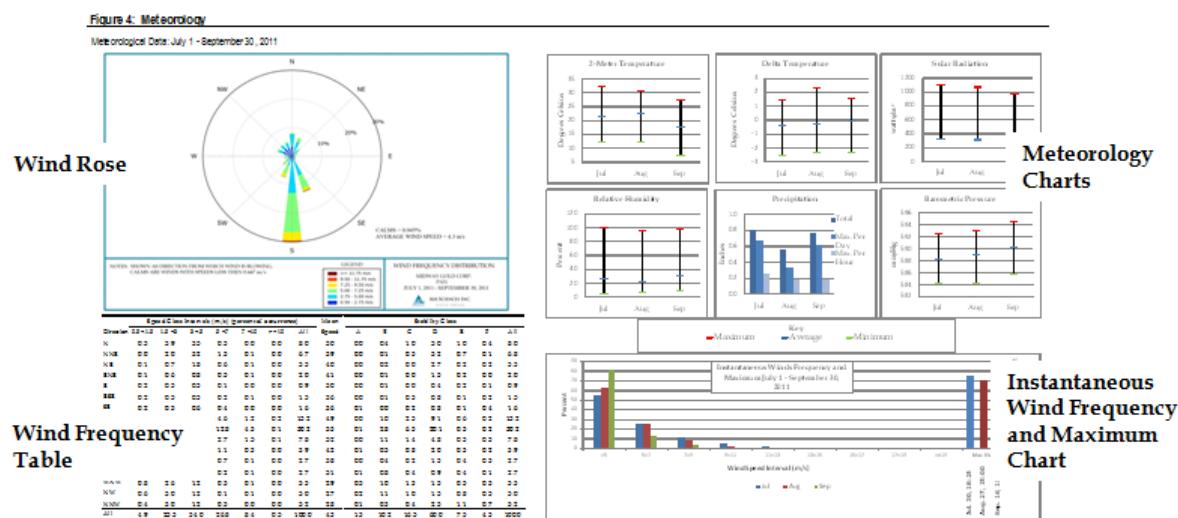
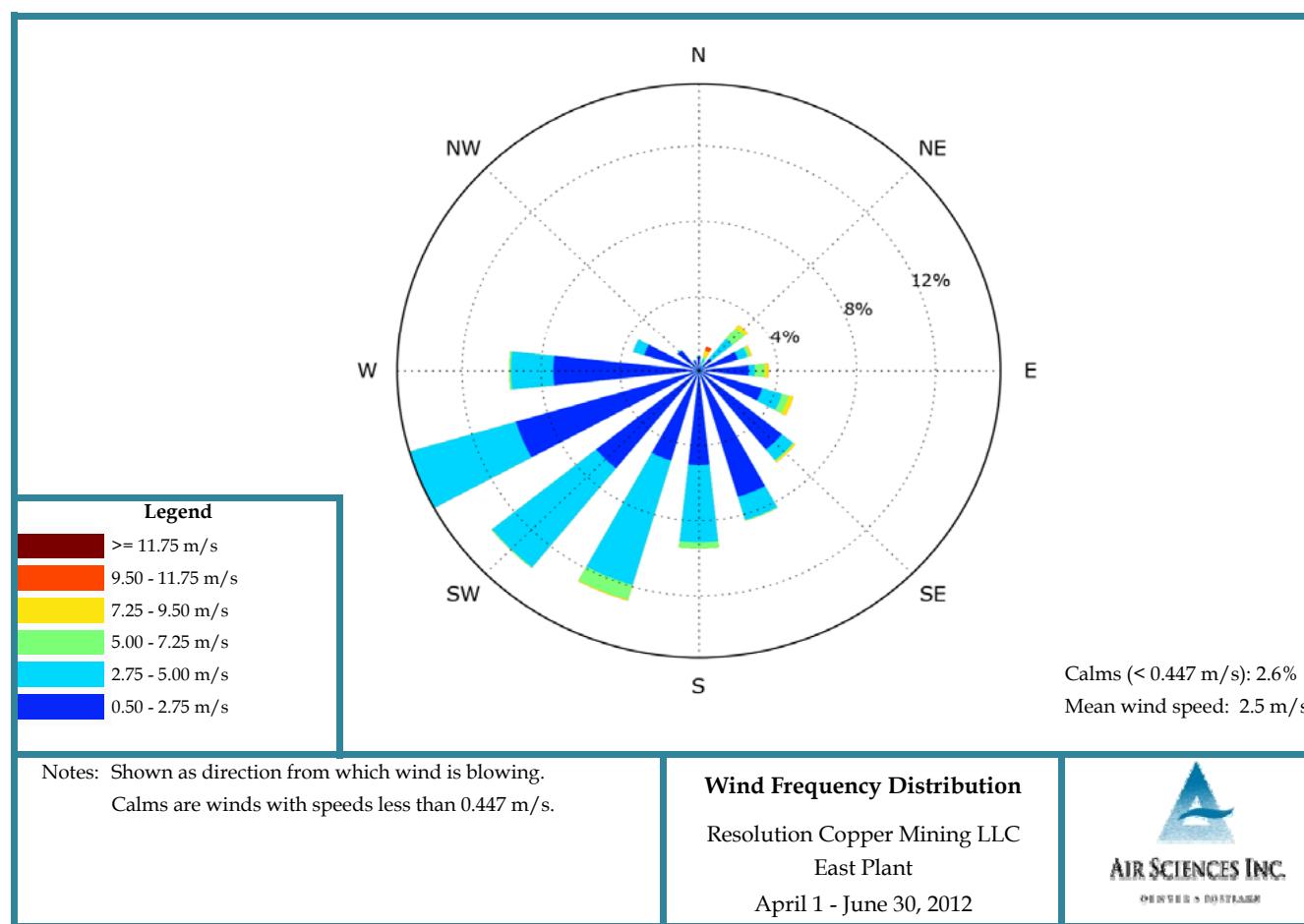
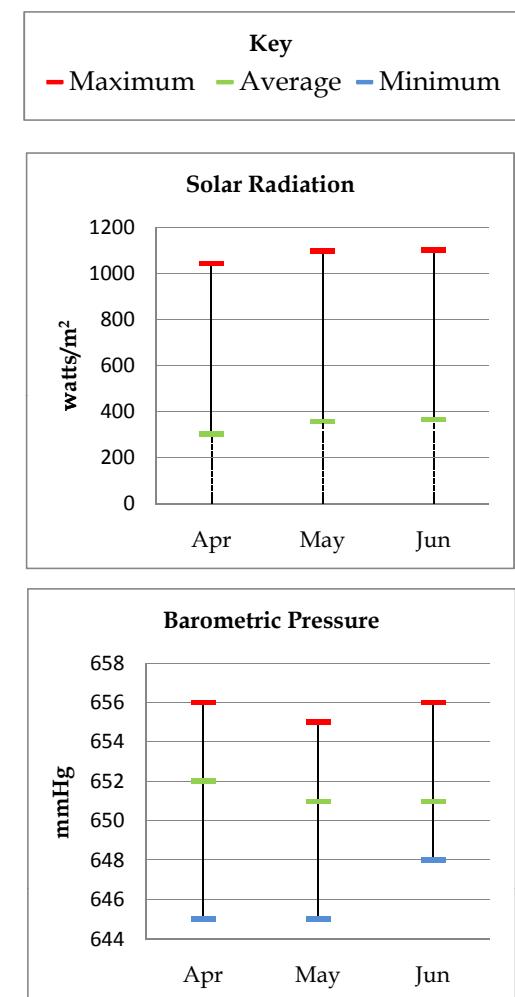


Figure 4: East Plant Meteorological Data Summary

Meteorological Data: April 1 - June 30, 2012



Hourly Statistics



Direction	Speed Class Intervals (m/s) (percent of occurrence)							Mean Speed
	0.5 < 1.5	1.5 < 3	3 < 5	5 < 7	7 < 10	>= 10	All	
N	0.4	0.4	0.0	0.0	0.0	0.8	1.8	
NNE	0.1	0.2	0.3	0.1	0.5	0.0	1.3	5.9
NE	0.5	0.5	1.2	0.7	0.3	0.0	3.2	4.2
ENE	1.3	0.8	0.5	0.1	0.1	0.0	2.8	2.3
E	1.4	1.2	0.3	0.5	0.2	0.0	3.5	2.7
ESE	1.9	1.9	0.6	0.4	0.2	0.0	5.0	2.4
SE	4.1	1.5	0.5	0.0	0.1	0.0	6.3	1.5
SSE	5.3	2.0	1.0	0.0	0.0	0.0	8.3	1.5
S	3.1	2.5	3.6	0.3	0.0	0.0	9.5	2.5
SSW	1.9	4.2	5.8	0.8	0.1	0.0	12.8	3.1
SW	1.3	7.9	4.3	0.0	0.0	0.0	13.5	2.6
WSW	2.2	10.0	3.1	0.0	0.0	0.0	15.3	2.4
W	2.4	6.1	1.1	0.1	0.0	0.0	9.6	2.2
WNW	1.3	1.8	0.4	0.0	0.0	0.0	3.5	1.9
NW	0.7	0.6	0.0	0.0	0.0	1.4	1.6	
NNW	0.4	0.2	0.0	0.0	0.6	1.4		
All	28.1	41.9	22.7	3.2	1.5	0.0	97.4	2.5

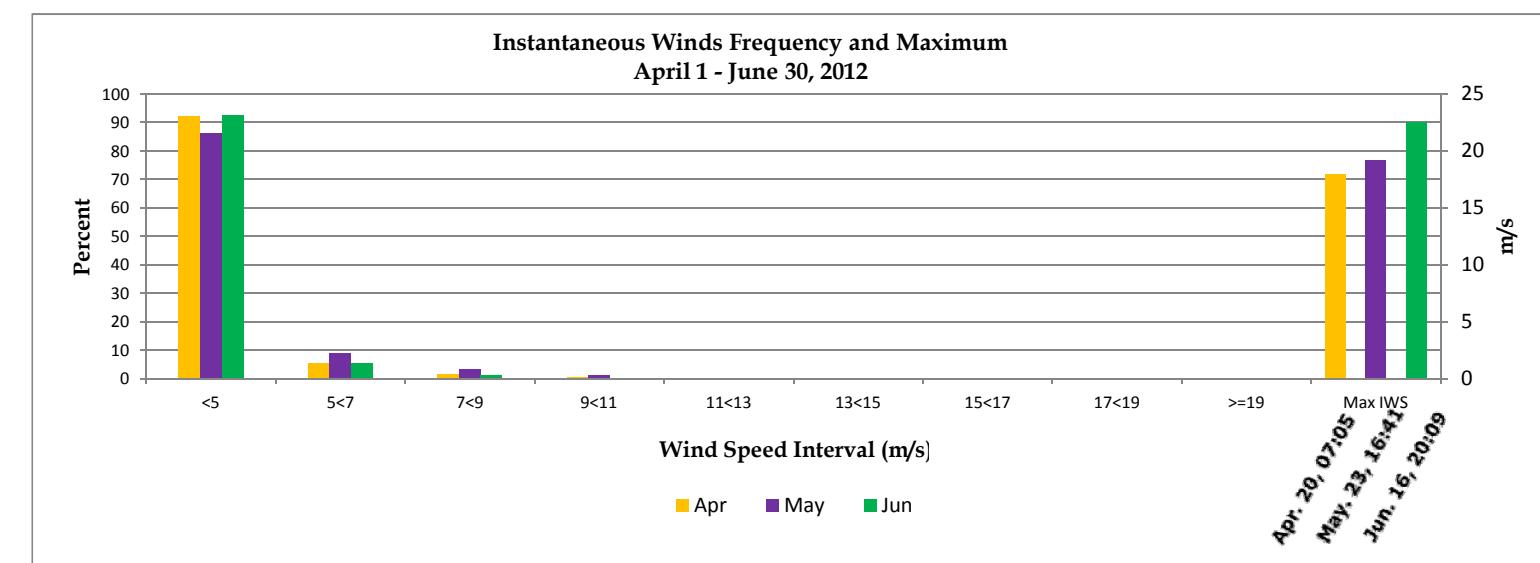
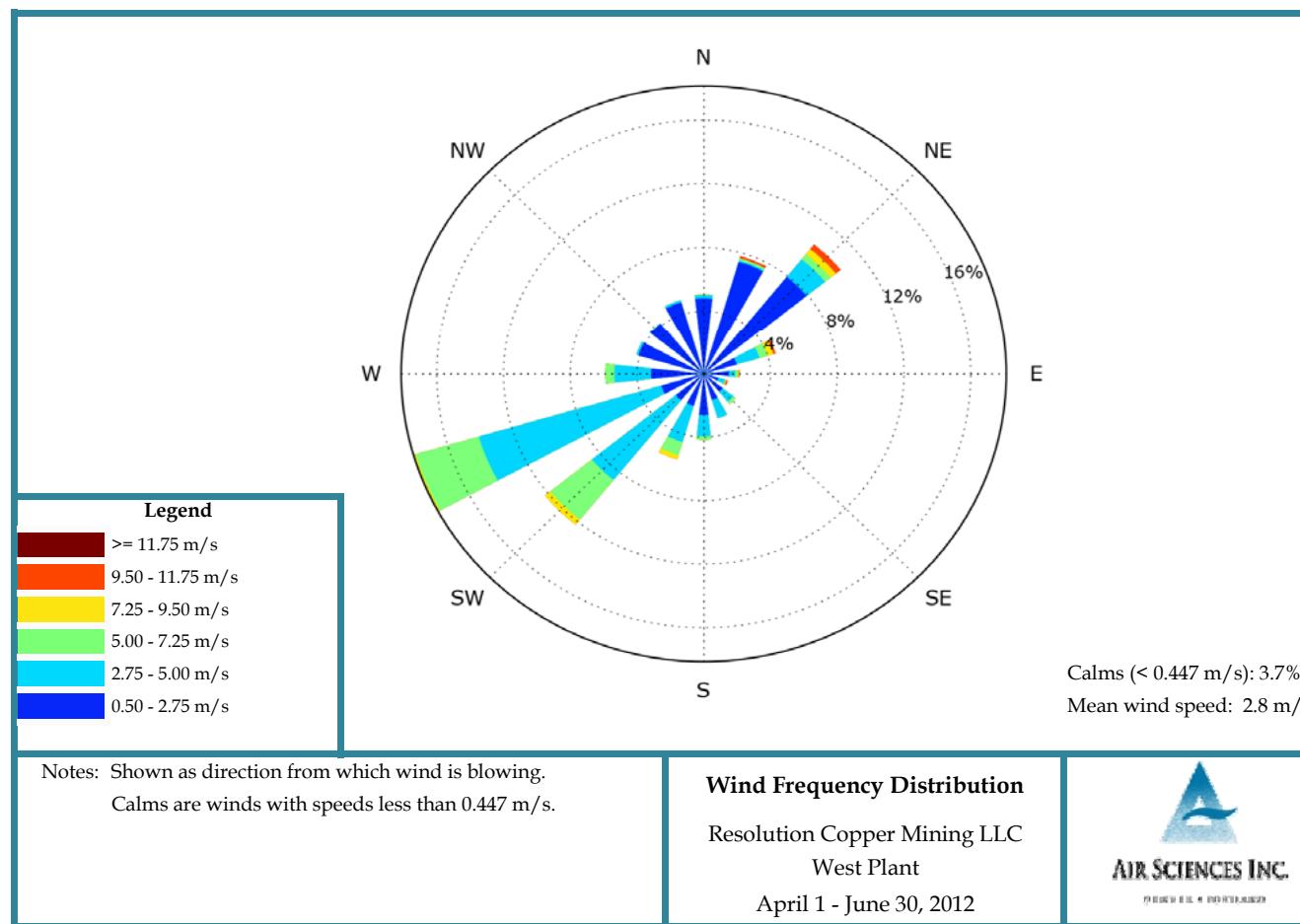
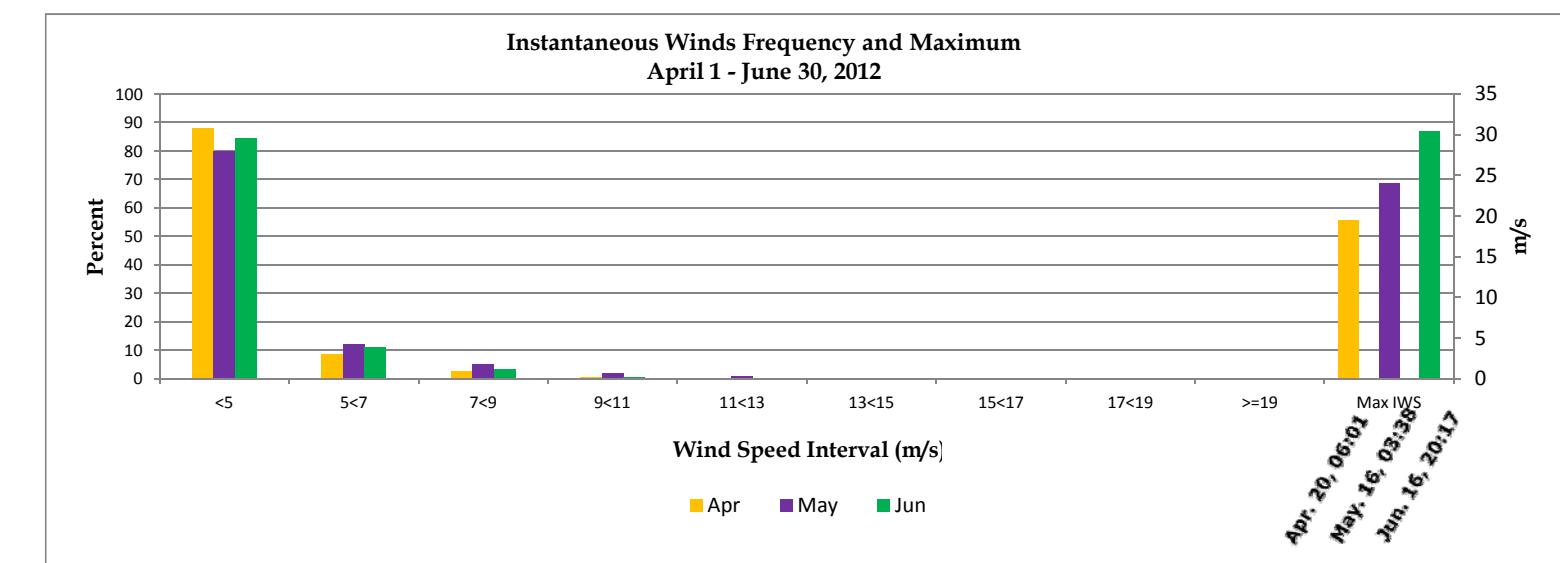
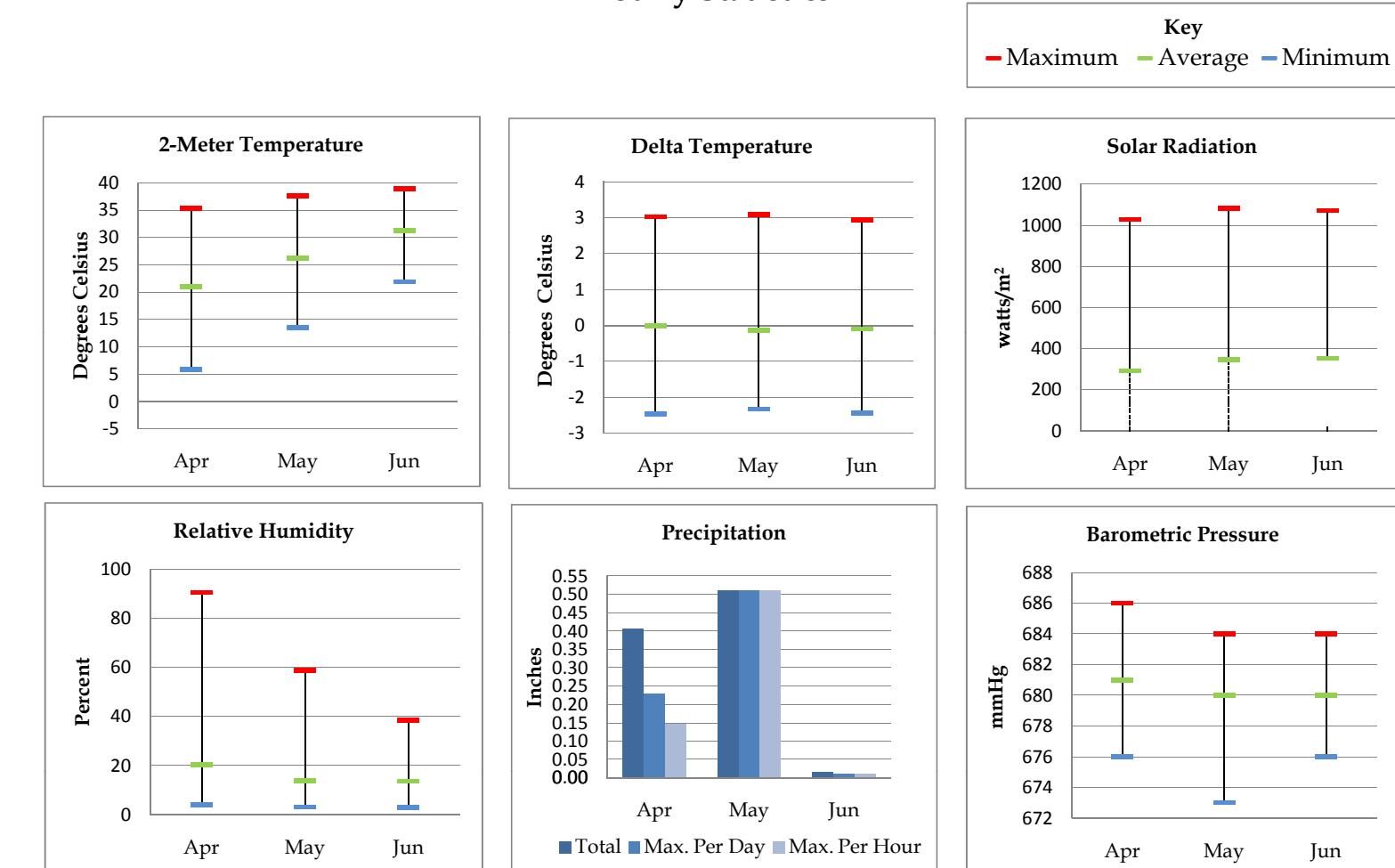


Figure 5: West Plant Meteorological Data Summary

Meteorological Data: April 1 - June 30, 2012



Hourly Statistics



3.2 Meteorological Data Discussion

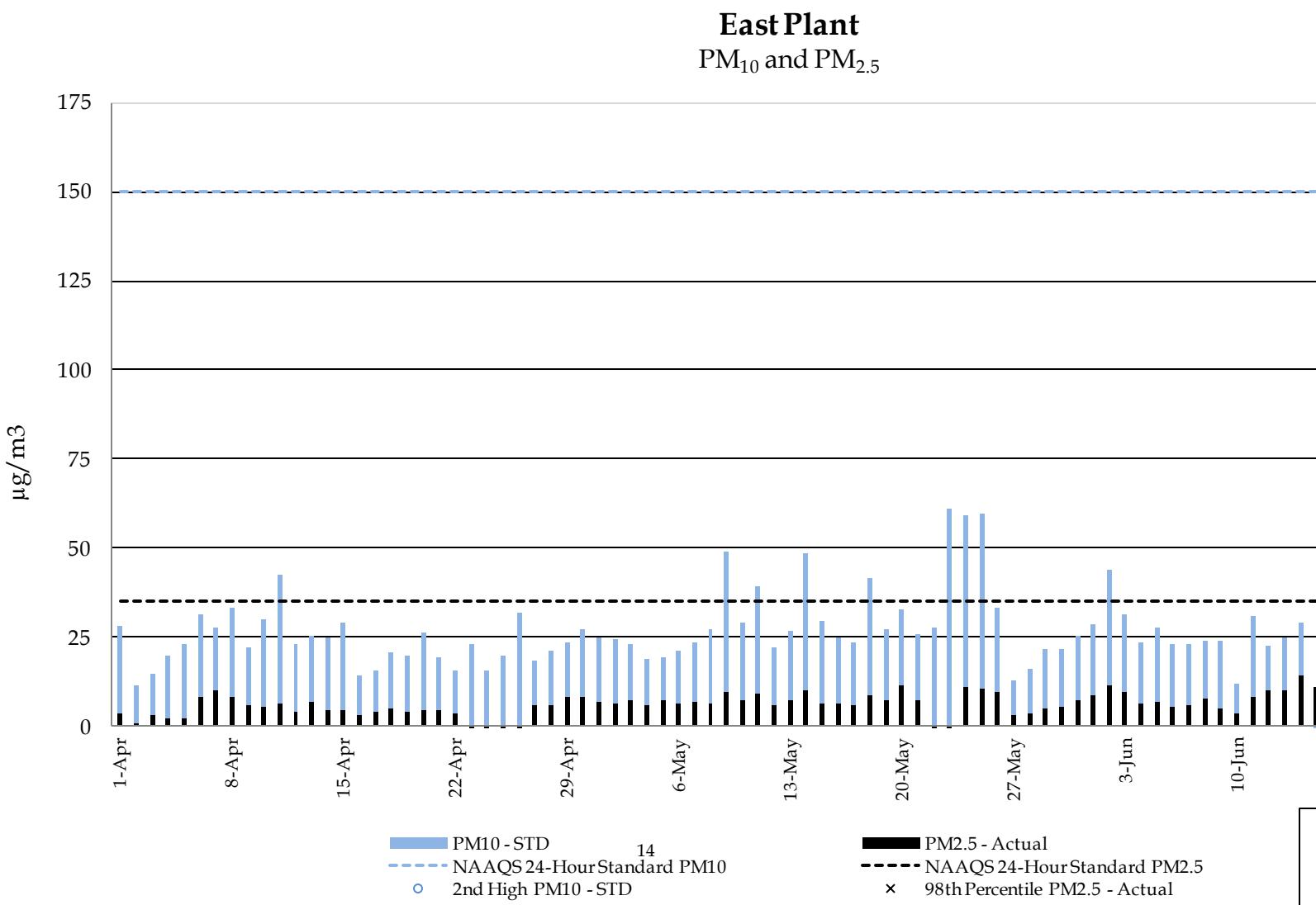
The meteorological data collected at the east and the west plant sites for the second quarter of 2012 met all data recovery objectives. The stations were installed prior to the second quarter so the initial calibration associated with the sites was performed during the first quarter of 2012.

4.0 PM DATA SUMMARY AND DISCUSSION

4.1 East Plant PM Data Summary

Figure 6 presents the PM₁₀ and PM_{2.5} data collected at the East Plant site for the second quarter 2012, and compares the data to the annual PM₁₀ and PM_{2.5} standards. The daily maximum 24-hour average for PM₁₀ and PM_{2.5}, the second high 24-hour average for PM₁₀, and the 98th percentile for PM_{2.5} are labeled. The daily mean value for PM₁₀ and PM_{2.5} are shown in the lower right corner.

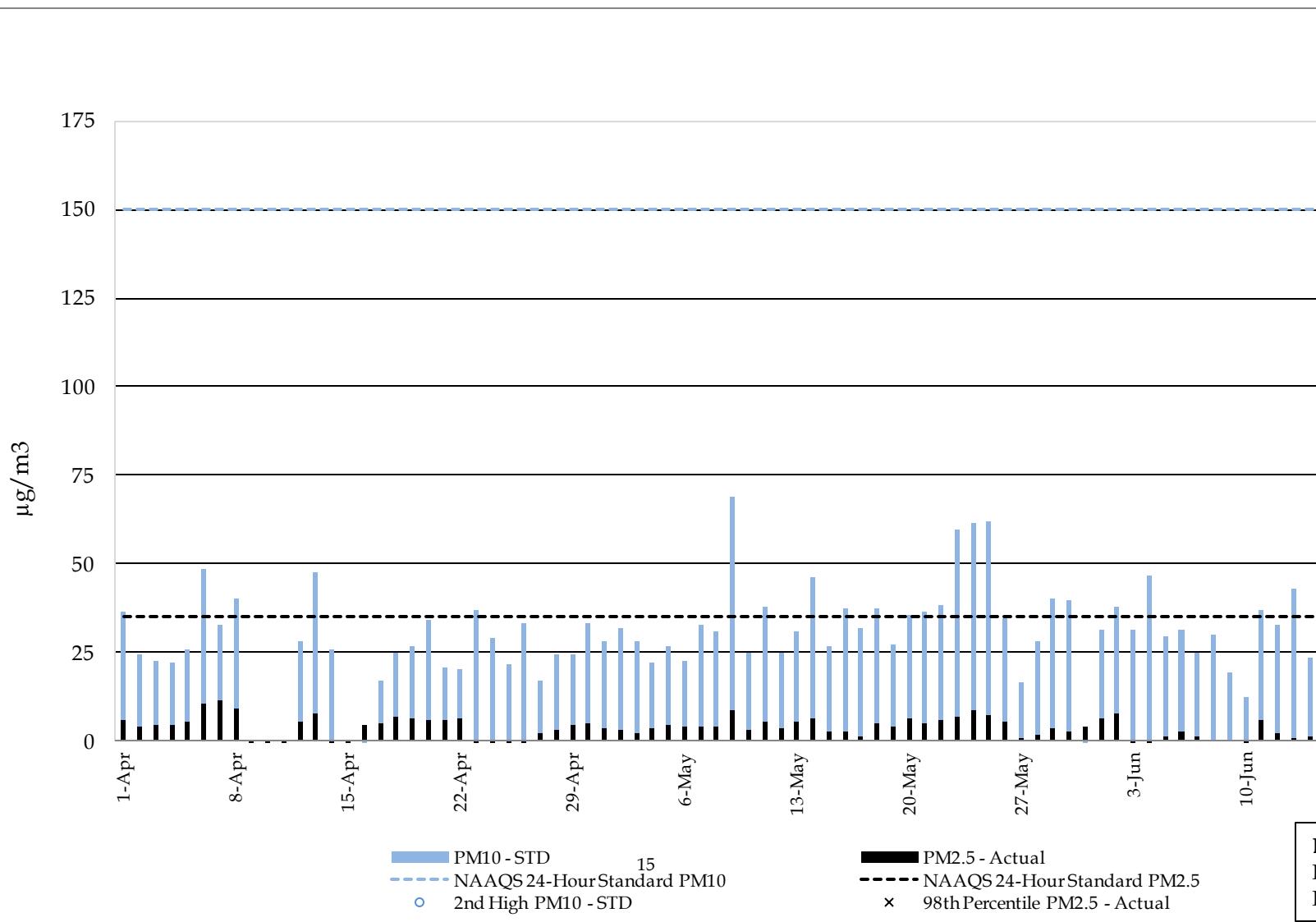
Figure 6. East Plant Particulate Data



4.2 West Plant PM Data Summary

Figure 7 presents the PM₁₀ and PM_{2.5} data collected at the West Plant site for the second Quarter 2012, and compares the data to the annual PM₁₀ and PM_{2.5} standards. The daily maximum 24-hour average for PM₁₀ and PM_{2.5}, the second high 24-hour average for PM₁₀, and the 98th percentile for PM_{2.5} are labeled. The daily mean value for PM₁₀ and PM_{2.5} are shown in the lower right corner.

Figure 7. West Plant Particulate Data



4.3.2 PM_{2.5}

The annual primary and secondary PM_{2.5} standards are met when the annual arithmetic mean concentration is less than or equal to 12.0 µg/m³. The 24-hour primary and secondary PM_{2.5} standards are met when the 98th percentile 24-hour concentration is less than or equal to 35 µg/m³.

As shown in Figure 6 and Figure 7, the second Quarter 2012, arithmetic mean at the East and West plant are 7.5 and 5.0, respectively. Both the east and west plant arithmetic mean values are below the NAAQS of 12 µg/m³.

Figure 6 and Figure 7 also show the 98th Percentile concentrations at the East and West plant. The 98th percentile of both the east and west plant 24-hour concentration are also below 35 µg/m³.

Actual comparison to the NAAQS requires three calendar year of monitoring, data, which has not been obtained at this time.

5.0 NO₂ DATA SUMMARY AND DISCUSSION

5.1 NO₂ Data Summary

Figure 8 and Figure 9 present the NO₂ maximum hourly concentrations, and hourly data collected at the East plant site for the second Quarter 2012, respectively. Figure 8 shows the 98th percentile compared to the one hour NO₂ standard. Figure 9 shows the mean hourly NO₂ concentration compared with the annual NO₂ standard.

Figure 8. NO₂ Maximum Hourly Concentration for Each Calendar Day (2nd Quarter 2012)

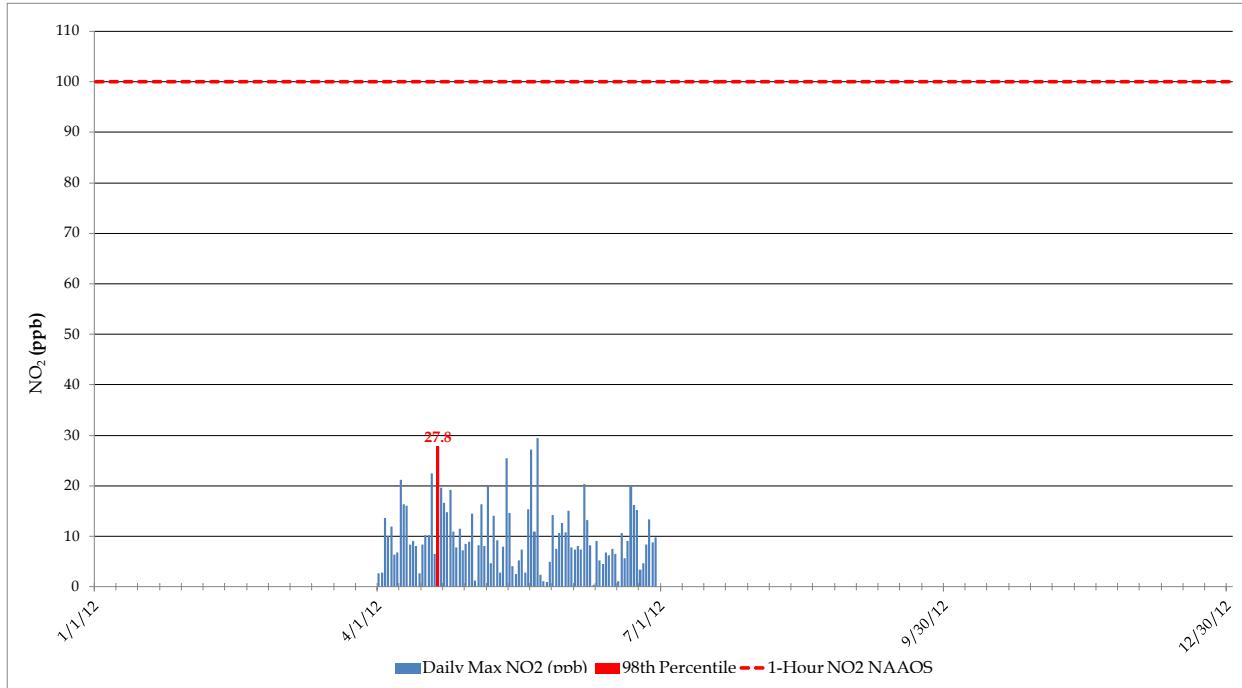
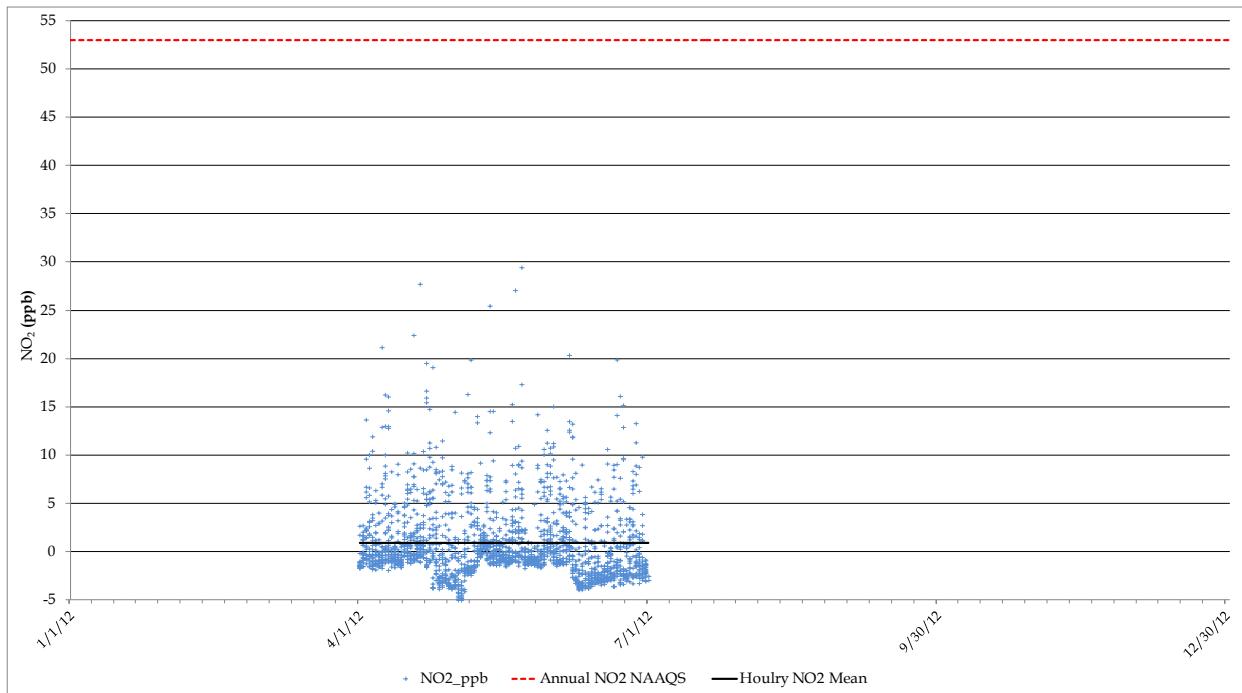


Figure 9. NO₂ Hourly Concentrations (2nd Quarter 2012)



5.2 NO₂ Data Discussion

The level of the annual National Ambient Air Quality Standard (NAAQS) for oxides of nitrogen is 53 parts per billion, measured in the ambient air as NO₂. The annual NAAQS is met when the annual average concentration in a calendar year is less than or equal to 53 ppb.

The level of the 1-hour NAAQS for oxides of nitrogen is 100 ppb, measured in the ambient air as NO₂. The 1-hour NAAQS is met when the three-year average of the annual 98th percentile of the daily maximum 1-hour average concentration is less than or equal to 100 ppb.

As shown in Figure 8, the second Quarter 2012, 98th percentile of the daily maximum 1-hour average NO₂ concentration is 27.8 ppb, which is less than the NAAQS 1-Hour primary standard of 100. As shown in Figure 9, the second Quarter 2012 hourly NO₂ average is 0.9 ppb, which is below the NAAQS annual NO₂ standard of 53 ppb.

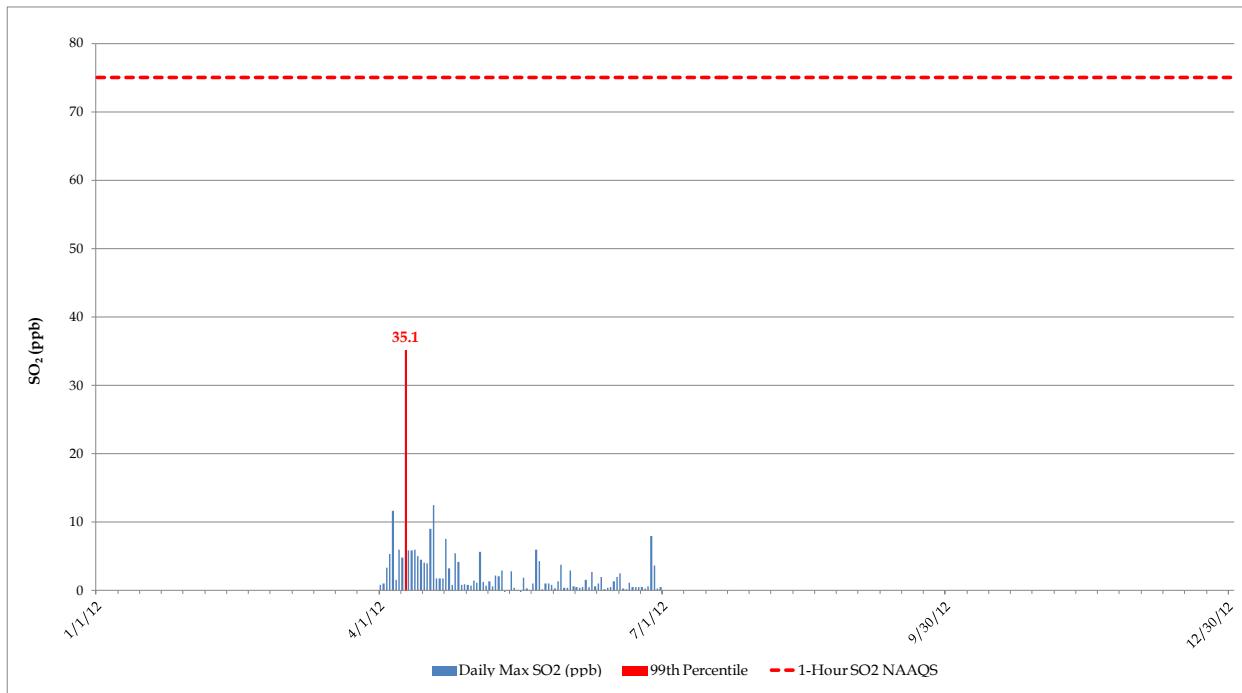
The Actual comparison to the NAAQS requires three calendar years of monitoring data, which has not been obtained at this time.

6.0 SO₂ DATA SUMMARY AND DISCUSSION

6.1 SO₂ Data Summary

Figure 10 presents the maximum hourly SO₂ data collected at the East plant site for the second Quarter 2012, and shows the 99th percentile (labeled) compared to the one hour SO₂ standard.

Figure 10. SO₂ Maximum Hourly Concentration for Each Calendar Day (2nd Quarter 2012)



6.2 SO₂ Data Discussion

The level of the national primary 1-hour annual ambient air quality standard for oxides of sulfur is 75 parts per billion measured in the ambient air as sulfur dioxide (SO₂). The 1-hour primary standard is met at an ambient air quality monitoring site when the three-year average of the annual (99th percentile) of the daily maximum 1-hour average concentrations is less than or equal to 75 ppb.

As shown in Figure 10 the year-to-date 99th percentile 1-hour maximum concentration is 35.1 ppb, which is below the NAAQS annual SO₂ standard of 75 ppb.

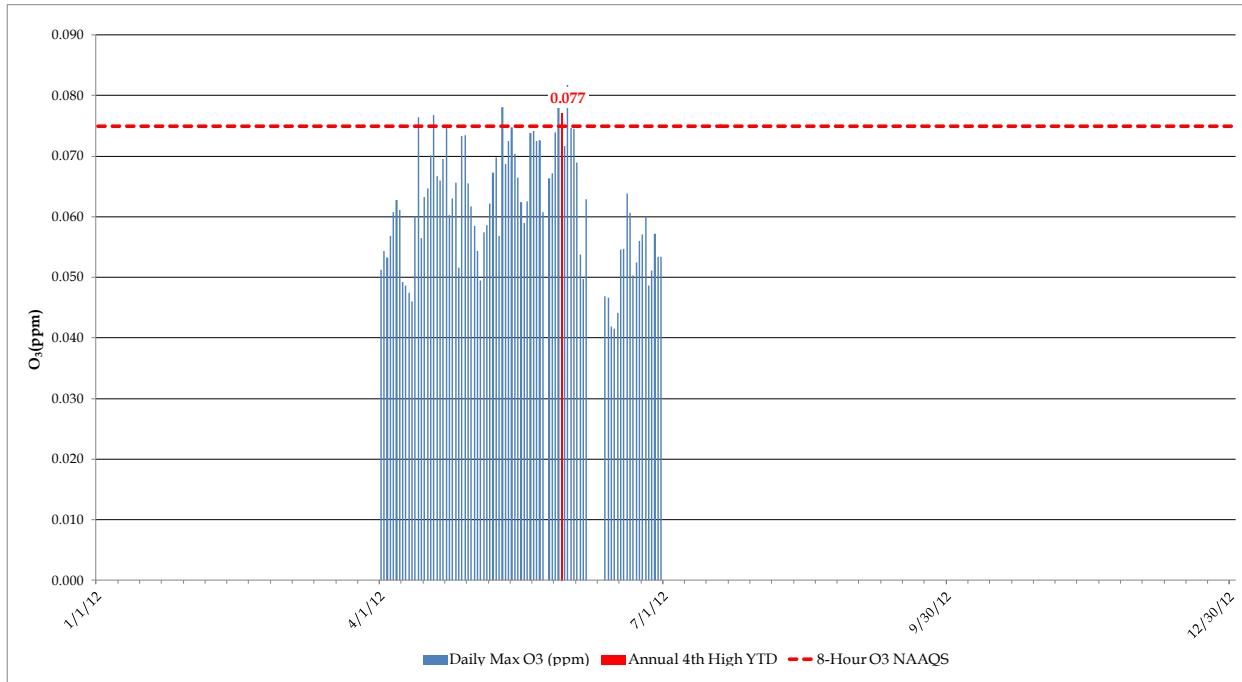
Actual comparison to the NAAQS requires three calendar years of monitoring data, which has not been obtained at this time.

7.0 O₃ DATA SUMMARY AND DISCUSSION

7.1 O₃ Data Summary

Figure 11 presents the daily rolling 8-hour maximum O₃ data collected at the East plant site for the second quarter 2012, and shows the year-to-date fourth-highest rolling 8-hour average compared to the eight hour O₃ standard.

Figure 11. O₃ Daily Rolling 8-Hour Maximum, 2012 (2nd Quarter 2012)



7.2 O₃ Data Discussion

The level of the national primary and secondary 8-hour annual ambient air quality standard for ozone is 0.075 parts per million, daily maximum average. The 8-hour primary and secondary standard is met at an ambient air quality monitoring site when the three-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm.

Figure 11 shows the year-to-date averaged fourth-high maximum recorded at the East Plant for the second quarter is 0.077 ppm. This concentration is above the NAAQS 8-hour O₃ standard of 0.075 ppm.

Parts of Pinal County and adjacent Maricopa County have been designated as non-attainment areas for 8-hour ozone by the Arizona Department of Environmental Quality (ADEQ).

Actual comparison to the NAAQS requires three calendar year of monitoring, data, which has not been obtained at this time.

Appendix A: Frequency Distributions of Winds by Speed, Direction, and Stability

Frequency of Winds By Direction and Speed - 10m
Stability Class A
East Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	0.0	1.2	0.0	0.0	0.0	0.0	1.2 2.4
NNE	0.0	1.2	0.0	0.0	0.0	0.0	1.2 2.4
NE	0.0	1.2	0.0	0.0	0.0	0.0	1.2 2.4
ENE	0.6	1.2	0.0	0.0	0.0	0.0	1.8 2.1
E	0.0	4.2	0.0	0.0	0.0	0.0	4.2 2.0
ESE	0.0	3.0	0.0	0.0	0.0	0.0	3.0 2.6
SE	0.0	2.4	0.0	0.0	0.0	0.0	2.4 2.4
SSE	0.0	3.0	0.0	0.0	0.0	0.0	3.0 2.7
S	0.0	1.8	0.0	0.0	0.0	0.0	1.8 2.7
SSW	0.6	9.1	0.0	0.0	0.0	0.0	9.7 2.6
SW	0.0	24.2	0.0	0.0	0.0	0.0	24.2 2.8
WSW	0.0	26.7	0.0	0.0	0.0	0.0	26.7 2.6
W	0.0	16.4	0.0	0.0	0.0	0.0	16.4 2.5
WNW	0.0	1.8	0.0	0.0	0.0	0.0	1.8 2.9
NW	0.0	1.2	0.0	0.0	0.0	0.0	1.2 2.1
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
All	1.2	98.8	0.0	0.0	0.0	0.0	100.0 2.6

Calms (< 0.447 m/s): 0.0%

Mean wind speed: 2.6 m/s

Percent Occurrence for this Stability Class: 7.6%

Frequency of Winds By Direction and Speed - 10m
Stability Class B
East Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	0.0	0.2	0.0	0.0	0.0	0.0	0.2
NNE	0.0	0.0	0.7	0.0	0.0	0.0	0.7
NE	0.0	0.5	1.4	0.0	0.0	0.0	1.9
ENE	0.5	0.2	0.0	0.0	0.0	0.0	0.7
E	0.5	0.7	0.5	0.0	0.0	0.0	1.7
ESE	0.2	2.9	2.2	0.0	0.0	0.0	5.3
SE	0.0	1.2	1.2	0.0	0.0	0.0	2.4
SSE	0.0	1.9	2.2	0.0	0.0	0.0	4.1
S	0.2	2.6	9.6	0.0	0.0	0.0	12.4
SSW	0.0	2.9	17.0	0.0	0.0	0.0	19.9
SW	0.0	7.7	16.3	0.0	0.0	0.0	23.9
WSW	0.0	9.6	12.2	0.0	0.0	0.0	21.8
W	0.2	3.1	1.2	0.0	0.0	0.0	4.5
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.2	0.2	0.0	0.0	0.0	0.0	0.5
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All	1.9	33.7	64.4	0.0	0.0	0.0	100.0
							3.1

Calms (< 0.447 m/s): 0.0%

Mean wind speed: 3.1 m/s

Percent Occurrence for this Stability Class: 19.1%

Frequency of Winds By Direction and Speed - 10m
Stability Class C
East Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	0.3	0.3	0.3	0.0	0.0	0.0	0.9 2.7
NNE	0.3	0.6	0.9	0.3	0.0	0.0	2.0 3.7
NE	0.3	1.2	2.6	0.6	0.3	0.0	5.0 4.0
ENE	1.5	1.7	0.9	0.0	0.0	0.0	4.1 2.1
E	1.7	1.5	0.0	0.0	0.0	0.0	3.2 1.4
ESE	0.6	3.2	0.9	2.0	0.6	0.0	7.3 3.7
SE	0.6	1.5	1.5	0.0	0.0	0.0	3.5 2.5
SSE	0.6	2.0	2.6	0.0	0.0	0.0	5.2 2.9
S	0.6	4.4	8.5	1.5	0.0	0.0	14.9 3.5
SSW	0.0	7.0	5.8	0.9	0.0	0.0	13.7 3.2
SW	0.3	13.4	4.4	0.0	0.0	0.0	18.1 2.7
WSW	0.0	14.0	2.3	0.0	0.0	0.0	16.3 2.6
W	0.0	2.3	1.5	0.0	0.0	0.0	3.8 2.9
WNW	0.0	0.9	0.3	0.0	0.0	0.0	1.2 2.3
NW	0.3	0.0	0.0	0.0	0.0	0.0	0.3 1.1
NNW	0.3	0.3	0.0	0.0	0.0	0.0	0.6 1.5
All	7.3	54.2	32.4	5.2	0.9	0.0	100.0 3.0

Calms (< 0.447 m/s): 0.0%

Mean wind speed: 3.0 m/s

Percent Occurrence for this Stability Class: 15.7%

Frequency of Winds By Direction and Speed - 10m
Stability Class D
East Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	0.0	0.7	0.0	0.0	0.0	0.0	0.7 2.2
NNE	0.0	0.2	0.2	0.4	2.0	0.2	2.9 8.0
NE	0.4	0.4	2.0	2.2	1.1	0.0	6.0 5.2
ENE	2.0	0.9	1.3	0.5	0.4	0.0	5.1 3.1
E	2.0	0.9	0.7	2.0	0.7	0.0	6.4 4.0
ESE	2.9	1.1	0.2	0.2	0.5	0.0	4.9 2.3
SE	2.0	1.6	0.4	0.2	0.4	0.0	4.6 2.3
SSE	0.9	2.6	0.7	0.2	0.0	0.0	4.4 2.4
S	0.7	3.1	1.8	0.4	0.0	0.0	6.0 2.9
SSW	0.4	6.2	6.6	2.6	0.4	0.0	16.1 3.7
SW	0.5	7.7	1.8	0.2	0.0	0.0	10.3 2.5
WSW	0.4	10.4	1.3	0.0	0.0	0.0	12.1 2.4
W	0.5	8.6	2.4	0.4	0.0	0.0	11.9 2.7
WNW	0.2	4.2	1.3	0.0	0.0	0.0	5.7 2.5
NW	0.2	1.5	0.2	0.0	0.0	0.0	1.8 2.3
NNW	0.0	0.4	0.0	0.0	0.0	0.0	0.4 2.5
All	13.2	50.5	20.9	9.2	5.5	0.2	99.5 3.2

Calms (< 0.447 m/s): 0.5%

Mean wind speed: 3.2 m/s

Percent Occurrence for this Stability Class: 25.0%

Frequency of Winds By Direction and Speed - 10m
Stability Class E
East Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean	Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	All	
N	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.8
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.9	0.4	0.0	0.2	0.0	0.0	1.6	1.9
ENE	1.6	0.7	0.0	0.0	0.0	0.0	2.2	1.1
E	1.3	1.3	0.0	0.0	0.0	0.0	2.7	1.3
ESE	3.1	1.3	0.0	0.0	0.0	0.0	4.5	1.2
SE	8.3	1.3	0.0	0.0	0.0	0.0	9.6	0.9
SSE	8.3	0.9	0.0	0.0	0.0	0.0	9.2	0.9
S	3.8	1.1	0.0	0.0	0.0	0.0	4.9	1.2
SSW	4.5	1.1	0.0	0.0	0.0	0.0	5.6	1.3
SW	4.0	2.7	0.0	0.0	0.0	0.0	6.7	1.4
WSW	8.7	6.3	0.2	0.0	0.0	0.0	15.2	1.4
W	9.6	8.5	0.0	0.0	0.0	0.0	18.1	1.5
WNW	5.1	2.5	0.0	0.0	0.0	0.0	7.6	1.3
NW	2.2	0.7	0.0	0.0	0.0	0.0	2.9	1.2
NNW	1.3	0.4	0.0	0.0	0.0	0.0	1.8	1.1
All	63.8	29.3	0.2	0.2	0.0	0.0	93.5	1.3

Calms (< 0.447 m/s): 6.5%

Mean wind speed: 1.3 m/s

Percent Occurrence for this Stability Class: 20.5%

Frequency of Winds By Direction and Speed - 10m
Stability Class F
East Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	1.1	0.0	0.0	0.0	0.0	0.0	1.1 0.9
NNE	0.4	0.0	0.0	0.0	0.0	0.0	0.4 0.6
NE	1.1	0.0	0.0	0.0	0.0	0.0	1.1 0.7
ENE	0.8	0.4	0.0	0.0	0.0	0.0	1.1 1.0
E	1.9	0.0	0.0	0.0	0.0	0.0	1.9 0.6
ESE	3.4	0.4	0.0	0.0	0.0	0.0	3.8 0.8
SE	15.1	1.1	0.0	0.0	0.0	0.0	16.2 0.9
SSE	26.8	2.3	0.0	0.0	0.0	0.0	29.1 0.9
S	16.2	1.1	0.0	0.0	0.0	0.0	17.4 0.9
SSW	7.2	0.4	0.0	0.0	0.0	0.0	7.5 0.8
SW	2.3	0.4	0.0	0.0	0.0	0.0	2.6 1.1
WSW	2.6	0.8	0.0	0.0	0.0	0.0	3.4 1.1
W	1.9	0.0	0.0	0.0	0.0	0.0	1.9 1.0
WNW	1.5	0.0	0.0	0.0	0.0	0.0	1.5 0.8
NW	1.1	0.0	0.0	0.0	0.0	0.0	1.1 0.8
NNW	0.4	0.0	0.0	0.0	0.0	0.0	0.4 0.7
All	83.8	6.8	0.0	0.0	0.0	0.0	90.6 0.9

Calms (< 0.447 m/s): 9.4%

Mean wind speed: 0.9 m/s

Percent Occurrence for this Stability Class: 12.1%

Frequency of Winds By Direction and Speed - 10m
Stability Class A
West Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean	Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	All	
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	1.1	0.0	0.0	0.0	0.0	1.1	1.6
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	1.1	0.0	0.0	0.0	0.0	1.1	2.6
E	0.0	1.1	0.0	0.0	0.0	0.0	1.1	3.0
ESE	0.0	3.2	0.0	0.0	0.0	0.0	3.2	1.9
SE	0.0	3.2	0.0	0.0	0.0	0.0	3.2	2.2
SSE	1.1	8.5	0.0	0.0	0.0	0.0	9.6	2.3
S	2.1	14.9	0.0	0.0	0.0	0.0	17.0	2.1
SSW	2.1	20.2	0.0	0.0	0.0	0.0	22.3	2.3
SW	2.1	17.0	0.0	0.0	0.0	0.0	19.1	2.4
WSW	1.1	13.8	0.0	0.0	0.0	0.0	14.9	2.4
W	1.1	5.3	0.0	0.0	0.0	0.0	6.4	2.5
WNW	0.0	1.1	0.0	0.0	0.0	0.0	1.1	2.2
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All	9.6	90.4	0.0	0.0	0.0	0.0	100.0	2.3

Calms (< 0.447 m/s): 0.0%

Mean wind speed: 2.3 m/s

Percent Occurrence for this Stability Class: 4.3%

Frequency of Winds By Direction and Speed - 10m
Stability Class B
West Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	0.2	0.0	0.5	0.0	0.0	0.0	0.7 2.9
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
NE	0.0	0.5	0.2	0.0	0.0	0.0	0.7 2.5
ENE	0.0	0.0	1.0	0.0	0.0	0.0	1.0 4.4
E	0.2	0.2	0.7	0.0	0.0	0.0	1.2 2.6
ESE	0.5	0.5	0.5	0.0	0.0	0.0	1.5 2.7
SE	0.0	1.7	2.0	0.0	0.0	0.0	3.7 3.2
SSE	1.0	1.2	4.2	0.0	0.0	0.0	6.5 2.8
S	1.5	4.0	5.0	0.0	0.0	0.0	10.4 2.8
SSW	1.0	4.0	8.2	0.0	0.0	0.0	13.2 3.2
SW	1.0	2.5	21.8	0.0	0.0	0.0	25.3 3.8
WSW	0.7	3.0	27.8	0.0	0.0	0.0	31.5 3.9
W	0.7	1.0	1.7	0.0	0.0	0.0	3.5 2.7
WNW	0.2	0.2	0.0	0.0	0.0	0.0	0.5 1.3
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
NNW	0.0	0.0	0.2	0.0	0.0	0.0	0.2 3.6
All	7.2	18.9	73.9	0.0	0.0	0.0	100.0 3.4

Calms (< 0.447 m/s): 0.0%

Mean wind speed: 3.4 m/s

Percent Occurrence for this Stability Class: 18.5%

Frequency of Winds By Direction and Speed - 10m
Stability Class C
West Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean	Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	All	
N	0.3	0.9	0.0	0.0	0.0	0.0	1.2	2.0
NNE	0.0	0.6	0.0	0.0	0.0	0.0	0.6	2.1
NE	0.3	0.3	0.3	0.0	0.3	0.0	1.2	4.0
ENE	1.5	0.3	1.5	1.2	0.0	0.0	4.5	3.4
E	1.8	1.2	0.3	0.3	0.0	0.0	3.6	2.0
ESE	0.3	0.9	0.3	0.0	0.0	0.0	1.5	2.2
SE	1.5	1.8	0.9	1.2	0.0	0.0	5.4	3.0
SSE	2.1	1.5	0.3	0.0	0.0	0.0	3.9	1.9
S	2.7	1.5	0.0	0.9	0.0	0.0	5.1	2.3
SSW	1.2	0.3	1.2	3.3	0.0	0.0	6.0	4.3
SW	2.1	1.5	9.9	11.1	0.6	0.0	25.3	4.5
WSW	0.3	1.2	23.2	10.2	0.0	0.0	34.9	4.5
W	0.3	0.6	3.3	0.3	0.0	0.0	4.5	3.7
WNW	0.0	0.0	0.6	0.0	0.0	0.0	0.6	3.6
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.6	0.3	0.0	0.0	0.0	0.9	2.7
All	14.5	13.3	42.2	28.6	0.9	0.0	99.4	3.9

Calms (< 0.447 m/s): 0.6%

Mean wind speed: 3.9 m/s

Percent Occurrence for this Stability Class: 15.2%

Frequency of Winds By Direction and Speed - 10m
Stability Class D
West Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	0.7	0.4	0.0	0.2	0.0	0.0	1.3
NNE	0.0	1.1	0.2	0.7	0.2	0.4	2.6
NE	0.7	1.5	2.8	1.7	1.7	1.7	10.3
ENE	1.1	0.7	4.1	1.5	2.4	0.0	9.8
E	1.3	0.7	0.7	0.7	0.2	0.2	3.7
ESE	0.7	0.2	0.4	0.2	0.2	0.4	2.2
SE	1.5	0.4	0.0	0.0	0.0	0.0	2.0
SSE	1.7	0.7	0.0	0.0	0.0	0.0	2.4
S	0.0	1.1	0.4	0.4	0.0	0.0	2.0
SSW	0.4	0.7	1.3	1.5	1.5	0.0	5.5
SW	0.4	1.1	2.0	6.8	2.0	0.0	12.2
WSW	0.9	3.7	9.6	10.0	2.0	0.0	26.2
W	0.9	4.6	5.5	2.4	0.0	0.0	13.3
WNW	0.7	2.8	0.2	0.0	0.0	0.0	3.7
NW	0.4	0.7	0.2	0.0	0.0	0.0	1.3
NNW	0.2	0.0	0.2	0.0	0.0	0.0	0.4
All	11.6	20.3	27.7	26.2	10.3	2.8	98.9
							4.3

Calms (< 0.447 m/s): 1.1%

Mean wind speed: 4.3 m/s

Percent Occurrence for this Stability Class: 21.0%

Frequency of Winds By Direction and Speed - 10m
Stability Class E
West Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	
N	3.1	3.1	0.4	0.0	0.0	0.0	6.6 1.6
NNE	4.4	5.7	0.0	0.0	0.0	0.0	10.1 1.7
NE	4.0	16.7	4.0	0.0	0.4	0.0	25.1 2.4
ENE	2.2	1.8	0.4	0.0	0.0	0.0	4.4 1.8
E	1.8	0.4	0.0	0.0	0.0	0.0	2.2 1.2
ESE	0.4	0.9	0.4	0.0	0.0	0.0	1.8 1.9
SE	1.3	0.4	0.0	0.0	0.0	0.0	1.8 0.9
SSE	0.9	0.9	0.0	0.0	0.0	0.0	1.8 1.3
S	1.3	0.4	0.0	0.0	0.0	0.0	1.8 1.4
SSW	0.4	0.9	0.0	0.0	0.0	0.0	1.3 1.4
SW	0.4	1.3	0.0	0.0	0.0	0.0	1.8 1.6
WSW	2.2	2.2	0.0	0.0	0.0	0.0	4.4 1.4
W	2.6	2.6	0.0	0.0	0.0	0.0	5.3 1.5
WNW	6.6	1.8	0.0	0.0	0.0	0.0	8.4 1.2
NW	7.0	2.2	0.0	0.0	0.0	0.0	9.3 1.1
NNW	8.8	2.2	0.0	0.0	0.0	0.0	11.0 1.1
All	47.6	43.6	5.3	0.0	0.4	0.0	96.9 1.6

Calms (< 0.447 m/s): 3.1%

Mean wind speed: 1.6 m/s

Percent Occurrence for this Stability Class: 10.4%

Frequency of Winds By Direction and Speed - 10m
Stability Class F
West Plant, Resolution
04/01/12 - 06/30/12
(percent of occurrence)

Direction	Speed Class Intervals (m/s)						Mean	Speed
	0.5 <1.5	1.5 <3	3 <5	5 <7	7 <10	>=10	All	
N	11.8	0.6	0.0	0.0	0.0	0.0	12.4	0.9
NNE	15.8	3.9	0.0	0.0	0.0	0.0	19.7	1.1
NE	11.8	6.0	0.0	0.0	0.0	0.0	17.8	1.3
ENE	2.8	0.6	0.0	0.0	0.0	0.0	3.4	1.1
E	0.7	0.3	0.0	0.0	0.0	0.0	1.0	1.1
ESE	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.8
SE	0.7	0.0	0.0	0.0	0.0	0.0	0.7	1.0
SSE	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.3
S	0.3	0.1	0.0	0.0	0.0	0.0	0.4	1.3
SSW	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.0
SW	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.6
WSW	1.2	0.1	0.0	0.0	0.0	0.0	1.3	0.9
W	2.7	0.4	0.0	0.0	0.0	0.0	3.1	1.0
WNW	7.0	0.6	0.0	0.0	0.0	0.0	7.6	0.9
NW	9.1	0.4	0.0	0.0	0.0	0.0	9.6	0.8
NNW	11.0	0.3	0.0	0.0	0.0	0.0	11.3	0.9
All	76.6	13.4	0.0	0.0	0.0	0.0	90.0	1.0

Calms (< 0.447 m/s): 10.0%

Mean wind speed: 1.0 m/s

Percent Occurrence for this Stability Class: 30.7%

Appendix B: Monthly Wind Speed Frequencies and Instantaneous Daily Maximum Wind Speeds

Average Frequency Distribution of Wind Speeds - 10m
 Resolution - East Plant
 Apr-12

Day	Wind Speed Interval (percent)									Max Gust (m/s)	Time of Gust
	<5	5 < 7	7 < 9	9 < 11	11 < 13	13 < 15	15 < 17	17 < 19	>19		
1	81.87	12.53	4.33	1.07	0.20	0.00	0.00	0.00	0.00	14.10	18:04
2	94.50	4.90	0.53	0.03	0.00	0.00	0.00	0.00	0.00	10.20	12:58
3	96.70	2.90	0.30	0.07	0.00	0.00	0.00	0.00	0.00	12.10	15:04
4	99.30	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.27	13:27
5	93.73	4.57	1.33	0.27	0.07	0.00	0.00	0.00	0.00	14.30	15:47
6	93.93	5.60	0.43	0.03	0.00	0.00	0.00	0.00	0.00	10.40	13:22
7	74.03	13.93	8.23	3.20	0.57	0.03	0.00	0.00	0.00	14.40	6:53
8	91.40	8.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	8.91	6:35
9	97.33	2.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	9.47	12:30
10	97.80	1.80	0.37	0.07	0.00	0.00	0.00	0.00	0.00	10.90	21:24
11	87.63	8.10	3.23	0.80	0.20	0.03	0.00	0.00	0.00	14.20	13:54
12	90.27	8.30	1.37	0.07	0.00	0.00	0.00	0.00	0.00	10.90	13:22
13	80.87	9.93	5.53	2.50	0.87	0.27	0.03	0.00	0.00	17.50	22:43
14	78.57	11.97	5.70	2.40	1.00	0.23	0.07	0.00	0.00	17.70	0:40
15	94.93	4.73	0.37	0.00	0.00	0.00	0.00	0.00	0.00	9.42	13:53
16	94.00	5.63	0.37	0.00	0.00	0.00	0.00	0.00	0.00	9.52	9:53
17	89.90	9.37	0.70	0.00	0.00	0.00	0.00	0.00	0.00	9.27	10:39
18	96.33	3.13	0.47	0.03	0.00	0.00	0.00	0.00	0.00	11.70	14:21
19	93.17	5.70	1.00	0.07	0.00	0.00	0.00	0.00	0.00	12.60	13:49
20	69.03	9.33	9.07	7.83	3.70	0.90	0.13	0.00	0.00	18.00	7:05
21	98.17	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.37	14:11
22	97.77	2.10	0.13	0.00	0.00	0.00	0.00	0.00	0.00	9.01	14:43
23	98.67	1.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	10.40	15:35
24	96.80	2.93	0.23	0.03	0.00	0.00	0.00	0.00	0.00	10.60	15:28
25	99.27	0.63	0.07	0.00	0.00	0.00	0.00	0.00	0.00	8.91	16:39
26	85.90	8.57	3.57	1.40	0.40	0.07	0.00	0.00	0.00	16.10	11:21
27	97.23	2.63	0.13	0.00	0.00	0.00	0.00	0.00	0.00	8.60	12:46
28	96.53	3.13	0.37	0.00	0.00	0.00	0.00	0.00	0.00	9.27	16:50
29	97.00	2.93	0.07	0.00	0.00	0.00	0.00	0.00	0.00	10.70	14:35
30	97.63	2.20	0.13	0.00	0.00	0.00	0.00	0.00	0.00	9.83	16:12
All	92.01	5.39	1.63	0.66	0.23	0.05	0.01	0.00	0.00	17.97	7:05

Average Frequency Distribution of Wind Speeds - 10m
Resolution - East Plant
May-12

Day	Wind Speed Interval (percent)									Max Gust (m/s)	Time of Gust
	<5	5 < 7	7 < 9	9 < 11	11 < 13	13 < 15	15 < 17	17 < 19	>19		
1	95.67	3.77	0.53	0.03	0.00	0.00	0.00	0.00	0.00	10.10	15:48
2	92.77	6.47	0.73	0.03	0.00	0.00	0.00	0.00	0.00	10.60	12:59
3	93.57	5.77	0.67	0.00	0.00	0.00	0.00	0.00	0.00	10.40	17:08
4	96.70	3.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	10.40	16:44
5	93.87	5.13	0.93	0.07	0.00	0.00	0.00	0.00	0.00	11.60	14:07
6	93.90	4.87	1.07	0.13	0.03	0.00	0.00	0.00	0.00	12.10	14:57
7	93.23	5.50	1.03	0.17	0.03	0.00	0.00	0.00	0.00	11.70	14:53
8	78.60	12.97	6.50	1.53	0.30	0.07	0.00	0.00	0.00	15.90	18:20
9	44.63	22.40	19.00	11.17	2.57	0.20	0.00	0.00	0.00	15.90	2:36
10	94.10	5.43	0.47	0.00	0.00	0.00	0.00	0.00	0.00	9.42	15:06
11	95.10	4.23	0.63	0.03	0.00	0.00	0.00	0.00	0.00	10.20	17:21
12	97.47	2.33	0.17	0.03	0.00	0.00	0.00	0.00	0.00	10.40	12:30
13	96.47	3.23	0.33	0.00	0.00	0.00	0.00	0.00	0.00	9.78	17:27
14	57.37	11.33	14.10	12.07	4.60	0.60	0.00	0.00	0.00	16.10	9:48
15	40.90	34.17	19.37	5.07	0.47	0.00	0.00	0.00	0.00	13.60	10:44
16	60.13	26.77	11.30	1.73	0.07	0.00	0.00	0.00	0.00	15.10	15:10
17	84.97	11.23	3.17	0.60	0.03	0.00	0.00	0.00	0.00	14.20	16:53
18	84.00	10.80	3.60	1.10	0.33	0.07	0.00	0.00	0.00	15.70	15:08
19	96.47	3.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	8.81	14:20
20	97.07	2.83	0.07	0.00	0.00	0.00	0.00	0.00	0.00	9.37	16:31
21	92.33	6.90	0.70	0.07	0.00	0.00	0.00	0.00	0.00	12.90	15:00
22	92.57	6.17	1.17	0.10	0.00	0.00	0.00	0.00	0.00	12.80	17:23
23	65.33	20.30	9.10	3.63	1.27	0.33	0.07	0.00	0.00	19.20	16:41
24	83.17	12.60	3.37	0.73	0.13	0.00	0.00	0.00	0.00	13.50	14:57
25	73.20	17.97	6.37	1.93	0.43	0.07	0.00	0.00	0.00	14.60	15:27
26	90.67	7.83	1.33	0.17	0.00	0.00	0.00	0.00	0.00	12.30	14:19
27	98.27	1.70	0.03	0.00	0.00	0.00	0.00	0.00	0.00	7.63	15:59
28	98.60	1.37	0.03	0.00	0.00	0.00	0.00	0.00	0.00	7.99	15:34
29	97.10	2.63	0.23	0.00	0.00	0.00	0.00	0.00	0.00	10.80	13:55
30	95.30	4.37	0.30	0.00	0.00	0.00	0.00	0.00	0.00	11.20	14:55
31	92.63	6.40	0.93	0.03	0.00	0.00	0.00	0.00	0.00	10.10	13:14
All	86.00	8.83	3.48	1.30	0.33	0.04	0.00	0.00	0.00	19.20	16:41

Average Frequency Distribution of Wind Speeds - 10m
 Resolution - East Plant
 Jun-12

Day	Wind Speed Interval (percent)									Max Gust (m/s)	Time of Gust
	<5	5 < 7	7 < 9	9 < 11	11 < 13	13 < 15	15 < 17	17 < 19	>19		
1	95.53	3.73	0.67	0.07	0.00	0.00	0.00	0.00	0.00	10.50	16:29
2	92.33	5.73	1.60	0.37	0.00	0.00	0.00	0.00	0.00	15.50	18:12
3	95.70	3.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	10.30	14:19
4	96.50	3.20	0.27	0.03	0.00	0.00	0.00	0.00	0.00	11.60	16:03
5	94.70	4.33	0.87	0.13	0.00	0.00	0.00	0.00	0.00	12.00	15:54
6	95.87	3.60	0.47	0.07	0.00	0.00	0.00	0.00	0.00	11.00	16:21
7	95.03	4.03	0.87	0.03	0.00	0.00	0.00	0.00	0.00	11.10	16:06
8	92.70	6.20	0.93	0.17	0.00	0.00	0.00	0.00	0.00	12.20	15:06
9	79.80	12.43	5.57	1.83	0.27	0.00	0.00	0.00	0.00	15.80	14:35
10	95.37	3.90	0.70	0.00	0.00	0.00	0.00	0.00	0.00	13.80	16:42
11	96.40	3.13	0.43	0.07	0.00	0.00	0.00	0.00	0.00	11.20	15:52
12	95.70	3.87	0.40	0.00	0.00	0.00	0.00	0.00	0.00	9.22	12:51
13	95.77	3.43	0.70	0.13	0.00	0.00	0.00	0.00	0.00	10.60	15:14
14	93.37	5.60	0.90	0.13	0.00	0.00	0.00	0.00	0.00	10.60	15:42
15	90.23	7.43	2.00	0.37	0.00	0.00	0.00	0.00	0.00	11.20	15:35
16	77.50	10.27	6.33	3.43	1.70	0.50	0.17	0.07	0.07	22.50	20:09
17	90.90	8.23	0.77	0.03	0.00	0.00	0.00	0.00	0.00	10.50	13:36
18	86.57	9.17	3.30	0.80	0.13	0.00	0.00	0.00	0.00	16.00	12:55
19	90.50	7.40	1.67	0.33	0.07	0.00	0.00	0.00	0.00	13.90	17:15
20	96.17	3.47	0.33	0.03	0.00	0.00	0.00	0.00	0.00	9.68	15:53
21	97.47	2.40	0.13	0.00	0.00	0.00	0.00	0.00	0.00	9.68	16:33
22	94.27	4.73	0.93	0.03	0.00	0.00	0.00	0.00	0.00	11.20	16:03
23	93.97	5.47	0.50	0.10	0.00	0.00	0.00	0.00	0.00	11.70	15:40
24	92.53	6.17	1.13	0.13	0.00	0.00	0.00	0.00	0.00	12.10	15:35
25	96.10	3.47	0.43	0.03	0.00	0.00	0.00	0.00	0.00	10.10	14:36
26	94.20	4.70	0.97	0.13	0.03	0.00	0.00	0.00	0.00	13.50	18:44
27	88.57	6.10	2.90	1.43	0.60	0.23	0.13	0.03	0.00	20.10	17:59
28	93.57	5.73	0.60	0.07	0.00	0.00	0.00	0.00	0.00	12.50	16:12
29	92.23	6.20	1.40	0.17	0.00	0.00	0.00	0.00	0.00	11.10	16:53
30	90.37	8.10	1.37	0.13	0.00	0.00	0.00	0.00	0.00	14.30	15:46
All	92.66	5.54	1.32	0.34	0.09	0.02	0.01	0.00	0.00	22.53	20:09

Average Frequency Distribution of Wind Speeds - 10m
Resolution - West Plant
Apr-12

Day	Wind Speed Interval (percent)									Max Gust (m/s)	Time of Gust
	<5	5 < 7	7 < 9	9 < 11	11 < 13	13 < 15	15 < 17	17 < 19	>19		
1	73.03	15.30	9.40	2.20	0.10	0.00	0.00	0.00	0.00	14.30	14:42
2	87.93	10.00	1.97	0.10	0.00	0.00	0.00	0.00	0.00	10.40	15:31
3	90.80	8.20	0.97	0.03	0.00	0.00	0.00	0.00	0.00	9.57	14:26
4	97.17	2.83	0.07	0.00	0.00	0.00	0.00	0.00	0.00	8.24	12:42
5	81.97	13.87	3.80	0.40	0.00	0.00	0.00	0.00	0.00	14.50	12:28
6	92.93	6.53	0.53	0.00	0.00	0.00	0.00	0.00	0.00	9.11	13:54
7	98.93	1.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	7.42	10:05
8	86.80	11.50	1.43	0.27	0.00	0.00	0.00	0.00	0.00	11.50	8:40
9	91.57	7.27	1.17	0.00	0.00	0.00	0.00	0.00	0.00	9.68	14:02
10	97.80	2.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	7.78	14:51
11	72.37	15.67	8.27	3.13	0.57	0.03	0.00	0.00	0.00	14.00	13:57
12	88.17	9.77	2.00	0.07	0.00	0.00	0.00	0.00	0.00	9.78	14:26
13	77.17	13.40	6.07	2.50	0.73	0.10	0.00	0.00	0.00	15.90	22:23
14	54.87	26.80	12.77	4.07	1.30	0.20	0.03	0.00	0.00	16.20	1:23
15	93.17	6.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	14.20	13:43
16	92.97	6.80	0.20	0.00	0.00	0.00	0.00	0.00	0.00	9.47	15:14
17	88.47	9.93	1.47	0.10	0.00	0.00	0.00	0.00	0.00	11.70	9:38
18	91.87	7.23	0.90	0.00	0.00	0.00	0.00	0.00	0.00	9.57	14:12
19	87.37	10.30	2.30	0.07	0.00	0.00	0.00	0.00	0.00	9.88	16:15
20	72.83	9.17	6.37	5.37	3.53	2.03	0.57	0.13	0.00	19.40	6:01
21	95.57	4.23	0.10	0.00	0.00	0.00	0.00	0.00	0.00	8.50	14:09
22	93.23	6.20	0.57	0.00	0.00	0.00	0.00	0.00	0.00	9.01	14:10
23	93.20	5.67	1.07	0.07	0.00	0.00	0.00	0.00	0.00	11.00	15:08
24	90.93	7.60	1.43	0.03	0.00	0.00	0.00	0.00	0.00	10.30	12:37
25	96.73	2.90	0.37	0.00	0.00	0.00	0.00	0.00	0.00	9.22	16:36
26	75.27	17.27	6.30	1.10	0.07	0.00	0.00	0.00	0.00	12.90	10:19
27	94.33	5.33	0.30	0.00	0.00	0.00	0.00	0.00	0.00	9.11	14:24
28	92.33	7.23	0.43	0.00	0.00	0.00	0.00	0.00	0.00	8.60	13:14
29	94.67	5.10	0.23	0.00	0.00	0.00	0.00	0.00	0.00	8.40	16:03
30	94.50	5.10	0.40	0.00	0.00	0.00	0.00	0.00	0.00	10.20	16:47
All	87.96	8.69	2.38	0.65	0.21	0.08	0.02	0.00	0.00	19.40	6:01

**Average Frequency Distribution of Wind Speeds - 10m
Resolution - West Plant
May-12**

Day	Wind Speed Interval (percent)									Max Gust (m/s)	Time of Gust
	<5	5 < 7	7 < 9	9 < 11	11 < 13	13 < 15	15 < 17	17 < 19	>19		
1	87.57	10.47	1.87	0.10	0.00	0.00	0.00	0.00	0.00	10.80	14:50
2	87.27	11.03	1.70	0.03	0.00	0.00	0.00	0.00	0.00	12.00	15:49
3	87.50	10.30	2.00	0.20	0.00	0.00	0.00	0.00	0.00	10.40	16:09
4	90.70	8.23	1.03	0.03	0.00	0.00	0.00	0.00	0.00	13.50	15:01
5	88.37	8.67	2.57	0.40	0.00	0.00	0.00	0.00	0.00	11.50	13:41
6	86.73	10.10	2.93	0.23	0.00	0.00	0.00	0.00	0.00	11.50	13:33
7	85.00	10.47	3.80	0.67	0.03	0.00	0.00	0.00	0.00	12.50	15:01
8	71.87	18.00	7.47	2.27	0.37	0.00	0.00	0.00	0.00	13.40	22:09
9	58.53	18.57	11.23	6.13	3.23	1.57	0.57	0.13	0.03	22.70	3:36
10	92.77	6.77	0.47	0.00	0.00	0.00	0.00	0.00	0.00	8.96	15:52
11	89.60	8.60	1.70	0.10	0.00	0.00	0.00	0.00	0.00	10.90	14:35
12	94.37	5.07	0.53	0.00	0.00	0.00	0.00	0.00	0.00	9.27	10:57
13	90.43	8.43	1.10	0.00	0.00	0.00	0.00	0.00	0.00	9.73	14:15
14	59.23	9.70	10.63	10.67	6.77	2.43	0.50	0.03	0.00	19.30	6:42
15	45.07	23.53	16.97	9.50	3.57	1.03	0.30	0.03	0.00	22.20	7:11
16	43.63	20.03	14.13	9.47	6.87	3.87	1.53	0.43	0.10	24.10	3:38
17	79.30	15.33	4.50	0.77	0.03	0.00	0.00	0.00	0.00	14.20	14:35
18	61.27	20.37	13.33	4.03	0.97	0.07	0.00	0.00	0.00	14.30	14:42
19	93.47	6.10	0.47	0.03	0.00	0.00	0.00	0.00	0.00	10.30	16:03
20	92.37	7.17	0.43	0.00	0.00	0.00	0.00	0.00	0.00	8.55	14:07
21	82.97	13.43	3.23	0.40	0.03	0.00	0.00	0.00	0.00	12.10	14:15
22	85.70	11.37	2.73	0.23	0.00	0.00	0.00	0.00	0.00	11.90	17:40
23	55.77	20.30	16.30	6.23	1.23	0.13	0.00	0.00	0.00	15.90	15:42
24	70.23	20.30	7.50	1.70	0.23	0.00	0.00	0.00	0.00	15.30	12:32
25	61.63	20.13	13.13	4.43	0.63	0.00	0.00	0.00	0.00	13.60	10:17
26	78.70	15.27	5.53	0.50	0.03	0.00	0.00	0.00	0.00	12.50	12:24
27	95.17	4.60	0.23	0.00	0.00	0.00	0.00	0.00	0.00	9.06	15:38
28	92.70	6.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	9.47	15:09
29	91.20	7.77	1.00	0.03	0.00	0.00	0.00	0.00	0.00	9.88	14:12
30	90.13	9.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	8.81	13:25
31	85.00	12.53	2.40	0.07	0.00	0.00	0.00	0.00	0.00	9.98	13:25
All	79.81	12.21	4.91	1.88	0.77	0.29	0.09	0.02	0.00	24.06	3:38

Average Frequency Distribution of Wind Speeds - 10m
Resolution - West Plant
Jun-12

Day	Wind Speed Interval (percent)									Max Gust (m/s)	Time of Gust
	<5	5 < 7	7 < 9	9 < 11	11 < 13	13 < 15	15 < 17	17 < 19	>19		
1	85.73	12.03	2.20	0.07	0.00	0.00	0.00	0.00	0.00	9.88	16:15
2	78.27	13.87	6.03	1.60	0.20	0.03	0.00	0.00	0.00	14.50	15:03
3	89.47	9.17	1.23	0.10	0.00	0.00	0.00	0.00	0.00	11.10	13:40
4	89.77	7.87	2.20	0.13	0.00	0.00	0.00	0.00	0.00	15.20	16:09
5	82.43	13.50	3.77	0.33	0.00	0.00	0.00	0.00	0.00	11.00	13:15
6	86.70	10.30	2.90	0.07	0.00	0.00	0.00	0.00	0.00	11.70	16:54
7	89.33	8.93	1.60	0.13	0.00	0.00	0.00	0.00	0.00	10.90	16:44
8	84.73	11.33	3.63	0.30	0.03	0.00	0.00	0.00	0.00	12.70	15:53
9	72.97	16.67	8.37	1.80	0.20	0.00	0.00	0.00	0.00	13.70	16:52
10	89.47	7.87	2.47	0.23	0.00	0.00	0.00	0.00	0.00	10.90	15:09
11	89.77	8.80	1.40	0.07	0.00	0.00	0.00	0.00	0.00	11.20	14:46
12	92.20	7.03	0.70	0.00	0.00	0.00	0.00	0.00	0.00	9.16	15:37
13	89.13	8.40	2.23	0.23	0.00	0.00	0.00	0.00	0.00	12.20	11:41
14	87.83	9.17	2.53	0.40	0.03	0.00	0.00	0.00	0.00	12.40	14:27
15	87.50	9.50	2.53	0.40	0.03	0.00	0.00	0.00	0.00	12.90	16:13
16	72.77	9.37	6.47	4.97	3.60	1.83	0.63	0.17	0.23	30.40	20:17
17	77.77	16.97	4.87	0.40	0.00	0.00	0.00	0.00	0.00	11.60	5:10
18	70.07	15.83	10.30	3.30	0.47	0.03	0.00	0.00	0.00	14.10	16:36
19	79.37	15.27	5.00	0.30	0.00	0.00	0.00	0.00	0.00	11.80	10:53
20	92.27	7.27	0.50	0.00	0.00	0.00	0.00	0.00	0.00	9.11	14:34
21	93.73	5.87	0.40	0.00	0.00	0.00	0.00	0.00	0.00	8.65	15:35
22	88.93	9.67	1.43	0.00	0.00	0.00	0.00	0.00	0.00	9.78	11:53
23	90.00	9.20	0.80	0.00	0.00	0.00	0.00	0.00	0.00	9.52	16:13
24	83.90	13.20	2.70	0.20	0.00	0.00	0.00	0.00	0.00	11.10	14:49
25	87.37	10.70	1.87	0.03	0.00	0.00	0.00	0.00	0.00	10.20	15:59
26	88.23	9.43	2.20	0.17	0.00	0.00	0.00	0.00	0.00	11.80	18:40
27	79.83	12.70	3.20	1.63	1.37	0.90	0.30	0.10	0.03	21.40	18:38
28	83.80	13.67	2.43	0.13	0.00	0.00	0.00	0.00	0.00	10.90	15:04
29	79.50	15.43	4.70	0.40	0.00	0.00	0.00	0.00	0.00	11.00	15:17
30	75.77	16.20	6.83	1.13	0.07	0.00	0.00	0.00	0.00	12.00	15:31
All	84.62	11.17	3.25	0.62	0.20	0.09	0.03	0.01	0.01	30.36	20:17

Appendix C: Meteorological Data - Hourly

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, WS_ms_10m"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	5.0	4.0	2.9	2.9	2.6	1.2	2.1	3.0	3.2	2.3	3.8	3.8	2.9	4.3	3.8	3.3	3.6	5.5	5.5	3.6	3.8	3.3	1.9	1.6	3.3	5.5	1.2
2	1.6	2.0	2.6	2.4	3.2	2.7	2.0	1.4	2.5	2.6	2.9	3.5	2.7	3.1	3.3	3.4	2.9	2.3	2.3	1.2	1.5	1.8	1.5	0.9	2.3	3.5	0.9
3	0.5	0.2	0.4	0.5	0.7	1.1	0.9	1.0	1.4	3.6	3.2	3.3	3.0	3.3	3.1	2.6	2.9	2.3	2.0	1.3	1.2	1.2	1.4	1.1	1.7	3.6	0.2
4	0.6	0.5	0.4	0.6	0.6	0.8	1.1	1.2	1.6	1.5	2.4	2.6	2.2	2.6	2.4	2.4	2.2	2.2	1.6	1.1	0.5	0.5	0.3	0.4	1.3	2.6	0.3
5	0.5	0.3	0.4	0.4	0.6	0.9	1.1	1.4	2.1	2.8	3.4	2.9	3.5	4.3	3.3	4.3	3.1	2.8	1.8	2.2	1.5	1.7	1.1	2.2	2.0	4.3	0.3
6	3.2	4.2	4.5	2.2	0.8	0.6	0.5	0.9	2.2	3.0	2.1	2.3	2.8	2.8	3.1	3.0	3.0	2.5	1.8	1.9	1.1	0.9	1.0	0.8	2.1	4.5	0.5
7	1.6	1.8	3.0	3.4	5.1	7.8	8.9	6.6	5.9	4.7	5.7	5.7	4.4	2.5	2.1	1.8	1.4	1.8	1.5	1.4	1.7	1.5	1.4	1.4	3.5	8.9	1.4
8	1.4	1.5	1.5	1.6	1.7	2.6	4.2	4.1	4.2	5.2	4.3	3.3	2.9	2.0	2.6	2.6	3.3	2.8	2.8	1.7	0.8	0.9	0.7	0.5	2.5	5.2	0.5
9	0.3	0.3	0.3	1.1	1.2	0.7	1.0	1.4	0.9	2.0	2.0	2.1	3.4	3.2	3.2	3.0	2.3	1.9	1.2	0.7	0.9	1.0	0.8	0.9	1.5	3.4	0.3
10	0.8	0.6	0.6	0.9	1.2	1.1	0.9	1.5	1.6	2.5	2.8	2.3	2.7	2.3	3.0	2.2	1.9	1.8	1.1	0.8	2.1	4.2	2.0	2.3	1.8	4.2	0.6
11	0.8	1.2	0.8	1.4	2.7	3.3	3.6	3.3	2.5	3.3	4.3	3.7	5.2	4.2	4.3	4.8	2.7	3.2	2.2	1.9	1.9	1.5	2.0	2.0	2.8	5.2	0.8
12	3.8	4.5	4.8	3.3	2.1	1.4	0.6	1.2	1.6	2.1	2.8	3.5	3.0	3.2	3.8	3.2	3.5	2.2	1.8	1.4	0.7	0.4	0.5	0.4	2.3	4.8	0.4
13	0.7	0.7	0.3	0.3	0.4	0.5	0.7	0.5	1.5	2.4	2.6	2.6	2.2	2.7	2.9	3.2	3.7	3.9	3.5	5.6	6.6	6.6	6.4	6.7	2.8	6.7	0.3
14	7.6	7.1	5.2	4.0	3.3	3.4	3.3	2.3	3.1	2.8	3.6	4.3	3.1	3.4	4.0	3.1	3.7	3.2	2.9	2.6	2.4	2.0	1.5	1.2	3.5	7.6	1.2
15	1.1	0.7	1.1	2.0	0.9	0.9	0.7	0.8	2.6	3.3	3.2	3.2	3.8	3.5	3.2	3.5	3.0	2.6	2.5	2.6	2.2	1.4	1.0	0.7	2.1	3.8	0.7
16	2.5	2.2	0.8	0.4	1.1	1.8	1.5	2.6	4.2	4.8	4.5	2.7	2.1	2.1	1.8	2.0	2.4	2.6	2.9	3.1	1.7	0.9	1.0	1.4	2.2	4.8	0.4
17	1.3	1.2	1.7	1.8	2.4	1.8	2.6	4.4	4.8	4.6	5.2	4.0	3.4	2.6	2.6	2.4	2.7	2.4	1.4	1.0	0.8	0.9	1.0	1.1	2.4	5.2	0.8
18	0.5	0.2	0.6	0.4	0.9	0.6	0.7	0.8	0.9	1.4	2.3	2.9	2.7	3.3	3.0	2.8	2.9	2.3	1.8	1.0	1.1	0.6	0.8	0.7	1.5	3.3	0.2
19	1.0	1.1	1.0	0.8	1.3	1.1	0.6	1.3	1.2	1.7	2.3	2.4	3.0	3.0	3.1	3.3	3.2	2.4	2.2	2.7	2.2	2.5	4.0	4.3	2.2	4.3	0.6
20	3.6	2.4	1.3	1.3	5.8	9.8	10.6	9.6	8.8	8.1	6.7	4.5	2.7	2.1	2.9	2.8	2.6	2.6	2.9	3.6	2.9	1.7	0.4	0.7	4.2	10.6	0.4
21	0.6	1.2	1.8	1.6	1.7	2.0	2.4	2.7	3.4	3.9	2.1	2.2	2.0	2.7	2.8	2.0	2.5	2.3	1.6	1.4	1.5	1.1	0.9	0.9	2.0	3.9	0.6
22	0.8	0.8	0.8	0.6	1.1	1.0	1.2	1.0	1.7	1.2	2.2	2.5	3.0	3.0	3.3	2.4	2.9	1.7	2.0	2.2	1.2	1.0	1.0	1.1	1.7	3.3	0.6
23	1.9	1.5	1.4	1.6	0.7	0.6	0.9	0.6	1.2	1.2	2.5	2.5	2.7	2.7	2.6	2.6	1.9	1.7	1.9	1.5	0.8	2.5	1.5	2.5	1.7	2.7	0.6
24	1.4	1.6	1.3	1.3	0.8	0.7	0.9	0.6	2.6	2.4	2.2	3.1	3.2	2.8	2.9	2.9	2.4	2.1	1.4	1.2	0.8	0.5	0.8	0.6	1.7	3.2	0.5
25	0.9	0.9	0.8	0.9	1.2	1.6	1.1	1.5	1.4	1.7	2.0	1.2	1.7	1.8	3.0	2.4	3.1	2.6	2.4	1.0	0.7	2.7	1.2	0.7	1.6	3.1	0.7
26	1.7	2.7	3.2	2.9	3.4	2.3	2.7	3.1	3.3	4.8	6.3	6.6	4.2	2.2	3.1	3.1	2.9	2.7	2.1	1.4	1.5	0.7	1.0	0.8	2.9	6.6	0.7
27	0.6	0.7	0.6	0.9	0.8	0.9	1.0	0.8	1.4	2.1	2.5	3.0	3.0	3.1	2.9	3.1	2.8	2.5	2.7	2.2	1.9	1.3	1.4	2.0	1.8	3.1	0.6
28	1.6	1.7	1.5	0.6	0.5	0.5	0.6	0.7	1.3	2.9	2.6	3.1	2.8	3.8	2.7	3.0	3.0	2.6	2.0	2.1	1.5	1.4	1.5	1.0	1.9	3.8	0.5
29	1.6	3.5	1.8	0.4	0.7	0.9	0.6	1.2	2.6	3.1	2.5	2.7	2.7	2.6	2.5	2.7	2.6	2.3	2.9	2.7	0.6	0.4	0.4	0.8	1.9	3.5	0.4
30	0.8	2.0	2.8	2.4	1.0	0.7	0.6	0.9	1.0	3.5	2.9	2.8	2.6	2.7	2.6	2.8	3.2	2.0	2.3	1.3	1.2	2.2	2.4	1.8	2.0	3.5	0.6
Avg	1.7	1.8	1.7	1.5	1.7	1.8	2.0	2.1	2.6	3.1	3.3	3.2	3.0	2.9	3.0	2.9	2.8	2.5	2.2	1.9	1.6	1.6	1.4	1.4	2.2	--	--
Max	7.6	7.1	5.2	4.0	5.8	9.8	10.6	9.6	8.8	8.1	6.7	6.6	5.2	4.3	4.3	4.8	3.7	5.5	5.5	5.6	6.6	6.4	6.7	--	10.6	--	
Min	0.3	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.2	2.0	1.2	1.7	1.8	1.8	1.4	1.7	1.1	0.7	0.5	0.4	0.3	0.4	--	--	0.2	

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, WS_ms_10m"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	2.0	0.9	0.8	0.5	0.6	0.3	1.7	3.2	2.5	2.5	2.7	2.9	3.0	3.2	3.0	3.0	2.7	2.6	2.0	1.3	0.9	0.4	0.6	1.9	1.9	3.2	0.3
2	1.5	2.7	1.4	1.4	1.6	2.3	3.0	2.9	4.4	3.4	3.5	3.3	3.4	3.2	3.2	2.5	2.9	2.4	2.5	2.1	1.8	1.6	0.9	1.1	2.5	4.4	0.9
3	0.9	2.2	4.0	2.1	1.0	0.9	0.6	1.1	3.5	2.7	3.5	3.1	3.0	3.0	3.3	3.1	3.6	2.9	2.2	1.8	1.2	0.3	1.2	1.4	2.2	4.0	0.3
4	1.0	0.4	1.0	0.5	0.9	1.1	0.5	1.3	1.9	2.9	3.1	3.1	2.9	3.0	2.8	2.7	2.6	2.5	1.7	1.0	0.8	0.3	0.3	0.5	1.6	3.1	0.3
5	0.3	1.2	0.5	0.6	0.5	1.1	2.1	1.7	2.4	3.1	3.4	3.4	3.0	3.6	3.7	3.2	2.6	2.6	2.1	2.1	1.0	1.1	1.1	0.8	2.0	3.7	0.3
6	0.8	0.8	0.4	0.9	0.8	0.6	0.6	0.9	2.7	2.8	3.9	3.9	3.0	3.4	3.0	3.0	2.9	2.6	2.0	1.8	1.7	1.3	1.0	1.7	1.9	3.9	0.4
7	2.6	1.7	1.4	1.1	0.9	2.0	1.4	1.4	2.5	3.4	3.1	2.8	3.1	3.8	3.6	3.9	3.5	2.5	2.5	1.7	1.1	2.4	2.0	0.8	2.3	3.9	0.8
8	0.6	0.8	0.6	1.0	0.9	1.5	1.8	3.1	2.6	2.1	2.8	2.3	2.9	3.3	2.1	2.9	2.1	4.0	7.8	6.1	4.9	4.8	6.3	6.4	3.1	7.8	0.6
9	9.0	8.2	9.0	8.7	6.6	6.3	7.5	9.1	7.5	6.4	6.5	4.5	5.1	5.1	2.9	3.9	4.7	5.2	2.7	1.7	2.8	3.4	4.5	4.3	5.7	9.1	1.7
10	4.8	3.1	1.9	2.1	1.8	1.9	1.3	1.1	1.0	2.7	2.7	3.0	2.9	2.8	3.3	2.9	3.2	3.1	2.7	2.3	2.3	2.1	1.8	1.5	2.4	4.8	1.0
11	1.5	1.8	1.2	0.6	0.7	0.7	0.5	0.7	1.1	2.1	2.2	2.4	3.3	3.3	3.5	2.7	3.3	3.0	2.2	1.7	0.5	2.1	0.7	0.6	1.8	3.5	0.5
12	0.6	0.7	0.3	0.5	0.2	0.6	0.6	0.7	1.7	3.0	3.4	3.2	3.0	2.5	2.5	2.6	2.7	2.4	1.6	1.6	0.7	1.2	1.9	1.7	1.7	3.4	0.2
13	1.2	1.1	2.0	2.0	0.6	0.8	1.0	0.9	2.0	2.4	1.8	2.8	2.6	3.5	3.3	2.9	2.9	2.6	2.1	1.5	1.3	1.2	2.0	1.9	3.5	0.6	
14	2.0	1.9	7.1	8.8	9.7	10.0	9.3	7.7	8.1	9.1	7.3	5.5	4.4	3.5	3.9	3.4	3.7	2.3	2.2	0.9	0.8	1.1	2.1	1.8	4.9	10.0	0.8
15	3.8	4.7	4.6	4.6	6.0	5.4	5.9	6.5	6.3	6.9	7.9	7.4	6.5	5.6	4.7	4.3	3.7	3.9	4.6	4.8	4.3	6.9	7.4	7.6	5.6	7.9	3.7
16	6.4	6.3	5.8	5.5	4.9	4.4	5.0	6.6	6.1	6.6	5.6	5.1	4.2	4.6	4.7	3.6	2.9	2.7	2.4	2.1	2.3	3.2	2.1	0.6	4.3	6.6	0.6
17	0.6	0.3	0.5	0.8	0.5	1.0	1.2	0.4	2.8	2.9	2.8	2.8	3.5	3.6	3.0	4.1	3.6	3.1	5.0	5.7	4.8	4.1	3.7	2.7	5.7	0.3	
18	2.5	2.7	2.2	2.8	3.3	2.7	3.2	3.6	3.6	4.2	3.7	3.3	4.6	5.1	4.5	3.6	4.1	3.8	3.4	2.7	3.4	2.1	2.0	0.8	3.2	5.1	0.8
19	0.8	0.6	1.0	0.4	0.3	0.4	0.8	1.2	1.5	2.6	2.3	2.7	3.1	3.3	2.7	3.1	3.1	2.5	2.2	1.8	1.0	0.9	0.5	0.6	1.6	3.3	0.3
20	0.7	0.6	1.0	0.6	0.9	1.3	1.7	3.6	4.0	2.9	2.2	2.6	2.9	2.4	3.2	3.2	2.6	2.1	1.8	1.8	1.2	0.5	0.8	0.7	1.9	4.0	0.5
21	0.9	0.8	0.7	0.9	1.3	1.4	2.4	3.5	4.5	4.3	2.6	2.1	2.8	2.9	3.6	3.4	3.1	2.6	2.3	2.4	2.0	2.0	1.5	0.6	2.3	4.5	0.6
22	0.7	0.4	0.7	0.3	0.4	0.6	0.5	0.8	2.0	2.3	2.2	2.8	3.6	3.0	3.1	3.0	3.0	3.2	3.0	2.4	2.4	3.2	3.8	3.4	2.1	3.8	0.3
23	2.7	4.0	4.5	3.1	1.0	2.0	2.9	2.8	2.9	5.9	4.8	5.3	4.8	4.8	4.3	4.3	6.7	7.0	5.8	4.8	4.7	5.4	6.3	4.0	4.4	7.0	1.0
24	3.0	2.5	1.7	2.1	2.2	2.9	4.4	2.9	2.7	2.7	3.1	4.0	4.0	3.2	4.6	4.4	4.1	4.3	4.7	4.1	3.4	3.1	2.7	2.1	3.3	4.7	1.7
25	2.1	1.7	1.8	3.6	4.5	4.0	4.9	5.0	6.4	5.5	4.4	4.6	4.2	4.7	4.6	5.2	5.3	3.8	2.8	2.5	3.6	2.1	2.0	2.5	3.8	6.4	1.7
26	2.1	2.7	2.3	1.8	3.5	3.6	3.8	3.1	2.8	2.7	2.8	3.5	3.2	3.4	3.5	2.9	2.8	2.7	2.6	2.4	2.4	1.5	1.7	1.3	2.7	3.8	1.3
27	0.9	0.5	0.5	0.7	0.3	0.5	0.8	1.3	1.4	1.9	2.5	2.6	2.6	2.5	2.8	2.6	3.0	2.3	2.0	1.5	1.1	1.3	1.3	1.0	1.6	3.0	0.3
28	0.8	0.4	0.4	1.1	1.0	0.8	1.4	2.1	2.3	2.3	2.0	2.3	2.2	2.3	2.7	2.9	2.4	2.0	1.2	0.8	0.8	0.7	0.8	1.6	2.9	0.4	
29	0.8	0.2	0.7	0.4	0.8	1.0	0.6	0.8	1.3	1.9	2.6	2.8	2.6	3.3	3.1	2.6	3.2	2.6	1.8	1.8	2.0	1.3	1.0	0.7	1.7	3.3	0.2
30	0.5	0.5	0.4	1.6	0.6	0.8	0.7	1.0	2.6	3.1	3.0	3.1	3.2	3.7	3.4	3.3	3.0	2.3	2.4	2.4	2.6	2.1	1.8	2.7	2.1	3.7	0.4
31	2.9	2.5	1.9	2.0	1.2	0.5	0.7	1.0	1.7	2.0	2.3	2.7	3.9	4.5	3.8	3.2	2.8	2.7	2.7	2.6	3.3	2.8	2.5	4.5	0.5	--	--
Avg	2.0	1.9	2.0	2.0	1.9	2.0	2.4	2.6	3.2	3.5	3.4	3.4	3.4	3.5	3.4	3.3	3.3	3.1	2.8	2.4	2.2	2.2	2.2	2.0	2.7	--	--
Max	9.0	8.2	9.0	8.8	9.7	10.0	9.3	9.1	8.1	9.1	7.9	7.4	6.5	5.6	4.7	5.2	6.7	7.0	7.8	6.1	5.7	6.9	7.4	7.6	--	10.0	--
Min	0.3	0.2	0.3	0.3	0.2	0.3	0.5	0.4	1.0	1.9	1.8	2.1	2.2	2.3	2.1	2.5	2.1	2.1	1.6	0.9	0.5	0.3	0.5	--	--	0.2	

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, WS_ms_10m"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	2.7	1.8	0.7	0.5	0.5	0.9	1.1	1.3	2.3	2.9	3.0	2.4	2.6	2.7	2.8	3.1	3.8	2.5	2.6	2.5	2.7	1.8	1.9	2.0	2.1	3.8	0.5
2	1.4	1.5	1.9	1.5	0.8	0.9	0.7	0.8	2.0	2.1	2.3	2.9	3.0	3.4	3.4	3.7	3.6	3.5	4.0	3.7	2.5	0.9	1.2	1.0	2.2	4.0	0.7
3	0.6	0.6	0.9	1.0	0.7	0.6	1.1	1.0	2.4	2.7	3.3	2.9	2.9	3.4	3.4	2.8	3.1	2.8	2.0	1.6	0.9	0.1	0.8	0.4	1.7	3.4	0.1
4	1.0	2.1	1.9	1.5	0.9	0.6	0.8	1.8	2.5	2.2	2.3	2.5	2.7	3.0	3.2	2.7	2.8	3.0	2.3	1.9	1.4	0.8	1.1	1.2	1.9	3.2	0.6
5	1.0	0.9	1.4	0.5	0.4	0.8	0.6	1.1	2.1	2.5	2.8	3.1	2.8	3.1	3.7	3.2	3.3	2.4	2.4	1.6	2.3	1.6	2.3	1.3	2.0	3.7	0.4
6	1.0	0.8	0.6	0.4	0.9	1.1	0.6	1.0	1.5	2.0	3.0	3.0	3.1	3.2	2.6	3.0	2.7	2.4	2.2	1.5	0.9	0.7	0.8	0.6	1.6	3.2	0.4
7	0.7	0.6	0.6	0.5	0.3	0.8	0.4	0.6	1.7	2.5	3.1	2.7	3.3	3.3	3.2	3.2	3.4	2.9	1.6	1.8	0.5	0.9	0.9	0.5	1.7	3.4	0.3
8	1.5	2.4	2.3	1.0	0.5	0.6	0.6	0.9	1.9	2.0	3.3	3.4	2.3	3.2	3.5	4.2	3.3	2.9	2.6	2.5	2.5	3.4	2.0	1.5	2.3	4.2	0.5
9	2.3	3.5	2.6	2.0	1.2	0.7	0.5	1.2	2.6	3.1	3.3	3.3	4.4	4.9	5.0	3.9	5.0	4.6	4.7	6.0	5.8	2.7	1.7	2.6	3.2	6.0	0.5
10	4.0	2.6	2.5	2.6	1.7	1.4	1.6	1.8	1.5	1.9	2.6	3.2	2.9	3.1	3.0	3.0	2.7	2.1	1.8	1.8	1.2	1.1	0.8	0.8	2.2	4.0	0.8
11	1.2	1.3	1.6	1.3	2.1	1.3	0.4	0.9	1.6	2.7	2.9	2.8	2.6	3.1	2.8	3.2	2.8	2.5	2.0	1.9	3.2	0.9	1.1	1.1	2.0	3.2	0.4
12	1.1	0.8	1.0	2.2	1.1	1.0	0.9	1.2	2.5	3.4	2.9	2.6	3.0	3.5	3.2	3.1	2.7	2.8	2.9	1.9	1.8	0.7	1.0	0.7	2.0	3.5	0.7
13	0.6	0.7	0.9	0.5	0.6	0.6	0.9	0.5	3.2	2.9	3.0	2.9	2.9	2.3	2.8	3.3	3.3	3.2	2.6	1.9	1.6	0.8	0.8	1.8	1.9	3.3	0.5
14	0.9	1.7	2.5	1.8	0.9	0.5	0.4	0.9	2.1	2.7	3.4	3.4	3.7	3.5	3.5	3.5	2.9	2.5	2.2	1.3	0.8	0.9	2.3	2.2	2.1	3.7	0.4
15	1.4	3.0	1.7	0.9	0.6	0.8	0.9	2.3	3.2	3.4	3.9	3.9	2.6	4.3	3.3	4.6	3.9	2.4	1.8	1.6	1.6	0.8	1.2	3.5	2.4	4.6	0.6
16	2.3	2.0	0.7	0.7	0.7	0.9	1.3	2.7	2.4	2.4	3.1	3.5	3.0	2.9	3.0	3.4	4.2	7.9	5.3	8.5	9.5	6.0	3.8	2.8	3.5	9.5	0.7
17	1.7	1.9	1.8	1.7	2.2	2.5	2.8	4.6	4.7	2.5	2.0	2.9	2.8	3.7	3.6	2.8	3.2	3.2	3.0	2.1	3.1	2.2	1.4	2.1	2.7	4.7	1.4
18	2.4	1.9	2.4	1.7	1.2	0.8	0.7	1.7	2.6	2.5	3.2	3.2	3.4	4.0	4.0	3.9	3.7	4.0	3.5	4.3	2.2	2.8	3.5	4.0	2.8	4.3	0.7
19	3.7	2.1	1.9	1.2	0.9	0.5	1.0	2.8	3.3	2.8	3.0	3.7	2.9	3.0	3.6	3.9	3.9	3.4	3.3	1.8	1.2	1.1	2.1	1.8	2.5	3.9	0.5
20	2.9	2.2	2.5	1.4	0.8	0.7	0.7	0.8	1.9	2.9	2.7	3.1	2.7	3.2	3.2	3.6	2.5	2.7	2.2	1.8	2.0	2.1	0.9	1.9	2.1	3.6	0.7
21	2.2	2.6	2.5	1.4	1.0	1.1	1.4	2.3	2.7	2.4	3.1	2.8	2.6	2.6	2.7	3.1	2.5	2.9	1.7	1.8	1.6	0.8	0.4	1.4	2.1	3.1	0.4
22	1.8	0.9	1.5	0.6	0.6	1.5	0.7	2.0	3.2	2.9	2.8	2.8	2.6	3.0	2.9	3.5	2.8	3.0	4.1	3.9	2.5	1.2	1.7	0.8	2.2	4.1	0.6
23	0.8	0.5	0.8	1.7	1.6	0.5	0.8	0.7	1.8	3.3	2.8	2.6	2.8	2.7	3.0	3.9	2.7	2.8	3.0	2.8	3.9	3.4	2.5	3.4	2.3	3.9	0.5
24	1.9	1.4	2.9	1.4	0.9	0.6	1.8	2.2	2.0	2.0	2.7	2.8	3.3	3.8	3.7	3.3	3.3	3.1	3.0	2.9	2.6	2.2	2.9	2.3	2.5	3.8	0.6
25	1.3	1.5	1.6	1.8	1.6	1.5	1.9	1.7	2.2	2.9	3.0	2.9	3.0	3.1	3.4	3.0	2.9	2.5	2.7	2.1	1.5	1.7	1.5	1.2	2.2	3.4	1.2
26	0.4	1.1	1.7	1.7	0.6	0.6	0.7	0.7	2.1	2.9	2.9	2.5	3.0	3.0	3.0	3.0	2.2	2.7	3.5	3.3	3.2	4.0	1.4	1.2	2.1	4.0	0.4
27	1.1	0.9	0.4	0.8	1.0	1.3	1.4	1.0	2.3	2.5	1.9	3.0	2.9	2.8	3.3	3.5	2.8	4.3	8.7	5.4	2.3	2.6	1.5	1.5	2.5	8.7	0.4
28	1.7	2.3	1.7	1.6	0.6	1.2	1.3	1.0	2.5	2.6	3.2	3.2	3.5	3.4	3.2	3.4	3.5	2.4	2.5	2.8	2.9	2.9	2.0	2.1	2.4	3.5	0.6
29	1.6	2.3	2.0	1.5	0.7	1.3	1.2	1.6	2.2	3.1	3.0	2.9	3.4	3.5	3.7	3.2	4.2	2.7	3.1	2.9	2.9	1.8	1.2	1.6	2.4	4.2	0.7
30	1.7	1.7	1.6	2.7	3.9	3.2	2.1	1.9	2.6	2.6	3.2	3.8	3.6	3.5	3.5	3.1	3.4	2.6	3.1	2.8	2.7	2.2	2.8	2.8	2.8	3.9	1.6
Avg	1.6	1.7	1.6	1.3	1.0	1.0	1.1	1.5	2.4	2.6	2.9	3.0	3.0	3.3	3.3	3.4	3.2	3.1	3.0	2.8	2.5	1.9	1.6	1.7	2.3	--	--
Max	4.0	3.5	2.9	2.7	3.9	3.2	2.8	4.6	4.7	3.4	3.9	3.9	4.4	4.9	5.0	4.6	5.0	7.9	8.7	8.5	9.5	6.0	3.8	4.0	--	9.5	--
Min	0.4	0.5	0.4	0.4	0.3	0.5	0.4	0.5	1.5	1.9	1.9	2.4	2.3	2.3	2.6	2.7	2.2	2.1	1.6	1.3	0.5	0.1	0.4	0.4	--	--	0.1

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, WD_10m"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	202	212	213	215	215	244	216	218	208	178	215	195	171	190	174	179	169	270	279	267	279	268	278	277	221	279	169
2	257	249	257	246	253	261	256	216	242	242	213	222	223	213	220	231	246	223	208	260	247	262	255	260	240	262	208
3	71	128	143	141	144	151	173	140	156	250	249	235	230	231	224	242	216	225	194	328	277	255	276	279	210	328	71
4	44	88	141	148	171	149	149	127	104	73	258	240	234	259	231	225	232	226	212	231	225	134	136	148	180	259	44
5	137	105	127	114	149	136	122	110	114	109	117	168	204	208	202	191	206	47	164	265	281	273	237	214	162	281	47
6	214	207	205	224	238	165	177	185	242	245	242	228	244	245	234	240	253	230	216	242	231	212	199	160	221	253	160
7	157	87	107	64	47	30	30	41	43	47	40	32	28	62	113	111	274	252	358	112	133	157	183	163	76	358	28
8	143	114	128	131	74	57	46	41	47	40	82	123	116	85	134	254	259	258	246	266	184	156	132	144	118	266	40
9	165	101	153	151	132	116	134	104	116	82	126	266	195	211	187	234	254	192	156	194	159	176	160	174	162	266	82
10	161	152	156	149	146	112	152	73	71	108	119	159	153	174	159	187	237	258	304	159	195	208	247	238	165	304	71
11	176	232	145	149	197	216	214	215	239	214	215	175	190	190	175	194	186	231	169	139	160	154	195	181	190	239	139
12	195	208	202	193	209	245	113	230	226	232	242	230	230	224	203	200	226	196	227	197	199	58	241	118	210	245	58
13	184	171	132	100	201	143	146	96	103	191	228	252	277	213	210	204	200	191	190	201	200	193	190	190	185	277	96
14	194	196	152	165	196	122	140	96	139	117	173	199	139	133	167	126	180	145	225	319	41	91	300	267	158	319	41
15	239	235	235	235	224	154	121	190	247	235	241	230	236	239	236	222	226	230	238	258	257	242	260	132	228	260	121
16	309	312	128	102	167	147	134	78	52	41	40	55	32	0	274	205	245	246	258	257	292	165	159	158	151	312	0
17	129	113	146	126	92	103	73	44	36	87	110	113	130	164	190	244	242	270	222	236	228	159	175	178	147	270	36
18	160	147	154	153	145	132	119	125	82	213	210	216	198	205	187	220	223	202	207	103	321	103	139	49	165	321	49
19	310	288	272	281	212	175	207	252	153	101	135	239	224	233	234	247	209	199	251	266	265	262	295	296	240	310	101
20	280	252	311	130	41	23	23	25	27	27	32	36	358	256	233	216	243	236	247	252	255	246	98	115	309	358	23
21	141	173	161	152	155	122	110	97	63	47	38	86	119	235	223	248	262	247	198	223	257	268	151	158	166	268	38
22	178	123	168	135	143	158	141	113	117	117	269	218	211	244	232	253	254	247	252	271	335	169	175	170	191	335	113
23	159	173	166	241	161	101	177	90	55	68	243	278	262	225	247	270	151	205	19	318	168	187	198	252	198	318	19
24	177	250	258	273	208	155	150	101	174	229	256	210	209	219	274	238	238	217	180	139	109	131	152	136	197	274	101
25	247	248	146	159	159	131	102	102	67	88	90	62	305	160	121	181	245	248	251	267	207	244	244	139	174	305	62
26	171	188	191	201	213	240	245	245	190	202	196	193	152	105	189	164	123	161	142	321	278	302	167	177	193	321	105
27	128	175	152	162	181	150	173	98	310	240	204	228	218	221	264	231	237	226	227	246	251	248	262	267	216	310	98
28	277	257	254	140	141	77	158	101	171	253	252	230	219	198	259	235	216	205	190	227	275	278	273	242	223	278	77
29	246	218	225	123	81	156	150	119	174	182	229	265	269	250	214	219	240	225	275	287	3	128	147	151	204	287	3
30	124	246	252	250	277	188	105	91	172	255	248	245	245	217	236	224	256	243	254	289	303	310	307	269	246	310	91
Avg	183	189	176	163	170	145	143	114	126	155	206	212	211	210	210	217	227	225	224	247	243	206	206	188	196	--	--
Max	310	312	311	281	277	261	256	252	310	255	269	278	358	259	274	270	274	270	358	328	335	310	307	296	--	358	--
Min	44	87	107	64	41	23	23	25	27	27	32	32	28	0	113	111	123	47	19	103	3	58	98	49	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, WD_10m"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	250	245	266	147	148	114	199	198	224	219	230	203	228	207	195	225	191	168	139	197	360	121	58	270	200	360	58
2	249	213	221	213	156	190	218	183	189	189	166	177	176	194	175	205	219	186	148	183	210	254	314	293	201	314	148
3	296	227	209	192	166	142	90	102	173	149	138	192	213	221	206	189	181	196	162	139	301	239	292	256	192	301	90
4	252	235	133	105	216	206	44	230	79	189	180	188	222	248	256	213	171	213	137	132	8	16	134	160	185	256	8
5	115	236	164	159	168	189	221	190	195	196	171	182	217	182	200	182	197	209	280	289	245	274	261	253	206	289	115
6	167	134	186	195	159	138	79	70	112	126	168	186	192	232	209	197	207	170	179	309	296	321	260	190	181	321	70
7	239	219	215	135	162	175	109	79	145	186	198	220	217	186	231	183	220	183	169	303	328	247	288	300	204	328	79
8	140	144	154	185	176	134	125	52	75	43	78	69	119	122	288	13	292	349	24	23	34	52	39	56	76	349	13
9	72	89	95	92	83	43	37	37	59	48	44	59	114	112	121	114	54	234	210	169	100	64	59	35	79	234	35
10	33	44	106	101	126	127	134	85	84	237	230	245	243	246	262	222	220	233	230	258	257	255	270	271	220	271	33
11	266	272	270	306	166	156	134	60	336	247	267	244	206	205	195	209	304	273	302	301	331	280	97	166	251	336	60
12	213	153	126	149	147	130	147	121	99	125	114	134	173	274	253	276	239	246	239	256	318	269	253	269	195	318	99
13	317	274	289	291	145	173	172	114	106	106	100	245	235	207	231	240	261	204	138	122	44	301	144	274	204	317	44
14	269	45	39	19	22	22	25	37	44	46	47	50	51	36	13	32	15	15	349	37	105	90	48	66	36	349	13
15	66	50	50	55	53	48	47	63	70	96	104	106	107	103	124	150	133	102	100	99	94	98	97	103	88	150	47
16	99	92	84	79	77	62	53	84	89	81	109	121	152	192	197	194	142	166	4	356	277	286	303	127	103	356	4
17	209	130	322	143	152	122	161	160	244	222	168	162	212	204	208	171	184	167	159	196	204	198	200	206	184	322	122
18	217	213	215	196	202	205	189	192	183	199	189	167	194	210	184	219	157	121	81	326	276	286	283	40	202	326	40
19	127	177	225	58	146	128	114	71	102	248	216	211	212	207	231	231	230	227	221	193	232	272	148	73	189	272	58
20	133	161	186	187	152	149	122	75	57	44	91	157	259	308	241	257	204	212	222	219	237	247	157	158	181	308	44
21	168	177	174	155	143	128	77	50	38	23	23	113	159	184	229	188	177	357	351	298	312	315	327	100	122	357	23
22	151	62	291	185	131	149	135	85	79	224	252	214	263	233	213	193	198	166	166	180	121	172	213	208	181	291	62
23	215	212	213	217	150	205	207	213	219	188	193	204	188	169	188	166	193	192	199	189	194	200	202	204	197	219	150
24	202	200	157	221	201	189	185	203	193	214	199	203	215	200	197	185	180	187	197	182	168	157	180	178	191	221	157
25	198	223	243	207	201	198	182	185	192	183	193	194	189	184	196	184	200	192	168	220	197	201	184	221	197	243	168
26	235	244	245	215	209	197	193	196	208	158	211	198	205	200	234	231	223	223	261	250	270	287	279	281	227	287	158
27	205	169	145	168	133	127	137	66	139	215	255	265	236	259	261	228	217	225	219	182	254	282	295	287	213	295	66
28	291	26	149	171	146	120	100	88	106	103	99	98	145	230	253	212	230	235	216	164	232	177	180	173	165	291	26
29	149	154	167	149	154	148	149	104	88	254	260	271	274	220	256	230	215	244	284	294	299	9	160	356	214	356	9
30	267	142	259	239	192	169	164	198	242	243	237	232	220	242	233	223	225	185	230	254	266	265	277	287	231	287	142
31	281	285	259	256	246	121	135	104	66	321	272	251	248	244	216	234	206	222	235	258	271	278	287	293	251	321	66
Avg	209	183	195	171	156	147	135	112	120	179	178	188	202	209	219	206	205	204	201	225	269	261	236	231	191	--	--
Max	317	285	322	306	246	206	221	230	336	321	272	271	274	308	288	276	304	357	351	356	360	321	327	356	--	360	--
Min	33	26	39	19	22	22	25	37	38	23	23	50	51	36	13	13	15	15	4	23	8	9	39	35	--	--	4

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, WD_10m"
Month: Jun 2012

Day	Hour of day																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	286	269	167	164	151	138	133	81	99	126	116	231	209	222	220	220	219	251	212	293	276	275	265	270	211	293	81
2	279	278	278	277	255	159	97	78	222	245	249	230	219	174	204	189	169	149	180	189	147	298	266	268	219	298	78
3	172	244	176	173	192	187	145	80	197	206	175	210	235	200	210	246	204	238	245	167	297	255	151	240	204	297	80
4	227	211	215	213	124	122	122	149	237	243	245	243	257	211	216	222	190	217	157	77	264	300	270	280	216	300	77
5	273	197	231	103	171	187	75	78	234	243	239	203	236	215	235	181	174	233	132	110	275	305	284	281	215	305	75
6	243	239	167	134	170	159	142	77	109	151	189	221	223	251	216	183	201	149	157	140	8	225	205	192	181	251	8
7	151	203	176	133	118	139	126	39	129	187	132	146	198	209	202	243	233	217	257	290	253	154	167	204	181	290	39
8	246	241	244	187	86	179	139	92	272	267	204	169	176	244	196	213	185	196	169	157	188	206	264	213	200	272	86
9	223	211	220	232	255	300	61	67	189	178	215	202	192	200	182	204	189	182	188	199	202	188	241	220	204	300	61
10	215	217	217	209	214	180	180	213	223	210	208	226	244	235	223	249	246	124	224	291	291	111	85	192	215	291	85
11	275	226	240	248	249	151	97	63	90	263	244	240	272	214	262	270	253	259	182	248	283	338	325	213	248	338	63
12	303	277	253	247	186	169	133	82	243	258	230	264	253	235	248	239	235	230	265	126	298	344	196	160	236	344	82
13	12	301	174	248	183	121	164	128	255	261	259	257	288	240	237	189	215	208	227	289	334	154	199	262	230	334	12
14	282	248	215	242	249	133	120	69	170	157	168	182	188	208	196	248	248	209	186	158	46	348	259	245	204	348	46
15	198	212	225	287	203	168	145	169	174	168	109	104	132	207	188	195	190	158	211	164	291	268	185	236	189	291	104
16	262	259	285	289	0	160	128	55	49	111	111	123	103	219	278	237	201	137	105	112	103	84	50	43	116	289	0
17	79	79	77	90	80	64	54	38	30	1	276	232	246	209	240	242	227	234	244	260	261	278	245	256	259	278	1
18	272	261	260	262	249	179	278	291	231	228	248	241	235	218	233	256	185	275	242	280	339	329	284	262	255	339	179
19	270	272	270	210	157	119	139	193	175	177	207	207	212	249	207	180	196	201	313	232	312	50	57	203	208	313	50
20	263	258	254	248	140	179	163	90	329	248	200	202	237	220	219	242	225	224	177	135	282	289	254	268	228	329	90
21	269	256	261	266	312	222	251	250	253	249	240	231	238	279	264	232	219	257	250	258	294	138	189	247	249	312	138
22	234	275	133	133	80	264	155	260	260	257	247	272	247	255	240	237	242	256	272	260	259	251	254	127	242	275	80
23	174	167	139	220	268	173	160	68	243	258	257	254	260	260	214	239	206	255	233	250	256	267	270	282	233	282	68
24	254	268	239	264	214	83	185	215	239	220	224	235	245	242	235	246	225	268	259	268	274	282	285	277	246	285	83
25	269	271	248	241	246	229	235	250	232	245	242	227	234	239	245	251	244	232	215	201	199	253	272	310	242	310	199
26	124	201	226	242	157	207	109	82	255	251	257	276	229	259	261	261	268	274	187	220	205	207	205	138	221	276	82
27	72	124	108	199	193	71	69	33	233	145	94	215	288	284	257	233	232	212	128	142	207	219	281	104	179	288	33
28	112	109	81	202	159	260	269	191	252	224	225	242	234	239	245	249	264	258	224	252	260	262	271	266	235	271	81
29	238	224	227	244	130	223	246	244	241	246	247	236	226	234	237	243	258	255	272	262	277	266	267	272	245	277	130
30	262	265	267	248	220	228	208	239	244	242	238	244	238	222	237	224	208	239	247	254	255	269	268	272	243	272	208
Avg	245	238	219	223	188	170	144	100	224	222	218	223	230	230	228	229	218	223	214	217	270	263	249	241	223	--	--
Max	303	301	285	289	312	300	278	291	329	267	276	276	288	284	278	270	268	275	313	293	339	348	325	310	--	348	--
Min	12	79	77	90	0	64	54	33	30	1	94	104	103	174	182	180	169	124	105	77	8	50	50	43	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, DeltaTemp_C"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	-0.57	-0.49	0.19	0.07	0.22	0.28	-0.25	-1.57	-1.93	-2.29	-2.42	-2.29	-2.18	-2.22	-1.97	-1.96	-1.48	-1.25	-0.88	-0.69	-0.65	-0.56	-0.53	-0.56	-1.08	0.28	-2.42
2	-0.40	-0.55	-0.55	-0.48	-0.15	0.17	-0.40	-1.44	-1.41	-1.64	-1.90	-1.88	-2.35	-2.20	-2.04	-1.86	-1.53	-1.28	-0.92	-0.69	-0.64	-0.55	-0.55	-0.29	-1.06	0.17	-2.35
3	0.29	0.16	0.18	0.16	0.68	0.03	-0.07	-1.51	-1.64	-1.73	-2.29	-2.15	-2.14	-2.30	-2.38	-2.21	-1.86	-1.63	-1.12	-0.63	-0.37	-0.10	-0.06	0.54	-0.92	0.68	-2.38
4	-0.08	-0.34	-0.36	-0.04	-0.10	0.00	-0.41	-1.29	-1.35	-1.67	-1.90	-2.21	-2.26	-2.32	-2.19	-1.89	-1.67	-1.39	-1.00	-0.62	-0.58	-0.30	-0.07	-0.46	-1.02	0.00	-2.32
5	-0.50	-0.30	0.08	0.11	0.04	0.03	-1.04	-1.71	-1.42	-1.63	-1.71	-2.19	-2.05	-2.04	-2.01	-1.88	-1.70	-1.37	-0.98	-0.69	-0.71	-0.53	-0.63	-0.62	-1.06	0.11	-2.19
6	-0.35	0.07	0.24	-0.01	-0.03	0.50	-0.49	-1.67	-2.01	-2.05	-2.15	-2.22	-2.02	-1.97	-2.20	-2.00	-1.73	-1.50	-1.01	-0.66	-0.47	-0.39	0.18	0.37	-0.98	0.50	-2.22
7	0.21	0.45	0.32	0.14	-0.05	0.23	-0.91	-1.74	-1.73	-1.94	-2.38	-2.38	-2.32	-2.35	-2.01	-1.86	-1.78	-1.38	-1.00	-0.65	-0.21	0.04	0.01	0.56	-0.95	0.56	-2.38
8	0.16	-0.26	-0.31	0.23	0.38	0.11	-0.83	-1.47	-1.24	-1.67	-2.12	-2.36	-2.31	-2.17	-2.11	-1.86	-1.70	-1.50	-0.97	-0.61	-0.59	-0.54	-0.62	-0.47	-1.03	0.38	-2.36
9	-0.38	-0.45	-0.41	-0.36	-0.38	-0.20	-1.01	-1.70	-1.54	-1.86	-1.93	-1.98	-2.19	-2.11	-1.99	-1.81	-1.59	-1.32	-0.96	-0.71	-0.69	-0.56	-0.52	-0.39	-1.13	-0.20	-2.19
10	-0.50	-0.36	-0.23	-0.18	-0.06	0.03	-0.73	-1.22	-1.45	-1.82	-2.06	-2.02	-2.28	-2.07	-2.01	-2.05	-1.63	-1.50	-1.10	-0.68	-0.59	-0.07	-0.08	0.13	-1.02	0.13	-2.28
11	0.21	-0.13	-0.09	0.06	-0.05	-0.19	-0.96	-1.71	-1.92	-1.46	-1.82	-1.97	-2.16	-2.26	-2.13	-1.87	-1.73	-1.42	-1.02	-0.70	-0.69	-0.23	-0.10	0.07	-1.01	0.21	-2.26
12	-0.08	-0.09	-0.15	-0.05	-0.07	0.10	-0.74	-1.61	-1.28	-1.24	-1.99	-2.05	-2.03	-2.12	-2.04	-2.05	-1.73	-1.49	-1.06	-0.66	-0.57	0.08	0.08	0.14	-0.95	0.14	-2.12
13	0.48	0.36	0.10	0.18	0.29	0.10	0.12	-0.98	-1.06	-1.17	-1.52	-1.91	-2.01	-2.11	-2.02	-1.95	-1.83	-1.38	-1.03	-0.68	-0.40	-0.12	0.20	-0.41	-0.78	0.48	-2.11
14	-0.58	-0.42	-0.07	-0.10	-0.30	-0.08	-0.61	-1.61	-1.71	-2.09	-2.35	-2.39	-2.38	-2.26	-2.09	-1.94	-1.75	-1.51	-1.04	-0.60	-0.30	-0.43	-0.70	-0.67	-1.17	-0.07	-2.39
15	-0.61	-0.58	-0.45	-0.33	-0.17	-0.13	-0.78	-1.29	-1.68	-2.01	-2.45	-2.49	-2.47	-2.21	-2.18	-2.10	-1.90	-1.52	-1.08	-0.67	-0.61	-0.31	0.21	-0.55	-1.18	0.21	-2.49
16	-0.62	-0.63	-0.05	-0.10	0.26	-0.03	-0.74	-1.73	-2.15	-2.14	-2.31	-2.56	-2.68	-2.61	-2.25	-2.03	-1.55	-1.17	-0.99	-0.86	-0.85	-0.81	-0.73	-0.47	-1.24	0.26	-2.68
17	-0.21	-0.46	-0.32	-0.38	-0.39	-0.42	-1.03	-1.74	-2.36	-2.55	-1.86	-2.08	-2.39	-2.17	-1.89	-1.91	-1.69	-1.37	-1.05	-0.74	-0.74	-0.65	-0.59	-0.61	-1.23	-0.21	-2.55
18	-0.66	-0.56	-0.62	-0.40	-0.10	-0.23	-0.46	-1.16	-1.45	-1.67	-1.72	-1.79	-1.90	-1.91	-1.90	-1.72	-1.57	-1.25	-1.00	-0.78	-0.62	-0.67	-0.70	-0.72	-1.06	-0.10	-1.91
19	-0.72	-0.61	-0.61	-0.46	-0.21	-0.10	-0.62	-1.14	-1.63	-2.06	-2.04	-2.19	-2.16	-2.00	-2.02	-1.83	-1.64	-1.34	-1.03	-0.65	-0.48	-0.13	-0.34	-0.53	-1.10	-0.10	-2.19
20	-0.64	-0.50	-0.44	-0.34	0.22	0.14	-0.13	-1.41	-1.57	-1.38	-2.09	-2.11	-2.01	-2.21	-2.21	-1.98	-1.73	-1.41	-1.00	-0.63	-0.52	-0.57	-0.07	-0.46	-1.04	0.22	-2.21
21	-0.57	-0.55	-0.56	-0.45	0.30	0.16	-0.18	-0.97	-1.29	-1.50	-1.70	-2.06	-2.09	-2.29	-2.16	-2.06	-1.80	-1.48	-1.13	-0.75	-0.64	-0.20	0.32	-0.03	-0.99	0.32	-2.29
22	-0.19	0.00	0.37	-0.24	0.17	0.40	-0.44	-0.92	-1.09	-1.39	-1.67	-1.93	-2.11	-2.08	-2.19	-1.78	-1.73	-1.41	-1.07	-0.81	-0.70	-0.46	-0.43	0.10	-0.90	0.40	-2.19
23	0.18	0.37	0.13	0.30	-0.30	0.06	-0.59	-1.40	-1.34	-1.31	-1.62	-1.86	-2.04	-2.24	-2.11	-1.83	-1.72	-1.43	-1.06	-0.79	-0.78	-0.74	-0.70	-0.76	-0.98	0.37	-2.24
24	-0.67	-0.51	-0.65	-0.66	-0.52	-0.38	-0.80	-1.19	-1.41	-1.65	-1.87	-1.93	-1.91	-2.04	-1.97	-1.78	-1.66	-1.47	-1.08	-0.84	-0.78	-0.74	-0.74	-0.73	-1.17	-0.38	-2.04
25	-0.67	-0.66	-0.70	-0.63	-0.63	-0.62	-0.89	-1.12	-1.46	-1.51	-1.77	-2.20	-2.18	-2.11	-2.15	-1.98	-1.78	-1.49	-1.12	-0.83	-0.72	-0.70	-0.68	-0.52	-1.21	-0.52	-2.20
26	-0.34	-0.22	-0.43	-0.49	-0.53	-0.34	-0.97	-1.56	-1.26	-1.49	-1.62	-2.08	-2.17	-2.27	-2.09	-2.00	-1.97	-1.58	-1.09	-0.98	-0.87	-0.84	-0.75	-0.72	-1.19	-0.22	-2.27
27	-0.66	-0.52	-0.31	0.02	-0.02	-0.33	-1.12	-1.69	-1.46	-2.23	-2.31	-2.21	-2.14	-2.10	-2.12	-1.99	-1.68	-1.67	-1.20	-0.97	-0.81	-0.84	-0.77	-0.65	-1.24	0.02	-2.31
28	-0.65	-0.66	-0.58	-0.50	-0.61	-0.59	-0.83	-1.23	-1.38	-1.78	-1.86	-2.11	-2.12	-2.01	-2.02	-1.92	-1.58	-1.45	-1.08	-0.83	-0.75	-0.73	-0.68	-0.66	-1.19	-0.50	-2.12
29	-0.60	-0.62	-0.62	-0.50	-0.30	-0.33	-0.83	-1.14	-1.36	-1.48	-1.60	-2.05	-2.06	-2.03	-1.94	-1.77	-1.57	-1.34	-1.08	-0.81	-0.75	-0.66	-0.54	-0.61	-1.11	-0.30	-2.06
30	-0.61	-0.62	-0.56	-0.55	-0.62	-0.70	-0.82	-1.10	-1.32	-1.65	-1.74	-1.79	-1.93	-1.93	-1.90	-1.77	-1.58	-1.31	-1.06	-0.82	-0.75	-0.71	-0.67	-0.69	-1.13	-0.55	-1.93
Avg	-0.34	-0.32	-0.25	-0.20	-0.10	-0.08	-0.65	-1.40	-1.53	-1.74	-1.96	-2.11	-2.17	-2.16	-2.08	-1.92	-1.69	-1.42	-1.04	-0.73	-0.63	-0.47	-0.38	-0.36	-1.07	--	--
Max	0.48	0.45	0.37	0.30	0.68	0.50	0.12	-0.92	-1.06	-1.17	-1.52	-1.79	-1.90	-1.91	-1.89	-1.72	-1.48	-1.17	-0.88	-0.60	-0.21	0.08	0.32	0.56	--	0.68	--
Min	-0.72	-0.66	-0.70	-0.66	-0.63	-0.70	-1.12	-1.74	-2.36	-2.55	-2.45	-2.56	-2.68	-2.61	-2.38	-2.21	-1.97	-1.67	-1.20	-0.98	-0.87	-0.84	-0.77	-0.76	--	--	-2.68

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, Temp_2m_C"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	18.6	17.6	16.3	15.6	14.8	14.3	14.1	13.2	13.1	13.9	14.7	14.9	14.8	15.7	16.1	15.8	15.0	13.7	12.7	12.1	11.6	11.2	10.7	10.4	14.2	18.6	10.4
2	9.9	9.5	9.3	8.4	8.0	7.4	7.1	7.7	8.4	9.5	10.7	11.5	12.2	12.3	13.2	13.9	14.2	14.0	13.1	12.3	12.0	11.9	11.7	10.9	10.8	14.2	7.1
3	9.9	9.4	8.8	7.8	7.4	7.3	8.1	10.3	12.9	12.7	14.0	15.2	16.3	17.2	17.6	18.0	17.7	17.2	16.2	15.3	15.0	14.6	14.9	14.6	13.3	18.0	7.3
4	13.0	12.5	12.4	11.7	12.0	11.2	10.3	12.0	14.9	16.8	17.5	18.8	20.2	20.8	21.0	21.1	20.7	20.1	19.2	18.4	17.6	16.2	16.0	15.5	16.2	21.1	10.3
5	15.0	15.0	14.7	14.6	14.0	13.2	13.4	14.5	17.4	19.7	21.2	22.3	22.9	23.0	22.8	23.4	23.2	22.3	21.1	20.2	19.5	19.0	18.4	17.8	18.7	23.4	13.2
6	17.2	16.8	15.9	14.9	14.2	12.3	11.9	13.9	15.3	16.1	17.5	18.8	19.4	20.2	20.2	20.1	19.8	19.2	18.2	17.2	16.2	14.1	12.9	13.3	16.5	20.2	11.9
7	11.9	12.0	12.7	13.7	14.4	14.6	14.4	14.6	15.2	17.1	19.1	19.9	21.9	23.6	24.4	24.3	24.6	24.1	22.8	19.7	19.1	18.9	19.4	19.1	18.4	24.6	11.9
8	16.8	16.5	15.7	14.8	15.9	16.3	16.4	18.1	20.3	22.7	23.8	25.1	25.8	26.3	27.2	26.3	25.6	25.3	23.8	22.7	20.9	20.2	19.9	19.2	21.1	27.2	14.8
9	19.3	18.4	18.4	17.7	16.8	16.7	15.7	16.5	20.1	23.5	25.5	25.6	26.6	26.8	26.6	26.5	26.5	25.7	24.2	23.3	20.5	20.3	19.7	19.4	21.7	26.8	15.7
10	18.8	18.9	18.0	17.7	16.7	16.3	15.5	17.9	21.0	22.6	24.5	24.7	25.7	25.6	25.4	25.1	24.9	24.4	23.8	22.3	22.3	21.4	19.4	18.8	21.3	25.7	15.5
11	17.4	16.3	15.0	16.0	16.9	16.8	15.8	15.6	14.9	15.7	16.4	18.3	18.9	17.2	15.8	15.7	15.9	15.8	15.2	14.6	14.0	13.6	13.4	12.9	15.8	18.9	12.9
12	12.0	11.0	10.5	10.0	9.4	8.9	9.0	9.5	9.8	11.0	12.5	13.3	14.3	14.7	15.8	16.2	15.5	15.0	14.0	13.3	12.9	12.5	11.6	10.8	12.2	16.2	8.9
13	10.3	10.0	9.4	9.3	9.7	9.0	8.5	10.6	13.0	13.9	14.9	15.7	16.9	17.6	18.1	18.0	17.9	16.7	16.6	16.8	16.3	15.3	14.0	12.8	13.8	18.1	8.5
14	11.9	10.5	7.9	4.5	3.8	3.0	2.9	2.9	3.1	4.0	5.2	6.3	6.8	6.3	7.8	8.3	8.7	8.9	8.3	7.7	7.3	7.1	6.9	7.1	6.6	11.9	2.9
15	7.0	6.6	6.3	5.8	5.6	5.5	5.3	6.1	7.3	8.3	9.7	11.2	12.3	13.1	13.9	14.5	14.5	14.4	13.4	12.8	12.5	11.9	10.8	10.8	10.0	14.5	5.3
16	12.4	12.7	11.1	10.5	9.1	8.6	9.3	11.9	14.6	16.5	18.2	19.3	20.3	21.1	21.3	21.8	21.7	21.1	19.9	18.8	18.0	15.7	15.3	15.3	16.0	21.8	8.6
17	15.1	15.4	13.8	13.6	13.1	12.4	14.0	16.8	19.0	21.3	22.6	23.7	24.6	25.6	26.2	26.3	25.5	25.0	23.7	22.6	20.5	18.9	18.5	17.4	19.8	26.3	12.4
18	17.9	17.1	16.7	16.3	15.7	16.1	16.2	17.7	21.0	23.0	23.9	25.0	25.9	26.2	26.5	26.3	25.9	25.7	24.8	23.9	23.3	21.5	19.9	19.7	21.5	26.5	15.7
19	21.2	20.6	19.9	19.5	19.2	17.9	17.4	18.8	20.5	22.2	23.5	24.1	25.0	25.5	25.7	25.7	25.6	25.3	24.5	23.9	23.4	23.1	23.2	23.2	22.5	25.7	17.4
20	22.7	21.6	20.5	18.4	19.2	19.7	19.7	20.7	21.8	23.1	25.1	26.8	27.6	28.2	28.8	29.1	28.8	28.1	26.6	25.5	24.9	24.6	23.0	22.1	24.0	29.1	18.4
21	21.7	20.9	20.1	19.0	19.1	18.3	19.4	22.1	24.8	26.8	28.6	30.0	30.5	31.0	31.1	31.2	30.8	30.2	28.9	27.8	27.0	26.6	23.4	23.0	25.5	31.2	18.3
22	22.5	22.1	22.2	22.5	21.3	21.1	20.0	22.6	26.0	28.7	29.3	30.4	31.4	31.8	32.2	32.4	32.0	31.5	30.2	29.2	27.3	25.4	24.3	24.3	26.7	32.4	20.0
23	23.1	23.3	23.1	23.4	21.2	20.5	21.0	22.0	25.5	26.7	27.6	28.7	30.2	30.6	31.5	31.1	29.9	29.1	28.3	27.5	25.9	25.8	24.4	24.0	26.0	31.5	20.5
24	23.6	23.1	22.5	21.8	19.5	19.0	19.5	22.2	24.3	25.1	26.0	27.0	27.4	27.4	27.9	27.7	27.8	27.3	26.2	25.2	24.0	22.5	21.3	21.1	24.1	27.9	19.0
25	21.4	20.9	19.6	19.0	18.3	18.0	19.2	19.2	21.2	23.4	26.2	27.7	28.7	28.9	28.5	28.1	27.2	26.4	25.6	25.2	24.5	23.2	22.5	21.2	23.5	28.9	18.0
26	21.5	22.3	22.1	21.7	20.3	19.2	18.6	17.3	18.0	16.3	15.2	12.9	12.9	14.4	16.3	17.0	17.7	17.8	17.0	16.3	15.9	15.4	13.2	12.8	17.2	22.3	12.8
27	12.0	11.8	11.4	11.0	10.9	10.6	11.9	14.5	16.3	17.0	18.1	19.0	20.4	21.3	21.5	21.7	21.6	21.2	20.0	19.2	18.7	18.4	18.3	18.2	16.9	21.7	10.6
28	17.5	17.7	17.1	15.5	15.4	15.0	14.9	17.5	19.7	20.0	21.6	22.7	23.9	24.5	24.9	25.1	24.8	24.2	23.2	22.4	21.8	21.6	21.0	21.3	20.6	25.1	14.9
29	21.1	19.7	18.1	17.2	16.0	15.8	16.2	18.6	20.0	21.0	22.1	23.2	24.4	24.9	25.4	25.6	24.9	24.9	23.9	23.3	22.2	20.9	19.8	18.7	21.2	25.6	15.8
30	19.0	20.4	19.0	18.5	17.2	16.2	16.0	18.3	20.4	20.7	22.5	23.9	25.2	26.0	26.2	26.6	26.1	25.7	24.6	23.8	23.3	22.9	22.8	22.2	22.0	26.6	16.0
Avg	16.7	16.3	15.6	15.0	14.5	14.0	14.1	15.5	17.3	18.6	19.9	20.9	21.8	22.3	22.7	22.8	22.5	22.0	21.0	20.1	19.3	18.5	17.7	17.3	18.6	--	--
Max	23.6	23.3	23.1	23.4	21.3	21.1	21.0	22.6	26.0	28.7	29.3	30.4	31.4	31.8	32.2	32.4	32.0	31.5	30.2	29.2	27.3	26.6	24.4	24.3	--	32.4	--
Min	7.0	6.6	6.3	4.5	3.8	3.0	2.9	2.9	3.1	4.0	5.2	6.3	6.8	6.3	7.8	8.3	8.7	8.9	8.3	7.7	7.3	7.1	6.9	7.1	--	--	2.9

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, Temp_2m_C"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	20.1	19.2	18.7	17.0	16.2	16.3	17.7	19.0	19.6	21.1	22.1	23.2	24.3	25.0	25.5	25.7	26.0	25.2	24.1	23.5	22.6	21.2	20.7	21.2	21.5	26.0	16.2
2	20.2	19.3	18.3	17.7	16.8	16.8	17.6	18.9	19.9	21.3	22.5	23.4	24.6	25.2	25.8	26.0	25.4	25.1	24.3	23.6	22.9	21.3	20.5	19.7	21.5	26.0	16.8
3	19.2	19.0	18.7	18.3	16.7	15.4	16.3	18.9	20.8	22.5	23.8	24.5	25.8	26.3	27.1	26.9	26.7	26.2	25.3	24.6	23.7	22.9	22.3	21.3	22.2	27.1	15.4
4	21.0	20.1	18.7	17.4	17.7	16.6	17.1	19.7	21.8	23.0	24.1	25.5	26.3	26.7	26.8	27.0	26.9	26.2	25.3	24.5	23.7	22.1	21.0	20.4	22.5	27.0	16.6
5	20.2	20.9	18.6	18.5	17.1	17.1	19.2	20.2	21.5	22.7	24.3	25.6	26.5	27.1	27.2	27.2	27.0	26.6	25.3	24.7	23.7	22.7	22.1	21.4	22.8	27.2	17.1
6	19.4	18.0	18.3	18.1	16.7	16.4	17.7	19.6	21.7	23.2	24.2	25.3	26.0	26.2	26.6	26.3	26.1	25.6	24.6	23.7	23.0	21.5	21.5	20.0	22.1	26.6	16.4
7	19.8	18.3	17.3	15.6	15.8	15.3	15.7	17.9	19.6	20.3	21.5	22.7	23.4	24.2	24.3	24.0	23.6	22.7	21.8	21.0	20.2	19.9	19.4	20.4	24.3	15.3	
8	16.8	15.7	15.6	15.1	14.3	13.4	15.2	19.0	20.8	23.1	24.3	25.1	26.3	25.9	25.9	25.9	25.2	24.6	22.6	21.7	21.1	20.5	19.9	19.8	20.7	26.3	13.4
9	20.3	19.7	19.1	18.6	17.9	16.7	16.7	18.0	20.3	21.6	22.3	23.7	24.0	24.8	24.0	24.2	17.3	16.1	15.5	15.2	14.5	14.2	15.4	15.5	19.0	24.8	14.2
10	15.2	14.8	13.7	13.1	12.7	12.8	14.1	16.9	19.0	19.7	20.8	21.6	22.7	23.6	23.9	24.6	24.4	24.1	23.4	22.8	22.3	22.5	22.5	22.1	19.7	24.6	12.7
11	22.2	22.1	21.2	20.0	18.5	17.6	17.8	20.3	22.7	23.7	25.1	26.3	27.1	27.7	28.0	28.3	28.4	27.9	27.1	26.1	25.0	25.0	22.9	22.0	23.9	28.4	17.6
12	21.7	19.5	19.3	18.8	18.7	18.0	18.6	21.7	24.5	25.9	27.1	27.8	28.7	28.9	29.5	29.3	29.0	28.3	27.3	26.2	25.1	25.3	25.2	25.2	24.6	29.5	18.0
13	24.5	24.3	24.9	24.6	21.5	20.9	21.7	24.2	26.6	27.8	28.7	29.3	30.3	31.0	31.1	31.1	30.7	30.0	29.1	28.1	27.1	27.4	27.1	26.6	27.0	31.1	20.9
14	25.8	23.3	23.4	23.4	23.1	22.8	23.5	24.3	25.1	26.2	27.5	28.7	30.2	30.7	31.2	31.5	31.4	31.0	29.9	27.8	25.7	25.0	25.2	25.0	26.7	31.5	22.8
15	23.7	22.1	21.4	20.9	20.4	19.4	20.5	22.5	24.5	26.5	27.6	29.0	30.0	30.7	31.5	31.8	31.7	31.0	30.1	29.0	27.5	27.2	26.7	25.9	26.3	31.8	19.4
16	24.9	23.9	22.9	21.9	20.9	20.7	21.7	24.2	25.8	26.9	28.5	29.6	31.3	32.1	32.1	31.9	32.0	31.5	30.3	29.0	28.2	28.0	27.5	25.5	27.1	32.1	20.7
17	25.4	23.9	23.1	21.8	21.5	21.3	22.2	25.0	26.1	27.5	29.1	30.0	30.9	31.1	31.2	31.5	31.5	31.1	30.2	29.3	28.4	27.4	26.2	25.2	27.1	31.5	21.3
18	24.1	23.4	22.7	22.5	22.5	21.9	22.7	23.0	23.9	24.6	25.6	26.7	27.1	28.0	28.5	28.4	28.2	27.4	26.2	25.2	24.3	23.6	23.2	21.4	24.8	28.5	21.4
19	19.6	19.4	19.3	18.5	17.9	17.2	18.4	21.0	23.2	23.7	25.4	26.4	27.2	27.9	28.1	28.2	28.1	27.6	26.5	25.6	24.9	24.7	23.7	22.4	23.5	28.2	17.2
20	21.6	21.2	20.8	21.8	20.6	19.3	20.6	23.8	26.2	28.7	29.9	30.9	30.8	31.8	32.3	32.3	32.1	31.4	30.1	28.9	28.3	27.2	25.2	25.1	26.7	32.3	19.3
21	24.5	24.6	24.0	22.9	21.9	20.9	23.6	26.5	28.9	30.6	32.4	33.7	34.4	34.6	34.6	34.5	33.8	33.1	32.0	31.0	30.4	29.8	29.1	26.4	29.1	34.6	20.9
22	25.7	24.8	25.6	25.1	23.6	22.7	24.5	26.3	28.8	29.5	30.8	31.9	32.3	33.1	33.6	33.7	33.6	33.2	32.0	31.2	30.3	28.9	27.7	26.5	29.0	33.7	22.7
23	25.2	25.1	24.7	23.8	22.0	22.9	24.0	24.9	26.2	27.7	29.0	29.6	30.7	31.0	31.3	31.8	31.5	30.8	29.7	28.4	27.3	26.0	24.5	23.6	27.2	31.8	22.0
24	22.9	22.2	21.6	21.2	20.8	20.6	21.3	22.4	23.6	24.5	26.0	26.6	27.1	28.3	28.7	28.9	29.0	28.7	27.9	26.7	25.7	24.5	22.8	21.5	24.7	29.0	20.6
25	20.4	19.6	19.0	19.6	19.8	20.0	21.1	21.9	23.0	24.4	25.3	25.7	26.7	27.7	27.7	28.1	27.7	26.8	25.4	23.8	22.7	21.9	21.0	19.8	23.3	28.1	19.0
26	18.6	17.8	16.9	15.8	15.2	14.6	14.0	14.4	15.0	14.7	15.7	17.4	18.5	19.2	19.7	19.9	19.7	19.3	18.2	17.2	16.8	16.6	16.2	14.9	16.9	19.9	14.0
27	13.5	12.2	12.0	11.6	11.7	10.7	12.4	15.7	17.2	18.1	18.9	20.3	21.5	22.6	23.1	23.4	23.0	22.4	21.3	20.2	19.6	19.3	18.5	18.0	17.8	23.4	10.7
28	17.8	16.4	15.7	15.6	14.6	14.3	15.5	19.0	21.2	22.7	24.0	25.6	26.6	27.0	27.6	27.1	26.5	25.4	24.2	23.4	21.0	20.9	19.8	21.6	27.6	14.3	
29	19.3	19.4	19.2	18.6	18.2	17.5	18.8	22.4	25.1	25.9	26.8	28.0	28.8	29.4	29.5	29.7	29.3	29.0	28.0	26.9	26.3	24.4	23.0	23.2	24.5	29.7	17.5
30	22.2	21.3	21.5	21.8	19.8	19.1	20.5	23.9	24.9	25.6	26.9	28.0	29.1	29.2	30.1	30.2	30.1	29.6	28.6	27.5	26.8	26.5	26.4	26.2	25.7	30.2	19.1
31	25.7	25.2	24.5	23.7	22.8	20.9	21.8	24.8	28.2	29.8	30.9	31.8	32.4	33.2	33.6	34.1	33.7	33.0	32.1	31.4	31.1	31.1	30.7	29.2	34.1	20.9	
Avg	21.3	20.5	20.0	19.5	18.6	18.1	19.1	21.3	23.1	24.3	25.5	26.6	27.5	28.1	28.4	28.5	28.1	27.5	26.5	25.5	24.6	23.9	23.2	22.4	23.8	--	--
Max	25.8	25.2	25.6	25.1	23.6	22.9	24.5	26.5	28.9	30.6	32.4	33.7	34.4	34.6	34.6	34.5	34.1	33.7	33.0	32.1	31.4	31.1	31.1	30.7	--	34.6	--
Min	13.5	12.2	12.0	11.6	11.7	10.7	12.4	14.4	15.0	14.7	15.7	17.4	18.5	19.2	19.7	19.9	17.3	16.1	15.5	15.2	14.5	14.9	--	--	10.7		

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, Temp_2m_C"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	30.5	30.0	27.4	26.2	25.3	24.7	24.8	28.2	30.6	32.2	33.5	34.4	35.4	36.0	35.9	36.1	35.3	34.8	33.9	32.9	32.0	31.2	30.7	30.0	31.3	36.1	24.7
2	29.0	28.6	27.6	26.9	24.9	23.2	23.5	25.9	28.2	29.4	30.5	31.4	33.2	33.5	33.6	33.7	33.1	32.7	31.8	30.7	29.5	28.3	27.3	26.5	29.3	33.7	23.2
3	24.9	24.7	22.4	21.5	20.6	20.7	21.1	24.5	26.5	27.4	29.2	30.0	30.6	31.5	31.3	31.4	30.7	30.5	29.7	28.6	27.8	27.1	24.9	24.6	26.8	31.5	20.6
4	24.3	24.4	23.3	22.6	21.5	20.5	21.5	23.8	24.6	26.1	27.1	28.7	29.8	31.1	31.2	31.0	30.8	30.4	29.8	28.9	28.2	26.6	26.1	25.6	26.6	31.2	20.5
5	24.9	24.0	23.0	21.4	21.0	20.9	21.5	24.1	24.9	25.9	26.9	28.3	28.7	29.5	29.9	30.3	30.4	30.1	29.2	28.1	27.3	26.6	26.0	25.3	26.2	30.4	20.9
6	24.0	21.9	21.3	20.1	20.2	19.6	20.9	24.7	26.9	27.9	29.0	30.1	30.7	31.2	31.7	31.6	31.3	31.1	30.0	28.7	27.9	26.9	25.0	23.9	26.5	31.7	19.6
7	23.1	23.0	21.9	21.0	20.4	19.9	20.8	24.3	26.3	27.5	29.2	30.0	31.0	31.8	32.0	31.8	31.7	31.2	30.4	29.3	28.0	25.7	25.1	24.5	26.7	32.0	19.9
8	25.7	25.6	24.7	22.7	21.5	21.7	22.0	25.5	26.6	28.3	29.9	31.2	32.1	32.4	32.6	32.5	32.6	32.3	31.4	30.4	29.8	28.9	27.2	26.2	28.1	32.6	21.5
9	25.8	24.9	23.7	22.9	22.3	21.3	21.8	25.0	26.0	27.6	28.6	29.6	30.8	31.3	31.6	31.8	32.1	31.6	30.6	29.3	28.2	26.8	25.9	24.9	27.3	32.1	21.3
10	24.1	23.4	22.6	22.2	21.7	21.2	22.4	23.7	24.7	26.0	27.5	28.3	29.5	29.8	30.2	30.7	30.3	30.4	29.6	28.6	28.1	25.6	25.3	24.5	26.3	30.7	21.2
11	24.9	24.7	24.4	24.1	23.8	22.3	23.2	25.6	27.8	28.0	29.6	30.8	31.5	32.4	32.5	32.4	32.4	31.9	31.2	30.1	29.5	28.4	27.4	26.6	28.1	32.5	22.3
12	26.7	26.6	26.1	24.9	23.2	23.1	24.0	27.7	28.4	28.8	31.0	31.9	32.5	33.1	33.3	33.7	33.3	32.9	31.8	30.6	30.1	28.5	26.3	26.3	28.9	33.7	23.1
13	26.2	26.6	24.7	25.3	23.6	23.9	23.6	26.3	27.0	28.3	30.2	31.8	32.4	33.4	33.4	33.3	33.3	32.7	32.0	31.0	29.9	27.5	27.8	27.7	28.8	33.4	23.6
14	26.4	26.0	24.6	24.1	23.2	22.0	22.9	26.1	27.7	28.9	29.9	30.6	31.7	32.3	32.6	32.5	32.5	32.2	31.4	30.3	29.2	28.7	27.1	26.2	28.3	32.6	22.0
15	25.4	24.7	24.0	23.3	22.4	21.3	22.9	24.7	26.0	27.4	28.7	29.7	31.2	31.9	32.5	32.6	32.5	31.9	31.0	29.8	28.9	28.0	26.6	26.1	27.6	32.6	21.3
16	25.0	24.4	23.2	22.6	21.9	21.6	23.0	27.3	29.2	30.5	31.2	32.5	33.4	34.0	34.2	34.4	33.2	28.8	28.5	29.5	29.0	27.7	26.4	26.0	28.2	34.4	21.6
17	25.4	24.4	24.1	23.2	22.8	23.4	25.8	28.6	30.7	32.1	32.7	33.8	34.8	34.9	34.9	35.2	35.1	34.5	33.7	32.6	31.8	31.6	31.2	30.8	30.3	35.2	22.8
18	29.8	29.2	29.0	28.1	26.8	25.8	28.1	30.3	31.0	31.9	32.7	33.3	34.1	34.3	34.8	35.1	35.0	34.5	33.9	33.1	32.0	30.8	30.0	29.4	31.4	35.1	25.8
19	28.9	28.0	27.3	26.6	24.8	23.5	24.5	27.2	28.2	29.5	30.4	31.2	32.1	32.7	33.3	33.3	33.4	32.8	32.0	30.9	30.0	28.7	28.9	28.4	29.4	33.4	23.5
20	28.0	27.4	26.6	26.0	23.5	23.4	24.2	26.9	28.9	29.4	31.5	32.6	33.2	33.8	34.3	34.3	34.4	34.4	33.2	32.0	31.4	31.3	29.8	29.9	30.0	34.4	23.4
21	29.6	28.4	27.5	27.3	25.8	25.4	25.7	27.2	28.0	29.7	31.2	32.6	33.7	34.8	35.2	35.4	35.4	34.8	33.9	32.8	32.2	29.5	29.4	29.6	30.6	35.4	25.4
22	28.6	27.8	25.4	25.7	25.5	26.5	26.1	28.7	29.1	29.9	31.3	32.5	33.9	34.6	34.9	34.5	34.7	34.2	33.3	32.3	31.4	30.5	30.0	27.3	30.4	34.9	25.4
23	26.9	26.3	25.8	26.2	26.4	24.5	25.1	27.8	29.4	29.6	31.2	32.3	33.0	34.1	34.4	34.2	34.6	33.9	33.1	32.1	31.2	30.5	30.0	30.1	34.6	24.5	
24	29.3	28.4	27.3	26.6	25.9	25.0	26.1	26.9	27.8	28.8	30.0	31.3	32.1	32.9	33.4	33.4	33.4	32.8	31.8	30.9	30.3	29.9	29.8	29.3	29.7	33.4	25.0
25	28.8	28.1	27.0	26.3	25.5	24.9	25.4	26.3	27.6	28.8	30.2	31.7	32.5	33.2	33.7	33.8	33.7	33.3	32.3	31.4	30.7	30.2	29.8	29.3	29.8	33.8	24.9
26	28.0	28.0	27.9	27.5	26.1	25.6	26.4	28.8	29.9	30.7	32.0	33.7	34.5	35.3	35.3	35.5	35.7	35.1	33.5	30.6	30.1	30.2	29.6	29.2	30.8	35.7	25.6
27	28.7	28.4	27.5	27.5	26.7	25.2	26.9	29.4	30.9	32.6	33.6	34.7	35.1	35.6	35.8	36.0	35.7	35.3	29.8	29.2	28.5	27.6	27.4	27.2	30.6	36.0	25.2
28	27.0	27.5	28.1	27.8	26.8	26.4	27.2	28.8	29.9	31.3	32.2	33.3	34.1	34.6	35.1	35.4	35.0	35.1	34.3	33.2	32.4	32.1	31.7	31.3	31.3	35.4	26.4
29	30.6	29.4	28.4	27.6	26.5	26.9	27.7	28.8	30.1	31.6	33.3	34.2	34.9	35.1	35.4	35.3	35.1	34.2	33.2	32.5	31.9	31.4	31.4	31.3	35.4	26.5	
30	31.0	30.3	29.8	29.3	27.4	25.9	25.3	25.6	26.7	28.6	30.3	31.9	33.3	34.2	34.8	34.9	34.9	34.3	33.5	32.4	31.7	31.4	31.2	30.9	30.8	34.9	25.3
Avg	27.1	26.5	25.6	24.9	23.9	23.3	24.1	26.6	27.9	29.1	30.4	31.6	32.5	33.2	33.5	33.5	33.4	32.8	31.8	30.8	30.0	29.0	28.2	27.6	29.1	--	--
Max	31.0	30.3	29.8	29.3	27.4	26.5	28.1	30.3	31.0	32.6	33.6	34.7	35.4	36.0	35.9	36.1	35.7	35.3	34.3	33.2	32.5	32.1	31.7	31.4	--	36.1	--
Min	23.1	21.9	21.3	20.1	20.2	19.6	20.8	23.7	24.6	25.9	26.9	28.3	28.7	29.5	29.9	30.3	30.3	28.8	28.5	28.1	27.3	25.6	24.9	23.9	--	--	19.6

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, SR_Wm2_2m"
Month: Apr 2012

Day	Hour of day																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0	0	0	0	0	0	47	268	511	717	872	961	815	938	821	658	442	211	27	0	0	0	0	0	304	961	0
2	0	0	0	0	0	0	55	287	532	739	900	1013	908	749	734	680	476	217	26	0	0	0	0	0	305	1013	0
3	0	0	0	0	0	0	51	278	520	731	886	980	1005	954	838	671	454	211	25	0	0	0	0	0	317	1005	0
4	0	0	0	0	0	0	63	270	526	718	873	969	966	914	768	613	366	167	27	0	0	0	0	0	302	969	0
5	0	0	0	0	0	0	28	201	533	736	865	900	968	871	738	600	443	213	23	0	0	0	0	0	297	968	0
6	0	0	0	0	0	0	60	291	542	753	904	992	1016	943	827	662	390	213	29	0	0	0	0	0	318	1016	0
7	0	0	0	0	0	0	24	189	264	583	658	576	749	681	656	431	385	242	50	0	0	0	0	0	229	749	0
8	0	0	0	0	0	0	68	302	538	755	875	882	811	866	630	417	403	230	20	0	0	0	0	0	283	882	0
9	0	0	0	0	0	0	33	199	435	735	906	938	1005	905	613	666	471	174	12	0	0	0	0	0	295	1005	0
10	0	0	0	0	0	0	80	331	516	733	798	781	801	645	474	458	358	194	45	0	0	0	0	0	259	801	0
11	0	0	0	0	0	0	78	316	556	756	863	1006	861	464	250	226	265	227	31	0	0	0	0	0	246	1006	0
12	0	0	0	0	0	0	66	172	293	636	834	1009	1023	975	859	698	460	252	31	0	0	0	0	0	304	1023	0
13	0	0	0	0	0	0	40	327	564	772	918	1005	1026	981	815	498	446	101	24	0	0	0	0	0	313	1026	0
14	0	0	0	0	0	0	10	47	136	439	642	738	311	178	576	303	283	250	42	0	0	0	0	0	165	738	0
15	0	0	0	0	0	0	55	175	605	742	923	1008	1027	975	856	689	472	240	38	0	0	0	0	0	325	1027	0
16	0	0	0	0	0	0	97	337	575	780	930	1018	1027	974	854	683	460	227	30	0	0	0	0	0	333	1027	0
17	0	0	0	0	0	1	121	366	601	802	946	1024	1033	977	851	682	466	231	30	0	0	0	0	0	339	1033	0
18	0	0	0	0	0	1	122	365	600	797	942	1020	1031	980	857	687	469	234	34	0	0	0	0	0	339	1031	0
19	0	0	0	0	0	0	129	368	595	794	931	1007	1009	955	837	666	456	218	37	0	0	0	0	0	333	1009	0
20	0	0	0	0	0	1	135	376	606	803	939	1016	1025	970	851	681	467	235	33	0	0	0	0	0	339	1025	0
21	0	0	0	0	0	1	137	377	608	803	934	1011	1017	967	848	679	469	237	32	0	0	0	0	0	338	1017	0
22	0	0	0	0	0	1	140	377	610	802	939	1021	1034	978	860	690	477	236	33	0	0	0	0	0	342	1034	0
23	0	0	0	0	0	4	126	356	590	769	917	997	1005	950	832	636	233	148	40	0	0	0	0	0	317	1005	0
24	0	0	0	0	0	2	151	386	620	811	946	1022	1034	981	864	692	489	249	34	0	0	0	0	0	345	1034	0
25	0	0	0	0	0	3	51	134	261	472	719	817	808	451	277	239	238	157	23	0	0	0	0	0	194	817	0
26	0	0	0	0	0	0	31	203	344	119	151	337	313	621	828	609	490	250	41	0	0	0	0	0	181	828	0
27	0	0	0	0	0	5	159	396	626	820	957	1035	1042	986	865	696	485	251	41	0	0	0	0	0	348	1042	0
28	0	0	0	0	0	4	151	389	616	809	942	1019	1027	973	855	691	482	251	41	0	0	0	0	0	344	1027	0
29	0	0	0	0	0	5	149	386	618	810	945	1022	1029	976	863	691	479	248	43	0	0	0	0	0	344	1029	0
30	0	0	0	0	0	7	159	396	620	816	949	1023	1027	972	858	692	483	251	44	0	0	0	0	0	346	1027	0
Avg	0	0	0	0	0	1	87	295	519	718	860	938	925	858	755	599	425	219	33	0	0	0	0	0	301	--	--
Max	0	0	0	0	0	7	159	396	626	820	957	1035	1042	986	865	698	490	252	50	0	0	0	0	0	--	1042	--
Min	0	0	0	0	0	0	10	47	136	119	151	337	311	178	250	226	233	101	12	0	0	0	0	0	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, SR_Wm2_2m"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0	0	0	0	0	8	167	407	635	824	962	1047	1056	997	882	715	489	172	31	0	0	0	0	0	350	1056	0
2	0	0	0	0	0	8	176	423	660	848	980	1053	1060	999	889	704	495	265	43	0	0	0	0	0	358	1060	0
3	0	0	0	0	0	10	171	413	642	821	961	1033	1043	987	877	703	495	243	38	0	0	0	0	0	351	1043	0
4	0	0	0	0	0	11	183	425	652	841	976	1049	1056	998	886	712	500	267	49	0	0	0	0	0	359	1056	0
5	0	0	0	0	0	12	184	421	650	837	961	1024	1038	935	866	663	495	237	40	1	0	0	0	0	348	1038	0
6	0	0	0	0	0	12	183	421	651	837	962	1059	1051	990	884	655	506	264	49	0	0	0	0	0	355	1059	0
7	0	0	0	0	0	13	187	430	653	837	969	1043	1052	991	878	706	499	268	58	0	0	0	0	0	358	1052	0
8	0	0	0	0	0	12	210	395	591	774	966	1030	1071	706	649	497	235	176	42	0	0	0	0	0	306	1071	0
9	0	0	0	0	0	15	109	326	631	725	684	966	944	873	385	329	16	86	35	0	0	0	0	0	255	966	0
10	0	0	0	0	0	9	183	413	632	820	951	1024	1034	978	869	700	494	254	56	1	0	0	0	0	351	1034	0
11	0	0	0	0	0	14	181	416	639	829	962	1040	1052	994	883	713	512	278	64	1	0	0	0	0	357	1052	0
12	0	0	0	0	0	17	202	441	669	859	990	1057	1067	1003	895	728	525	290	64	0	0	0	0	0	367	1067	0
13	0	0	0	0	0	17	192	427	652	838	965	1039	1051	996	884	714	509	281	67	1	0	0	0	0	360	1051	0
14	0	0	0	0	0	19	213	457	682	871	998	1063	1071	1003	892	723	522	282	67	0	0	0	0	0	369	1071	0
15	0	0	0	0	0	19	201	439	663	849	981	1053	1061	996	876	715	516	282	71	1	0	0	0	0	363	1061	0
16	0	0	0	0	0	21	201	431	648	831	960	1033	1040	983	877	717	518	289	72	1	0	0	0	0	359	1040	0
17	0	0	0	0	0	20	203	437	667	852	982	1055	1063	1003	892	720	524	294	74	1	0	0	0	0	366	1063	0
18	0	0	0	0	0	29	278	388	655	846	978	1049	1061	996	884	715	520	287	77	2	0	0	0	0	365	1061	0
19	0	0	0	0	0	24	210	447	668	851	981	1053	1063	1001	891	726	525	289	75	1	0	0	0	0	367	1063	0
20	0	0	0	0	0	23	202	435	665	851	975	1047	1056	998	887	719	523	280	31	0	0	0	0	0	362	1056	0
21	0	0	0	0	0	24	212	450	672	851	969	1052	1062	1014	901	734	539	305	81	1	0	0	0	0	369	1062	0
22	0	0	0	0	0	26	212	446	671	854	983	1053	1066	1009	895	720	525	254	69	6	0	0	0	0	366	1066	0
23	0	0	0	0	0	29	226	462	688	873	997	1059	1063	1005	894	725	531	300	85	2	0	0	0	0	372	1063	0
24	0	0	0	0	0	28	223	454	673	852	980	1052	1058	993	886	724	530	297	84	3	0	0	0	0	368	1058	0
25	0	0	0	0	0	31	224	456	676	854	980	1050	1047	982	873	709	511	290	86	3	0	0	0	0	365	1050	0
26	0	0	0	0	0	30	215	447	584	556	910	1051	1027	1018	917	768	571	330	96	2	0	0	0	0	355	1051	0
27	0	0	0	0	0	36	236	475	697	882	1017	1095	1098	1037	931	765	567	325	94	2	0	0	0	0	386	1098	0
28	0	0	0	0	0	34	233	474	698	885	1013	1084	1095	1038	926	760	563	323	95	2	0	0	0	0	384	1095	0
29	0	0	0	0	0	37	235	471	693	876	1007	1077	1090	1037	929	760	565	323	96	2	0	0	0	0	383	1090	0
30	0	0	0	0	0	36	231	466	693	874	1002	1071	1080	1017	907	746	553	317	97	2	0	0	0	0	379	1080	0
31	0	0	0	0	0	33	221	457	681	862	992	1061	1069	1007	893	728	534	306	95	3	0	0	0	0	373	1069	0
Avg	0	0	0	0	0	21	203	434	659	834	967	1049	1056	986	867	700	497	273	67	1	0	0	0	0	359	--	--
Max	0	0	0	0	0	37	278	475	698	885	1017	1095	1098	1038	931	768	571	330	97	6	0	0	0	0	--	1098	--
Min	0	0	0	0	0	8	109	326	584	556	684	966	944	706	385	329	16	86	31	0	0	0	0	0	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, SR_Wm2_2m"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0	0	0	0	0	33	216	447	664	847	974	1043	1053	996	880	705	500	271	86	4	0	0	0	0	363	1053	0
2	0	0	0	0	0	21	157	405	590	839	968	1043	1101	1021	898	729	542	319	102	4	0	0	0	0	364	1101	0
3	0	0	0	0	0	22	109	467	681	859	990	1059	1088	1051	947	797	567	332	102	3	0	0	0	0	378	1088	0
4	0	0	0	0	0	23	217	466	687	866	996	1063	1073	1015	910	747	553	323	103	3	0	0	0	0	377	1073	0
5	0	0	0	0	0	38	225	455	670	849	975	1045	1048	1002	902	739	549	321	105	3	0	0	0	0	372	1048	0
6	0	0	0	0	0	40	232	465	684	864	995	1070	1083	1026	915	747	556	327	106	3	0	0	0	0	380	1083	0
7	0	0	0	0	0	37	227	462	679	863	989	1063	1077	1022	917	755	563	330	109	3	0	0	0	0	379	1077	0
8	0	0	0	0	0	38	227	458	679	858	991	1067	1071	1020	914	757	569	336	113	3	0	0	0	0	379	1071	0
9	0	0	0	0	0	40	235	468	690	873	1001	1071	1079	1024	913	745	561	333	115	3	0	0	0	0	381	1079	0
10	0	0	0	0	0	39	228	459	674	855	985	1057	1067	1015	910	751	563	333	114	3	0	0	0	0	377	1067	0
11	0	0	0	0	0	32	219	447	658	808	927	961	944	994	908	747	556	332	117	3	0	0	0	0	361	994	0
12	0	0	0	0	0	36	225	457	672	860	989	1058	1046	1006	902	756	570	338	120	3	0	0	0	0	377	1058	0
13	0	0	0	0	0	14	129	326	550	866	986	1064	1063	1019	914	756	568	336	119	3	0	0	0	0	363	1064	0
14	0	0	0	0	0	37	228	456	675	854	989	1063	1072	1019	919	759	569	335	117	4	0	0	0	0	379	1072	0
15	0	0	0	0	0	26	195	435	658	836	960	1027	1038	1016	908	746	552	327	117	4	0	0	0	0	369	1038	0
16	0	0	0	0	0	27	224	457	630	760	914	1057	1058	976	882	744	399	42	29	6	0	0	0	0	342	1058	0
17	0	0	0	0	0	32	211	436	647	821	950	1027	1040	997	896	743	560	334	123	4	0	0	0	0	368	1040	0
18	0	0	0	0	0	32	211	440	657	838	970	1045	1061	1005	904	742	534	301	116	6	0	0	0	0	369	1061	0
19	0	0	0	0	0	37	226	468	686	866	997	1072	1083	1035	936	777	583	349	130	3	0	0	0	0	385	1083	0
20	0	0	0	0	0	18	166	399	619	810	938	1017	1042	991	891	740	554	331	120	5	0	0	0	0	360	1042	0
21	0	0	0	0	0	27	205	440	659	833	964	1037	1049	996	896	740	550	326	117	5	0	0	0	0	368	1049	0
22	0	0	0	0	0	27	184	407	627	811	946	1019	1034	984	882	731	543	324	122	6	0	0	0	0	360	1034	0
23	0	0	0	0	0	28	192	404	617	802	926	995	1010	940	866	713	540	323	119	6	0	0	0	0	353	1010	0
24	0	0	0	0	0	31	198	423	636	747	872	1015	1033	982	884	738	554	326	111	7	0	0	0	0	357	1033	0
25	0	0	0	0	0	26	187	407	615	792	919	992	1009	964	867	716	532	317	118	6	0	0	0	0	353	1009	0
26	0	0	0	0	0	27	157	360	571	796	924	997	1017	971	876	743	568	343	44	5	0	0	0	0	350	1017	0
27	0	0	0	0	0	13	195	420	623	809	926	1007	1011	962	872	722	539	372	48	9	0	0	0	0	355	1011	0
28	0	0	0	0	0	26	183	368	659	793	915	992	1005	959	863	714	537	322	117	6	0	0	0	0	352	1005	0
29	0	0	0	0	0	28	182	396	609	790	916	990	1001	956	862	713	532	315	118	6	0	0	0	0	351	1001	0
30	0	0	0	0	0	22	126	350	615	785	917	993	1004	958	865	715	534	320	117	6	0	0	0	0	347	1004	0
Avg	0	0	0	0	0	29	197	428	646	828	957	1034	1045	997	897	741	547	318	106	4	0	0	0	0	366	--	--
Max	0	0	0	0	0	40	235	468	690	873	1001	1072	1101	1051	947	797	583	372	130	9	0	0	0	0	--	1101	--
Min	0	0	0	0	0	13	109	326	550	747	872	961	944	940	862	705	399	42	29	3	0	0	0	0	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, RH_Percent"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	18	20	23	24	26	28	30	30	31	33	35	38	40	34	32	28	22	29	23	22	20	19	21	24	27	40	18
2	26	27	27	30	32	35	36	34	32	32	30	29	26	24	21	16	14	12	12	13	13	13	14	16	23	36	12
3	19	20	21	25	26	26	23	22	19	20	18	19	18	16	16	16	15	16	18	19	20	20	18	19	20	26	15
4	22	23	22	24	23	25	28	26	22	17	16	15	14	14	14	14	14	14	15	16	17	20	20	21	19	28	14
5	22	21	21	21	22	23	23	23	19	15	13	12	10	9	11	10	10	11	11	11	13	14	17	18	16	23	9
6	16	17	20	23	25	30	30	26	20	18	19	17	15	13	12	11	11	10	11	11	12	17	18	16	17	30	10
7	16	15	15	13	10	8	8	9	9	8	9	8	8	7	7	7	7	9	12	10	10	9	9	10	16	7	
8	12	13	13	14	13	13	14	14	14	15	13	11	11	11	11	10	10	11	12	15	16	16	16	13	16	10	
9	15	16	16	16	18	19	21	23	21	15	10	11	10	9	9	9	8	9	10	11	15	14	14	13	14	23	8
10	13	13	14	14	16	17	18	18	15	13	12	11	11	11	11	12	12	12	13	15	14	17	23	25	15	25	11
11	28	32	35	33	32	32	33	34	38	42	44	42	40	47	49	43	40	38	39	39	41	43	43	45	39	49	28
12	55	65	69	69	63	61	60	57	56	50	43	39	32	27	24	19	17	17	20	22	24	26	28	31	40	69	17
13	31	33	35	35	34	36	36	32	26	24	22	20	15	12	10	9	8	10	11	9	7	8	10	16	20	36	7
14	25	48	80	96	90	84	80	81	72	61	54	53	51	52	41	37	33	31	32	35	38	37	40	44	54	96	25
15	46	49	52	58	60	61	64	59	50	48	44	41	39	37	35	34	33	33	35	37	39	41	47	47	45	64	33
16	41	39	44	47	52	55	52	45	38	32	26	19	17	18	17	16	17	18	20	22	24	30	31	30	31	55	16
17	30	29	33	34	35	35	31	25	23	17	13	12	10	10	10	10	9	9	10	12	15	18	18	20	20	35	9
18	19	20	20	20	21	20	20	23	17	13	12	12	10	9	8	8	9	9	10	12	13	16	19	19	15	23	8
19	15	16	17	16	15	17	18	16	14	14	12	11	12	12	12	12	11	12	13	14	14	15	15	14	18	11	
20	16	18	20	25	23	23	22	21	20	18	16	12	11	10	11	11	12	13	14	15	16	19	20	17	25	10	
21	20	20	22	25	24	25	22	19	17	15	13	11	10	9	9	10	9	9	9	11	13	13	17	17	15	25	9
22	17	18	18	17	18	18	21	21	17	13	11	10	7	6	6	6	6	5	6	7	9	10	11	10	12	21	5
23	11	11	12	12	14	15	17	19	16	15	13	12	11	11	10	10	11	12	13	14	16	19	24	24	14	24	10
24	21	22	22	21	25	25	25	23	21	19	18	18	18	16	14	11	11	10	10	9	10	12	14	14	17	25	9
25	14	15	16	17	18	18	17	21	21	17	12	10	9	9	9	8	10	12	13	12	13	15	17	19	14	21	8
26	20	18	16	15	18	22	23	29	29	50	72	88	86	63	49	44	41	35	34	34	35	37	46	48	40	88	15
27	53	53	54	55	55	57	53	44	36	36	34	31	28	27	26	26	26	27	29	31	33	34	34	38	57	26	
28	37	36	38	43	42	43	37	31	31	29	28	25	23	21	19	18	18	17	19	22	21	21	18	28	43	17	
29	18	20	28	38	37	40	39	34	32	27	24	22	19	17	16	14	15	15	16	16	18	20	21	23	24	40	14
30	22	18	27	31	35	40	36	32	30	31	25	23	20	19	18	16	17	18	20	20	22	22	21	23	24	40	16
Avg	24	26	28	30	31	32	31	30	27	25	24	23	21	20	18	17	16	16	17	18	19	20	22	23	23	--	--
Max	55	65	80	96	90	84	80	81	72	61	72	88	86	63	49	44	41	38	39	39	41	43	47	48	--	96	--
Min	11	11	12	12	10	8	8	9	9	8	9	7	6	6	6	5	6	7	7	8	9	9	--	--	5		

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, RH_Percent"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	28	30	32	35	38	37	32	25	21	20	19	15	13	11	10	9	9	10	12	15	17	19	20	20	20	38	9
2	25	31	37	38	39	33	28	28	20	16	15	13	12	11	9	9	11	12	13	14	14	22	28	34	21	39	9
3	34	31	23	23	28	32	30	26	22	20	18	18	14	12	11	11	12	11	12	13	15	16	18	21	20	34	11
4	23	25	25	29	23	24	23	17	16	14	13	12	10	10	9	10	12	14	14	16	18	20	22	23	18	29	9
5	23	21	25	25	27	25	21	20	18	16	14	13	11	10	8	9	10	10	12	13	15	17	18	19	17	27	8
6	21	23	21	19	21	21	20	20	19	16	14	12	11	10	10	11	10	10	11	12	13	14	14	15	15	23	10
7	11	12	13	16	18	18	17	15	13	12	10	10	10	10	10	9	9	8	8	8	9	8	6	6	11	18	6
8	8	9	9	9	10	11	12	11	9	6	6	7	6	7	7	7	8	10	16	16	16	17	21	23	11	23	6
9	25	27	30	32	34	39	42	40	34	34	33	30	28	27	28	27	57	57	58	58	61	61	54	53	40	61	25
10	55	58	62	64	66	65	58	48	39	38	34	35	33	31	29	27	27	28	29	31	32	31	31	31	41	66	27
11	28	27	27	28	31	34	34	27	22	19	17	15	13	12	11	11	11	11	11	13	12	14	14	19	34	11	
12	12	15	14	13	13	13	15	12	9	8	9	8	7	6	6	5	5	5	5	6	6	7	8	9	15	5	
13	9	10	10	10	13	14	16	16	12	10	8	8	7	7	7	7	8	9	10	11	10	10	10	10	16	7	
14	11	13	14	16	16	15	12	13	13	12	10	9	8	8	7	7	7	7	7	9	10	10	10	10	11	16	7
15	11	18	21	26	29	33	32	28	24	20	19	16	14	12	11	9	9	9	10	11	12	12	13	17	33	9	
16	14	15	16	18	19	20	21	18	17	17	15	15	12	10	9	7	6	6	7	7	7	7	8	12	21	6	
17	8	10	12	13	13	13	15	13	10	9	8	8	8	8	8	8	7	6	6	7	8	9	11	16	10	16	6
18	18	16	17	17	18	20	21	23	23	20	16	15	14	13	12	12	12	13	15	13	12	11	9	11	15	23	9
19	13	12	13	14	15	17	21	21	17	17	13	11	11	10	9	9	9	10	10	11	12	12	13	13	21	9	
20	14	15	15	14	16	17	17	14	12	10	9	8	8	7	7	6	6	6	7	8	8	9	10	10	11	17	6
21	10	10	10	11	12	13	12	11	12	14	12	7	6	4	4	4	4	4	4	4	5	5	6	7	8	14	4
22	7	8	9	10	11	12	11	11	9	9	8	8	7	6	5	6	6	5	6	7	6	6	4	5	8	12	4
23	6	7	8	9	11	12	10	10	9	8	8	8	8	8	8	7	7	7	9	10	13	18	19	10	19	6	
24	19	21	23	25	24	22	20	20	17	16	14	15	15	14	14	14	14	16	20	26	29	34	42	43	22	43	14
25	45	47	47	35	30	27	24	23	21	20	19	19	19	17	18	19	19	20	22	24	26	24	29	41	26	47	17
26	48	49	50	49	51	52	56	55	56	61	51	43	36	24	16	8	7	7	8	9	10	10	10	12	32	61	7
27	14	16	17	19	20	22	21	17	13	12	10	8	9	8	6	6	7	7	9	10	11	11	12	13	12	22	6
28	14	15	15	14	15	15	12	10	8	6	5	4	4	4	4	4	4	5	7	8	8	10	10	11	9	15	4
29	11	11	10	11	11	11	9	7	7	6	5	4	4	4	5	4	6	6	7	8	9	10	10	8	11	4	
30	11	12	12	12	13	14	13	11	10	10	9	9	8	8	8	7	6	6	7	8	8	9	9	10	14	6	
31	10	12	13	14	15	17	16	14	9	7	7	7	7	7	7	7	7	7	7	7	7	7	7	9	17	7	
Avg	19	20	21	22	23	23	22	20	18	16	15	13	12	11	10	10	11	11	12	13	14	15	16	17	16	--	--
Max	55	58	62	64	66	65	58	55	56	61	51	43	36	31	29	27	57	57	58	58	61	61	54	53	--	66	--
Min	6	7	8	9	10	11	10	9	7	6	6	5	4	4	4	4	4	4	4	5	5	4	5	--	--	4	

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, RH_Percent"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	7	7	9	9	10	10	12	10	8	7	6	6	6	5	5	5	5	6	6	6	7	7	7	7	7	12	5
2	8	8	9	10	12	13	13	12	10	9	8	7	7	7	6	6	6	6	7	8	11	13	14	14	9	14	6
3	15	15	17	18	19	18	18	15	12	12	10	10	9	9	9	11	11	11	12	11	12	14	15	15	13	19	9
4	15	17	18	18	19	21	20	16	15	11	10	9	8	8	8	10	11	12	13	14	15	16	17	14	21	8	
5	19	20	22	24	24	24	22	22	23	22	23	21	20	18	16	15	15	15	15	16	15	16	17	18	19	24	15
6	19	22	22	21	19	19	16	12	11	11	10	9	6	6	7	9	10	9	10	11	12	13	15	16	13	22	6
7	16	18	19	21	22	23	22	18	15	11	9	8	7	6	6	6	7	8	9	10	12	12	13	13	13	23	6
8	13	13	14	16	18	18	18	15	14	13	10	9	8	8	7	7	7	6	6	7	7	8	11	11	11	18	6
9	12	14	14	13	15	16	14	11	9	8	7	7	7	8	8	8	8	8	10	10	9	9	10	10	10	16	7
10	10	11	12	13	13	14	14	13	12	11	11	11	11	11	12	11	12	12	12	13	14	17	17	18	13	18	10
11	18	18	19	21	21	23	20	18	16	16	14	13	13	12	13	12	11	10	9	9	10	10	11	13	15	23	9
12	13	13	14	15	17	17	17	14	13	12	11	9	8	8	8	7	7	8	9	9	10	11	11	11	11	17	7
13	12	11	12	12	13	12	13	11	9	8	7	7	7	6	7	6	7	7	8	9	10	10	11	11	9	13	6
14	12	12	11	12	14	15	14	11	10	10	9	8	8	7	6	6	6	6	7	9	10	11	14	17	10	17	6
15	21	25	20	20	20	22	21	20	19	16	17	15	13	8	7	9	10	11	11	12	13	15	16	17	16	25	7
16	20	22	24	25	26	25	22	16	14	12	15	16	15	13	12	12	15	22	22	18	19	23	27	28	19	28	12
17	28	30	31	32	33	32	28	24	21	18	15	14	12	11	10	10	9	10	11	12	13	14	14	15	19	33	9
18	17	19	20	22	24	25	19	14	14	15	13	13	10	9	8	7	7	8	9	8	9	10	10	10	13	25	7
19	10	11	11	12	13	14	13	7	7	7	6	6	5	5	4	4	4	5	5	5	6	6	6	7	14	4	
20	6	7	8	9	10	10	11	9	7	7	6	5	5	5	5	5	4	4	5	5	5	5	6	7	11	4	
21	7	7	10	12	13	13	14	14	14	11	10	9	8	8	8	8	8	9	10	13	15	17	18	17	11	18	7
22	17	19	21	19	20	20	20	16	17	18	16	16	15	14	15	16	15	14	15	15	16	17	17	20	17	21	14
23	20	20	19	16	15	17	17	13	11	11	10	10	11	11	12	14	13	13	14	14	13	12	14	16	14	20	10
24	18	23	28	30	31	32	28	26	24	23	20	16	15	14	14	15	16	18	21	24	27	29	30	31	23	32	14
25	32	34	36	37	41	44	39	25	24	24	25	24	22	21	22	22	23	24	26	27	26	27	29	28	44	21	
26	31	31	31	31	35	35	32	28	24	23	22	20	19	19	19	18	17	17	21	29	28	26	28	29	26	35	17
27	30	31	33	32	34	36	33	27	25	23	21	20	20	19	19	18	19	20	29	29	33	36	36	27	36	18	
28	36	34	32	33	36	37	32	29	25	25	25	24	23	22	22	21	20	20	22	23	24	24	24	27	37	20	
29	25	29	34	36	38	39	35	34	33	30	28	25	23	21	20	18	17	17	17	18	19	21	22	21	26	39	17
30	21	22	23	23	28	36	40	40	37	32	27	23	19	17	14	14	13	13	14	14	14	16	22	40	13		
Avg	18	19	20	20	22	23	21	18	16	15	14	13	12	11	11	11	12	13	13	14	15	16	17	16	--	--	
Max	36	34	36	37	41	44	40	40	37	32	28	25	23	22	22	22	23	29	29	33	36	36	36	--	44	--	
Min	6	7	8	9	10	10	11	7	7	7	6	5	5	4	4	4	4	5	5	5	5	6	--	--	4		

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, Precip_Inches"
Month: Apr 2012

	Hour of day																								Total	Max	Min	
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.004	0	0.004	0
14	0	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.004	0.004	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0.004	0.004	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0.004	0	0	0	0	0	0	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0.004	0	0.012	--	--	
Max	0	0	0.004	0	0	0	0	0	0	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0.004	0	--	0.004	--	
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, Precip_Inches"
Month: May 2012

Hour of day

**SAROAD for Resolution, East_Plant
"Component, Channel: Table100, Precip_Inches"
Month: Jun 2012**

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	Max	Min		
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.016	0	0	0	0.016	0.016		
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008	0	0	0	0	0	0.008	0.008	0	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008	0	0.016	0	0	0	0	0.024	--	--	
Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008	0	0.016	0	0	0	0	--	0.016	--	
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0

SAROAD for Resolution, East_Plant
"Component, Channel: Table100, BP_mmHg"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	650	650	649	649	649	649	649	649	649	649	649	649	649	648	648	648	648	648	648	648	648	648	648	648	649	650	648	
2	648	648	648	647	647	647	647	648	648	648	648	648	648	648	648	648	648	648	648	649	649	650	650	650	648	650	647	
3	650	650	650	650	650	651	651	651	652	652	652	652	651	651	651	651	650	651	651	651	651	652	652	652	651	652	650	
4	652	652	652	651	651	651	652	652	653	653	653	652	652	652	651	651	651	651	651	651	651	651	651	651	651	653	651	
5	650	650	650	650	650	650	650	650	651	651	651	650	650	650	649	649	649	649	649	650	650	650	650	651	650	651	649	
6	651	651	651	651	651	651	652	652	653	653	653	653	653	653	653	653	653	653	653	653	653	654	654	654	652	654	651	
7	654	653	653	653	653	654	654	654	655	655	655	655	655	654	654	654	654	654	654	654	654	655	655	655	654	655	653	
8	655	654	654	654	654	654	655	655	656	656	656	656	655	655	654	654	654	654	654	654	654	654	654	654	655	656	654	
9	654	654	654	654	653	654	654	654	655	655	654	654	654	653	653	653	653	653	652	652	652	653	653	652	653	655	652	
10	652	652	652	652	652	652	652	652	653	653	653	653	652	652	651	651	651	650	650	650	651	651	651	651	652	653	650	
11	651	651	650	650	650	651	651	652	652	652	652	652	651	652	652	651	651	651	652	652	652	652	652	652	651	652	650	
12	652	652	652	652	652	652	653	653	653	654	654	654	654	653	653	653	652	652	652	652	652	652	652	652	653	654	652	
13	651	651	651	650	650	650	650	650	650	650	650	650	650	649	649	648	647	647	646	646	646	646	646	646	649	651	646	
14	646	645	645	645	645	646	646	647	647	648	648	648	648	648	648	648	648	649	649	649	650	651	651	651	648	651	645	
15	651	651	652	652	652	652	653	653	654	654	654	654	654	653	653	653	653	653	653	654	654	654	654	653	654	654	651	
16	655	654	654	654	655	655	655	656	656	656	656	656	655	655	654	654	654	654	654	654	655	655	655	655	655	656	654	
17	655	654	654	654	654	654	655	655	655	655	655	654	654	653	653	653	653	653	653	653	653	653	653	653	654	655	653	
18	653	653	653	653	653	653	653	654	654	654	654	654	654	653	653	652	652	652	652	652	652	652	652	652	653	654	652	
19	652	652	652	652	652	652	652	653	653	653	653	653	653	652	652	652	651	651	651	652	652	652	653	653	652	653	651	
20	653	653	653	653	653	653	653	653	654	654	655	655	654	654	653	653	653	653	653	653	653	653	653	653	653	655	653	
21	653	653	653	653	653	653	653	654	654	654	654	654	653	653	653	652	652	652	652	652	653	653	653	653	653	654	652	
22	653	653	653	653	653	653	653	654	654	654	654	654	654	653	653	652	652	652	652	653	653	653	653	653	653	654	652	
23	653	653	653	653	653	653	653	654	654	654	654	654	654	653	653	652	652	652	652	652	653	653	653	653	653	654	652	
24	653	653	653	653	653	653	653	654	654	654	654	654	654	653	653	653	652	652	652	652	653	653	653	653	653	654	652	
25	653	653	653	652	652	653	653	653	653	653	653	653	652	652	652	652	652	652	652	652	652	652	652	652	653	653	652	
26	652	651	651	651	651	651	651	651	651	652	652	652	652	652	652	652	652	652	652	652	652	652	652	652	652	652	651	
27	652	652	652	652	652	652	652	653	653	653	653	653	652	652	652	652	651	651	651	650	650	651	651	651	651	652	650	
28	650	650	650	650	650	650	650	650	650	650	650	650	649	649	649	648	648	648	648	649	649	649	649	649	649	650	648	
29	649	649	649	649	650	650	650	651	651	652	652	652	651	651	651	650	650	651	651	651	651	651	651	651	651	652	649	
30	651	652	652	652	652	652	652	653	653	653	653	653	653	653	652	652	651	651	651	651	651	651	651	651	652	653	651	
Avg	652	652	652	651	651	652	652	653	653	653	653	653	652	652	652	651	651	651	651	652	652	652	652	652	652	--	--	
Max	655	654	654	654	655	655	656	656	656	656	656	656	655	655	654	654	654	654	654	655	655	655	655	655	655	--	656	--
Min	646	645	645	645	646	646	647	647	648	648	648	648	648	648	648	647	647	647	646	646	646	646	646	646	--	--	645	

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, WS_ms_10m"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	1.2	1.0	0.8	0.3	1.0	0.6	1.1	1.2	2.9	3.6	4.6	5.5	5.1	6.3	6.5	7.3	7.1	6.7	5.4	3.6	1.9	0.7	0.7	0.4	3.1	7.3	0.3
2	0.7	1.0	0.9	1.0	0.8	0.7	0.8	0.9	1.7	3.2	3.8	4.3	5.0	5.0	4.7	4.6	3.9	4.0	3.4	0.8	0.7	0.6	0.3	0.6	2.2	5.0	0.3
3	1.0	0.6	0.5	1.8	2.0	2.7	1.1	0.7	1.1	1.3	2.3	3.6	3.9	4.5	4.6	4.8	4.5	4.1	2.8	0.8	0.5	0.6	0.5	0.8	2.1	4.8	0.5
4	0.7	0.2	0.5	0.6	0.8	1.3	0.7	1.5	1.5	1.3	1.7	2.3	3.8	3.5	3.3	3.0	2.9	2.7	2.3	1.1	1.8	2.8	1.0	2.5	1.8	3.8	0.2
5	1.5	1.1	1.6	2.0	1.0	1.6	2.2	5.0	3.4	2.9	3.8	3.5	4.5	6.2	5.0	5.4	5.7	5.1	3.1	0.6	0.7	0.7	0.8	0.7	2.8	6.2	0.6
6	1.1	0.7	0.9	1.5	1.4	1.9	1.2	0.4	0.7	1.4	1.9	3.1	3.6	4.0	4.3	4.2	3.9	4.1	2.8	1.0	1.1	1.2	1.3	0.7	2.0	4.3	0.4
7	1.4	2.3	1.2	0.6	1.4	0.9	1.1	1.2	2.7	1.9	2.1	1.9	1.6	2.6	2.1	2.4	3.2	3.2	3.0	2.0	0.5	0.9	0.7	0.5	1.7	3.2	0.5
8	2.3	2.5	3.5	4.3	3.7	2.0	3.5	2.9	5.4	4.0	3.6	2.8	2.8	2.3	2.8	4.5	4.2	4.2	2.0	1.2	0.9	0.6	0.8	0.7	2.8	5.4	0.6
9	0.7	1.8	0.7	0.7	1.5	2.5	4.0	4.9	1.3	0.9	1.5	3.0	3.7	4.4	4.9	3.9	3.6	3.0	1.7	1.0	0.6	1.0	1.0	0.8	2.2	4.9	0.6
10	0.7	0.6	2.2	1.7	1.1	0.8	2.6	2.6	2.3	1.7	2.0	2.7	3.5	3.0	3.5	3.9	2.8	1.7	1.6	1.2	1.0	1.1	1.0	0.4	1.9	3.9	0.4
11	0.7	0.6	2.1	1.7	1.4	1.0	1.1	1.7	3.0	4.4	5.1	5.9	6.3	8.3	7.8	6.6	5.7	5.0	5.0	3.3	1.3	0.3	0.6	0.5	3.3	8.3	0.3
12	1.3	2.7	2.4	3.3	2.0	0.9	0.7	1.7	1.1	2.2	2.9	4.1	4.4	4.8	4.5	5.1	4.7	4.0	3.3	1.6	0.6	0.6	0.8	0.6	2.5	5.1	0.6
13	1.3	1.2	1.8	0.8	0.2	0.8	1.1	1.3	1.3	2.1	3.1	3.6	3.0	3.6	4.8	4.4	4.7	4.0	2.6	4.1	5.1	7.3	8.2	7.5	3.2	8.2	0.2
14	8.1	8.5	8.2	4.9	3.6	5.0	3.8	3.8	5.3	5.2	4.7	5.4	5.9	5.7	5.7	5.9	6.5	5.9	5.1	3.3	0.6	0.4	0.7	0.6	4.7	8.5	0.4
15	0.4	0.6	1.1	0.5	0.6	0.4	0.7	0.3	1.2	2.1	3.4	3.0	3.6	3.6	3.6	4.2	4.5	4.1	3.5	0.9	0.7	1.1	1.3	0.4	1.9	4.5	0.3
16	0.2	0.5	0.3	0.4	1.0	2.9	4.7	3.6	1.6	2.3	3.1	2.6	2.5	2.7	3.8	3.5	4.0	3.8	3.3	1.5	0.9	1.6	2.0	0.9	2.2	4.7	0.2
17	0.5	0.6	0.8	2.3	4.7	2.2	3.3	2.6	2.9	4.7	4.6	4.4	2.8	3.1	2.4	4.0	3.7	3.8	2.5	1.6	0.7	0.3	1.0	3.0	2.6	4.7	0.3
18	2.1	2.2	1.3	1.4	3.2	3.2	1.7	3.4	2.3	1.4	1.6	2.8	3.8	4.4	4.9	4.5	4.1	3.6	2.7	1.4	0.9	0.9	0.6	0.4	2.5	4.9	0.4
19	0.4	1.2	0.8	1.3	0.5	1.2	0.9	0.4	1.1	1.9	2.5	2.4	4.3	4.6	5.0	5.2	5.6	4.8	3.4	1.6	1.1	1.0	2.6	2.4	2.3	5.6	0.4
20	0.6	1.0	1.7	1.3	1.9	8.1	11.7	11.0	9.2	7.5	5.4	3.2	3.0	2.2	3.0	3.3	4.1	4.8	3.9	1.3	0.6	0.7	0.6	0.3	3.8	11.7	0.3
21	0.5	1.4	2.1	3.3	0.9	3.5	1.3	1.2	1.4	3.0	1.8	2.3	2.7	3.0	3.6	3.5	3.1	3.9	3.0	1.1	0.5	0.2	0.6	0.2	2.0	3.9	0.2
22	0.8	1.1	1.2	0.9	1.3	3.3	3.2	1.3	2.9	1.5	1.8	2.2	3.3	3.8	3.5	3.9	3.8	4.1	3.4	0.8	2.1	3.0	0.8	1.1	2.3	4.1	0.8
23	1.4	3.1	1.6	1.4	1.6	2.8	2.6	1.0	0.8	1.1	1.5	1.7	2.7	2.1	4.0	4.9	4.8	4.2	3.2	1.7	1.9	1.3	0.9	0.8	2.2	4.9	0.8
24	0.6	0.4	1.5	0.5	0.8	0.7	1.5	1.0	1.0	2.3	2.5	4.6	5.0	3.7	4.4	4.6	3.7	3.0	3.4	1.7	0.7	0.3	0.6	0.7	2.0	5.0	0.3
25	1.0	0.3	1.8	2.2	1.2	2.8	1.3	3.0	1.7	2.1	1.7	1.7	1.8	2.3	2.8	4.4	2.0	1.6	1.0	1.1	1.4	1.4	2.0	1.8	4.4	0.3	
26	1.2	1.2	1.0	1.1	1.9	1.4	2.1	2.5	4.2	6.5	6.9	4.7	6.1	5.0	4.6	5.0	5.0	5.6	3.8	1.8	0.5	0.3	0.6	0.5	3.1	6.9	0.3
27	0.9	1.1	1.8	1.5	1.0	0.5	0.5	0.7	1.0	1.9	2.3	2.1	3.3	3.7	4.0	4.3	3.9	4.1	3.5	1.5	0.7	0.3	0.5	0.5	1.9	4.3	0.3
28	0.5	0.3	0.3	0.4	0.4	0.7	0.7	1.0	1.2	1.4	2.3	3.2	3.6	4.1	3.9	4.1	4.7	4.5	3.3	1.4	0.9	0.5	0.9	0.5	1.9	4.7	0.3
29	0.5	0.9	0.5	1.6	2.0	3.9	3.5	1.4	2.6	2.5	2.6	2.9	3.1	3.4	3.6	3.5	4.0	3.6	3.6	1.9	1.7	1.3	0.6	0.7	2.3	4.0	0.5
30	0.6	0.8	1.6	1.0	0.5	0.6	0.9	1.1	1.1	1.1	1.5	2.7	3.1	3.0	3.3	4.2	4.1	4.0	3.6	1.4	1.2	1.4	0.9	0.9	1.9	4.2	0.5
Avg	1.2	1.4	1.6	1.6	1.5	2.0	2.2	2.2	2.3	2.7	3.0	3.3	3.7	3.9	4.2	4.4	4.4	4.1	3.2	1.6	1.1	1.2	1.2	1.1	2.4	--	--
Max	8.1	8.5	8.2	4.9	4.7	8.1	11.7	11.0	9.2	7.5	6.9	5.9	6.3	8.3	7.8	7.3	7.1	6.7	5.4	4.1	5.1	7.3	8.2	7.5	--	11.7	--
Min	0.2	0.2	0.3	0.3	0.2	0.4	0.5	0.3	0.7	0.9	1.5	1.7	1.6	1.8	2.1	2.4	2.8	1.7	1.6	0.6	0.5	0.2	0.3	0.2	--	--	0.2

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, WS_ms_10m"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	1.1	0.8	0.7	1.2	1.7	0.9	0.5	1.1	1.8	3.2	3.9	4.5	4.4	4.6	5.1	4.1	5.1	4.2	2.6	0.9	0.3	0.8	0.3	0.9	2.3	5.1	0.3
2	1.0	0.9	1.5	1.4	1.4	2.3	0.6	0.8	3.8	4.2	4.2	3.7	4.1	4.5	3.9	4.5	4.5	4.1	3.4	0.9	0.9	1.0	0.5	0.9	2.5	4.5	0.5
3	0.6	0.9	1.2	1.1	1.0	3.2	3.2	1.9	3.3	3.3	3.5	3.2	3.9	4.5	4.7	4.8	5.4	4.9	3.7	1.5	0.7	0.7	0.5	1.5	2.6	5.4	0.5
4	1.3	0.9	1.4	1.4	1.2	0.8	2.1	0.9	1.2	2.8	3.6	2.9	3.8	4.2	4.5	4.7	4.5	3.7	3.8	1.7	0.6	0.9	0.7	0.4	2.2	4.7	0.4
5	0.4	1.2	2.6	1.4	1.4	1.5	1.3	1.1	1.7	2.5	3.3	3.5	4.2	4.7	4.7	5.4	4.9	4.5	3.2	1.6	0.8	1.5	1.1	1.7	2.5	5.4	0.4
6	2.0	2.3	1.4	0.8	1.9	3.8	3.0	2.4	2.5	2.8	3.4	3.8	4.1	5.1	5.5	3.9	5.0	4.2	3.4	1.5	1.4	1.1	1.0	1.7	2.8	5.5	0.8
7	1.9	1.6	1.2	1.4	1.4	1.6	1.9	1.9	3.0	3.0	2.5	3.5	3.6	5.3	5.8	5.6	5.2	4.7	4.5	1.9	0.7	1.3	0.7	0.6	2.7	5.8	0.6
8	1.3	1.6	1.8	2.6	1.0	4.9	3.7	1.0	1.1	1.5	2.8	3.0	4.2	2.0	4.4	4.1	4.2	4.1	5.4	5.7	6.0	6.4	7.1	6.3	3.6	7.1	1.0
9	5.5	9.0	10.0	9.9	7.9	3.5	4.0	6.3	7.5	5.8	4.6	2.9	5.1	5.2	2.8	4.4	5.7	2.7	1.5	1.1	2.3	2.7	3.1	3.1	4.9	10.0	1.1
10	1.1	1.4	1.3	1.9	1.4	0.9	0.8	0.7	0.8	1.3	2.2	3.0	3.8	3.4	3.9	4.5	4.9	4.3	3.6	2.0	0.7	0.5	0.8	0.6	2.1	4.9	0.5
11	1.2	0.7	0.6	0.9	1.6	2.2	1.4	1.1	0.9	0.9	2.6	3.4	4.4	4.6	4.8	4.8	4.3	4.0	3.7	1.6	0.5	1.0	1.0	1.5	2.2	4.8	0.5
12	1.6	1.7	1.8	3.2	3.3	1.6	2.3	1.0	1.4	2.2	3.6	3.2	2.9	3.0	3.6	3.5	3.9	3.6	2.6	1.6	0.7	0.6	0.6	0.2	2.2	3.9	0.2
13	0.7	1.0	0.8	0.7	1.0	0.4	0.9	0.9	1.0	2.0	2.9	2.1	3.7	3.1	4.4	5.0	5.0	4.5	4.2	0.9	0.7	0.9	1.3	0.9	2.0	5.0	0.4
14	0.7	3.2	6.0	10.0	10.3	10.0	10.1	9.5	10.3	8.2	8.0	3.7	3.8	3.3	3.8	3.6	2.5	2.4	2.4	1.9	3.2	3.1	4.0	3.6	5.3	10.3	0.7
15	5.2	4.8	6.7	6.4	7.3	5.5	5.6	8.1	6.1	5.7	6.3	4.7	6.5	5.9	4.8	4.7	4.3	3.0	3.1	3.9	7.7	9.2	7.4	4.1	5.7	9.2	3.0
16	6.3	8.9	10.5	11.4	11.5	10.3	8.6	8.4	9.5	5.2	6.0	4.5	3.6	5.8	5.4	5.2	5.1	5.8	5.2	2.4	0.5	0.6	0.5	1.0	5.9	11.5	0.5
17	1.6	2.1	1.8	1.3	3.9	4.9	1.9	0.4	0.9	1.9	2.4	3.2	4.0	4.3	5.9	5.6	6.0	5.7	5.0	3.3	3.4	3.0	1.7	1.5	3.2	6.0	0.4
18	1.5	0.7	1.1	0.9	0.7	1.2	1.6	3.4	5.9	6.3	6.3	6.6	6.6	7.5	7.1	7.4	7.2	6.1	3.8	1.5	0.6	0.4	1.2	3.8	7.5	0.4	
19	1.8	2.2	1.4	1.4	2.1	3.3	3.7	1.9	0.9	1.6	2.3	3.2	3.5	3.7	4.2	3.4	4.2	4.0	3.0	1.3	0.6	0.6	0.6	0.4	2.3	4.2	0.4
20	0.6	0.7	0.6	0.9	1.0	1.7	2.7	4.6	2.6	1.6	2.3	3.1	2.8	2.6	3.8	3.5	3.7	4.0	3.4	1.1	0.5	0.4	0.6	1.3	2.1	4.6	0.4
21	0.6	2.0	1.2	1.6	2.9	5.1	4.4	1.6	1.4	1.6	1.6	2.2	3.7	4.7	5.0	5.4	5.5	5.0	3.9	1.5	1.9	1.1	1.3	0.7	2.7	5.5	0.6
22	1.1	0.6	0.8	0.4	0.4	3.3	0.9	1.2	1.4	1.8	2.1	3.5	4.0	4.9	5.4	5.2	4.7	5.8	4.1	3.5	1.5	1.7	1.0	1.0	2.5	5.8	0.4
23	1.6	1.8	1.1	1.3	2.1	2.4	1.5	1.0	1.7	5.5	6.6	6.4	7.9	7.0	7.1	7.8	8.0	7.8	7.1	6.3	5.9	5.1	2.7	1.4	4.5	8.0	1.0
24	0.8	0.7	0.8	0.9	0.9	1.7	0.9	1.8	3.8	4.3	4.1	4.9	5.5	5.5	6.4	6.9	6.1	6.1	5.8	4.7	4.1	4.1	3.9	2.9	3.6	6.9	0.7
25	1.7	1.5	1.5	1.7	2.1	1.1	1.1	2.9	5.5	7.2	6.5	5.9	6.5	6.4	6.9	7.3	7.4	6.7	5.7	4.7	1.7	1.5	2.2	1.6	4.1	7.4	1.1
26	1.8	1.9	1.5	1.9	1.0	2.1	2.9	3.1	5.1	5.2	4.3	5.4	5.4	5.4	5.0	5.2	4.6	4.1	3.8	2.4	0.7	1.4	0.7	0.5	3.1	5.4	0.5
27	0.4	1.3	1.9	2.3	0.6	0.8	0.7	1.2	1.8	2.0	2.2	2.0	2.7	2.9	3.1	3.8	4.3	4.0	3.4	2.3	1.0	0.9	0.6	0.3	1.9	4.3	0.3
28	0.5	0.3	0.2	0.4	2.3	3.7	4.7	2.2	1.6	2.9	2.7	2.7	2.6	3.8	4.7	3.6	3.6	3.6	1.9	0.8	0.3	0.7	0.8	2.2	4.7	0.2	
29	1.4	1.7	0.8	1.4	2.8	4.3	1.0	0.7	0.9	1.4	1.6	3.0	3.4	3.9	4.7	4.5	4.1	3.9	3.2	1.9	1.5	1.8	1.2	0.6	2.3	4.7	0.6
30	0.6	0.5	0.3	1.0	1.2	0.7	1.5	0.5	0.9	1.7	2.7	2.9	3.8	4.2	3.9	4.3	4.5	4.9	4.5	2.4	0.6	0.6	0.8	0.4	2.1	4.9	0.3
31	0.5	0.7	0.5	0.7	1.7	2.5	2.3	0.6	0.8	1.1	2.6	4.3	4.8	5.5	5.2	4.7	5.0	4.8	4.4	2.5	0.6	1.4	1.2	2.5	5.5	0.5	
Avg	1.6	1.9	2.1	2.4	2.6	3.0	2.6	2.4	2.9	3.2	3.7	3.7	4.3	4.5	4.8	4.9	5.0	4.6	4.0	2.4	1.7	1.8	1.6	1.4	3.1	--	--
Max	6.3	9.0	10.5	11.4	11.5	10.3	10.1	9.5	10.3	8.2	8.0	6.4	7.9	7.0	7.5	7.8	8.0	7.8	7.1	6.3	7.7	9.2	7.4	6.3	--	11.5	--
Min	0.4	0.3	0.2	0.4	0.4	0.4	0.5	0.4	0.8	0.9	1.6	2.0	2.7	2.0	2.8	3.4	2.5	2.4	1.5	0.9	0.3	0.3	0.2	--	--	0.2	

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, WS_ms_10m"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.7	0.7	1.1	1.3	2.3	2.7	3.3	3.5	1.7	3.0	3.9	2.0	3.2	4.3	4.4	4.8	5.7	5.0	4.8	1.9	0.3	1.0	0.7	0.8	2.6	5.7	0.3
2	1.0	0.7	1.1	0.7	1.6	2.2	2.6	1.0	1.2	2.2	2.6	3.3	4.1	5.3	6.2	6.8	6.4	6.0	5.6	5.1	2.0	0.8	1.2	1.8	3.0	6.8	0.7
3	1.7	1.1	1.7	1.6	2.2	2.0	1.5	1.1	0.9	1.9	2.6	3.9	3.9	4.6	4.4	5.1	3.6	3.7	3.5	2.2	0.8	0.5	1.2	0.9	2.4	5.1	0.5
4	2.1	0.9	1.2	1.2	0.8	0.9	0.7	0.6	1.6	2.7	2.0	2.5	3.1	3.6	4.8	4.7	5.4	4.8	3.8	2.3	0.7	0.7	0.9	0.6	2.2	5.4	0.6
5	1.0	0.9	0.8	1.5	0.7	1.1	1.8	1.3	1.0	2.2	3.4	4.3	4.5	5.5	5.1	5.6	5.3	5.0	4.8	3.3	1.3	1.2	0.9	0.3	2.6	5.6	0.3
6	0.8	1.9	2.2	2.1	2.1	2.9	1.5	0.8	1.1	2.0	2.7	3.6	4.7	4.9	5.1	4.4	5.0	4.6	4.5	2.1	0.9	1.0	1.9	1.4	2.7	5.1	0.8
7	2.0	1.6	1.2	0.7	1.5	2.3	2.1	1.0	0.9	3.1	2.3	3.6	3.2	3.4	4.7	5.3	5.0	4.4	3.5	1.9	1.1	0.8	0.8	0.5	2.4	5.3	0.5
8	0.7	1.1	1.4	0.6	0.4	1.2	0.7	0.9	1.0	1.3	3.0	2.9	3.9	4.0	5.8	5.5	5.5	5.2	4.7	2.2	1.0	0.8	0.7	1.5	2.3	5.8	0.4
9	1.0	0.7	1.1	1.5	1.8	1.6	2.3	1.3	1.2	3.1	5.4	4.9	5.0	6.6	6.4	5.8	6.9	6.5	5.7	4.3	2.3	1.3	2.2	1.5	3.4	6.9	0.7
10	1.3	1.1	0.9	1.0	0.8	1.6	1.8	1.2	1.2	1.9	2.9	3.5	3.7	4.4	4.6	5.1	5.2	4.2	2.8	2.1	1.1	1.3	0.8	0.3	2.3	5.2	0.3
11	1.1	1.3	1.6	1.5	0.4	1.8	1.2	0.4	1.1	1.4	2.1	2.5	3.1	4.2	4.5	4.3	4.8	4.9	3.7	2.7	1.6	1.1	1.2	0.9	2.2	4.9	0.4
12	0.7	0.6	0.7	1.6	1.8	0.4	0.5	0.6	0.9	1.5	2.1	2.6	3.8	3.9	3.5	4.2	4.1	4.5	3.9	2.8	1.7	0.8	0.5	0.6	2.0	4.5	0.4
13	0.6	0.3	1.9	0.4	0.9	0.5	0.5	0.2	0.8	1.2	1.6	2.4	3.9	4.4	5.1	5.0	4.7	4.4	3.7	1.9	1.6	1.1	0.5	1.3	2.0	5.1	0.2
14	1.3	0.8	1.2	1.2	1.3	2.4	2.3	0.6	1.2	2.6	2.8	3.7	3.8	5.0	5.2	4.6	4.9	4.3	3.3	1.9	0.8	1.4	1.0	0.8	2.4	5.2	0.6
15	0.5	0.5	0.9	1.0	1.3	0.8	0.5	1.0	3.0	3.3	3.1	3.4	3.1	5.1	4.7	5.2	4.8	3.9	3.3	2.9	1.1	0.7	0.5	1.1	2.3	5.2	0.5
16	1.0	0.5	0.4	0.5	0.8	0.6	0.4	0.6	0.8	0.8	2.1	3.4	3.0	3.1	3.3	4.9	5.9	9.0	6.8	10.5	11.4	8.9	3.7	1.5	3.5	11.4	0.4
17	1.6	2.1	2.0	1.1	3.4	5.3	5.2	1.8	1.6	1.5	2.0	3.5	3.5	4.8	5.3	5.4	5.7	5.6	5.5	3.4	1.2	0.3	0.6	0.7	3.0	5.7	0.3
18	0.7	0.6	0.5	0.9	1.4	1.9	1.0	0.8	1.1	3.0	4.5	5.7	6.4	6.7	6.9	7.0	7.3	6.7	6.4	4.3	1.9	1.9	0.7	0.6	3.3	7.3	0.5
19	0.5	1.1	0.8	1.1	2.4	2.3	1.4	1.4	2.9	3.3	4.1	4.4	4.4	4.5	5.9	6.0	6.0	5.6	5.4	2.1	0.5	1.3	2.2	1.3	3.0	6.0	0.5
20	0.8	0.8	1.4	1.5	1.2	3.2	0.7	0.3	1.1	2.1	2.2	3.1	3.8	3.6	4.0	3.7	4.3	4.3	4.2	2.6	1.4	1.0	0.4	0.6	2.2	4.3	0.3
21	0.5	1.3	1.5	1.3	1.1	1.0	0.5	0.7	0.9	1.4	2.8	2.9	3.1	3.7	3.9	4.5	3.7	4.0	3.2	2.1	1.4	1.2	0.4	0.7	2.0	4.5	0.4
22	1.5	1.1	2.0	2.6	1.4	0.4	0.3	0.3	2.2	2.0	2.1	2.9	2.7	4.3	5.2	4.5	4.7	4.7	4.8	2.9	1.0	0.8	0.3	1.5	2.3	5.2	0.3
23	1.8	0.5	0.9	0.7	0.6	0.7	0.6	0.9	0.9	1.3	1.8	3.1	2.7	3.7	4.3	4.1	4.6	5.4	4.6	3.1	1.6	0.4	1.0	0.7	2.1	5.4	0.4
24	0.7	0.7	0.7	0.7	0.5	0.7	0.7	1.2	3.1	2.9	3.3	3.2	3.4	4.9	5.4	5.5	5.6	5.3	4.7	3.4	1.3	1.2	1.5	0.4	2.5	5.6	0.4
25	0.5	1.2	0.8	0.6	0.4	0.7	0.7	0.8	1.3	1.8	2.5	3.0	3.3	4.0	4.4	4.7	5.0	5.2	5.2	3.6	1.2	0.1	0.8	0.6	2.2	5.2	0.1
26	0.4	1.4	0.8	0.5	1.2	0.9	1.4	0.7	1.0	1.6	2.4	3.1	2.8	4.6	4.3	4.8	3.4	4.3	5.3	3.4	2.7	1.8	0.8	1.8	2.3	5.3	0.4
27	1.4	1.4	1.1	0.9	1.0	2.6	3.1	1.5	1.7	3.4	3.4	2.8	3.8	4.9	4.7	4.2	4.7	5.4	11.5	5.5	2.9	2.2	1.5	4.5	3.3	11.5	0.9
28	2.7	2.1	1.5	1.5	1.8	0.6	0.7	0.5	1.0	2.1	2.8	3.4	3.7	4.0	4.4	5.0	5.5	5.5	5.4	4.8	2.0	0.7	0.7	0.5	2.6	5.5	0.5
29	0.5	0.7	0.8	0.3	1.2	0.6	0.4	0.8	1.1	1.7	3.0	3.8	4.8	4.9	5.7	5.4	5.5	6.0	5.7	4.7	1.3	0.4	1.0	0.4	2.5	6.0	0.3
30	0.5	0.5	0.7	1.1	1.4	2.2	1.1	1.9	1.7	2.1	2.7	3.5	4.6	5.7	6.1	6.6	7.0	6.5	5.7	4.7	1.2	0.6	0.2	0.5	2.9	7.0	0.2
Avg	1.0	1.0	1.2	1.1	1.3	1.6	1.4	1.0	1.4	2.1	2.8	3.4	3.8	4.6	4.9	5.1	5.2	5.2	4.9	3.4	1.7	1.3	1.0	1.0	2.6	--	--
Max	2.7	2.1	2.2	2.6	3.4	5.3	5.2	3.5	3.1	3.4	5.4	5.7	6.4	6.7	6.9	7.0	7.3	9.0	11.5	10.5	11.4	8.9	3.7	4.5	--	11.5	--
Min	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.2	0.8	0.8	1.6	2.0	2.7	3.1	3.3	3.7	3.4	3.7	2.8	1.9	0.3	0.1	0.2	0.3	--	--	0.1

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, WD_10m"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	57	91	14	305	18	20	33	188	212	234	223	238	239	230	237	247	245	271	271	263	279	31	41	340	278	340	14
2	39	21	349	2	46	50	351	144	160	240	233	237	233	227	241	243	250	239	236	309	359	318	348	314	291	359	2
3	38	15	38	38	56	46	337	54	151	214	251	263	251	241	244	244	242	240	246	306	344	321	283	125	295	344	15
4	312	317	340	307	11	3	314	163	170	180	191	186	253	253	238	238	253	228	261	308	29	40	32	27	284	340	3
5	4	17	29	29	18	9	300	63	77	143	144	190	179	220	217	233	250	262	261	335	44	20	13	44	5	335	4
6	51	54	48	40	36	36	11	308	157	194	191	252	242	247	241	244	258	252	257	276	23	50	356	331	311	356	11
7	359	11	10	304	295	344	299	291	265	9	225	182	53	51	167	175	268	284	319	35	43	3	46	316	334	359	3
8	32	41	57	51	85	288	299	353	73	79	83	109	119	224	172	246	259	262	283	25	307	319	6	349	9	353	6
9	10	22	1	14	43	41	49	71	115	188	209	237	189	214	230	234	245	245	287	25	306	278	19	334	316	334	1
10	355	5	24	33	312	55	41	60	127	179	178	200	178	200	201	250	254	287	332	44	45	121	2	4	23	355	2
11	341	312	35	52	72	324	92	219	261	238	206	211	215	231	226	232	248	245	250	257	242	65	202	129	239	341	35
12	147	185	188	233	233	161	219	211	243	250	225	228	219	230	239	228	231	235	256	247	30	359	298	306	232	359	30
13	20	32	33	14	313	328	13	78	181	179	229	250	236	230	239	225	198	195	168	202	199	210	214	209	223	328	13
14	219	203	232	227	247	241	237	247	239	242	225	225	235	267	235	242	241	246	251	259	239	290	44	66	241	290	44
15	74	183	188	125	106	339	20	172	181	208	239	236	222	253	250	233	242	248	249	258	329	348	355	1	240	355	1
16	12	256	314	285	305	41	57	72	210	194	50	78	191	248	231	231	258	270	265	308	345	40	24	143	296	345	12
17	1	323	349	33	60	346	329	279	158	63	76	137	148	157	151	237	243	251	254	307	13	308	22	47	352	349	1
18	342	31	10	34	45	33	14	66	90	201	203	154	186	234	237	236	218	253	249	292	299	338	293	346	302	346	10
19	319	41	358	30	275	18	328	122	149	181	190	237	244	252	250	245	252	251	255	290	305	325	348	324	284	358	18
20	358	346	6	295	67	34	43	44	50	57	68	94	99	184	211	226	255	250	255	300	355	329	293	323	353	358	6
21	348	31	37	52	334	46	329	43	238	144	113	252	216	193	216	231	234	244	247	301	339	313	298	41	301	348	31
22	239	4	273	306	32	42	58	179	114	182	169	183	246	264	241	240	263	247	250	343	2	3	267	356	274	356	2
23	51	38	352	8	64	46	89	69	154	176	213	155	145	256	208	242	253	251	250	321	355	270	341	7	324	355	7
24	311	327	343	4	28	3	52	135	146	229	245	219	235	238	257	244	252	254	257	302	295	343	228	33	282	343	3
25	14	331	38	33	51	66	165	70	136	4	132	253	244	160	157	214	254	250	253	1	333	342	34	44	20	342	1
26	71	68	87	129	246	307	252	270	222	199	207	155	248	260	253	233	249	240	260	280	340	329	339	285	255	340	68
27	15	8	29	25	281	268	320	196	221	190	198	161	271	234	246	237	236	242	241	280	331	348	302	230	265	348	8
28	277	321	345	315	312	328	346	99	171	212	210	234	226	224	248	231	232	240	242	267	322	40	19	307	273	346	19
29	20	41	43	50	67	57	56	95	174	139	203	220	230	242	217	231	251	244	276	315	359	285	278	287	273	359	20
30	265	340	36	40	349	11	45	78	132	268	207	252	230	225	244	246	250	258	266	301	337	352	244	321	290	352	11
Avg	5	9	14	12	13	13	4	102	166	195	196	207	217	230	226	235	246	250	258	303	339	344	339	350	281	--	--
Max	359	346	358	315	349	346	351	353	265	268	251	263	271	267	257	250	268	287	332	343	359	359	356	356	--	359	--
Min	1	4	1	2	11	3	11	43	50	4	50	78	53	51	151	175	198	195	168	1	2	3	2	1	--	--	1

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, WD_10m"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	12	334	10	39	50	63	58	111	231	224	219	195	203	217	222	219	233	233	245	286	44	356	336	13	283	356	10
2	47	43	317	25	24	87	4	88	140	173	194	189	190	203	215	229	214	229	234	238	28	52	330	336	202	336	4
3	347	37	66	354	98	53	66	115	146	148	148	173	218	200	240	226	230	221	239	256	41	13	69	34	123	354	13
4	28	6	47	44	33	5	32	92	154	178	163	172	224	235	245	237	245	259	246	280	334	328	328	330	302	334	5
5	39	64	40	356	42	44	50	99	138	142	141	155	219	213	210	226	234	242	268	292	279	28	65	36	88	356	28
6	36	34	26	53	56	68	48	71	178	169	144	181	195	236	233	241	231	225	253	289	327	329	12	67	52	329	12
7	188	302	335	38	68	83	61	103	167	153	141	199	208	239	244	238	243	249	242	276	349	73	30	302	224	349	30
8	33	41	38	25	307	56	86	220	243	261	185	174	139	259	236	285	255	332	16	20	38	54	40	48	7	332	16
9	60	67	58	58	53	103	56	39	37	45	47	127	133	140	137	125	357	179	254	350	71	42	277	208	73	357	37
10	0	8	337	24	324	310	350	112	169	226	238	263	258	253	239	245	243	239	253	271	319	323	15	7	292	350	0
11	38	313	337	25	45	39	47	77	83	152	257	262	254	233	231	233	263	254	266	297	353	39	38	16	331	353	16
12	43	35	35	35	36	323	42	58	176	144	121	148	150	197	224	246	230	235	249	291	330	333	36	298	355	333	35
13	305	301	355	332	252	300	318	150	186	194	196	168	228	221	234	234	261	246	247	281	311	309	318	295	263	355	150
14	15	11	32	23	26	32	41	55	52	55	48	78	97	356	357	345	328	26	13	8	51	51	57	59	32	357	8
15	68	75	54	60	92	95	72	41	89	82	61	75	126	130	132	153	107	126	117	68	61	57	57	89	86	153	41
16	66	56	53	51	54	56	78	61	74	60	73	120	149	195	217	232	236	245	261	271	340	336	67	38	63	340	38
17	32	40	30	27	46	56	80	241	282	171	111	235	210	208	228	239	240	216	228	212	202	235	208	61	211	282	27
18	298	334	303	7	339	80	102	180	187	196	236	227	225	216	234	242	241	255	260	259	241	34	65	44	252	339	7
19	40	45	49	49	41	49	58	87	184	217	193	227	231	227	230	250	238	238	245	265	347	336	245	306	264	347	40
20	352	331	255	262	268	12	45	69	89	195	228	201	256	228	238	251	241	249	258	311	288	14	284	334	276	352	12
21	299	29	359	16	33	69	69	88	4	27	173	287	209	229	232	225	229	266	258	310	352	4	280	323	320	359	4
22	16	339	309	336	295	40	254	69	110	193	191	245	245	247	228	254	248	239	257	262	246	268	305	40	269	339	16
23	53	48	29	37	45	42	47	127	198	187	209	220	231	234	238	232	206	206	214	216	218	197	174	191	195	238	29
24	274	282	310	26	10	90	71	141	210	189	195	213	195	225	218	218	217	214	220	229	236	239	234	259	224	310	10
25	278	294	325	59	116	68	6	141	172	193	198	217	201	207	209	207	228	235	241	245	236	281	280	290	231	325	6
26	291	303	297	283	205	228	229	235	247	247	259	229	238	241	243	248	249	257	265	272	349	327	7	58	263	349	7
27	280	39	35	36	11	26	36	127	182	188	194	217	228	268	232	218	238	234	243	271	319	341	257	292	263	341	11
28	319	334	328	357	40	48	69	49	206	186	199	203	210	200	246	232	227	239	259	288	326	269	355	307	275	357	40
29	42	37	9	16	36	53	325	98	179	235	113	210	236	197	250	235	225	244	268	285	333	341	14	346	308	346	9
30	318	310	337	22	12	335	27	114	228	219	266	257	248	220	226	232	243	247	245	267	324	29	294	20	286	337	12
31	112	338	311	16	38	23	45	120	190	221	248	249	240	240	230	237	230	248	252	276	311	343	341	19	282	343	16
Avg	9	6	3	22	32	46	46	100	169	183	183	202	210	222	229	234	239	239	251	279	331	352	349	359	280	--	--
Max	352	339	359	357	339	335	350	241	282	261	266	287	258	356	357	345	357	332	268	350	353	356	355	346	--	359	--
Min	0	6	9	7	10	5	4	39	4	27	47	75	97	130	132	125	107	26	13	8	28	4	7	--	--	0	

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, WD_10m"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	266	322	340	19	28	24	57	88	184	163	188	223	242	234	243	238	240	246	256	265	333	17	6	14	286	340	6
2	18	26	13	2	33	37	30	79	216	251	225	198	231	229	237	226	236	230	226	222	258	14	352	32	282	352	2
3	29	1	46	45	40	34	55	162	10	263	186	205	186	211	192	241	228	243	240	257	5	351	352	56	318	352	1
4	35	56	47	39	349	309	261	136	234	219	225	183	246	231	210	242	238	242	244	284	314	23	293	323	268	349	23
5	360	297	43	37	349	18	44	138	79	207	211	243	231	246	244	239	243	241	254	263	291	339	20	345	290	360	18
6	32	35	38	41	34	38	23	128	225	198	162	186	216	226	250	226	232	233	243	275	282	347	33	30	276	347	23
7	35	42	53	357	36	34	37	87	154	144	211	198	209	217	230	244	227	234	238	294	333	283	359	339	290	359	34
8	341	39	18	266	343	351	345	67	207	280	155	211	184	193	234	223	230	240	242	251	350	173	22	43	269	351	18
9	40	29	35	37	35	24	36	76	154	155	212	201	200	227	226	222	223	218	215	199	183	149	356	332	179	356	24
10	118	342	50	295	333	36	47	93	271	194	223	210	227	233	232	245	241	232	253	283	331	348	236	341	271	348	36
11	326	48	27	15	283	39	239	126	182	223	208	175	222	240	244	239	250	234	227	268	325	318	341	351	266	351	15
12	290	315	279	40	29	355	30	94	162	240	269	241	249	238	237	243	239	250	263	279	342	22	303	305	285	355	22
13	301	351	26	334	17	17	123	125	233	202	141	225	256	223	242	232	248	240	261	288	340	296	298	347	277	351	17
14	0	353	50	43	1	34	65	166	160	164	159	158	223	211	222	215	223	226	239	277	299	298	333	244	239	353	0
15	2	96	28	30	17	356	24	125	141	135	166	191	211	171	190	173	218	238	235	255	282	12	294	137	177	356	2
16	299	317	288	347	263	316	210	143	233	273	204	154	164	189	184	242	232	121	91	105	88	62	53	58	198	347	53
17	325	39	30	334	119	42	55	12	96	249	175	166	243	222	243	243	242	250	250	262	302	216	321	303	273	334	12
18	343	334	357	25	9	39	53	150	164	254	262	253	244	246	250	248	249	251	259	271	262	277	325	290	281	357	9
19	23	296	313	14	37	23	80	63	164	183	201	220	232	232	228	226	229	245	262	257	13	30	318	324	280	324	13
20	2	33	39	5	14	36	294	182	191	173	166	253	245	236	248	239	225	232	254	276	326	313	339	342	281	342	2
21	295	312	39	39	36	348	27	75	125	198	223	250	248	266	254	243	238	248	257	278	336	326	300	329	292	348	27
22	2	28	43	42	9	353	318	246	244	236	259	231	236	249	235	241	241	256	267	262	296	36	337	36	291	353	2
23	36	15	25	23	320	294	83	164	202	166	193	235	259	258	241	251	253	254	260	253	257	13	20	336	276	336	13
24	17	44	31	316	12	16	324	227	234	227	232	243	250	237	245	253	250	252	262	267	259	327	314	73	280	327	12
25	30	281	289	105	264	344	85	35	191	212	241	250	246	250	247	250	241	250	244	243	262	312	40	21	266	344	21
26	8	37	40	71	39	359	56	149	218	249	223	240	231	255	248	239	249	251	216	172	152	203	231	137	221	359	8
27	88	77	8	127	33	9	63	116	180	164	208	200	225	246	260	239	257	228	110	123	207	225	60	60	160	260	8
28	81	41	282	151	273	17	282	143	183	224	249	244	243	254	239	246	256	248	254	258	280	352	282	314	259	352	17
29	337	58	21	274	40	29	63	208	173	275	252	237	232	250	252	262	260	256	259	263	292	341	47	334	285	341	21
30	286	18	35	288	37	269	249	213	272	240	225	251	238	243	246	251	248	252	257	265	296	307	37	329	272	329	18
Avg	1	13	19	17	10	11	35	126	190	213	209	216	230	232	236	238	240	240	245	259	302	336	343	355	271	--	--
Max	360	353	357	357	349	359	345	246	272	280	269	253	259	266	260	262	260	256	267	294	350	352	359	351	--	360	--
Min	0	1	8	2	1	9	23	12	10	135	141	154	164	171	184	173	218	121	91	105	5	12	6	14	--	--	0

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, DeltaTemp_C"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.90	0.73	1.10	1.28	1.74	1.70	1.25	-0.29	-0.96	-0.96	-1.41	-1.41	-1.29	-1.64	-1.39	-1.25	-1.08	-0.66	-0.29	-0.12	0.03	0.32	0.75	0.72	-0.09	1.74	-1.64
2	1.23	1.12	0.80	0.85	0.55	0.70	1.01	-0.53	-1.13	-0.98	-1.21	-1.12	-1.41	-1.20	-1.05	-1.16	-0.92	-0.63	-0.29	0.08	0.91	0.93	1.43	1.17	-0.04	1.43	-1.41
3	1.68	1.47	1.46	1.43	0.73	0.76	0.65	-0.12	-0.87	-0.94	-0.94	-0.94	-0.94	-1.20	-1.13	-1.10	-0.86	-0.64	-0.14	0.21	1.08	1.17	0.81	1.03	0.11	1.68	-1.20
4	0.86	1.38	1.74	1.57	1.82	1.37	0.99	-0.15	-1.01	-1.11	-1.25	-1.30	-1.24	-0.98	-1.22	-1.04	-0.66	-0.56	-0.04	0.21	1.62	0.85	0.70	1.07	0.15	1.82	-1.30
5	1.23	1.94	1.25	1.74	1.96	1.37	0.70	0.01	-0.86	-1.48	-1.77	-1.79	-1.93	-1.53	-1.48	-1.11	-0.76	-0.38	0.04	0.51	1.63	2.07	2.30	1.39	0.21	2.30	-1.93
6	1.64	1.29	1.29	1.89	2.47	2.24	1.06	-0.12	-0.93	-1.05	-1.29	-1.12	-1.26	-1.29	-1.33	-1.09	-0.78	-0.54	-0.10	0.12	0.81	1.13	1.06	1.07	0.22	2.47	-1.33
7	0.92	0.74	1.20	0.89	0.87	0.74	0.80	0.23	-0.15	-0.54	-0.72	-0.87	-0.97	-1.14	-1.23	-1.00	-0.62	-0.46	-0.17	0.39	1.08	1.51	1.36	1.53	0.18	1.53	-1.23
8	1.63	1.09	1.25	0.59	0.87	0.96	0.51	-0.07	-0.70	-0.96	-1.31	-1.49	-1.51	-1.17	-1.31	-0.80	-0.65	-0.46	-0.04	0.71	0.64	0.93	1.29	1.35	0.06	1.63	-1.51
9	1.34	2.62	1.76	1.93	1.40	1.46	0.98	0.12	-0.69	-1.22	-1.41	-1.14	-1.94	-1.60	-1.39	-1.14	-0.79	-0.59	0.30	1.01	1.42	1.06	1.82	1.81	0.30	2.62	-1.94
10	1.98	1.86	1.64	1.30	1.80	1.81	1.58	-0.19	-1.43	-1.92	-1.99	-2.03	-2.46	-1.98	-1.42	-0.89	-0.87	-0.72	-0.26	1.14	1.43	0.82	1.05	1.29	0.07	1.98	-2.46
11	1.39	1.13	1.58	1.53	1.13	1.24	1.05	-0.27	-0.50	-0.95	-1.44	-1.72	-1.93	-1.55	-1.53	-1.22	-0.67	-0.63	-0.33	-0.13	0.01	-0.04	-0.10	-0.01	-0.17	1.58	-1.93
12	-0.12	-0.14	-0.23	-0.18	-0.20	-0.24	-0.21	-0.56	-0.54	-0.76	-1.12	-1.29	-1.75	-1.51	-1.32	-1.35	-1.12	-0.82	-0.25	0.05	0.30	0.56	0.67	0.54	-0.48	0.67	-1.75
13	0.58	1.09	0.71	0.48	0.62	0.70	0.70	-0.64	-0.95	-1.32	-1.37	-1.16	-1.31	-1.48	-1.22	-1.18	-1.20	-0.58	-0.25	-0.09	0.04	-0.09	-0.12	-0.14	-0.35	1.09	-1.48
14	-0.17	-0.24	-0.30	-0.32	-0.26	-0.22	-0.23	-0.23	-0.32	-0.53	-0.92	-1.00	-0.64	-0.38	-0.80	-0.61	-0.50	-0.41	-0.09	0.11	0.28	0.23	0.35	0.37	-0.29	0.37	-1.00
15	0.04	-0.02	0.05	-0.13	0.01	0.09	0.24	-0.41	-0.91	-1.01	-1.08	-1.27	-1.64	-1.27	-1.24	-1.27	-1.03	-0.69	-0.36	-0.05	0.16	0.68	0.67	0.67	-0.41	0.68	-1.64
16	0.88	0.60	1.40	1.23	0.89	1.00	0.28	-0.71	-0.74	-0.98	-1.34	-1.51	-1.32	-1.20	-1.44	-1.12	-0.85	-0.56	-0.18	0.04	0.65	0.72	1.01	1.00	-0.09	1.40	-1.51
17	1.61	1.79	2.38	1.74	0.50	0.61	0.41	0.02	-0.75	-1.15	-1.56	-1.99	-1.77	-2.08	-1.35	-1.07	-0.91	-0.45	0.07	0.22	1.16	1.33	1.93	0.99	0.07	2.38	-2.08
18	1.21	1.30	2.16	1.65	1.22	0.83	1.37	-0.60	-1.36	-1.10	-1.00	-1.80	-2.26	-1.36	-1.33	-1.12	-1.26	-0.55	-0.07	0.38	0.95	1.74	1.03	1.86	0.08	2.16	-2.26
19	2.04	2.64	2.64	3.04	1.68	2.63	1.96	-0.20	-1.02	-1.44	-1.67	-1.40	-1.27	-1.20	-1.15	-1.10	-0.70	-0.40	0.06	0.34	0.58	1.05	0.74	0.48	0.35	3.04	-1.67
20	1.15	2.40	2.21	1.15	0.96	0.38	0.14	-0.44	-0.91	-1.40	-1.83	-1.80	-1.77	-1.75	-1.51	-1.39	-0.88	-0.51	-0.11	0.15	1.26	1.95	1.88	1.83	0.05	2.40	-1.83
21	1.69	1.95	1.80	0.74	1.59	1.02	0.80	-0.39	-0.54	-1.37	-1.59	-1.04	-1.33	-1.83	-1.72	-1.36	-1.29	-0.66	-0.11	0.36	1.98	1.44	1.71	1.86	0.16	1.98	-1.83
22	1.85	2.45	1.17	1.96	2.79	1.04	0.62	-0.42	-1.28	-1.31	-1.52	-1.61	-1.15	-1.06	-1.34	-1.09	-0.97	-0.51	0.01	0.39	0.87	0.58	1.04	1.29	0.16	2.79	-1.61
23	1.40	1.25	1.40	1.58	1.06	0.93	0.33	-0.74	-0.79	-1.13	-1.15	-1.59	-1.64	-1.19	-1.71	-0.99	-0.53	-0.28	-0.01	0.15	0.60	0.19	0.42	1.48	-0.04	1.58	-1.71
24	1.02	1.16	1.20	1.84	1.39	1.55	0.71	-0.63	-1.05	-0.93	-1.01	-1.69	-1.52	-1.33	-1.14	-1.14	-0.92	-0.53	-0.08	0.16	0.80	1.30	1.13	1.81	0.09	1.84	-1.69
25	2.19	1.51	1.68	1.05	0.99	0.74	0.59	-0.04	-0.43	-0.61	-1.11	-0.90	-1.10	-1.20	-1.05	-0.67	-0.28	-0.24	0.04	0.61	0.57	0.22	0.55	0.48	0.15	2.19	-1.20
26	0.70	0.98	0.65	0.52	0.14	0.16	0.10	-0.23	-0.73	-0.61	-0.34	-0.45	-0.63	-0.64	-0.80	-0.94	-0.59	-0.48	-0.09	0.16	0.63	1.39	1.25	0.93	0.05	1.39	-0.94
27	1.07	0.91	1.15	0.79	0.76	0.71	0.76	-0.56	-0.82	-1.26	-1.32	-1.31	-1.09	-1.57	-1.23	-1.29	-1.04	-0.72	-0.36	0.01	0.26	0.94	0.93	0.79	-0.15	1.15	-1.57
28	1.01	1.17	1.30	1.47	1.11	1.23	0.78	-0.75	-1.11	-1.05	-1.31	-1.38	-1.45	-1.74	-1.35	-1.50	-1.16	-0.82	-0.33	0.11	0.64	1.44	2.15	1.26	-0.01	2.15	-1.74
29	1.83	1.02	0.67	0.99	0.87	0.59	0.24	-0.85	-1.48	-1.84	-1.52	-1.47	-1.61	-1.28	-1.67	-1.41	-1.05	-0.78	-0.35	-0.05	0.26	0.39	0.49	0.82	-0.30	1.83	-1.84
30	0.71	1.31	1.06	1.80	1.51	1.67	0.50	-0.90	-1.22	-0.89	-1.21	-1.12	-1.34	-1.37	-1.32	-1.20	-1.05	-0.60	-0.27	0.10	0.39	0.43	0.31	0.94	-0.07	1.80	-1.37
Avg	1.18	1.28	1.27	1.21	1.10	0.99	0.69	-0.36	-0.87	-1.09	-1.29	-1.36	-1.45	-1.36	-1.30	-1.12	-0.87	-0.56	-0.14	0.24	0.76	0.91	1.02	1.06	0.00	--	--
Max	2.19	2.64	2.64	3.04	2.79	2.63	1.96	0.23	-0.15	-0.53	-0.34	-0.45	-0.63	-0.38	-0.80	-0.61	-0.28	-0.24	0.30	1.14	1.98	2.07	2.30	1.86	--	3.04	--
Min	-0.17	-0.24	-0.30	-0.32	-0.26	-0.24	-0.23	-0.90	-1.48	-1.92	-1.99	-2.03	-2.46	-2.08	-1.72	-1.50	-1.29	-0.82	-0.36	-0.13	-0.04	-0.09	-0.12	-0.14	--	--	-2.46

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, DeltaTemp_C"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.49	0.88	1.58	1.06	0.98	1.46	0.67	-0.83	-0.75	-1.21	-1.67	-2.33	-2.17	-1.89	-1.66	-1.46	-1.08	-0.57	0.02	0.35	1.29	1.18	1.16	1.19	-0.14	1.58	-2.33
2	1.20	0.76	0.38	0.53	0.76	0.76	0.78	-0.73	-1.52	-1.71	-1.86	-2.02	-2.12	-2.23	-1.82	-1.22	-1.43	-0.87	-0.23	0.22	0.99	0.42	0.33	0.32	-0.43	1.20	-2.23
3	1.07	1.02	0.78	0.68	1.17	0.74	0.23	-0.97	-1.56	-1.89	-2.08	-2.14	-1.70	-2.15	-1.28	-1.35	-1.06	-0.85	-0.14	0.35	1.15	1.65	1.32	1.20	-0.24	1.65	-2.15
4	2.24	2.05	2.27	2.02	2.53	1.32	0.89	-0.79	-1.16	-1.91	-2.24	-1.94	-1.65	-1.58	-1.18	-1.30	-1.05	-0.64	-0.24	0.22	0.37	0.71	0.72	1.57	0.05	2.53	-2.24
5	1.78	1.49	1.04	0.91	1.39	1.68	1.44	-0.94	-1.29	-1.83	-2.19	-2.13	-1.92	-1.86	-1.80	-1.51	-1.06	-0.73	-0.19	0.11	0.54	1.13	1.09	1.48	-0.14	1.78	-2.19
6	1.41	1.39	1.53	1.74	1.51	0.61	0.17	-0.99	-1.44	-1.95	-2.16	-2.13	-2.05	-1.54	-1.58	-1.09	-1.10	-0.88	-0.34	0.07	0.25	0.45	1.30	0.90	-0.25	1.74	-2.16
7	0.48	0.45	0.87	0.84	0.80	0.70	0.38	-1.09	-1.66	-1.88	-1.95	-1.92	-1.85	-1.34	-1.35	-1.20	-0.93	-0.55	-0.22	0.25	0.73	0.89	1.77	1.24	-0.27	1.77	-1.95
8	1.94	1.62	1.49	1.01	1.07	0.80	0.03	-0.56	-0.68	-0.84	-1.46	-1.98	-2.22	-1.08	-1.10	-0.93	-0.54	-0.43	-0.33	-0.04	0.13	0.10	0.06	0.06	-0.16	1.94	-2.22
9	0.02	0.02	0.04	0.05	0.06	0.06	-0.02	-0.36	-1.02	-1.38	-1.50	-1.51	-2.06	-2.20	-1.09	-1.33	-0.58	-0.13	-0.10	0.00	0.12	0.24	0.37	0.35	-0.45	0.58	-2.20
10	0.71	0.60	0.62	0.63	0.74	0.60	0.41	-0.75	-0.89	-0.82	-0.84	-0.81	-0.86	-0.92	-1.02	-0.84	-0.74	-0.66	-0.16	0.21	0.50	1.21	2.25	2.48	0.07	2.48	-1.02
11	3.07	1.73	2.46	2.67	2.18	1.61	0.64	-0.64	-0.99	-0.88	-0.82	-1.04	-1.00	-1.41	-1.24	-1.15	-0.84	-0.58	-0.19	0.31	1.10	1.16	2.27	2.05	0.44	3.07	-1.41
12	1.69	1.66	1.79	1.03	0.92	1.14	0.64	-0.59	-1.20	-1.32	-1.87	-1.82	-1.96	-1.80	-1.33	-1.10	-1.07	-0.83	-0.25	0.15	1.31	2.22	1.83	1.74	0.04	2.22	-1.96
13	1.87	1.30	3.09	2.13	1.30	2.09	0.83	-0.70	-1.00	-1.39	-1.68	-1.57	-1.45	-1.40	-1.57	-1.32	-0.87	-0.70	-0.24	0.52	1.05	1.87	1.50	1.59	0.22	3.09	-1.68
14	2.47	1.31	0.51	0.24	0.25	0.26	0.04	-0.58	-0.94	-1.07	-1.40	-1.47	-1.70	-1.40	-1.40	-1.25	-0.84	-0.73	-0.22	0.74	0.62	0.75	0.75	0.83	-0.18	2.47	-1.70
15	0.63	0.12	0.08	0.08	0.06	0.03	-0.16	-0.46	-0.87	-1.27	-1.48	-1.52	-1.79	-1.95	-1.81	-1.79	-1.15	-0.67	-0.21	0.25	0.13	0.13	0.14	0.17	-0.56	0.63	-1.95
16	0.18	0.11	0.11	0.09	0.07	0.07	-0.13	-0.52	-0.86	-1.10	-1.67	-1.76	-1.90	-1.96	-1.64	-1.06	-0.92	-0.49	-0.05	0.32	1.12	0.91	1.42	2.51	-0.30	2.51	-1.96
17	2.96	2.21	2.49	1.92	0.73	0.61	0.34	-0.46	-0.72	-1.38	-1.77	-1.43	-1.71	-1.83	-1.47	-1.06	-0.81	-0.84	-0.21	0.24	0.29	0.48	0.42	0.79	-0.01	2.96	-1.83
18	0.53	1.07	1.26	1.59	1.23	0.96	-0.31	-0.92	-1.45	-1.90	-1.15	-1.53	-1.70	-1.88	-1.33	-1.08	-0.97	-0.56	-0.21	0.09	0.21	0.55	1.25	2.48	-0.16	2.48	-1.90
19	2.00	1.46	1.29	1.54	0.85	0.50	-0.07	-1.03	-0.97	-1.07	-1.39	-1.37	-1.42	-1.68	-1.65	-1.18	-1.11	-0.87	-0.38	0.06	0.69	1.11	0.60	0.96	-0.13	2.00	-1.68
20	1.43	1.18	0.98	0.70	0.85	1.07	0.40	-0.86	-1.39	-1.21	-1.23	-1.74	-1.25	-1.42	-1.41	-1.07	-1.08	-0.71	-0.17	0.18	0.75	1.69	1.28	1.55	-0.06	1.69	-1.74
21	1.59	2.40	2.13	1.89	1.20	0.63	0.11	-0.44	-0.63	-1.08	-1.35	-1.10	-1.45	-1.46	-1.26	-1.28	-0.95	-0.48	-0.02	0.41	0.70	1.05	0.92	1.67	0.13	2.40	-1.46
22	1.89	2.51	2.31	2.68	2.61	1.20	0.46	-0.75	-1.25	-1.43	-1.49	-1.18	-1.16	-0.96	-1.54	-0.88	-0.83	-0.50	0.01	0.31	0.44	0.50	0.70	1.18	0.20	2.68	-1.54
23	1.31	1.48	1.75	2.45	1.70	1.57	0.78	-0.73	-1.07	-1.94	-1.97	-1.64	-1.45	-1.41	-1.11	-1.08	-1.32	-0.91	-0.35	0.01	0.11	0.15	0.19	0.26	-0.13	2.45	-1.97
24	0.45	0.55	0.63	1.01	1.47	0.72	-0.05	-0.77	-1.25	-1.94	-1.88	-1.86	-2.32	-1.63	-1.71	-1.58	-1.23	-1.01	-0.48	-0.11	0.01	0.01	-0.04	0.06	-0.54	1.47	-2.32
25	0.06	0.14	0.14	0.46	0.36	0.62	0.27	-0.97	-1.53	-1.99	-2.06	-1.84	-2.26	-2.13	-2.13	-1.89	-1.24	-0.78	-0.38	-0.10	0.02	0.24	0.19	0.05	-0.70	0.62	-2.26
26	0.02	-0.08	0.02	0.08	0.02	0.04	-0.38	-0.71	-0.86	-1.05	-1.23	-1.66	-1.52	-1.51	-1.52	-1.26	-1.11	-0.89	-0.52	-0.15	0.21	0.51	0.35	0.45	-0.53	0.51	-1.66
27	0.63	1.43	0.96	0.69	1.15	1.05	0.11	-1.01	-1.35	-1.48	-1.57	-1.45	-1.56	-1.19	-1.33	-1.66	-1.22	-0.95	-0.53	-0.06	0.10	0.48	0.54	0.65	-0.32	1.43	-1.66
28	1.13	1.16	1.48	1.53	1.23	0.59	-0.13	-0.78	-1.13	-1.63	-1.64	-1.69	-1.73	-1.72	-1.39	-1.53	-1.32	-0.87	-0.44	0.01	0.51	0.81	0.80	0.82	-0.25	1.53	-1.73
29	1.71	1.70	1.09	1.71	1.05	0.57	0.31	-0.86	-0.94	-0.91	-1.59	-1.29	-1.43	-2.13	-1.24	-1.28	-1.17	-0.71	-0.27	0.25	0.40	0.64	1.27	1.88	-0.05	1.88	-2.13
30	1.60	2.72	2.37	2.62	2.59	1.99	1.02	-0.67	-0.73	-1.07	-0.86	-0.92	-1.33	-1.89	-1.45	-1.33	-1.00	-0.70	-0.26	0.26	0.68	2.01	1.54	1.74	0.37	2.72	-1.89
31	1.42	1.86	2.38	2.67	2.83	2.18	0.43	-0.64	-0.82	-1.07	-1.01	-0.95	-1.23	-1.10	-1.28	-1.10	-1.03	-0.46	-0.05	0.38	0.97	1.51	0.91	1.96	0.37	2.83	-1.28
Avg	1.29	1.23	1.29	1.27	1.15	0.91	0.33	-0.75	-1.09	-1.41	-1.58	-1.60	-1.67	-1.63	-1.44	-1.26	-0.98	-0.70	-0.24	0.19	0.56	0.87	0.94	1.17	-0.13	--	--
Max	3.07	2.72	3.09	2.68	2.83	2.18	1.44	-0.36	-0.63	-0.82	-0.82	-0.81	-0.86	-0.92	-1.02	-0.84	0.58	-0.13	0.02	0.74	1.31	2.22	2.27	2.51	--	3.09	--
Min	0.02	-0.08	0.02	0.05	0.02	0.03	-0.38	-1.09	-1.66	-1.99	-2.24	-2.33	-2.23	-2.13	-1.89	-1.43	-1.01	-0.53	-0.15	0.01	0.01	-0.04	0.05	--	--	-2.33	

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, DeltaTemp_C"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	1.81	2.48	2.78	2.76	2.03	0.82	0.25	-0.77	-1.15	-1.76	-2.17	-1.47	-1.19	-1.27	-0.89	-0.94	-0.92	-0.40	0.00	0.53	0.91	2.27	2.70	2.90	0.39	2.90	-2.17	
2	2.93	2.65	2.78	2.34	2.77	1.52	0.29	-0.53	-0.66	-0.77	-1.35	-1.71	-1.39	-1.67	-1.54	-1.55	-1.03	-0.79	-0.36	-0.02	0.33	1.28	0.70	1.36	0.23	2.93	-1.71	
3	1.79	1.77	1.78	1.54	1.61	1.51	0.44	-0.78	-0.87	-0.87	-1.60	-2.05	-2.09	-2.18	-2.42	-1.43	-1.22	-0.99	-0.56	0.14	0.82	1.20	0.86	1.32	-0.09	1.79	-2.42	
4	1.00	1.21	0.95	0.81	1.81	1.21	0.77	-0.67	-0.67	-1.24	-1.17	-1.74	-1.40	-1.68	-1.95	-0.95	-0.94	-0.60	-0.39	0.15	0.73	1.58	1.18	1.04	-0.04	1.81	-1.95	
5	1.13	0.88	0.85	1.36	1.16	1.32	0.10	-0.93	-1.20	-1.34	-1.56	-1.26	-1.38	-1.12	-1.33	-1.09	-0.96	-0.73	-0.25	0.20	0.31	0.41	0.76	1.30	-0.14	1.36	-1.56	
6	1.51	1.59	1.15	1.45	1.39	0.97	0.36	-0.72	-0.71	-1.29	-1.85	-2.08	-1.81	-1.52	-0.94	-1.22	-1.04	-0.72	-0.29	0.26	0.73	1.09	1.44	1.85	-0.02	1.85	-2.08	
7	1.66	1.78	1.36	1.36	1.35	0.57	0.17	-0.90	-0.92	-1.72	-1.33	-1.90	-1.89	-1.61	-1.32	-1.04	-1.14	-0.71	-0.33	0.08	0.88	0.95	1.28	1.73	-0.07	1.78	-1.90	
8	1.83	2.08	2.40	1.35	1.84	1.52	0.43	-0.76	-0.74	-0.90	-1.82	-1.49	-1.98	-2.19	-1.28	-1.45	-1.02	-0.70	-0.23	0.43	0.63	0.68	0.87	1.70	0.05	2.40	-2.19	
9	2.08	1.21	1.77	1.73	1.98	1.82	0.47	-0.96	-1.10	-1.77	-1.87	-2.19	-2.36	-1.80	-1.69	-1.48	-1.31	-1.00	-0.51	-0.01	0.23	0.28	0.42	0.38	-0.24	2.08	-2.36	
10	0.55	1.02	1.15	1.10	1.27	1.83	0.15	-0.92	-0.67	-1.36	-1.32	-1.70	-1.67	-1.59	-1.55	-1.30	-1.14	-0.90	-0.46	0.01	0.24	0.48	0.49	1.13	-0.22	1.83	-1.70	
11	1.36	1.40	2.00	2.03	1.19	1.20	-0.03	-0.72	-1.04	-1.02	-1.22	-1.64	-1.57	-1.27	-1.24	-1.20	-1.04	-0.90	-0.49	0.24	0.16	0.43	1.23	1.44	-0.03	2.03	-1.64	
12	1.10	1.71	1.31	2.01	2.44	1.52	0.50	-0.75	-0.99	-0.87	-0.83	-1.04	-1.20	-1.29	-1.55	-1.13	-1.03	-0.69	-0.23	0.16	0.50	0.84	1.18	1.42	0.13	2.44	-1.55	
13	1.90	1.82	2.55	1.89	2.24	1.78	0.81	-0.39	-0.52	-1.21	-1.64	-0.74	-0.79	-1.13	-0.62	-0.75	-0.35	-0.31	0.21	0.43	0.58	0.87	1.32	1.46	0.39	2.55	-1.64	
14	1.24	1.67	1.22	1.88	1.70	1.26	0.13	-0.49	-0.81	-1.77	-2.04	-2.20	-1.62	-1.83	-1.41	-1.50	-0.89	-0.62	0.11	0.38	0.77	0.92	0.40	0.64	-0.12	1.88	-2.20	
15	0.75	0.40	0.89	1.01	1.46	0.87	0.23	-0.86	-1.43	-1.87	-1.92	-1.97	-1.44	-2.43	-2.31	-2.15	-1.14	-0.61	-0.35	0.18	0.26	1.13	0.91	0.75	-0.40	1.46	-2.43	
16	0.80	1.30	0.97	1.38	0.84	0.94	0.28	-0.74	-0.68	-0.69	-1.42	-2.23	-2.01	-1.54	-1.63	-1.45	-0.99	-0.57	-0.36	-0.12	-0.11	-0.08	-0.02	0.22	-0.33	1.38	-2.23	
17	0.40	0.37	0.49	0.78	0.19	0.16	-0.14	-0.58	-1.14	-0.92	-1.66	-2.42	-1.37	-1.89	-1.47	-1.32	-0.98	-0.67	-0.28	0.15	0.23	0.60	1.51	1.22	-0.37	1.51	-2.42	
18	1.58	1.63	1.76	2.20	2.11	1.55	0.93	-0.71	-0.79	-0.68	-0.76	-0.80	-0.88	-1.03	-0.87	-0.89	-0.70	-0.49	-0.15	0.18	0.57	0.72	0.78	1.17	0.27	2.20	-1.03	
19	1.43	1.05	1.35	2.18	1.84	0.73	0.15	-0.85	-1.62	-1.47	-2.18	-1.59	-1.31	-1.60	-1.82	-1.76	-1.34	-0.64	-0.24	0.25	1.10	2.07	0.92	0.82	-0.11	2.18	-2.18	
20	2.17	2.13	2.85	2.22	1.62	0.84	0.35	-0.38	-0.88	-1.56	-1.65	-1.15	-0.93	-1.39	-1.21	-1.21	-1.30	-0.94	-0.13	0.29	0.46	0.96	1.51	1.95	0.19	2.85	-1.65	
21	1.84	1.70	2.27	2.31	2.24	2.01	1.36	-0.78	-0.94	-1.22	-1.20	-1.06	-1.05	-1.07	-1.35	-1.11	-1.10	-0.71	-0.25	0.17	0.33	0.58	0.79	1.08	0.20	2.31	-1.35	
22	1.20	1.45	1.05	0.72	1.70	1.31	0.68	-0.37	-0.51	-0.82	-0.84	-1.37	-1.36	-1.36	-1.59	-1.27	-1.15	-0.70	-0.31	0.21	0.37	1.05	0.93	1.59	0.03	1.70	-1.59	
23	1.40	1.43	1.39	1.43	1.19	0.92	0.14	-0.60	-0.89	-1.22	-1.40	-1.21	-1.05	-1.21	-1.34	-1.32	-0.89	-0.66	-0.35	0.18	0.26	0.49	1.06	0.58	-0.07	1.43	-1.40	
24	0.34	0.43	0.29	0.47	0.81	1.16	-0.14	-0.60	-0.86	-1.39	-1.30	-1.29	-1.30	-1.82	-1.39	-1.06	-1.01	-0.79	-0.42	-0.15	0.08	0.11	0.05	0.05	-0.40	1.16	-1.82	
25	0.65	0.39	0.24	0.29	0.09	0.30	-0.33	-0.72	-1.10	-1.17	-0.98	-1.08	-1.63	-1.40	-1.31	-1.14	-1.31	-0.68	-0.41	-0.06	0.12	0.30	0.56	0.88	-0.40	0.88	-1.63	
26	0.73	1.04	0.64	0.47	0.52	0.87	-0.10	-0.73	-0.76	-1.01	-1.30	-1.35	-1.68	-1.09	-1.37	-1.39	-0.99	-0.95	-0.60	-0.46	-0.35	-0.18	-0.12	-0.16	-0.43	1.04	-1.68	
27	-0.19	0.01	0.28	0.40	0.49	0.34	-0.28	-0.85	-1.37	-2.05	-1.71	-1.65	-1.39	-1.20	-1.09	-1.36	-0.93	-0.96	-0.57	-0.33	-0.30	-0.28	-0.19	-0.04	-0.63	0.49	-2.05	
28	-0.01	0.04	0.06	0.00	0.21	0.43	-0.07	-0.65	-0.99	-1.02	-1.12	-1.07	-1.36	-1.23	-1.44	-1.29	-1.29	-0.89	-0.61	-0.28	0.03	0.18	0.52	0.69	0.95	-0.37	0.95	-1.44
29	1.03	0.54	0.55	0.54	0.82	0.77	0.09	-0.75	-0.97	-0.77	-0.92	-1.49	-1.72	-1.11	-1.21	-0.97	-0.99	-0.54	-0.26	0.04	0.17	0.70	1.60	1.32	-0.15	1.60	-1.72	
30	1.17	1.45	1.90	1.42	0.43	0.38	0.00	-0.76	-0.65	-0.97	-1.42	-1.06	-1.36	-1.37	-1.20	-1.01	-0.86	-0.60	-0.27	-0.02	0.15	0.54	0.95	1.07	-0.09	1.90	-1.42	
Avg	1.24	1.29	1.37	1.38	1.38	1.08	0.27	-0.71	-0.92	-1.22	-1.45	-1.53	-1.47	-1.50	-1.41	-1.26	-1.02	-0.71	-0.30	0.12	0.38	0.75	0.89	1.10	-0.09	--	--	
Max	2.93	2.65	2.85	2.76	2.77	2.01	1.36	-0.37	-0.51	-0.68	-0.76	-0.74	-0.79	-1.03	-0.62	-0.75	-0.35	-0.31	0.21	0.53	1.10	2.27	2.70	2.90	--	2.93	--	
Min	-0.19	0.01	0.06	0.00	0.09	0.16	-0.33	-0.96	-1.62	-2.05	-2.18	-2.42	-2.36	-2.43	-2.42	-2.15	-1.34	-1.00	-0.60	-0.46	-0.35	-0.28	-0.19	-0.16	--	--	-2.43	

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, SR_Wm2_2m"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0	0	0	0	0	0	13	210	448	661	824	931	952	929	827	668	463	223	32	0	0	0	0	0	299	952	0
2	0	0	0	0	0	0	11	228	468	683	854	932	977	509	666	713	480	237	33	0	0	0	0	0	283	977	0
3	0	0	0	0	0	0	14	226	462	671	843	952	989	945	846	683	472	233	27	0	0	0	0	0	307	989	0
4	0	0	0	0	0	0	26	223	466	659	837	932	950	896	771	617	372	160	26	0	0	0	0	0	289	950	0
5	0	0	0	0	0	0	18	185	474	677	833	921	930	848	715	615	461	220	27	0	0	0	0	0	289	930	0
6	0	0	0	0	0	0	24	240	475	688	854	960	990	931	834	653	391	222	26	0	0	0	0	0	304	990	0
7	0	0	0	0	0	0	22	166	250	551	625	558	673	727	670	385	398	244	42	0	0	0	0	0	221	727	0
8	0	0	0	0	0	0	29	250	486	696	833	819	773	877	591	396	418	234	16	0	0	0	0	0	267	877	0
9	0	0	0	0	0	0	31	181	408	681	856	911	996	889	689	641	487	172	16	0	0	0	0	0	290	996	0
10	0	0	0	0	0	0	40	277	457	673	736	741	750	573	480	512	336	225	52	0	0	0	0	0	244	750	0
11	0	0	0	0	0	0	35	263	498	700	603	927	957	828	688	488	289	230	44	0	0	0	0	0	273	957	0
12	0	0	0	0	0	0	52	169	266	580	572	966	1000	964	867	709	473	270	25	0	0	0	0	0	288	1,000	0
13	0	0	0	0	0	0	41	277	505	713	873	974	1008	973	875	523	298	101	15	0	0	0	0	0	299	1,008	0
14	0	0	0	0	0	0	11	56	156	479	590	653	292	203	605	387	378	239	41	0	0	0	0	0	170	653	0
15	0	0	0	0	0	0	41	162	439	737	885	978	1005	960	856	693	487	258	49	0	0	0	0	0	315	1,005	0
16	0	0	0	0	0	0	51	287	517	727	892	987	1011	962	859	695	491	262	50	0	0	0	0	0	325	1,011	0
17	0	0	0	0	0	0	54	299	532	741	900	994	1017	971	863	703	497	267	51	0	0	0	0	0	329	1,017	0
18	0	0	0	0	0	0	55	301	532	734	894	984	1017	974	870	706	495	267	51	0	0	0	0	0	328	1,017	0
19	0	0	0	0	0	0	56	301	528	735	888	976	995	950	849	689	481	249	45	0	0	0	0	0	323	995	0
20	0	0	0	0	0	0	60	310	538	743	895	984	1012	964	865	703	498	269	56	0	0	0	0	0	329	1,012	0
21	0	0	0	0	0	0	61	306	535	741	891	977	1006	964	864	702	498	273	59	0	0	0	0	0	328	1,006	0
22	0	0	0	0	0	1	63	311	543	741	894	988	1021	976	876	715	508	269	57	0	0	0	0	0	332	1,021	0
23	0	0	0	0	0	2	65	298	523	715	870	963	990	945	849	670	313	138	41	0	0	0	0	0	308	990	0
24	0	0	0	0	0	1	69	322	546	749	900	991	1019	975	882	720	520	284	65	0	0	0	0	0	335	1,019	0
25	0	0	0	0	0	2	43	125	248	452	711	785	793	418	279	230	223	133	21	0	0	0	0	0	186	793	0
26	0	0	0	0	0	0	31	205	303	105	141	409	489	709	806	662	464	282	69	0	0	0	0	0	195	806	0
27	0	0	0	0	0	2	79	328	556	758	911	1002	1028	981	879	716	511	284	67	0	0	0	0	0	338	1,028	0
28	0	0	0	0	0	2	81	324	549	746	897	989	1013	969	870	711	508	283	69	0	0	0	0	0	334	1,013	0
29	0	0	0	0	0	2	85	321	548	749	900	994	1014	974	877	711	505	278	70	0	0	0	0	0	335	1,014	0
30	0	0	0	0	0	2	87	329	553	750	898	991	1015	969	869	713	508	283	73	0	0	0	0	0	335	1,015	0
Avg	0	0	0	0	0	1	45	249	460	668	803	906	923	858	778	624	441	236	44	0	0	0	0	0	293	--	--
Max	0	0	0	0	0	2	87	329	556	758	911	1002	1028	981	882	720	520	284	73	0	0	0	0	0	--	1,028	--
Min	0	0	0	0	0	0	11	56	156	105	141	409	292	203	279	230	223	101	15	0	0	0	0	0	--	--	0

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, SR_Wm2_2m"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0	0	0	0	0	3	91	337	566	768	922	1022	1044	998	895	738	519	172	34	0	0	0	0	0	338	1044	0	
2	0	0	0	0	0	2	95	347	585	788	936	1023	1047	1003	896	734	529	299	55	0	0	0	0	0	348	1047	0	
3	0	0	0	0	0	0	3	100	348	575	768	917	1003	1031	989	888	725	521	286	58	0	0	0	0	0	342	1031	0
4	0	0	0	0	0	0	3	104	358	583	782	934	1022	1045	1000	898	733	524	299	82	0	0	0	0	0	349	1045	0
5	0	0	0	0	0	0	3	106	353	581	779	918	1003	1030	931	875	666	508	242	53	1	0	0	0	0	335	1030	0
6	0	0	0	0	0	0	3	110	357	580	780	914	1005	1040	993	893	646	528	295	69	0	0	0	0	0	342	1040	0
7	0	0	0	0	0	0	3	115	364	587	782	926	1019	1039	989	888	727	522	299	87	0	0	0	0	0	348	1039	0
8	0	0	0	0	0	6	147	334	556	719	886	1051	988	653	826	619	302	187	54	0	0	0	0	0	305	1051	0	
9	0	0	0	0	0	5	68	296	592	669	730	873	913	925	413	372	16	70	33	0	0	0	0	0	249	925	0	
10	0	0	0	0	0	4	113	349	569	765	907	995	1018	976	875	719	517	297	76	1	0	0	0	0	341	1018	0	
11	0	0	0	0	0	5	115	354	576	772	920	1013	1037	991	893	736	537	308	95	1	0	0	0	0	348	1037	0	
12	0	0	0	0	0	4	126	377	604	801	947	1030	1055	1003	910	753	552	325	94	0	0	0	0	0	358	1055	0	
13	0	0	0	0	0	5	123	363	585	782	927	1010	1036	993	898	739	535	307	90	1	0	0	0	0	350	1036	0	
14	0	0	0	0	0	5	134	394	624	816	965	1034	1053	1005	906	744	542	315	89	0	0	0	0	0	359	1053	0	
15	0	0	0	0	0	6	129	376	601	794	939	1026	1047	994	892	740	538	311	100	1	0	0	0	0	354	1047	0	
16	0	0	0	0	0	7	132	370	591	779	922	1004	1025	967	887	741	541	321	104	1	0	0	0	0	350	1025	0	
17	0	0	0	0	0	6	132	374	600	795	942	1030	1052	1000	905	742	546	325	111	1	0	0	0	0	357	1052	0	
18	0	0	0	0	0	16	205	323	600	793	942	1027	1047	992	897	736	541	315	103	2	0	0	0	0	356	1047	0	
19	0	0	0	0	0	7	141	382	600	793	939	1025	1049	999	903	746	546	320	104	1	0	0	0	0	356	1049	0	
20	0	0	0	0	0	7	136	370	596	792	934	1019	1044	995	897	739	544	310	39	0	0	0	0	0	351	1044	0	
21	0	0	0	0	0	7	143	383	604	793	927	1016	1058	1010	914	759	564	340	117	2	0	0	0	0	360	1058	0	
22	0	0	0	0	0	6	143	382	604	795	940	1024	1051	1009	904	741	545	283	107	7	0	0	0	0	356	1051	0	
23	0	0	0	0	0	5	152	395	620	816	957	1028	1054	1005	904	742	547	325	107	3	0	0	0	0	361	1054	0	
24	0	0	0	0	0	6	150	386	611	800	942	1022	1043	994	895	741	544	319	108	4	0	0	0	0	357	1043	0	
25	0	0	0	0	0	6	153	388	612	797	939	1020	1027	975	877	722	524	313	110	4	0	0	0	0	353	1027	0	
26	0	0	0	0	0	9	150	381	544	562	900	1021	1041	1017	927	788	589	360	136	3	0	0	0	0	351	1041	0	
27	0	0	0	0	0	7	163	408	635	828	979	1061	1079	1039	941	783	583	356	131	3	0	0	0	0	375	1079	0	
28	0	0	0	0	0	7	165	407	630	827	969	1058	1083	1033	939	780	579	353	131	3	0	0	0	0	374	1083	0	
29	0	0	0	0	0	6	163	406	627	820	965	1050	1073	1030	936	779	577	353	133	3	0	0	0	0	372	1073	0	
30	0	0	0	0	0	7	163	400	623	814	960	1042	1062	1011	913	765	569	348	129	4	0	0	0	0	367	1062	0	
31	0	0	0	0	0	9	158	392	614	805	955	1038	1054	1001	900	742	548	333	125	4	0	0	0	0	362	1054	0	
Avg	0	0	0	0	0	6	133	369	596	780	929	1020	1041	984	883	724	519	300	92	2	0	0	0	0	349	--	--	
Max	0	0	0	0	0	16	205	408	635	828	979	1061	1083	1039	941	788	589	360	136	7	0	0	0	0	--	1083	--	
Min	0	0	0	0	0	2	68	296	544	562	730	873	913	653	413	372	16	70	33	0	0	0	0	0	--	--	0	

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, SR_Wm2_2m"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0	0	0	0	0	8	157	389	602	790	935	1016	1035	991	877	719	508	289	104	4	0	0	0	0	351	1035	0
2	0	0	0	0	0	13	117	348	535	784	931	1029	1065	1010	901	746	557	339	127	5	0	0	0	0	354	1065	0
3	0	0	0	0	0	8	104	416	613	801	946	1038	1030	1038	973	820	586	359	134	4	0	0	0	0	370	1038	0
4	0	0	0	0	0	7	158	397	620	815	951	1033	1057	1012	915	762	567	349	135	4	0	0	0	0	366	1057	0
5	0	0	0	0	0	7	159	393	606	794	930	1017	1039	998	905	753	560	349	141	4	0	0	0	0	361	1039	0
6	0	0	0	0	0	6	163	402	622	812	954	1038	1070	1022	924	760	567	353	139	4	0	0	0	0	368	1070	0
7	0	0	0	0	0	8	160	398	618	814	948	1035	1059	1017	922	770	574	356	143	4	0	0	0	0	368	1059	0
8	0	0	0	0	0	7	160	395	613	805	949	1031	1063	1013	920	769	578	362	149	4	0	0	0	0	367	1063	0
9	0	0	0	0	0	6	166	408	626	818	961	1042	1063	1016	915	757	567	356	145	4	0	0	0	0	369	1063	0
10	0	0	0	0	0	7	161	397	614	803	946	1029	1052	1008	912	763	572	359	147	5	0	0	0	0	366	1052	0
11	0	0	0	0	0	8	154	386	589	744	792	970	1037	1000	905	751	564	359	150	4	0	0	0	0	350	1037	0
12	0	0	0	0	0	9	157	391	601	798	945	1027	1052	1005	907	767	578	363	152	5	0	0	0	0	365	1052	0
13	0	0	0	0	0	11	116	296	490	804	947	1035	1060	1020	921	769	576	358	149	5	0	0	0	0	357	1060	0
14	0	0	0	0	0	7	159	394	613	805	949	1038	1059	1016	923	770	577	357	145	6	0	0	0	0	367	1059	0
15	0	0	0	0	0	11	141	373	600	794	919	999	1023	1009	908	751	559	349	143	6	0	0	0	0	358	1023	0
16	0	0	0	0	0	8	156	395	534	682	870	976	1026	886	884	749	421	42	35	7	0	0	0	0	320	1026	0
17	0	0	0	0	0	8	150	376	585	770	913	1003	1029	991	896	753	566	354	151	5	0	0	0	0	356	1029	0
18	0	0	0	0	0	7	148	377	589	784	931	1023	1048	1001	906	749	533	321	143	7	0	0	0	0	357	1048	0
19	0	0	0	0	0	6	157	403	625	814	958	1050	1075	1031	940	782	586	369	160	5	0	0	0	0	373	1075	0
20	0	0	0	0	0	8	120	341	548	749	895	996	1031	977	887	744	558	350	145	7	0	0	0	0	348	1031	0
21	0	0	0	0	0	8	144	376	591	774	920	1012	1037	990	895	747	553	345	141	7	0	0	0	0	356	1037	0
22	0	0	0	0	0	10	134	350	569	757	903	992	1017	975	879	732	545	342	144	8	0	0	0	0	348	1017	0
23	0	0	0	0	0	10	135	351	559	746	887	972	996	949	868	718	543	342	142	8	0	0	0	0	343	996	0
24	0	0	0	0	0	13	138	363	579	737	839	997	1018	972	882	740	557	343	128	9	0	0	0	0	346	1018	0
25	0	0	0	0	0	9	131	349	555	739	879	969	995	955	863	719	537	334	140	8	0	0	0	0	341	995	0
26	0	0	0	0	0	10	103	277	547	736	883	975	1000	960	874	738	567	427	72	5	0	0	0	0	341	1000	0
27	0	0	0	0	0	7	135	361	568	763	886	972	997	958	869	722	542	375	47	10	0	0	0	0	342	997	0
28	0	0	0	0	0	11	129	301	624	746	882	967	991	952	859	716	539	337	139	9	0	0	0	0	342	991	0
29	0	0	0	0	0	13	130	340	546	733	875	965	987	948	861	716	534	332	141	9	0	0	0	0	339	987	0
30	0	0	0	0	0	9	96	329	546	729	870	960	988	954	865	721	540	337	142	9	0	0	0	0	337	988	0
Avg	0	0	0	0	0	9	141	369	584	775	913	1007	1033	989	898	749	554	340	132	6	0	0	0	0	354	--	--
Max	0	0	0	0	0	13	166	416	626	818	961	1050	1075	1038	973	820	586	427	160	10	0	0	0	0	--	1075	--
Min	0	0	0	0	0	6	96	277	490	682	792	960	987	886	859	716	421	42	35	4	0	0	0	0	--	--	0

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, RH_Percent"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	18	19	23	25	27	28	30	27	27	29	30	31	33	27	25	22	18	24	17	20	18	19	21	22	24	33	17	
2	26	27	29	29	31	33	38	33	29	27	25	25	22	20	17	13	10	9	10	11	13	16	16	18	22	38	9	
3	18	19	22	21	20	19	22	20	16	15	15	16	16	14	14	13	13	13	16	17	19	20	21	21	17	22	13	
4	22	22	23	22	23	23	25	22	19	15	13	12	12	12	12	11	11	12	13	14	17	15	17	16	17	25	11	
5	17	18	18	19	20	20	19	15	14	12	10	9	9	8	9	8	9	9	10	11	13	15	17	18	14	20	8	
6	18	17	20	23	25	27	27	25	18	16	16	14	12	10	9	9	9	8	10	10	12	13	13	14	16	27	8	
7	13	11	12	14	12	11	11	10	9	6	5	5	5	6	5	6	5	6	7	8	10	10	10	11	9	14	5	
8	9	10	9	9	9	11	10	10	10	11	10	9	9	9	9	8	8	9	11	13	13	15	15	10	15	8		
9	15	15	16	16	14	14	14	14	16	12	11	10	8	7	8	8	7	7	9	10	11	13	11	14	12	16	7	
10	14	13	12	12	14	14	14	13	13	12	11	10	9	9	10	11	10	10	10	10	12	14	16	21	24	13	24	9
11	26	28	27	27	30	30	32	31	37	37	37	36	34	37	36	32	32	31	31	33	35	36	38	40	33	40	26	
12	47	54	57	55	51	50	52	50	46	42	37	32	26	22	19	15	13	14	17	19	21	22	24	26	34	57	13	
13	27	27	27	28	30	31	31	24	21	19	18	17	11	10	9	8	7	8	9	7	6	7	8	13	17	31	6	
14	22	42	78	91	80	70	72	69	61	53	49	47	45	46	35	32	29	27	29	32	38	39	42	43	49	91	22	
15	45	44	49	52	53	56	62	56	46	40	37	34	32	30	29	28	27	27	29	32	34	39	41	45	40	62	27	
16	45	48	48	47	48	44	41	37	32	26	20	15	14	15	15	15	15	16	17	20	22	24	25	26	28	48	14	
17	29	28	29	26	25	24	21	21	16	14	11	9	8	8	8	9	8	9	11	14	16	17	14	16	29	8		
18	16	15	18	18	16	15	19	15	13	11	10	10	8	8	7	7	8	8	9	11	14	16	15	17	13	19	7	
19	18	17	18	18	19	20	21	18	12	10	8	9	10	10	11	10	10	9	11	12	12	14	13	14	14	21	8	
20	18	20	20	20	22	18	18	15	14	15	13	12	10	9	9	9	9	9	10	11	13	15	17	19	20	15	22	9
21	19	19	18	17	20	17	18	14	14	11	9	10	8	7	8	8	7	7	8	10	13	15	16	16	13	20	7	
22	15	16	16	17	16	14	15	15	12	10	8	7	6	5	5	5	4	4	6	7	7	6	9	8	10	17	4	
23	7	7	9	10	11	13	15	14	12	11	11	10	9	9	8	9	9	10	11	12	13	16	20	23	12	23	7	
24	21	23	24	23	22	21	21	19	16	15	15	16	15	14	12	10	9	9	8	8	9	12	12	13	15	24	8	
25	13	15	14	14	15	13	14	14	14	12	9	9	7	7	6	6	10	10	11	13	13	14	15	14	12	15	6	
26	16	16	16	15	17	19	22	25	24	44	68	83	73	51	43	38	35	30	29	31	37	42	43	45	36	83	15	
27	46	45	46	45	47	50	52	41	34	31	29	26	24	23	23	22	22	24	27	29	34	37	37	34	52	22		
28	38	41	42	41	43	42	40	32	27	25	24	22	20	18	17	15	14	14	14	17	20	22	23	23	26	43	14	
29	23	21	26	33	34	33	32	28	26	22	19	17	16	14	12	12	12	13	14	14	15	18	19	20	34	12		
30	20	21	23	29	33	37	37	29	27	25	22	20	17	16	15	14	14	15	16	18	18	21	24	22	37	14		
Avg	23	24	26	27	27	28	25	23	21	20	19	18	16	15	14	13	13	14	16	17	19	21	22	20	--	--		
Max	47	54	78	91	80	70	72	69	61	53	68	83	73	51	43	38	35	31	31	33	38	42	43	45	--	91	--	
Min	7	7	9	9	9	11	10	10	9	6	5	5	5	5	5	4	4	6	7	6	6	8	8	--	--	4		

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, RH_Percent"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	25	27	29	30	30	33	33	24	19	16	15	10	10	9	9	7	7	8	9	12	15	16	16	19	18	33	7	
2	22	26	32	34	35	30	27	23	17	13	11	11	10	9	7	9	9	10	11	12	14	17	24	29	18	35	7	
3	31	32	24	21	25	24	23	21	18	16	15	14	12	9	10	10	10	10	9	10	12	14	15	17	19	17	32	9
4	21	23	24	22	19	19	17	13	12	11	10	9	9	8	9	9	10	11	12	14	16	17	18	20	15	24	8	
5	20	21	20	21	20	20	20	17	14	12	11	10	8	8	7	7	8	8	10	12	13	15	16	17	14	21	7	
6	17	16	16	15	16	16	16	15	16	14	12	10	9	8	8	9	8	8	9	11	11	12	13	14	12	17	8	
7	11	11	13	14	14	15	14	11	9	9	8	8	8	10	9	8	8	6	6	8	9	10	9	8	10	15	6	
8	8	7	7	7	8	8	8	9	8	7	5	5	5	6	6	5	5	8	11	12	11	12	16	17	8	17	5	
9	20	21	24	25	26	28	30	28	28	28	26	24	23	21	23	21	52	58	56	59	57	53	53	46	35	59	20	
10	58	54	56	54	57	59	59	47	37	33	32	33	31	29	26	24	23	24	25	28	30	34	37	37	39	59	23	
11	36	35	34	34	33	31	30	23	20	18	16	13	12	10	10	9	9	10	10	11	13	15	16	15	19	36	9	
12	13	12	12	10	9	13	10	8	7	6	7	6	5	5	5	4	4	4	4	5	8	9	9	11	8	13	4	
13	12	12	13	13	14	16	14	12	10	8	7	6	6	6	6	6	6	7	9	12	13	12	11	10	16	6		
14	12	11	9	10	7	7	6	6	9	9	8	8	6	6	6	6	6	6	7	7	7	7	7	8	12	6		
15	7	10	14	16	19	22	23	22	20	16	15	13	11	10	8	7	7	8	7	7	8	9	9	10	12	23	7	
16	11	11	13	13	13	14	15	14	14	13	12	12	10	8	7	6	5	5	6	6	8	7	8	9	10	15	5	
17	9	9	11	13	11	9	12	10	8	8	7	7	7	7	6	5	5	6	7	9	10	14	8	14	5			
18	16	16	17	18	18	18	17	18	18	15	14	13	11	11	10	10	9	11	12	12	11	11	12	10	14	18	9	
19	10	10	11	15	19	19	20	17	15	13	11	9	9	8	7	7	7	7	8	9	10	12	12	13	12	20	7	
20	13	13	13	13	14	14	13	11	9	8	7	7	6	6	5	5	5	5	6	7	8	9	9	9	9	14	5	
21	10	10	10	10	9	8	8	8	8	9	8	7	5	4	4	4	3	3	3	4	4	4	6	7	6	10	3	
22	7	9	9	10	11	9	10	8	7	7	6	6	7	6	5	6	5	4	5	6	6	6	4	5	7	11	4	
23	6	6	8	10	10	10	10	8	8	6	6	6	7	7	7	6	6	6	7	8	11	15	17	8	17	6		
24	17	18	20	22	24	19	17	15	14	12	12	12	13	12	12	12	12	13	16	22	24	29	36	36	18	36	12	
25	38	39	39	34	27	26	25	19	16	15	15	16	15	14	14	15	15	16	18	20	22	21	25	33	22	39	14	
26	39	41	41	42	43	46	47	44	48	50	42	34	29	18	12	6	6	6	6	8	9	9	10	10	27	50	6	
27	12	13	14	14	17	19	18	14	12	10	8	7	8	6	5	5	5	6	7	8	9	10	11	12	10	19	5	
28	13	14	14	15	13	11	10	9	8	7	6	4	3	3	3	4	3	4	6	7	8	8	9	8	15	3		
29	9	9	10	11	9	8	9	7	6	6	5	6	5	3	5	4	4	5	5	6	7	7	9	11	7	11	3	
30	12	13	13	12	12	14	12	9	9	8	9	8	7	7	6	5	5	5	7	7	9	9	10	9	14	5		
31	10	12	15	14	14	14	13	10	10	8	7	7	6	7	7	6	6	6	7	8	7	8	9	15	6			
Avg	18	18	19	19	19	19	19	16	15	13	12	11	10	9	9	8	9	9	10	12	13	14	15	16	14	--	--	
Max	58	54	56	54	57	59	59	47	48	50	42	34	31	29	26	24	52	58	56	59	57	53	53	46	--	59	--	
Min	6	6	7	7	7	6	6	6	5	4	3	3	3	4	3	3	3	4	4	4	4	4	5	--	--	3		

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, RH_Percent"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	8	10	9	9	9	8	8	7	7	5	5	5	6	5	5	5	4	4	5	5	6	8	8	8	7	10	4	
2	9	9	10	10	11	11	10	9	8	8	6	6	6	6	6	5	5	5	5	5	7	10	11	12	8	12	5	
3	13	14	14	13	13	14	15	12	10	10	8	8	8	7	7	8	9	9	9	10	10	11	12	13	11	15	7	
4	13	15	16	16	18	19	19	15	12	10	9	8	8	7	7	8	9	10	10	11	13	13	15	17	12	19	7	
5	18	19	20	19	21	21	20	18	19	19	19	20	18	17	15	13	13	12	13	13	14	14	16	18	17	21	12	
6	19	18	15	12	11	10	11	8	7	9	9	7	5	6	7	8	8	8	8	10	11	12	12	13	10	19	5	
7	13	15	17	19	21	20	20	16	13	8	9	7	6	5	6	6	5	6	6	7	9	10	12	12	11	21	5	
8	12	13	13	15	16	16	16	12	12	12	8	8	6	6	7	6	6	5	5	6	6	7	10	11	10	16	5	
9	11	13	14	14	14	14	13	9	7	6	6	5	6	6	6	7	6	6	6	8	8	8	8	9	9	14	5	
10	9	10	11	11	12	13	11	10	10	9	9	9	9	9	10	9	10	9	10	11	12	13	15	16	11	16	9	
11	16	17	17	18	20	20	19	15	14	13	12	11	10	11	12	10	9	8	7	8	9	9	10	12	13	13	20	7
12	13	15	14	14	15	16	15	11	11	10	10	8	8	7	7	6	6	6	7	7	7	9	10	11	10	16	6	
13	13	13	11	12	12	12	13	10	9	7	6	7	7	8	8	8	7	7	7	7	8	9	11	11	9	13	6	
14	11	13	11	11	12	12	11	11	9	8	7	7	8	7	6	6	6	6	7	8	9	10	12	14	9	14	6	
15	17	22	20	18	15	18	17	13	15	12	13	13	12	6	6	7	8	9	9	10	12	13	14	15	13	22	6	
16	17	20	22	23	23	24	22	16	14	12	11	13	11	10	10	11	12	18	18	12	14	17	18	20	16	24	10	
17	22	23	22	23	22	22	20	17	16	15	13	11	11	9	9	8	8	8	9	10	11	12	14	14	15	23	8	
18	16	18	19	20	21	22	22	16	14	13	12	11	9	8	7	6	6	7	7	7	8	9	10	10	12	22	6	
19	10	10	11	12	12	11	11	6	5	5	5	5	4	3	3	3	4	4	4	5	5	6	5	6	7	12	3	
20	7	7	8	9	10	8	10	9	6	5	4	5	5	4	5	4	3	3	4	5	5	5	7	7	6	10	3	
21	8	8	9	13	14	15	16	11	11	10	9	8	8	7	7	7	7	8	9	11	13	14	16	16	11	16	7	
22	16	17	18	16	19	23	22	16	16	15	15	14	13	12	13	13	12	12	12	13	14	16	16	15	15	23	12	
23	15	16	17	15	15	15	15	11	11	9	8	9	9	10	11	11	11	11	11	12	12	12	14	12	17	8		
24	15	19	24	26	27	27	26	22	20	18	16	13	12	11	12	12	13	15	17	20	23	25	25	27	19	27	11	
25	28	29	31	32	36	39	36	23	20	20	22	21	19	18	19	19	19	20	20	22	23	23	23	25	24	39	18	
26	26	26	27	27	28	30	27	24	22	19	19	18	16	17	16	15	14	14	17	24	24	22	24	24	22	30	14	
27	24	25	26	28	28	29	27	23	22	20	18	17	18	17	16	15	16	16	16	23	23	28	30	30	28	23	30	15
28	28	28	30	30	33	35	32	29	22	22	22	22	21	19	18	18	17	17	18	20	21	22	22	23	24	35	17	
29	24	25	29	31	33	35	33	29	27	26	25	21	19	18	17	15	14	14	14	15	16	18	20	21	22	35	14	
30	21	21	22	23	26	32	34	34	32	28	23	19	16	13	12	11	10	10	11	12	13	12	13	14	19	34	10	
Avg	16	17	18	18	19	20	19	15	14	13	12	11	11	10	10	9	9	10	10	11	12	13	14	15	14	--	--	
Max	28	29	31	32	36	39	36	34	32	28	25	22	21	19	19	19	19	20	23	24	28	30	30	28	--	39	--	
Min	7	7	8	9	9	8	8	6	5	5	4	5	5	4	3	3	3	3	4	5	5	5	6	--	--	3		

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, Precip_Inches"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	Max	Min		
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14	0	0	0.146	0.063	0.012	0.004	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.229	0.146	0		
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24	0	0	0	0	0	0	0	0	0	0	0	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0.004	0.004	0	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
26	0	0	0	0	0	0	0	0	0	0.079	0.094	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.173	0.094	0	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0.146	0.063	0.012	0.004	0	0.004	0	0	0.079	0.094	0.004	0	0	0	0	0	0	0	0	0	0	0	0.406	--	--		
Max	0	0	0.146	0.063	0.012	0.004	0	0.004	0	0	0.079	0.094	0.004	0	0	0	0	0	0	0	0	0	0	0	--	0.146	--		
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, Precip_Inches"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	Max	Min	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.512	0	0	0	0	0	0	0.512	0.512	0	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.512	0	0	0	0	0	0	0.512	--	--	
Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.512	0	0	0	0	0	0	--	0.512	--	
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, Precip_Inches"
Month: Jun 2012

Hour of day

Day	Year of Day																								Total	Max	Min		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	0	0	0	0	0	0	0	0	0	0	0	0	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0.004		
14	0	0	0	0	0	0	0	0	0	0	0.012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.012	0.012		
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0.012	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0.016	--	--	
Max	0	0	0	0	0	0	0	0	0	0	0.012	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.012	--	
Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, BP_mmHg"
Month: Apr 2012

Day	Hour of day																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	680	680	679	679	679	679	679	679	679	680	680	679	679	678	678	678	678	678	678	679	679	679	679	679	679	680	678
2	678	678	678	678	678	678	678	678	678	679	679	678	678	678	678	678	678	678	679	679	680	680	680	680	678	680	678
3	680	680	680	681	681	681	682	682	682	682	682	681	681	681	680	680	680	680	680	681	681	682	682	682	681	682	680
4	682	682	682	681	681	681	682	682	682	682	682	681	681	681	680	680	680	680	680	680	680	680	680	680	681	682	680
5	680	680	680	680	680	680	680	680	680	680	680	679	679	679	678	678	678	678	679	679	680	680	680	680	679	680	678
6	681	681	681	681	681	681	682	682	683	683	683	683	683	682	682	682	682	683	683	683	684	684	684	684	682	684	681
7	684	683	683	683	683	683	684	684	684	684	685	684	684	684	683	683	683	683	683	683	684	684	684	684	684	685	683
8	684	684	684	684	684	684	685	685	685	685	685	684	684	683	683	683	683	683	683	683	683	683	683	683	684	685	683
9	683	683	683	683	683	683	683	683	684	684	684	683	683	682	682	682	681	681	681	681	682	682	682	683	683	684	681
10	682	681	681	681	681	681	682	682	682	682	682	681	681	680	680	679	679	679	679	680	680	681	681	681	681	682	679
11	680	680	680	680	680	680	681	682	682	682	682	681	682	682	682	682	681	682	682	682	682	682	682	681	681	682	680
12	682	682	682	682	683	683	683	684	684	684	685	684	684	684	683	683	683	683	682	683	683	682	682	683	683	685	682
13	682	681	681	681	680	680	680	681	681	681	680	680	679	678	678	677	677	676	676	676	676	676	676	679	682	676	
14	676	676	676	677	677	677	678	678	679	679	679	679	679	679	679	679	679	680	680	680	681	682	682	679	682	676	
15	682	682	683	683	683	683	684	684	685	685	685	684	684	684	684	683	683	683	684	684	684	685	685	684	685	685	682
16	685	685	685	685	685	685	686	686	686	686	686	685	685	684	684	684	684	684	684	684	684	684	684	685	686	684	684
17	684	684	684	684	684	684	685	685	685	685	684	684	683	682	682	682	682	682	682	682	682	683	683	683	683	685	682
18	682	682	682	682	682	682	683	683	683	683	683	683	683	682	682	682	681	681	680	681	681	681	681	681	682	683	680
19	681	681	681	681	681	681	682	682	682	682	682	682	682	681	681	680	680	681	681	681	681	682	682	681	681	683	680
20	682	682	682	682	682	682	682	683	683	683	684	683	683	682	682	682	681	681	681	682	682	682	682	682	682	684	681
21	682	682	682	682	682	682	682	683	683	683	683	682	682	681	681	681	681	681	680	680	681	681	682	682	682	683	680
22	682	682	681	681	682	682	682	683	683	683	683	682	682	681	681	681	681	681	680	680	681	681	681	681	682	683	680
23	681	681	681	682	682	682	683	683	683	683	683	683	682	682	681	681	680	680	680	680	681	682	682	682	682	683	680
24	682	682	682	682	682	682	682	683	683	683	683	683	682	682	682	681	681	681	681	681	681	682	682	682	682	683	681
25	682	682	682	682	682	682	682	683	683	682	682	681	681	681	680	680	681	681	681	681	681	681	681	681	681	683	680
26	681	680	681	681	681	681	681	681	682	682	682	683	683	682	682	682	682	682	682	682	682	682	682	682	682	683	680
27	682	682	682	682	682	682	682	683	683	683	683	682	682	681	681	681	680	680	680	680	680	680	680	680	681	683	680
28	680	679	679	679	679	679	680	680	680	679	679	678	678	678	677	677	677	677	678	678	678	678	678	678	678	680	677
29	678	678	679	679	679	679	680	680	681	681	681	681	680	680	680	679	679	679	680	680	680	680	680	680	681	680	678
30	681	681	681	681	681	682	682	682	683	683	683	682	682	682	681	680	680	680	680	680	680	680	680	680	681	683	680
Avg	681	681	681	681	681	681	682	682	682	682	682	681	681	681	681	681	681	680	680	681	681	681	681	681	681	--	--
Max	685	685	685	685	685	685	686	686	686	686	686	685	685	685	684	684	684	684	684	684	685	685	685	685	--	686	--
Min	676	676	676	677	677	677	678	678	678	679	679	678	678	678	678	678	677	677	677	676	676	676	676	676	--	--	676

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, BP_mmHg"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	680	680	680	680	680	680	681	681	681	681	681	681	680	680	679	679	678	678	678	678	678	679	679	679	680	681	678	
2	679	679	679	679	679	680	680	681	681	681	681	681	680	680	680	679	679	679	679	679	680	680	681	681	680	681	679	
3	681	681	681	681	681	681	682	682	683	683	682	682	682	682	681	681	681	681	681	681	681	682	682	682	682	683	681	
4	682	682	682	682	682	682	683	683	684	684	684	683	683	682	682	682	682	682	682	681	682	682	682	682	682	684	681	
5	682	682	681	681	681	682	682	683	683	682	682	682	681	681	681	680	680	680	680	680	680	680	681	681	681	683	680	
6	681	681	681	681	681	681	681	681	682	682	682	681	681	681	680	680	680	679	679	680	680	680	680	680	681	682	679	
7	681	681	681	681	681	680	681	681	681	681	681	681	680	680	680	679	679	679	679	679	680	680	680	680	680	681	679	
8	680	680	679	679	679	680	680	680	680	680	680	680	679	679	678	678	678	678	678	679	679	680	680	680	679	680	678	
9	680	680	679	679	680	680	681	681	681	682	682	681	680	680	679	679	681	682	682	682	681	681	681	681	681	682	679	
10	681	680	680	680	680	680	681	681	681	681	681	680	680	679	679	678	678	678	678	678	679	679	679	680	681	678		
11	679	679	679	679	679	680	680	681	681	681	681	681	681	681	680	680	680	680	680	680	681	682	682	680	682	679		
12	682	682	682	683	683	683	684	684	684	684	684	684	683	683	682	682	682	682	683	683	683	683	683	683	683	684	682	
13	683	683	683	683	683	683	683	684	684	684	684	684	683	683	682	682	681	681	681	681	681	682	682	682	682	684	681	
14	682	681	681	681	682	682	682	683	683	683	683	683	682	682	681	681	681	680	680	680	681	681	681	681	682	683	680	
15	681	681	681	681	681	682	682	682	682	682	682	681	681	681	680	680	679	679	680	680	680	680	680	681	682	679		
16	680	680	680	680	680	680	681	681	681	682	681	681	680	680	680	679	679	679	679	679	680	680	680	680	680	682	679	
17	680	680	680	680	680	680	681	681	681	681	681	680	680	679	679	678	678	678	677	678	678	678	679	679	679	681	677	
18	678	678	678	678	678	678	678	679	679	679	679	678	678	678	677	677	676	676	677	677	678	678	678	678	678	679	676	
19	679	679	679	679	679	680	680	680	681	681	681	681	681	680	680	680	680	680	680	680	681	681	681	681	680	681	679	
20	681	681	681	681	681	681	681	681	682	682	682	682	682	682	681	681	681	680	680	680	681	681	681	681	682	682	680	
21	682	682	682	682	682	682	682	683	683	683	683	682	682	682	681	681	681	680	680	680	681	681	681	681	682	683	680	
22	681	681	681	681	681	681	682	682	682	682	681	681	681	680	680	679	679	678	678	678	679	678	678	680	682	678		
23	678	678	678	678	677	677	677	677	677	677	676	676	676	676	675	675	674	674	674	675	675	676	676	676	676	678	674	
24	676	676	676	676	676	676	676	676	676	676	676	676	676	675	675	674	674	673	674	674	674	675	676	676	675	676	673	
25	676	676	676	676	676	676	676	676	676	676	676	676	676	676	675	675	675	675	675	676	676	677	677	676	677	675		
26	677	677	677	678	678	678	679	679	680	680	681	681	681	681	681	681	681	680	680	681	681	681	681	681	681	682	677	
27	681	681	681	681	681	682	682	682	683	683	683	683	682	682	682	681	681	681	681	681	681	682	682	682	682	683	681	
28	681	681	681	681	681	682	682	682	682	682	682	682	681	681	681	681	681	681	681	681	681	681	681	681	681	682	681	
29	681	681	681	681	681	682	682	683	683	683	683	683	682	682	682	681	681	681	681	681	681	682	682	682	682	683	681	
30	681	681	681	682	682	682	682	682	683	683	683	682	682	682	681	681	681	680	680	680	680	680	680	680	681	683	680	
31	680	680	679	679	679	680	680	680	680	680	679	679	678	678	678	678	677	677	678	678	678	679	679	679	679	680	677	
Avg	680	680	680	680	680	680	681	681	681	681	681	681	681	680	680	679	679	679	679	679	680	680	680	680	680	--	--	
Max	683	683	683	683	683	684	684	684	684	684	684	684	684	683	683	682	682	682	682	683	683	683	683	683	683	--	684	--
Min	676	676	676	676	676	676	676	676	676	676	676	676	676	675	675	674	674	673	674	674	675	676	676	676	676	--	--	673

SAROAD for Resolution, West_Plant
"Component, Channel: Table100, BP_mmHg"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	678	678	678	678	678	679	679	680	680	680	680	680	681	681	681	681	681	681	681	681	681	681	681	679	680	678		
2	679	679	679	679	679	679	680	680	681	681	681	681	682	682	682	682	682	681	681	680	679	679	680	680	679	681	678	
3	680	680	680	680	680	681	681	681	682	682	682	682	682	681	681	681	680	680	680	680	680	681	681	681	681	682	680	
4	681	681	681	681	681	681	681	682	682	682	682	682	682	681	681	681	680	679	679	679	679	679	679	679	681	682	679	
5	680	680	680	680	680	680	681	681	681	681	681	681	681	681	681	680	679	679	678	678	678	678	679	679	679	681	678	
6	679	679	679	679	679	679	679	679	679	679	679	679	679	678	678	678	678	677	677	677	678	678	678	678	678	679	677	
7	679	679	679	679	679	679	680	680	680	681	681	681	681	680	680	680	680	679	679	679	680	680	680	680	680	681	679	
8	680	680	680	680	680	680	681	681	681	681	681	681	681	680	680	679	679	678	678	678	678	679	679	680	680	681	678	
9	679	679	679	679	679	679	679	680	680	679	679	679	679	678	678	677	677	677	676	677	677	678	678	678	678	680	676	
10	678	678	678	679	679	679	679	680	680	680	680	680	680	680	680	679	679	679	679	679	680	680	680	680	680	680	678	
11	680	681	681	681	681	682	682	682	682	682	682	682	682	682	682	682	681	681	681	681	681	682	682	682	681	682	680	
12	682	682	682	682	682	682	682	683	683	683	682	682	681	681	680	680	680	680	680	680	680	680	680	681	683	680	680	
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14	679	679	679	679	679	679	679	680	680	680	680	680	680	679	679	679	678	678	678	678	678	678	679	679	680	680	678	
15	679	679	679	679	679	679	680	680	681	681	681	680	680	679	679	679	678	678	678	678	678	679	679	679	679	681	678	
16	680	680	680	680	680	681	681	681	681	682	682	681	681	680	680	679	680	681	681	680	681	682	682	681	682	682	679	
17	682	682	682	682	682	682	683	683	683	683	682	682	681	681	680	680	680	679	679	679	679	680	680	680	681	683	679	
18	680	679	679	679	679	679	680	680	680	680	680	679	679	678	678	678	678	677	677	677	678	678	678	678	679	680	677	
19	678	678	678	678	678	678	678	678	679	679	679	678	678	678	678	677	677	677	676	676	677	677	678	678	678	679	676	
20	678	678	678	678	678	678	678	679	679	679	679	679	679	679	679	678	678	678	678	677	677	678	678	678	678	679	678	
21	680	680	680	680	680	681	681	681	682	682	682	681	681	681	680	680	679	679	679	679	679	679	679	679	680	682	679	
22	680	679	679	680	680	680	680	680	680	680	680	680	679	679	678	678	678	677	677	677	677	678	678	678	679	680	677	
23	678	678	678	678	678	678	679	679	679	679	679	679	679	679	678	678	678	678	677	678	678	678	679	679	678	680	677	
24	680	680	681	681	681	682	682	683	683	683	683	682	682	681	681	681	680	680	680	681	681	682	681	682	681	683	680	
25	682	682	682	683	683	683	684	684	684	683	683	683	682	682	681	680	680	680	680	680	680	680	680	682	684	680	680	
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27	679	679	679	679	680	680	681	681	681	681	681	681	681	681	680	680	680	679	679	681	682	683	682	682	680	683	679	
28	682	682	682	682	683	683	684	684	684	684	684	684	684	684	683	683	682	682	681	682	683	683	683	683	683	684	681	
29	683	683	683	683	683	684	684	684	684	684	684	684	684	684	683	682	682	681	681	680	680	681	681	681	682	684	680	
30	681	681	681	682	682	683	683	682	682	682	681	681	680	680	679	679	678	678	678	679	679	679	679	680	683	678		
Avg	680	680	680	680	680	680	681	681	681	681	681	681	681	681	680	680	680	679	679	679	679	679	679	680	680	--	--	
Max	683	683	683	683	683	684	684	684	684	684	684	684	684	684	683	683	682	682	682	682	683	683	683	683	683	684	--	--
Min	678	678	678	678	678	678	678	678	679	679	679	678	678	678	678	677	677	677	676	676	677	677	677	678	--	--	676	

Appendix D: PM₁₀ and PM_{2.5} Data – Hourly

SAROAD for Resolution, East_Plant
"Component, Channel: Table125, conc_PM10_$\mu\text{g}/\text{m}^3$_STP"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	14.0	12.0	10.0	9.0	11.0	14.0	19.0	22.0	36.0	35.0	37.0	46.0	63.0	29.0	50.0	50.0	54.0	51.0	37.0	20.0	11.0	19.0	13.0	18.0	28.3	63.0	9.0
2	17.0	20.0	10.0	9.0	16.0	9.0	6.0	7.0	9.0	6.0	17.0	9.0	16.0	22.0	21.0	20.0	7.0	6.0	6.0	6.0	7.0	10.0	10.0	10.0	11.5	22.0	6.0
3	9.0	11.0	13.0	7.0	6.0	10.0	10.0	27.0	14.0	17.0	17.0	15.0	15.0	13.0	17.0	18.0	12.0	15.0	20.0	19.0	17.0	18.0	17.0	17.0	14.8	27.0	6.0
4	21.0	16.0	11.0	10.0	17.0	10.0	27.0	41.0	26.0	18.0	15.0	17.0	19.0	23.0	23.0	24.0	20.0	14.0	21.0	27.0	22.0	20.0	22.0	16.0	20.0	41.0	10.0
5	14.0	16.0	13.0	14.0	12.0	12.0	14.0	24.0	28.0	14.0	23.0	29.0	25.0	28.0	29.0	47.0	45.0	45.0	24.0	23.0	19.0	19.0	20.0	17.0	23.1	47.0	12.0
6	17.0	18.0	22.0	16.0	19.0	15.0	22.0	33.0	34.0	41.0	22.0	42.0	37.0	43.0	30.0	30.0	35.0	42.0	45.0	45.0	41.0	37.0	40.0	33.0	31.6	45.0	15.0
7	35.0	31.0	36.0	42.0	33.0	37.0	40.0	23.0	25.0	27.0	25.0	46.0	31.0	29.0	19.0	23.0	21.0	20.0	22.0	28.0	17.0	24.0	18.0	11.0	27.6	46.0	11.0
8	17.0	19.0	17.0	19.0	20.0	24.0	38.0	38.0	65.0	91.0	59.0	45.0	42.0	32.0	40.0	37.0	24.0	33.0	27.0	29.0	24.0	26.0	20.0	18.0	33.5	91.0	17.0
9	10.0	18.0	14.0	23.0	17.0	18.0	22.0	31.0	47.0	32.0	25.0	34.0	22.0	21.0	16.0	20.0	21.0	19.0	29.0	25.0	22.0	18.0	13.0	13.0	22.1	47.0	10.0
10	13.0	13.0	15.0	10.0	11.0	16.0	26.0	41.0	22.0	--	--	36.0	45.0	24.0	19.0	31.0	22.0	33.0	23.0	20.0	26.0	57.0	83.0	73.0	30.0	83.0	10.0
11	54.0	46.0	43.0	40.0	52.0	55.0	43.0	20.0	18.0	23.0	27.0	35.0	49.0	115.0	85.0	39.0	42.0	36.0	37.0	30.0	34.0	34.0	38.0	28.0	42.6	115.0	18.0
12	28.0	15.0	15.0	22.0	25.0	32.0	41.0	30.0	23.0	24.0	25.0	26.0	25.0	27.0	24.0	26.0	14.0	13.0	20.0	21.0	17.0	17.0	17.0	33.0	23.3	41.0	13.0
13	16.0	18.0	15.0	13.0	11.0	10.0	12.0	14.0	20.0	22.0	19.0	17.0	17.0	25.0	24.0	27.0	31.0	23.0	29.0	35.0	59.0	56.0	61.0	41.0	25.6	61.0	10.0
14	62.0	50.0	37.0	5.0	7.0	16.0	12.0	16.0	7.0	10.0	11.0	7.0	8.0	12.0	11.0	12.0	28.0	30.0	32.0	48.0	49.0	55.0	45.0	29.0	25.0	62.0	5.0
15	32.0	25.0	28.0	38.0	59.0	53.0	51.0	49.0	38.0	40.0	27.0	27.0	23.0	20.0	24.0	20.0	18.0	18.0	20.0	21.0	18.0	16.0	21.0	14.0	29.2	59.0	14.0
16	12.0	8.0	9.0	9.0	8.0	17.0	22.0	19.0	22.0	21.0	21.0	18.0	17.0	27.0	14.0	14.0	14.0	13.0	11.0	10.0	10.0	11.0	10.0	9.0	14.4	27.0	8.0
17	7.0	6.0	7.0	8.0	11.0	12.0	14.0	22.0	13.0	21.0	18.0	16.0	19.0	20.0	13.0	23.0	14.0	21.0	17.0	24.0	16.0	16.0	18.0	25.0	15.9	25.0	6.0
18	19.0	15.0	13.0	17.0	18.0	14.0	17.0	48.0	31.0	22.0	20.0	25.0	17.0	17.0	23.0	27.0	26.0	17.0	15.0	20.0	15.0	16.0	23.0	21.0	20.7	48.0	13.0
19	15.0	22.0	9.0	17.0	16.0	16.0	17.0	23.0	14.0	23.0	24.0	21.0	24.0	36.0	21.0	25.0	22.0	19.0	20.0	18.0	18.0	21.0	20.0	20.0	20.0	36.0	9.0
20	17.0	13.0	13.0	12.0	26.0	69.0	155.0	35.0	17.0	23.0	35.0	25.0	18.0	13.0	13.0	15.0	20.0	15.0	17.0	20.0	17.0	15.0	20.0	16.0	26.6	155.0	12.0
21	18.0	14.0	16.0	13.0	13.0	14.0	19.0	14.0	21.0	18.0	18.0	17.0	20.0	21.0	16.0	26.0	19.0	22.0	25.0	34.0	17.0	38.0	13.0	14.0	19.2	38.0	13.0
22	14.0	13.0	12.0	12.0	12.0	19.0	16.0	16.0	15.0	17.0	15.0	13.0	20.0	12.0	14.0	17.0	16.0	15.0	20.0	19.0	15.0	15.0	20.0	15.5	20.0	12.0	
23	13.0	12.0	16.0	15.0	13.0	16.0	19.0	34.0	15.0	22.0	20.0	14.0	17.0	19.0	30.0	36.0	42.0	29.0	27.0	28.0	27.0	25.0	27.0	40.0	23.2	42.0	12.0
24	21.0	10.0	12.0	17.0	10.0	17.0	14.0	29.0	14.0	13.0	10.0	17.0	23.0	10.0	18.0	23.0	16.0	19.0	18.0	12.0	14.0	12.0	11.0	13.0	15.5	29.0	10.0
25	11.0	11.0	13.0	9.0	16.0	7.0	36.0	35.0	13.0	21.0	19.0	19.0	14.0	16.0	24.0	22.0	19.0	18.0	26.0	20.0	18.0	24.0	22.0	45.0	19.9	45.0	7.0
26	19.0	22.0	31.0	25.0	34.0	28.0	25.0	24.0	18.0	97.0	42.0	10.0	20.0	18.0	24.0	32.0	44.0	32.0	31.0	34.0	38.0	35.0	38.0	41.0	31.8	97.0	10.0
27	38.0	19.0	19.0	18.0	13.0	13.0	10.0	11.0	14.0	12.0	11.0	12.0	18.0	16.0	18.0	13.0	12.0	15.0	23.0	26.0	24.0	28.0	24.0	34.0	18.4	38.0	10.0
28	16.0	16.0	11.0	12.0	13.0	13.0	19.0	20.0	19.0	18.0	13.0	18.0	20.0	17.0	30.0	22.0	24.0	28.0	28.0	26.0	43.0	28.0	28.0	26.0	21.2	43.0	11.0
29	25.0	30.0	28.0	26.0	23.0	24.0	26.0	25.0	24.0	22.0	17.0	16.0	20.0	14.0	28.0	27.0	33.0	20.0	27.0	20.0	27.0	20.0	28.0	16.0	23.6	33.0	14.0
30	18.0	18.0	23.0	21.0	23.0	18.0	29.0	29.0	32.0	24.0	24.0	30.0	55.0	--	22.0	29.0	37.0	34.0	26.0	22.0	34.0	19.0	27.0	30.0	27.1	55.0	18.0
Avg	20.7	18.6	17.7	16.9	18.8	20.9	27.4	26.7	23.1	26.7	22.6	23.4	25.3	24.8	24.7	25.8	25.1	23.8	24.1	24.3	23.9	24.9	25.6	24.5	23.4	--	--
Max	62.0	50.0	43.0	42.0	59.0	69.0	155.0	49.0	65.0	97.0	59.0	46.0	63.0	115.0	85.0	50.0	54.0	51.0	45.0	48.0	59.0	57.0	83.0	73.0	--	155.0	--
Min	7.0	6.0	7.0	5.0	6.0	7.0	7.0	6.0	10.0	7.0	8.0	10.0	11.0	12.0	7.0	6.0	6.0	7.0	10.0	10.0	9.0	--	--	5.0	5.0		

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: Table125, conc_PM10_µg/m³_STP"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	24.0	29.0	31.0	20.0	35.0	25.0	33.0	32.0	19.0	22.0	21.0	14.0	17.0	31.0	31.0	39.0	20.0	33.0	19.0	20.0	20.0	20.0	27.0	19.0	25.0	39.0	14.0
2	21.0	25.0	29.0	30.0	21.0	39.0	30.0	51.0	19.0	15.0	14.0	12.0	31.0	--	21.0	25.0	27.0	20.0	15.0	16.0	19.0	17.0	38.0	32.0	24.7	51.0	12.0
3	22.0	17.0	11.0	16.0	16.0	23.0	22.0	52.0	18.0	29.0	17.0	33.0	--	--	--	--	19.0	32.0	24.0	24.0	24.0	17.0	23.0	22.0	23.1	52.0	11.0
4	18.0	15.0	11.0	13.0	14.0	18.0	30.0	22.0	17.0	21.0	24.0	14.0	19.0	11.0	17.0	26.0	23.0	24.0	23.0	23.0	21.0	19.0	14.0	14.0	18.8	30.0	11.0
5	13.0	17.0	15.0	17.0	17.0	15.0	23.0	21.0	21.0	18.0	16.0	12.0	12.0	13.0	26.0	26.0	25.0	28.0	18.0	16.0	29.0	20.0	23.0	24.0	19.4	29.0	12.0
6	18.0	18.0	14.0	16.0	36.0	21.0	31.0	31.0	22.0	17.0	19.0	17.0	17.0	28.0	23.0	17.0	24.0	23.0	23.0	21.0	20.0	17.0	24.0	21.4	36.0	14.0	
7	23.0	23.0	15.0	21.0	11.0	12.0	22.0	15.0	14.0	18.0	24.0	19.0	22.0	33.0	48.0	37.0	46.0	33.0	28.0	19.0	19.0	23.0	22.0	21.0	23.7	48.0	11.0
8	18.0	14.0	14.0	15.0	13.0	13.0	17.0	32.0	22.0	17.0	26.0	29.0	29.0	33.0	31.0	36.0	29.0	37.0	82.0	27.0	20.0	37.0	24.0	45.0	27.5	82.0	13.0
9	80.0	31.0	38.0	53.0	14.0	24.0	24.0	26.0	28.0	34.0	30.0	27.0	13.0	38.0	30.0	21.0	21.0	281.0	183.0	66.0	37.0	21.0	34.0	19.0	48.9	281.0	13.0
10	8.0	7.0	7.0	9.0	11.0	23.0	43.0	34.0	29.0	16.0	15.0	16.0	22.0	35.0	42.0	40.0	57.0	59.0	43.0	39.0	37.0	38.0	35.0	30.0	29.0	59.0	7.0
11	34.0	45.0	54.0	43.0	39.0	42.0	48.0	57.0	40.0	38.0	39.0	32.0	30.0	43.0	41.0	33.0	29.0	44.0	27.0	23.0	27.0	49.0	45.0	46.0	39.5	57.0	23.0
12	37.0	32.0	28.0	22.0	22.0	20.0	21.0	36.0	29.0	19.0	26.0	22.0	28.0	19.0	39.0	16.0	17.0	15.0	16.0	11.0	12.0	13.0	14.0	18.0	22.2	39.0	11.0
13	19.0	23.0	21.0	20.0	29.0	21.0	42.0	33.0	25.0	23.0	28.0	28.0	24.0	26.0	30.0	25.0	39.0	22.0	36.0	27.0	28.0	23.0	23.0	27.0	26.8	42.0	19.0
14	23.0	26.0	67.0	73.0	91.0	142.0	147.0	51.0	89.0	92.0	70.0	44.0	32.0	31.0	28.0	26.0	30.0	12.0	20.0	17.0	12.0	10.0	17.0	15.0	48.5	147.0	10.0
15	17.0	26.0	24.0	24.0	31.0	32.0	38.0	48.0	41.0	29.0	52.0	43.0	39.0	42.0	30.0	27.0	21.0	15.0	16.0	13.0	25.0	30.0	22.0	26.0	29.6	52.0	13.0
16	15.0	22.0	18.0	13.0	17.0	17.0	37.0	33.0	21.0	24.0	21.0	29.0	29.0	27.0	49.0	44.0	30.0	27.0	37.0	15.0	20.0	21.0	17.0	18.0	25.0	49.0	13.0
17	14.0	23.0	15.0	13.0	11.0	18.0	23.0	36.0	22.0	18.0	29.0	21.0	18.0	23.0	29.0	40.0	42.0	27.0	15.0	15.0	31.0	25.0	25.0	36.0	23.7	42.0	11.0
18	32.0	23.0	24.0	22.0	19.0	23.0	33.0	28.0	29.0	29.0	30.0	26.0	30.0	64.0	72.0	69.0	62.0	66.0	75.0	56.0	55.0	46.0	45.0	41.0	41.6	75.0	19.0
19	38.0	24.0	25.0	23.0	21.0	22.0	26.0	33.0	30.0	41.0	25.0	22.0	25.0	24.0	19.0	26.0	28.0	32.0	25.0	34.0	30.0	23.0	34.0	31.0	27.5	41.0	19.0
20	30.0	25.0	30.0	33.0	23.0	28.0	32.0	33.0	36.0	31.0	30.0	29.0	68.0	71.0	51.0	41.0	37.0	24.0	19.0	26.0	23.0	29.0	21.0	18.0	32.8	71.0	18.0
21	17.0	19.0	19.0	17.0	24.0	15.0	31.0	39.0	34.0	60.0	52.0	32.0	40.0	11.0	24.0	23.0	32.0	36.0	17.0	13.0	13.0	21.0	21.0	26.0	60.0	11.0	
22	10.0	11.0	13.0	20.0	14.0	24.0	26.0	65.0	32.0	42.0	40.0	29.0	38.0	36.0	36.0	32.0	30.0	33.0	29.0	24.0	32.0	22.0	21.0	10.0	27.9	65.0	10.0
23	12.0	12.0	11.0	12.0	15.0	6.0	22.0	12.0	20.0	19.0	28.0	79.0	97.0	53.0	47.0	83.0	110.0	80.0	108.0	116.0	108.0	153.0	160.0	98.0	60.9	160.0	6.0
24	79.0	74.0	62.0	56.0	59.0	62.0	28.0	38.0	--	--	26.0	26.0	44.0	41.0	31.0	42.0	31.0	53.0	99.0	68.0	58.0	78.0	120.0	130.0	59.3	130.0	26.0
25	121.0	112.0	90.0	57.0	40.0	32.0	26.0	32.0	25.0	25.0	31.0	41.0	63.0	86.0	73.0	75.0	109.0	91.0	65.0	54.0	43.0	40.0	40.0	57.0	59.5	121.0	25.0
26	48.0	40.0	38.0	24.0	19.0	22.0	25.0	22.0	24.0	66.0	70.0	53.0	56.0	43.0	43.0	33.0	32.0	24.0	19.0	19.0	17.0	17.0	17.0	33.1	70.0	17.0	
27	11.0	11.0	12.0	14.0	14.0	14.0	21.0	6.0	19.0	11.0	11.0	11.0	10.0	10.0	12.0	17.0	12.0	12.0	13.0	17.0	13.0	12.0	18.0	13.1	21.0	6.0	
28	16.0	9.0	15.0	12.0	19.0	13.0	15.0	12.0	12.0	10.0	12.0	36.0	24.0	12.0	16.0	13.0	12.0	12.0	23.0	20.0	16.0	27.0	18.0	16.0	16.3	36.0	9.0
29	10.0	18.0	10.0	8.0	17.0	14.0	17.0	39.0	34.0	17.0	29.0	24.0	36.0	17.0	21.0	30.0	27.0	28.0	18.0	19.0	20.0	26.0	23.0	21.9	39.0	8.0	
30	20.0	21.0	13.0	19.0	13.0	17.0	24.0	25.0	17.0	23.0	21.0	28.0	23.0	53.0	29.0	27.0	19.0	23.0	16.0	23.0	20.0	14.0	17.0	20.0	21.9	53.0	13.0
31	14.0	26.0	22.0	23.0	23.0	20.0	36.0	46.0	28.0	27.0	21.0	17.0	22.0	28.0	--	35.0	25.0	22.0	35.0	32.0	21.0	22.0	24.0	13.0	25.3	46.0	13.0
Avg	27.8	26.4	25.7	24.5	24.1	26.4	31.8	34.0	26.8	28.6	28.9	27.9	32.0	33.5	34.2	34.2	34.3	40.9	38.4	29.4	28.3	29.9	32.0	30.6	30.4	--	--
Max	121.0	112.0	90.0	73.0	91.0	142.0	147.0	65.0	89.0	92.0	70.0	79.0	97.0	86.0	73.0	83.0	110.0	281.0	183.0	116.0	108.0	153.0	160.0	130.0	--	281.0	--
Min	8.0	7.0	7.0	8.0	11.0	6.0	14.0	12.0	6.0	10.0	11.0	11.0	10.0	10.0	12.0	12.0	12.0	11.0	12.0	10.0	12.0	10.0	12.0	10.0	--	--	6.0

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: Table125, conc_PM10_\mu g/m³_STP"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min		
1	13.0	17.0	23.0	12.0	12.0	17.0	23.0	30.0	26.0	34.0	34.0	50.0	29.0	32.0	34.0	39.0	37.0	36.0	34.0	39.0	33.0	27.0	26.0	26.0	28.5	50.0	12.0		
2	29.0	34.0	23.0	28.0	23.0	30.0	27.0	44.0	40.0	40.0	64.0	25.0	33.0	76.0	54.0	61.0	70.0	47.0	74.0	29.0	37.0	40.0	66.0	67.0	44.2	76.0	23.0		
3	53.0	56.0	55.0	44.0	35.0	32.0	38.0	32.0	20.0	23.0	28.0	27.0	29.0	29.0	24.0	28.0	24.0	26.0	28.0	28.0	24.0	27.0	23.0	21.0	31.4	56.0	20.0		
4	25.0	34.0	28.0	7.0	9.0	12.0	45.0	22.0	19.0	22.0	23.0	22.0	22.0	34.0	18.0	31.0	34.0	24.0	24.0	21.0	26.0	25.0	18.0	18.0	23.5	45.0	7.0		
5	17.0	14.0	14.0	17.0	12.0	12.0	23.0	25.0	22.0	29.0	32.0	40.0	48.0	65.0	53.0	37.0	64.0	27.0	21.0	17.0	16.0	19.0	21.0	20.0	27.7	65.0	12.0		
6	17.0	22.0	20.0	20.0	18.0	17.0	37.0	20.0	18.0	23.0	26.0	19.0	16.0	19.0	34.0	32.0	35.0	26.0	18.0	22.0	16.0	26.0	24.0	33.0	23.3	37.0	16.0		
7	19.0	23.0	22.0	18.0	20.0	32.0	37.0	37.0	26.0	25.0	35.0	22.0	34.0	17.0	13.0	23.0	18.0	23.0	14.0	17.0	27.0	20.0	15.0	16.0	23.0	37.0	13.0		
8	16.0	27.0	17.0	10.0	18.0	12.0	40.0	34.0	35.0	22.0	41.0	27.0	25.0	15.0	23.0	38.0	27.0	19.0	15.0	19.0	15.0	17.0	27.0	37.0	24.0	41.0	10.0		
9	32.0	16.0	15.0	7.0	3.0	4.0	24.0	15.0	13.0	11.0	9.0	10.0	17.0	41.0	95.0	54.0	35.0	36.0	28.0	28.0	23.0	23.0	17.0	24.0	24.2	95.0	3.0		
10	14.0	13.0	11.0	10.0	9.0	8.0	16.0	6.0	5.0	5.0	8.0	7.0	6.0	10.0	22.0	19.0	19.0	15.0	17.0	14.0	11.0	18.0	14.0	14.0	12.1	22.0	5.0		
11	12.0	16.0	17.0	18.0	17.0	16.0	33.0	48.0	55.0	59.0	66.0	57.0	36.0	27.0	44.0	58.0	41.0	21.0	10.0	12.0	23.0	21.0	16.0	16.0	30.8	66.0	10.0		
12	15.0	16.0	8.0	10.0	11.0	17.0	38.0	28.0	23.0	40.0	25.0	29.0	25.0	30.0	31.0	31.0	16.0	23.0	28.0	20.0	19.0	27.0	16.0	14.0	22.5	40.0	8.0		
13	12.0	15.0	8.0	7.0	9.0	9.0	9.0	10.0	48.0	11.0	51.0	41.0	22.0	32.0	61.0	37.0	43.0	21.0	25.0	23.0	27.0	27.0	25.0	29.0	25.1	61.0	7.0		
14	28.0	25.0	10.0	8.0	11.0	17.0	27.0	35.0	20.0	28.0	33.0	25.0	44.0	40.0	24.0	61.0	26.0	19.0	37.0	34.0	26.0	22.0	48.0	52.0	29.2	61.0	8.0		
15	57.0	71.0	40.0	29.0	24.0	27.0	60.0	50.0	75.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75.0	24.0		
16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58.0	68.0	52.0	43.0	33.0	17.0	74.0	93.0	92.0	--	93.0	17.0
19	49.0	48.0	41.0	48.0	48.0	29.0	42.0	20.0	31.0	24.0	17.0	19.0	36.0	23.0	34.0	44.0	29.0	40.0	53.0	20.0	17.0	19.0	31.0	51.0	33.9	53.0	17.0		
20	73.0	105.0	149.0	208.0	148.0	163.0	178.0	153.0	130.0	123.0	119.0	63.0	43.0	39.0	50.0	51.0	32.0	33.0	40.0	32.0	33.0	25.0	23.0	37.0	85.4	208.0	23.0		
21	28.0	28.0	23.0	26.0	22.0	22.0	44.0	29.0	24.0	30.0	27.0	32.0	36.0	31.0	47.0	62.0	39.0	38.0	32.0	30.0	33.0	30.0	25.0	31.0	32.0	62.0	22.0		
22	28.0	27.0	23.0	21.0	25.0	24.0	39.0	30.0	34.0	27.0	30.0	41.0	48.0	49.0	57.0	39.0	46.0	36.0	43.0	27.0	34.0	31.0	26.0	32.0	34.0	57.0	21.0		
23	42.0	27.0	21.0	22.0	23.0	27.0	38.0	30.0	21.0	25.0	25.0	31.0	28.0	38.0	43.0	42.0	49.0	50.0	31.0	26.0	39.0	31.0	36.0	26.0	32.1	50.0	21.0		
24	30.0	33.0	50.0	27.0	23.0	35.0	57.0	36.0	21.0	24.0	15.0	17.0	24.0	23.0	32.0	51.0	29.0	43.0	36.0	23.0	33.0	53.0	31.0	30.0	32.3	57.0	15.0		
25	28.0	27.0	31.0	21.0	21.0	26.0	37.0	27.0	24.0	32.0	35.0	39.0	45.0	45.0	39.0	43.0	41.0	28.0	30.0	44.0	26.0	33.0	27.0	23.0	32.2	45.0	21.0		
26	26.0	23.0	27.0	27.0	36.0	37.0	52.0	52.0	61.0	58.0	46.0	49.0	41.0	56.0	79.0	38.0	29.0	29.0	46.0	27.0	14.0	12.0	7.0	9.0	36.7	79.0	7.0		
27	24.0	6.0	15.0	19.0	15.0	27.0	86.0	38.0	63.0	--	40.0	38.0	30.0	72.0	36.0	34.0	28.0	37.0	149.0	18.0	11.0	9.0	9.0	16.0	35.7	149.0	6.0		
28	22.0	19.0	10.0	18.0	34.0	29.0	23.0	38.0	19.0	17.0	32.0	48.0	36.0	43.0	47.0	52.0	58.0	38.0	40.0	38.0	28.0	23.0	17.0	24.0	31.4	58.0	10.0		
29	21.0	27.0	32.0	26.0	24.0	38.0	27.0	27.0	40.0	27.0	36.0	21.0	32.0	37.0	36.0	26.0	38.0	29.0	23.0	25.0	22.0	22.0	21.0	28.9	40.0	21.0			
30	18.0	22.0	19.0	22.0	28.0	77.0	129.0	171.0	182.0	158.0	152.0	118.0	119.0	104.0	70.0	76.0	39.0	44.0	35.0	21.0	26.0	25.0	23.0	22.0	70.8	182.0	18.0		
Avg	27.7	29.3	27.9	27.0	25.1	29.5	45.5	40.3	40.6	36.7	40.3	35.3	34.8	39.5	42.3	43.5	37.1	32.2	36.3	25.4	24.4	26.9	29.7	32.9	--	--			
Max	73.0	105.0	149.0	208.0	148.0	163.0	178.0	171.0	182.0	158.0	152.0	118.0	119.0	104.0	95.0	76.0	70.0	52.0	149.0	44.0	39.0	74.0	93.0	92.0	--	208.0	--		
Min	12.0	6.0	8.0	7.0	3.0	4.0	9.0	6.0	5.0	5.0	8.0	7.0	6.0	10.0	13.0	19.0	16.0	15.0	10.0	12.0	11.0	9.0	7.0	9.0	--	--	3.0		

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: Table126, conc_PM25_$\mu\text{g}/\text{m}^3$ Actual"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0.0	1.0	2.0	3.0	3.0	3.0	2.0	6.0	8.0	9.0	11.0	10.0	7.0	5.0	5.0	5.0	3.0	2.0	2.0	3.0	1.0	-1.0	-1.0	2.0	3.8	11.0	-1.0	
2	4.0	1.0	-1.0	-1.0	0.0	2.0	2.0	1.0	0.0	-1.0	0.0	1.0	1.0	2.0	1.0	0.0	0.0	0.0	2.0	0.0	0.0	4.0	4.0	4.0	1.1	4.0	-1.0	
3	5.0	2.0	1.0	4.0	5.0	4.0	3.0	3.0	3.0	4.0	5.0	5.0	3.0	1.0	1.0	0.0	3.0	4.0	2.0	4.0	5.0	4.0	1.0	2.0	3.1	5.0	0.0	
4	2.0	2.0	4.0	1.0	1.0	2.0	3.0	5.0	4.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	1.0	1.0	3.0	3.0	2.0	3.0	1.0	2.0	2.2	5.0	1.0	
5	2.0	1.0	1.0	1.0	1.0	1.0	2.0	4.0	3.0	4.0	6.0	3.0	1.0	4.0	4.0	4.0	3.0	2.0	1.0	1.0	0.0	1.0	4.0	4.0	2.4	6.0	0.0	
6	3.0	4.0	4.0	4.0	3.0	5.0	6.0	6.0	5.0	5.0	5.0	4.0	7.0	8.0	8.0	8.0	10.0	12.0	13.0	13.0	12.0	13.0	15.0	32.0	8.5	32.0	3.0	
7	15.0	13.0	16.0	21.0	15.0	11.0	11.0	9.0	12.0	10.0	9.0	10.0	8.0	8.0	6.0	6.0	6.0	6.0	8.0	7.0	10.0	9.0	7.0	8.0	10.0	21.0	6.0	
8	10.0	10.0	7.0	6.0	7.0	7.0	7.0	8.0	8.0	17.0	11.0	10.0	10.0	7.0	6.0	7.0	9.0	11.0	8.0	6.0	8.0	10.0	8.0	4.0	8.4	17.0	4.0	
9	7.0	9.0	8.0	6.0	5.0	4.0	6.0	5.0	5.0	6.0	8.0	7.0	7.0	8.0	8.0	6.0	5.0	4.0	6.0	6.0	6.0	5.0	4.0	6.0	6.1	9.0	4.0	
10	6.0	7.0	5.0	2.0	5.0	7.0	7.0	8.0	8.0	--	--	8.0	7.0	5.0	3.0	2.0	1.0	1.0	3.0	3.0	3.0	6.0	11.0	11.0	5.4	11.0	1.0	
11	9.0	8.0	8.0	6.0	5.0	7.0	7.0	6.0	5.0	5.0	6.0	8.0	6.0	9.0	9.0	4.0	6.0	6.0	7.0	8.0	6.0	5.0	6.0	6.0	6.6	9.0	4.0	
12	7.0	5.0	2.0	3.0	5.0	5.0	6.0	7.0	5.0	5.0	5.0	2.0	3.0	4.0	4.0	4.0	4.0	5.0	4.0	4.0	3.0	4.0	3.0	3.0	4.3	7.0	2.0	
13	6.0	6.0	3.0	2.0	4.0	4.0	3.0	6.0	8.0	4.0	1.0	3.0	5.0	6.0	10.0	10.0	8.0	6.0	5.0	8.0	11.0	17.0	12.0	13.0	6.7	17.0	1.0	
14	17.0	14.0	11.0	7.0	4.0	2.0	3.0	4.0	1.0	0.0	2.0	3.0	3.0	3.0	2.0	1.0	1.0	3.0	3.0	4.0	7.0	6.0	6.0	5.0	4.7	17.0	0.0	
15	5.0	5.0	2.0	2.0	7.0	9.0	9.0	8.0	7.0	6.0	5.0	3.0	0.0	1.0	4.0	5.0	4.0	5.0	5.0	4.0	3.0	2.0	5.0	5.0	4.6	9.0	0.0	
16	4.0	4.0	3.0	0.0	2.0	3.0	2.0	2.0	4.0	5.0	3.0	3.0	4.0	4.0	6.0	6.0	6.0	3.0	2.0	1.0	3.0	3.0	3.0	3.3	6.0	0.0		
17	2.0	1.0	4.0	6.0	4.0	3.0	3.0	3.0	5.0	4.0	3.0	3.0	4.0	5.0	5.0	4.0	4.0	4.0	5.0	6.0	5.0	4.0	3.0	2.0	4.1	7.0	1.0	
18	5.0	4.0	6.0	7.0	6.0	4.0	3.0	7.0	9.0	6.0	6.0	7.0	5.0	2.0	5.0	7.0	5.0	4.0	4.0	4.0	2.0	2.0	3.0	6.0	5.0	9.0	2.0	
19	6.0	4.0	3.0	1.0	1.0	2.0	3.0	2.0	0.0	1.0	4.0	4.0	4.0	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	5.0	4.0	6.0	4.0	6.0	0.0	
20	5.0	3.0	2.0	4.0	4.0	5.0	9.0	8.0	4.0	5.0	5.0	2.0	3.0	3.0	4.0	6.0	5.0	3.0	4.0	5.0	4.0	4.0	5.0	6.0	4.5	9.0	2.0	
21	5.0	5.0	6.0	5.0	4.0	6.0	6.0	5.0	5.0	4.0	3.0	3.0	4.0	5.0	6.0	4.0	3.0	4.0	7.0	8.0	6.0	6.0	3.0	2.0	4.8	8.0	2.0	
22	4.0	5.0	4.0	3.0	3.0	3.0	3.0	2.0	4.0	4.0	3.0	3.0	5.0	7.0	4.0	2.0	1.0	0.0	3.0	5.0	5.0	6.0	8.0	3.8	8.0	0.0		
23	6.0	4.0	4.0	3.0	2.0	4.0	6.0	6.0	6.0	5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0	2.0	
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.0	8.0	7.0	28.0	3.0	6.0	8.0	9.0	8.0	6.0	7.0	--	28.0	3.0
27	7.0	6.0	6.0	6.0	3.0	3.0	5.0	5.0	3.0	4.0	6.0	5.0	5.0	5.0	4.0	5.0	7.0	7.0	9.0	10.0	8.0	8.0	7.0	5.8	10.0	3.0		
28	5.0	3.0	2.0	3.0	6.0	5.0	4.0	4.0	5.0	4.0	2.0	4.0	6.0	6.0	6.0	7.0	6.0	7.0	9.0	11.0	11.0	10.0	10.0	5.9	11.0	2.0		
29	10.0	11.0	11.0	9.0	10.0	8.0	8.0	10.0	8.0	6.0	4.0	6.0	5.0	6.0	7.0	16.0	11.0	9.0	6.0	5.0	8.0	9.0	7.0	7.0	8.2	16.0	4.0	
30	8.0	8.0	9.0	10.0	9.0	8.0	8.0	9.0	9.0	8.0	9.0	10.0	10.0	7.0	6.0	9.0	9.0	6.0	6.0	11.0	10.0	6.0	7.0	8.0	8.3	11.0	6.0	
Avg	6.1	5.4	4.9	4.6	4.6	4.7	5.1	5.6	5.3	5.1	5.0	5.0	4.7	5.0	5.3	5.3	5.7	4.6	4.9	5.5	5.6	5.9	5.8	6.8	5.2	--	--	
Max	17.0	14.0	16.0	21.0	15.0	11.0	11.0	10.0	12.0	17.0	11.0	10.0	10.0	9.0	10.0	16.0	28.0	12.0	13.0	13.0	12.0	17.0	15.0	32.0	--	32.0	--	
Min	0.0	1.0	-1.0	-1.0	0.0	1.0	2.0	1.0	0.0	-1.0	0.0	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.0	2.0	--	--	-1.0		

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: Table126, conc_PM25_$\mu\text{g}/\text{m}^3$ Actual"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	6.0	8.0	8.0	6.0	7.0	9.0	12.0	11.0	8.0	9.0	7.0	5.0	5.0	5.0	6.0	6.0	6.0	5.0	6.0	7.0	6.0	5.0	7.0	7.0	7.0	12.0	5.0
2	8.0	9.0	7.0	8.0	9.0	7.0	8.0	9.0	8.0	4.0	3.0	4.0	4.0	4.0	3.0	5.0	7.0	6.0	4.0	3.0	7.0	11.0	8.0	6.0	6.3	11.0	3.0
3	6.0	6.0	6.0	6.0	6.0	9.0	9.0	7.0	7.0	7.0	8.0	8.0	--	--	--	--	7.0	9.0	11.0	9.0	6.0	6.0	7.0	6.0	7.3	11.0	6.0
4	6.0	6.0	6.0	6.0	5.0	2.0	5.0	9.0	7.0	5.0	7.0	6.0	4.0	4.0	4.0	4.0	5.0	6.0	5.0	6.0	6.0	7.0	9.0	8.0	5.8	9.0	2.0
5	8.0	10.0	10.0	9.0	6.0	5.0	8.0	7.0	7.0	9.0	8.0	6.0	4.0	5.0	7.0	7.0	7.0	9.0	8.0	6.0	6.0	8.0	8.0	6.0	7.3	10.0	4.0
6	7.0	8.0	7.0	8.0	10.0	6.0	6.0	7.0	6.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	4.0	2.0	3.0	7.0	9.0	8.0	6.0	5.0	6.4	10.0	2.0
7	5.0	7.0	7.0	7.0	8.0	8.0	8.0	7.0	5.0	5.0	7.0	6.0	5.0	8.0	8.0	8.0	8.0	7.0	7.0	6.0	8.0	7.0	7.0	6.0	6.9	8.0	5.0
8	7.0	6.0	3.0	4.0	6.0	5.0	7.0	10.0	7.0	6.0	6.0	4.0	4.0	6.0	6.0	7.0	6.0	7.0	8.0	6.0	7.0	8.0	8.0	7.0	6.3	10.0	3.0
9	5.0	6.0	5.0	6.0	8.0	5.0	6.0	6.0	7.0	8.0	8.0	8.0	6.0	6.0	8.0	8.0	7.0	41.0	38.0	13.0	10.0	7.0	7.0	7.0	9.8	41.0	5.0
10	7.0	6.0	3.0	3.0	4.0	5.0	6.0	9.0	11.0	10.0	8.0	7.0	7.0	6.0	7.0	7.0	7.0	7.0	9.0	8.0	7.0	10.0	10.0	8.0	7.2	11.0	3.0
11	6.0	7.0	9.0	8.0	11.0	13.0	13.0	13.0	9.0	11.0	13.0	13.0	10.0	7.0	6.0	5.0	5.0	7.0	17.0	6.0	7.0	7.0	9.0	9.0	9.2	17.0	5.0
12	8.0	8.0	10.0	10.0	8.0	7.0	6.0	6.0	5.0	3.0	4.0	6.0	6.0	6.0	7.0	5.0	6.0	8.0	5.0	3.0	5.0	4.0	3.0	2.0	5.9	10.0	2.0
13	4.0	7.0	7.0	8.0	10.0	9.0	9.0	9.0	8.0	7.0	7.0	8.0	7.0	7.0	8.0	8.0	8.0	8.0	8.0	7.0	6.0	6.0	7.0	7.0	7.5	10.0	4.0
14	7.0	6.0	7.0	10.0	12.0	17.0	17.0	16.0	16.0	15.0	15.0	16.0	7.0	7.0	7.0	10.0	10.0	5.0	4.0	8.0	9.0	6.0	6.0	8.0	10.0	17.0	4.0
15	7.0	8.0	10.0	9.0	6.0	5.0	6.0	5.0	5.0	6.0	6.0	7.0	8.0	7.0	4.0	4.0	6.0	7.0	9.0	6.0	3.0	3.0	6.0	9.0	6.3	10.0	3.0
16	6.0	4.0	5.0	6.0	6.0	6.0	8.0	7.0	5.0	6.0	6.0	5.0	4.0	5.0	7.0	11.0	11.0	6.0	6.0	7.0	7.0	6.0	6.0	5.0	6.3	11.0	4.0
17	6.0	8.0	7.0	5.0	3.0	5.0	9.0	10.0	9.0	6.0	4.0	7.0	9.0	4.0	3.0	5.0	5.0	4.0	5.0	5.0	5.0	4.0	5.0	8.0	5.9	10.0	3.0
18	7.0	7.0	9.0	8.0	5.0	5.0	7.0	7.0	8.0	10.0	7.0	7.0	10.0	7.0	8.0	9.0	9.0	8.0	16.0	13.0	12.0	12.0	12.0	8.0	8.8	16.0	5.0
19	6.0	5.0	6.0	8.0	6.0	6.0	6.0	7.0	8.0	9.0	9.0	10.0	7.0	7.0	6.0	7.0	7.0	9.0	9.0	8.0	6.0	7.0	10.0	12.0	7.5	12.0	5.0
20	16.0	11.0	11.0	11.0	10.0	10.0	11.0	10.0	11.0	12.0	11.0	16.0	13.0	14.0	14.0	14.0	13.0	9.0	9.0	10.0	10.0	11.0	11.0	8.0	11.5	16.0	8.0
21	6.0	7.0	8.0	8.0	10.0	8.0	9.0	13.0	12.0	12.0	12.0	8.0	6.0	4.0	5.0	8.0	6.0	3.0	4.0	5.0	6.0	4.0	2.0	6.0	7.2	13.0	2.0
22	6.0	5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0	5.0	
23	--	--	--	--	--	--	--	--	--	6.0	5.0	6.0	17.0	13.0	11.0	16.0	11.0	10.0	19.0	17.0	17.0	22.0	28.0	18.0	--	28.0	5.0
24	14.0	17.0	16.0	17.0	12.0	9.0	5.0	6.0	7.0	7.0	5.0	4.0	6.0	10.0	9.0	7.0	8.0	8.0	18.0	15.0	10.0	12.0	23.0	24.0	11.2	24.0	4.0
25	23.0	24.0	17.0	13.0	10.0	6.0	5.0	6.0	4.0	3.0	6.0	6.0	7.0	8.0	10.0	9.0	10.0	13.0	13.0	12.0	11.0	11.0	13.0	12.0	10.5	24.0	3.0
26	12.0	13.0	16.0	10.0	9.0	6.0	9.0	12.0	12.0	16.0	27.0	20.0	16.0	10.0	9.0	7.0	4.0	3.0	1.0	1.0	4.0	3.0	4.0	4.0	9.5	27.0	1.0
27	5.0	5.0	3.0	4.0	4.0	4.0	5.0	3.0	2.0	3.0	2.0	1.0	2.0	4.0	2.0	0.0	0.0	-1.0	0.0	4.0	5.0	3.0	5.0	6.0	3.0	6.0	-1.0
28	5.0	3.0	5.0	4.0	2.0	2.0	5.0	6.0	5.0	5.0	2.0	2.0	4.0	3.0	2.0	4.0	3.0	2.0	5.0	5.0	3.0	4.0	4.0	5.0	3.8	6.0	2.0
29	4.0	1.0	2.0	5.0	5.0	4.0	6.0	7.0	7.0	5.0	5.0	6.0	5.0	5.0	3.0	2.0	3.0	7.0	7.0	4.0	3.0	7.0	10.0	8.0	5.1	10.0	1.0
30	7.0	6.0	3.0	3.0	3.0	3.0	4.0	5.0	6.0	7.0	8.0	6.0	5.0	6.0	5.0	6.0	7.0	7.0	8.0	6.0	7.0	6.0	3.0	4.0	5.5	8.0	3.0
31	5.0	2.0	4.0	7.0	6.0	6.0	8.0	11.0	8.0	7.0	8.0	8.0	8.0	8.0	--	9.0	9.0	6.0	8.0	12.0	10.0	8.0	6.0	6.0	7.4	12.0	2.0
Avg	7.5	7.5	7.5	7.5	7.1	6.6	7.7	8.3	7.6	7.5	7.7	7.4	7.1	6.6	6.5	7.0	6.8	7.6	9.0	7.5	7.2	7.5	8.3	7.9	7.3	--	--
Max	23.0	24.0	17.0	17.0	12.0	17.0	17.0	16.0	16.0	16.0	27.0	20.0	17.0	14.0	14.0	16.0	13.0	41.0	38.0	17.0	17.0	22.0	28.0	24.0	--	41.0	--
Min	4.0	1.0	2.0	3.0	2.0	2.0	4.0	3.0	2.0	3.0	2.0	1.0	2.0	3.0	2.0	0.0	0.0	-1.0	0.0	1.0	3.0	3.0	2.0	2.0	--	--	-1.0

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: Table126, conc_PM25_³^{µg/m} Actual"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	7.0	6.0	3.0	2.0	4.0	6.0	7.0	10.0	8.0	6.0	6.0	6.0	8.0	9.0	9.0	19.0	13.0	14.0	13.0	12.0	16.0	9.0	11.0	13.0	9.0	19.0	2.0
2	13.0	15.0	10.0	10.0	10.0	10.0	12.0	12.0	17.0	10.0	10.0	7.0	9.0	10.0	17.0	12.0	12.0	18.0	10.0	9.0	10.0	11.0	12.0	15.0	11.7	18.0	7.0
3	17.0	14.0	13.0	12.0	11.0	9.0	10.0	9.0	7.0	7.0	7.0	6.0	6.0	9.0	11.0	10.0	10.0	10.0	9.0	8.0	8.0	10.0	12.0	10.0	9.8	17.0	6.0
4	7.0	8.0	8.0	7.0	7.0	8.0	9.0	7.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0	5.0	7.0	7.0	8.0	9.0	7.0	5.0	6.0	5.0	6.3	9.0	4.0
5	5.0	5.0	3.0	39.0	5.0	4.0	4.0	5.0	6.0	8.0	9.0	10.0	8.0	8.0	8.0	5.0	3.0	3.0	4.0	4.0	2.0	3.0	5.0	5.0	6.7	39.0	2.0
6	6.0	6.0	5.0	5.0	6.0	7.0	7.0	7.0	6.0	3.0	6.0	6.0	2.0	5.0	7.0	6.0	5.0	5.0	3.0	3.0	4.0	7.0	6.0	6.0	5.4	7.0	2.0
7	7.0	6.0	8.0	7.0	8.0	10.0	9.0	8.0	6.0	7.0	7.0	3.0	3.0	5.0	5.0	3.0	4.0	4.0	4.0	4.0	5.0	10.0	9.0	5.0	6.1	10.0	3.0
8	3.0	5.0	4.0	3.0	4.0	4.0	6.0	8.0	8.0	6.0	7.0	7.0	4.0	5.0	27.0	12.0	8.0	25.0	7.0	7.0	6.0	5.0	5.0	8.0	7.7	27.0	3.0
9	11.0	7.0	4.0	3.0	0.0	0.0	4.0	3.0	0.0	2.0	2.0	3.0	2.0	3.0	7.0	9.0	9.0	7.0	6.0	5.0	5.0	24.0	1.0	8.0	5.2	24.0	0.0
10	14.0	7.0	2.0	2.0	2.0	3.0	7.0	7.0	5.0	4.0	1.0	0.0	0.0	0.0	2.0	2.0	1.0	3.0	4.0	1.0	2.0	6.0	7.0	6.0	3.7	14.0	0.0
11	4.0	3.0	5.0	8.0	7.0	6.0	6.0	9.0	11.0	25.0	35.0	17.0	15.0	9.0	6.0	9.0	8.0	5.0	4.0	2.0	1.0	4.0	3.0	1.0	8.5	35.0	1.0
12	1.0	2.0	3.0	4.0	4.0	5.0	6.0	6.0	6.0	10.0	10.0	7.0	7.0	6.0	32.0	6.0	4.0	4.0	5.0	38.0	40.0	19.0	18.0	5.0	10.3	40.0	1.0
13	5.0	3.0	2.0	2.0	4.0	6.0	3.0	2.0	6.0	6.0	6.0	27.0	8.0	7.0	8.0	10.0	9.0	6.0	6.0	7.0	6.0	6.0	19.0	81.0	10.2	81.0	2.0
14	29.0	12.0	9.0	21.0	18.0	7.0	8.0	9.0	15.0	9.0	8.0	6.0	17.0	10.0	19.0	32.0	8.0	8.0	34.0	11.0	25.0	7.0	11.0	12.0	14.4	34.0	6.0
15	16.0	19.0	9.0	10.0	9.0	6.0	10.0	15.0	23.0	29.0	21.0	14.0	13.0	9.0	7.0	8.0	8.0	7.0	7.0	6.0	6.0	6.0	6.0	8.0	11.3	29.0	6.0
16	9.0	9.0	8.0	37.0	7.0	9.0	11.0	7.0	5.0	6.0	8.0	9.0	7.0	9.0	8.0	7.0	9.0	20.0	4.0	6.0	27.0	10.0	8.0	6.0	10.3	37.0	4.0
17	6.0	8.0	9.0	8.0	8.0	8.0	8.0	9.0	7.0	6.0	6.0	10.0	13.0	22.0	8.0	7.0	6.0	5.0	6.0	6.0	7.0	7.0	5.0	5.0	7.9	22.0	5.0
18	7.0	10.0	10.0	10.0	11.0	11.0	18.0	7.0	9.0	50.0	19.0	9.0	8.0	7.0	9.0	21.0	13.0	16.0	48.0	5.0	45.0	53.0	12.0	21.0	17.9	53.0	5.0
19	9.0	17.0	44.0	14.0	14.0	14.0	16.0	9.0	7.0	7.0	6.0	4.0	5.0	25.0	14.0	10.0	6.0	6.0	6.0	3.0	5.0	6.0	4.0	7.0	10.8	44.0	3.0
20	16.0	27.0	37.0	48.0	37.0	41.0	52.0	45.0	28.0	28.0	29.0	19.0	11.0	12.0	13.0	11.0	9.0	8.0	10.0	11.0	9.0	6.0	6.0	7.0	21.7	52.0	6.0
21	9.0	9.0	8.0	10.0	9.0	9.0	17.0	11.0	10.0	9.0	6.0	6.0	7.0	9.0	9.0	10.0	12.0	10.0	10.0	10.0	9.0	9.0	10.0	11.0	9.5	17.0	6.0
22	11.0	9.0	7.0	5.0	4.0	6.0	6.0	8.0	8.0	8.0	7.0	6.0	7.0	10.0	11.0	10.0	11.0	10.0	8.0	7.0	8.0	9.0	8.0	10.0	8.1	11.0	4.0
23	10.0	11.0	11.0	6.0	6.0	7.0	8.0	7.0	9.0	8.0	6.0	6.0	9.0	8.0	9.0	11.0	8.0	8.0	9.0	9.0	10.0	9.0	8.0	8.5	11.0	6.0	
24	6.0	8.0	9.0	7.0	9.0	11.0	11.0	11.0	8.0	5.0	4.0	5.0	5.0	8.0	8.0	8.0	9.0	11.0	12.0	9.0	7.0	10.0	12.0	9.0	8.7	12.0	4.0
25	8.0	8.0	10.0	10.0	23.0	12.0	8.0	8.0	9.0	9.0	11.0	10.0	10.0	10.0	10.0	6.0	7.0	9.0	7.0	9.0	9.0	6.0	8.0	10.0	9.5	23.0	6.0
26	8.0	8.0	12.0	14.0	12.0	9.0	10.0	12.0	10.0	9.0	16.0	20.0	11.0	9.0	9.0	36.0	15.0	8.0	9.0	8.0	8.0	8.0	6.0	2.0	11.2	36.0	2.0
27	1.0	3.0	5.0	8.0	8.0	7.0	9.0	11.0	19.0	--	10.0	10.0	9.0	9.0	7.0	8.0	10.0	6.0	8.0	8.0	5.0	6.0	5.0	7.7	19.0	1.0	
28	6.0	8.0	10.0	9.0	5.0	6.0	8.0	7.0	8.0	7.0	6.0	7.0	8.0	7.0	6.0	8.0	9.0	9.0	9.0	7.0	6.0	7.0	8.0	7.4	10.0	5.0	
29	7.0	8.0	8.0	5.0	21.0	11.0	15.0	15.0	27.0	5.0	8.0	33.0	22.0	15.0	15.0	6.0	7.0	32.0	9.0	17.0	18.0	5.0	4.0	5.0	13.3	33.0	4.0
30	6.0	7.0	8.0	9.0	8.0	6.0	10.0	21.0	20.0	18.0	18.0	17.0	19.0	13.0	12.0	9.0	10.0	8.0	5.0	3.0	3.0	6.0	6.0	10.8	21.0	3.0	
Avg	8.8	8.9	9.5	11.2	9.4	8.6	10.5	10.2	10.5	10.0	9.8	8.5	9.3	10.6	10.6	8.3	9.8	9.6	8.3	10.6	9.5	8.1	10.3	9.6	--	--	
Max	29.0	27.0	44.0	48.0	37.0	41.0	52.0	45.0	28.0	50.0	35.0	33.0	22.0	25.0	32.0	36.0	15.0	32.0	48.0	38.0	45.0	53.0	19.0	81.0	--	81.0	--
Min	1.0	2.0	2.0	2.0	0.0	0.0	3.0	2.0	0.0	2.0	1.0	0.0	0.0	2.0	2.0	1.0	3.0	3.0	1.0	1.0	3.0	1.0	1.0	--	--	0.0	

SAROAD for Resolution, West_Plant
"Component, Channel: Table125, conc_PM10_µg/m³_STP"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min		
1	33.0	16.0	14.0	14.0	26.0	10.0	25.0	22.0	42.0	43.0	37.0	56.0	55.0	39.0	90.0	46.0	44.0	38.0	28.0	42.0	26.0	69.0	29.0	34.0	36.6	90.0	10.0		
2	23.0	42.0	27.0	9.0	46.0	20.0	75.0	4.0	4.0	8.0	27.0	8.0	9.0	20.0	32.0	19.0	9.0	8.0	54.0	18.0	13.0	13.0	40.0	56.0	24.3	75.0	4.0		
3	12.0	32.0	22.0	12.0	13.0	9.0	36.0	17.0	9.0	16.0	17.0	19.0	30.0	20.0	45.0	11.0	17.0	16.0	31.0	28.0	27.0	31.0	45.0	30.0	22.7	45.0	9.0		
4	16.0	14.0	37.0	11.0	9.0	10.0	38.0	15.0	15.0	14.0	13.0	16.0	43.0	36.0	17.0	26.0	16.0	18.0	38.0	33.0	19.0	23.0	34.0	16.0	22.0	43.0	9.0		
5	18.0	22.0	18.0	9.0	19.0	20.0	27.0	18.0	23.0	20.0	15.0	19.0	21.0	31.0	35.0	42.0	37.0	36.0	31.0	19.0	28.0	29.0	45.0	41.0	26.0	45.0	9.0		
6	61.0	27.0	31.0	22.0	35.0	20.0	46.0	19.0	16.0	28.0	22.0	45.0	26.0	34.0	38.0	33.0	61.0	61.0	298.0	49.0	54.0	37.0	51.0	53.0	48.6	298.0	16.0		
7	47.0	33.0	36.0	37.0	38.0	37.0	102.0	40.0	29.0	19.0	20.0	16.0	21.0	28.0	15.0	21.0	19.0	24.0	54.0	27.0	34.0	23.0	45.0	21.0	32.7	102.0	15.0		
8	23.0	23.0	17.0	14.0	19.0	38.0	85.0	71.0	91.0	61.0	49.0	41.0	39.0	33.0	41.0	37.0	22.0	30.0	27.0	--	--	--	--	--	40.1	91.0	14.0		
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
11	--	--	--	--	--	--	--	--	--	--	18.0	21.0	40.0	33.0	--	158.0	125.0	39.0	40.0	28.0	29.0	31.0	34.0	34.0	33.0	40.0	--	158.0	18.0
12	28.0	17.0	19.0	25.0	25.0	28.0	30.0	31.0	--	27.0	20.0	34.0	26.0	44.0	56.0	37.0	16.0	16.0	14.0	30.0	21.0	15.0	39.0	55.0	28.4	56.0	14.0		
13	43.0	140.0	24.0	8.0	20.0	16.0	34.0	13.0	18.0	16.0	--	36.0	52.0	29.0	49.0	23.0	18.0	25.0	23.0	30.0	34.0	90.0	321.0	38.0	47.8	321.0	8.0		
14	42.0	62.0	66.0	10.0	10.0	23.0	15.0	14.0	12.0	15.0	13.0	11.0	7.0	8.0	12.0	17.0	24.0	37.0	32.0	43.0	38.0	38.0	41.0	--	25.7	66.0	7.0		
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
16	--	--	--	--	--	--	--	--	12.0	15.0	9.0	10.0	10.0	9.0	15.0	--	19.0	16.0	12.0	13.0	16.0	8.0	17.0	15.0	26.0	--	26.0	8.0	
17	37.0	11.0	16.0	15.0	13.0	22.0	12.0	--	--	--	--	2.0	4.0	6.0	10.0	21.0	17.0	21.0	15.0	29.0	22.0	18.0	31.0	24.0	17.3	37.0	2.0		
18	40.0	28.0	29.0	13.0	17.0	17.0	36.0	21.0	28.0	20.0	15.0	19.0	12.0	37.0	23.0	34.0	24.0	23.0	19.0	19.0	22.0	19.0	25.0	56.0	24.8	56.0	12.0		
19	22.0	31.0	10.0	20.0	32.0	40.0	31.0	35.0	17.0	11.0	11.0	26.0	31.0	28.0	35.0	57.0	62.0	20.0	26.0	17.0	14.0	33.0	12.0	23.0	26.8	62.0	10.0		
20	35.0	85.0	12.0	18.0	21.0	164.0	143.0	60.0	13.0	14.0	12.0	9.0	12.0	14.0	13.0	27.0	6.0	15.0	28.0	23.0	29.0	23.0	22.0	20.0	34.1	164.0	6.0		
21	19.0	16.0	14.0	16.0	14.0	14.0	27.0	27.0	32.0	12.0	10.0	36.0	28.0	12.0	16.0	20.0	15.0	10.0	24.0	17.0	44.0	13.0	27.0	31.0	20.6	44.0	10.0		
22	14.0	26.0	22.0	19.0	12.0	13.0	18.0	13.0	17.0	14.0	18.0	16.0	21.0	14.0	17.0	8.0	10.0	13.0	48.0	33.0	33.0	39.0	35.0	14.0	20.3	48.0	8.0		
23	50.0	9.0	11.0	38.0	119.0	19.0	32.0	29.0	22.0	24.0	20.0	13.0	20.0	35.0	18.0	57.0	22.0	22.0	135.0	19.0	24.0	27.0	46.0	77.0	37.0	135.0	9.0		
24	42.0	31.0	27.0	24.0	36.0	47.0	72.0	14.0	15.0	20.0	12.0	24.0	94.0	--	30.0	19.0	24.0	15.0	15.0	17.0	16.0	41.0	26.0	11.0	29.2	94.0	11.0		
25	24.0	19.0	10.0	13.0	14.0	16.0	31.0	20.0	32.0	18.0	15.0	20.0	16.0	38.0	15.0	38.0	36.0	13.0	39.0	10.0	11.0	21.0	27.0	23.0	21.6	39.0	10.0		
26	26.0	26.0	20.0	25.0	27.0	49.0	46.0	18.0	32.0	100.0	50.0	16.0	27.0	14.0	23.0	36.0	32.0	30.0	28.0	24.0	41.0	36.0	47.0	28.0	33.4	100.0	14.0		
27	18.0	14.0	15.0	15.0	12.0	11.0	11.0	16.0	10.0	17.0	13.0	22.0	15.0	20.0	12.0	18.0	18.0	23.0	24.0	20.0	30.0	21.0	24.0	17.2	30.0	10.0			
28	20.0	18.0	17.0	20.0	19.0	20.0	34.0	24.0	20.0	18.0	17.0	27.0	15.0	23.0	40.0	18.0	19.0	25.0	33.0	29.0	41.0	29.0	29.0	34.0	24.5	41.0	15.0		
29	26.0	28.0	22.0	25.0	22.0	22.0	21.0	17.0	23.0	23.0	17.0	24.0	27.0	21.0	20.0	21.0	21.0	28.0	21.0	28.0	21.0	48.0	36.0	28.0	23.0	24.4	48.0	17.0	
30	22.0	32.0	32.0	16.0	26.0	40.0	133.0	31.0	30.0	27.0	28.0	21.0	--	--	36.0	24.0	27.0	30.0	27.0	23.0	20.0	28.0	27.0	49.0	33.1	133.0	16.0		
Avg	29.6	32.1	22.7	17.9	25.9	29.0	46.4	24.0	23.3	23.4	21.2	22.3	26.6	30.3	33.5	28.2	24.9	23.1	43.0	25.8	27.7	31.2	43.9	33.9	28.8	--	--		
Max	61.0	140.0	66.0	38.0	119.0	164.0	143.0	71.0	91.0	100.0	50.0	56.0	94.0	158.0	125.0	57.0	62.0	61.0	298.0	49.0	54.0	90.0	321.0	77.0	--	321.0	--		
Min	12.0	9.0	10.0	8.0	9.0	9.0	11.0	4.0	4.0	8.0	10.0	2.0	4.0	6.0	10.0	8.0	6.0	8.0	13.0	10.0	8.0	13.0	12.0	11.0	--	--	2.0		

-- Indicates Invalid Data

SAROAD for Resolution, West_Plant
"Component, Channel: Table125, conc_PM10_µg/m³_STP"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	30.0	23.0	38.0	27.0	18.0	30.0	71.0	33.0	28.0	18.0	23.0	18.0	11.0	33.0	45.0	22.0	20.0	20.0	17.0	25.0	27.0	19.0	38.0	48.0	28.4	71.0	11.0
2	33.0	20.0	43.0	31.0	22.0	39.0	135.0	59.0	24.0	19.0	17.0	20.0	13.0	12.0	71.0	25.0	22.0	17.0	16.0	24.0	23.0	23.0	18.0	39.0	31.9	135.0	12.0
3	38.0	20.0	18.0	32.0	20.0	27.0	26.0	59.0	16.0	15.0	26.0	20.0	25.0	16.0	50.0	24.0	23.0	24.0	26.0	23.0	55.0	23.0	18.0	53.0	28.2	59.0	15.0
4	55.0	24.0	25.0	10.0	26.0	19.0	49.0	15.0	11.0	9.0	12.0	12.0	13.0	18.0	34.0	36.0	29.0	27.0	20.0	21.0	17.0	14.0	19.0	22.0	22.4	55.0	9.0
5	18.0	30.0	20.0	13.0	22.0	59.0	44.0	25.0	20.0	16.0	16.0	13.0	24.0	32.0	22.0	31.0	26.0	21.0	30.0	26.0	27.0	61.0	20.0	24.0	26.7	61.0	13.0
6	19.0	17.0	17.0	38.0	18.0	26.0	33.0	22.0	27.0	9.0	12.0	21.0	14.0	26.0	25.0	20.0	34.0	18.0	20.0	22.0	21.0	30.0	30.0	27.0	22.8	38.0	9.0
7	32.0	23.0	20.0	11.0	26.0	28.0	100.0	18.0	17.0	16.0	31.0	14.0	42.0	52.0	37.0	26.0	26.0	23.0	22.0	21.0	28.0	38.0	119.0	32.8	119.0	11.0	
8	74.0	23.0	17.0	16.0	24.0	27.0	23.0	40.0	23.0	24.0	18.0	25.0	22.0	27.0	29.0	37.0	27.0	25.0	71.0	27.0	24.0	40.0	44.0	33.0	30.8	74.0	16.0
9	142.0	58.0	228.0	98.0	27.0	15.0	19.0	21.0	21.0	27.0	16.0	10.0	15.0	6.0	17.0	18.0	62.0	298.0	213.0	183.0	96.0	25.0	28.0	17.0	69.2	298.0	6.0
10	19.0	18.0	7.0	7.0	9.0	11.0	11.0	12.0	13.0	9.0	8.0	17.0	20.0	25.0	39.0	49.0	57.0	52.0	38.0	34.0	38.0	34.0	39.0	36.0	25.1	57.0	7.0
11	46.0	35.0	52.0	46.0	51.0	39.0	60.0	36.0	28.0	36.0	46.0	30.0	32.0	43.0	70.0	28.0	26.0	24.0	29.0	18.0	30.0	22.0	37.0	48.0	38.0	70.0	18.0
12	66.0	27.0	22.0	22.0	17.0	31.0	25.0	18.0	18.0	17.0	21.0	25.0	17.0	23.0	16.0	17.0	13.0	13.0	18.0	12.0	13.0	83.0	21.0	45.0	25.0	83.0	12.0
13	12.0	19.0	20.0	23.0	25.0	30.0	34.0	24.0	21.0	23.0	29.0	25.0	25.0	21.0	26.0	23.0	19.0	26.0	82.0	48.0	73.0	48.0	34.0	29.0	30.8	82.0	12.0
14	49.0	26.0	81.0	180.0	109.0	81.0	57.0	81.0	81.0	87.0	49.0	30.0	22.0	24.0	18.0	20.0	14.0	16.0	11.0	16.0	15.0	15.0	18.0	13.0	46.4	180.0	11.0
15	15.0	24.0	47.0	41.0	41.0	38.0	42.0	78.0	27.0	18.0	28.0	18.0	11.0	20.0	18.0	12.0	12.0	18.0	14.0	14.0	25.0	38.0	28.0	19.0	26.9	78.0	11.0
16	29.0	36.0	69.0	115.0	63.0	42.0	48.0	31.0	20.0	20.0	13.0	39.0	22.0	21.0	45.0	45.0	23.0	18.0	26.0	28.0	41.0	20.0	20.0	67.0	37.5	115.0	13.0
17	33.0	29.0	14.0	12.0	11.0	25.0	26.0	25.0	17.0	13.0	12.0	17.0	20.0	22.0	44.0	33.0	27.0	21.0	23.0	25.0	90.0	163.0	33.0	27.0	31.8	163.0	11.0
18	37.0	46.0	22.0	27.0	33.0	51.0	17.0	22.0	19.0	37.0	27.0	20.0	30.0	38.0	43.0	50.0	51.0	55.0	68.0	47.0	42.0	43.0	44.0	33.0	37.6	68.0	17.0
19	26.0	26.0	21.0	27.0	25.0	24.0	29.0	23.0	19.0	20.0	31.0	59.0	28.0	22.0	24.0	23.0	25.0	27.0	29.0	33.0	22.0	21.0	37.0	33.0	27.3	59.0	19.0
20	33.0	38.0	23.0	26.0	28.0	35.0	68.0	35.0	38.0	23.0	29.0	28.0	30.0	24.0	41.0	27.0	31.0	27.0	30.0	20.0	28.0	94.0	62.0	33.0	35.5	94.0	20.0
21	55.0	56.0	67.0	51.0	24.0	28.0	25.0	27.0	29.0	31.0	32.0	38.0	58.0	48.0	42.0	29.0	16.0	32.0	19.0	27.0	12.0	16.0	69.0	43.0	36.4	69.0	12.0
22	25.0	45.0	18.0	16.0	39.0	21.0	104.0	38.0	24.0	37.0	36.0	38.0	80.0	60.0	53.0	44.0	33.0	30.0	27.0	27.0	27.0	29.0	35.0	35.0	38.4	104.0	16.0
23	19.0	6.0	17.0	13.0	20.0	17.0	61.0	22.0	14.0	24.0	23.0	78.0	86.0	66.0	47.0	109.0	59.0	63.0	93.0	104.0	98.0	143.0	153.0	100.0	59.8	153.0	6.0
24	80.0	74.0	75.0	67.0	88.0	57.0	38.0	29.0	30.0	30.0	18.0	28.0	88.0	47.0	48.0	51.0	34.0	44.0	84.0	73.0	54.0	81.0	123.0	133.0	61.4	133.0	18.0
25	118.0	112.0	83.0	66.0	35.0	40.0	90.0	24.0	17.0	33.0	35.0	38.0	79.0	86.0	72.0	83.0	114.0	89.0	60.0	55.0	41.0	30.0	39.0	51.0	62.1	118.0	17.0
26	46.0	39.0	33.0	21.0	23.0	19.0	29.0	26.0	27.0	78.0	63.0	50.0	93.0	56.0	45.0	38.0	27.0	16.0	24.0	19.0	16.0	16.0	15.0	17.0	34.8	93.0	15.0
27	16.0	17.0	11.0	12.0	25.0	10.0	21.0	10.0	12.0	11.0	10.0	12.0	18.0	12.0	8.0	9.0	14.0	13.0	23.0	16.0	16.0	29.0	20.0	59.0	16.8	59.0	8.0
28	66.0	40.0	70.0	66.0	21.0	19.0	19.0	12.0	11.0	12.0	17.0	18.0	17.0	14.0	14.0	21.0	17.0	11.0	29.0	21.0	19.0	25.0	59.0	55.0	28.0	70.0	11.0
29	149.0	59.0	12.0	12.0	62.0	30.0	81.0	42.0	20.0	26.0	30.0	32.0	33.0	17.0	37.0	32.0	26.0	27.0	25.0	22.0	34.0	26.0	46.0	84.0	40.2	149.0	12.0
30	70.0	23.0	58.0	18.0	54.0	30.0	127.0	44.0	27.0	15.0	32.0	64.0	30.0	59.0	45.0	39.0	19.0	16.0	35.0	23.0	18.0	26.0	--	--	39.6	127.0	15.0
31	--	--	--	--	--	--	--	--	--	--	43.0	49.0	63.0	47.0	76.0	40.0	23.0	21.0	36.0	24.0	31.0	23.0	16.0	26.0	--	76.0	16.0
Avg	48.3	34.4	41.6	38.1	33.5	31.6	50.4	31.7	23.3	25.1	25.4	29.8	34.0	32.5	39.2	34.6	30.6	36.6	40.6	34.8	35.3	41.5	40.0	45.6	35.7	--	--
Max	149.0	112.0	228.0	180.0	109.0	81.0	135.0	81.0	81.0	87.0	63.0	78.0	93.0	86.0	76.0	109.0	114.0	298.0	213.0	183.0	98.0	163.0	153.0	133.0	--	298.0	--
Min	12.0	6.0	7.0	7.0	9.0	10.0	11.0	10.0	11.0	9.0	8.0	10.0	11.0	6.0	8.0	9.0	12.0	11.0	11.0	12.0	12.0	14.0	15.0	13.0	--	--	6.0

-- Indicates Invalid Data

SAROAD for Resolution, West_Plant
"Component, Channel: Table125, conc_PM10_µg/m³_STP"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	13.0	32.0	44.0	14.0	23.0	36.0	27.0	24.0	42.0	36.0	30.0	23.0	21.0	36.0	51.0	26.0	34.0	35.0	33.0	35.0	38.0	31.0	38.0	30.0	31.3	51.0	13.0
2	30.0	35.0	24.0	31.0	35.0	32.0	34.0	31.0	24.0	30.0	22.0	21.0	25.0	35.0	48.0	51.0	75.0	47.0	26.0	38.0	33.0	56.0	64.0	65.0	38.0	75.0	21.0
3	67.0	51.0	59.0	42.0	22.0	16.0	28.0	27.0	21.0	23.0	23.0	31.0	28.0	31.0	21.0	22.0	22.0	28.0	34.0	40.0	52.0	17.0	21.0	28.0	31.4	67.0	16.0
4	24.0	92.0	28.0	21.0	106.0	28.0	248.0	21.0	28.0	14.0	12.0	11.0	29.0	27.0	19.0	19.0	176.0	16.0	18.0	21.0	37.0	29.0	16.0	82.0	46.7	248.0	11.0
5	24.0	23.0	27.0	9.0	18.0	20.0	32.0	14.0	27.0	17.0	35.0	45.0	42.0	43.0	35.0	39.0	33.0	22.0	20.0	16.0	21.0	20.0	24.0	100.0	29.4	100.0	9.0
6	107.0	27.0	16.0	14.0	22.0	14.0	58.0	32.0	22.0	20.0	21.0	18.0	12.0	26.0	39.0	62.0	23.0	23.0	23.0	22.0	29.0	25.0	44.0	58.0	31.5	107.0	12.0
7	31.0	22.0	19.0	19.0	26.0	91.0	29.0	18.0	18.0	23.0	17.0	13.0	13.0	22.0	29.0	19.0	16.0	21.0	26.0	10.0	38.0	18.0	38.0	24.8	91.0	10.0	
8	46.0	18.0	16.0	17.0	22.0	25.0	93.0	17.0	22.0	24.0	37.0	49.0	53.0	21.0	42.0	35.0	32.0	26.0	15.0	12.0	16.0	23.0	34.0	33.0	30.3	93.0	12.0
9	32.0	27.0	28.0	18.0	14.0	11.0	23.0	5.0	6.0	6.0	9.0	8.0	5.0	26.0	28.0	45.0	36.0	26.0	16.0	17.0	23.0	19.0	19.0	22.0	19.5	45.0	5.0
10	15.0	23.0	17.0	7.0	7.0	6.0	9.0	9.0	8.0	9.0	9.0	9.0	11.0	14.0	17.0	8.0	26.0	17.0	12.0	10.0	10.0	27.0	11.0	12.5	27.0	6.0	
11	42.0	38.0	36.0	16.0	82.0	58.0	37.0	30.0	31.0	76.0	74.0	22.0	47.0	30.0	38.0	30.0	44.0	13.0	16.0	15.0	18.0	27.0	33.0	40.0	37.2	82.0	13.0
12	19.0	48.0	10.0	10.0	28.0	39.0	88.0	24.0	44.0	38.0	39.0	51.0	39.0	20.0	58.0	30.0	12.0	27.0	21.0	25.0	16.0	22.0	61.0	33.0	88.0	10.0	
13	23.0	18.0	41.0	9.0	36.0	59.0	88.0	17.0	20.0	21.0	18.0	247.0	89.0	19.0	23.0	27.0	25.0	20.0	30.0	17.0	21.0	17.0	24.0	129.0	43.2	247.0	9.0
14	49.0	38.0	14.0	9.0	16.0	50.0	35.0	19.0	11.0	16.0	17.0	14.0	22.0	24.0	24.0	18.0	9.0	11.0	21.0	22.0	17.0	22.0	36.0	51.0	23.5	51.0	9.0
15	85.0	51.0	54.0	34.0	30.0	74.0	157.0	39.0	58.0	44.0	66.0	56.0	67.0	17.0	19.0	26.0	34.0	24.0	31.0	25.0	27.0	30.0	24.0	36.0	46.2	157.0	17.0
16	37.0	44.0	38.0	34.0	37.0	26.0	43.0	28.0	39.0	47.0	33.0	36.0	29.0	26.0	24.0	31.0	27.0	203.0	44.0	111.0	425.0	81.0	17.0	6.0	61.1	425.0	6.0
17	27.0	15.0	26.0	15.0	18.0	12.0	9.0	21.0	12.0	14.0	17.0	14.0	19.0	18.0	33.0	24.0	19.0	16.0	28.0	57.0	10.0	46.0	33.0	54.0	23.2	57.0	9.0
18	45.0	22.0	38.0	29.0	43.0	89.0	139.0	47.0	35.0	--	38.0	32.0	36.0	39.0	47.0	37.0	61.0	35.0	49.0	26.0	20.0	73.0	94.0	86.0	50.4	139.0	20.0
19	64.0	47.0	59.0	76.0	65.0	49.0	63.0	30.0	24.0	27.0	23.0	31.0	29.0	28.0	59.0	24.0	21.0	33.0	22.0	17.0	21.0	17.0	33.0	73.0	39.0	76.0	17.0
20	54.0	77.0	136.0	174.0	205.0	191.0	289.0	161.0	125.0	119.0	86.0	65.0	48.0	49.0	60.0	50.0	22.0	35.0	40.0	29.0	29.0	23.0	26.0	88.4	289.0	22.0	
21	48.0	34.0	37.0	23.0	37.0	98.0	90.0	28.0	21.0	21.0	29.0	27.0	36.0	42.0	44.0	32.0	29.0	37.0	33.0	34.0	39.0	36.0	36.0	52.0	39.3	98.0	21.0
22	50.0	20.0	32.0	25.0	60.0	104.0	57.0	35.0	28.0	26.0	25.0	39.0	30.0	51.0	39.0	38.0	28.0	31.0	32.0	23.0	27.0	32.0	26.0	24.0	36.8	104.0	20.0
23	24.0	37.0	26.0	35.0	16.0	32.0	37.0	24.0	21.0	26.0	28.0	36.0	62.0	27.0	31.0	32.0	53.0	39.0	28.0	27.0	39.0	44.0	37.0	31.0	33.0	62.0	16.0
24	24.0	24.0	34.0	31.0	35.0	31.0	40.0	21.0	15.0	23.0	16.0	18.0	26.0	16.0	26.0	39.0	37.0	26.0	40.0	78.0	36.0	32.0	28.0	46.0	30.9	78.0	15.0
25	84.0	59.0	30.0	17.0	20.0	106.0	65.0	36.0	14.0	23.0	25.0	27.0	30.0	33.0	31.0	39.0	31.0	45.0	33.0	34.0	29.0	28.0	36.0	31.0	37.7	106.0	14.0
26	40.0	23.0	30.0	24.0	25.0	97.0	46.0	24.0	33.0	29.0	23.0	26.0	33.0	33.0	33.0	23.0	23.0	27.0	44.0	27.0	17.0	6.0	6.0	7.0	29.1	97.0	6.0
27	8.0	7.0	3.0	5.0	10.0	37.0	52.0	25.0	19.0	19.0	--	21.0	21.0	36.0	18.0	20.0	29.0	28.0	527.0	30.0	9.0	11.0	13.0	12.0	41.7	527.0	3.0
28	23.0	27.0	20.0	32.0	13.0	97.0	38.0	32.0	4.0	9.0	23.0	35.0	32.0	30.0	38.0	42.0	39.0	27.0	44.0	39.0	23.0	41.0	21.0	29.0	31.6	97.0	4.0
29	21.0	20.0	32.0	25.0	31.0	71.0	100.0	24.0	24.0	36.0	26.0	25.0	42.0	41.0	33.0	38.0	31.0	28.0	35.0	21.0	23.0	20.0	38.0	16.0	33.4	100.0	16.0
30	33.0	27.0	21.0	22.0	21.0	72.0	110.0	174.0	174.0	156.0	147.0	109.0	116.0	107.0	61.0	54.0	53.0	40.0	23.0	39.0	22.0	48.0	42.0	22.0	70.5	174.0	21.0
Avg	39.6	34.2	33.2	27.9	37.2	53.5	74.2	34.9	32.3	33.3	33.6	38.8	36.3	31.8	35.3	33.3	36.2	33.7	45.5	31.2	37.9	31.0	30.9	43.3	37.5	--	--
Max	107.0	92.0	136.0	174.0	205.0	191.0	289.0	174.0	174.0	156.0	147.0	247.0	116.0	107.0	61.0	62.0	176.0	203.0	527.0	111.0	425.0	81.0	94.0	129.0	--	527.0	--
Min	8.0	7.0	3.0	5.0	7.0	6.0	9.0	5.0	4.0	6.0	9.0	8.0	5.0	11.0	14.0	17.0	8.0	11.0	15.0	12.0	9.0	6.0	6.0	6.0	--	--	3.0

-- Indicates Invalid Data

SAROAD for Resolution, West_Plant
"Component, Channel: Table126_West_Plant_$\mu\text{g}/\text{m}^3$_ACT_PM_{2.5}"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	4.0	4.0	4.0	7.0	8.0	6.0	5.0	6.0	10.0	14.0	12.0	10.0	7.0	4.0	5.0	5.0	4.0	5.0	4.0	5.0	5.0	4.0	4.0	4.0	6.1	14.0	4.0
2	7.0	10.0	8.0	6.0	5.0	5.0	5.0	5.0	1.0	0.0	3.0	3.0	2.0	4.0	4.0	3.0	4.0	2.0	3.0	6.0	4.0	3.0	4.0	4.0	4.2	10.0	0.0
3	5.0	5.0	5.0	6.0	3.0	3.0	6.0	6.0	5.0	5.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	3.0	5.0	5.0	5.0	6.0	6.0	6.0	4.4	6.0	2.0
4	6.0	4.0	4.0	5.0	5.0	5.0	6.0	7.0	5.0	3.0	4.0	5.0	6.0	4.0	4.0	5.0	3.0	4.0	5.0	5.0	5.0	1.0	1.0	4.0	4.4	7.0	1.0
5	1.0	1.0	3.0	5.0	6.0	5.0	7.0	6.0	5.0	5.0	4.0	3.0	2.0	1.0	4.0	6.0	6.0	9.0	10.0	9.0	9.0	11.0	9.0	5.7	11.0	1.0	
6	7.0	8.0	6.0	4.0	7.0	8.0	6.0	5.0	3.0	6.0	8.0	7.0	8.0	9.0	10.0	16.0	21.0	27.0	21.0	20.0	16.0	15.0	14.0	10.8	27.0	3.0	
7	17.0	18.0	17.0	19.0	16.0	16.0	16.0	12.0	11.0	11.0	9.0	9.0	6.0	4.0	6.0	6.0	10.0	12.0	13.0	10.0	10.0	8.0	6.0	11.4	19.0	4.0	
8	8.0	8.0	8.0	9.0	7.0	6.0	9.0	12.0	10.0	9.0	10.0	9.0	11.0	11.0	10.0	10.0	9.0	11.0	--	--	--	--	--	9.3	12.0	6.0	
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
11	--	--	--	--	--	--	--	--	1.0	-1.0	-4.0	-1.0	--	15.0	7.0	6.0	7.0	--	--	10.0	10.0	8.0	8.0	9.0	--	15.0	-4.0
12	8.0	9.0	7.0	4.0	5.0	8.0	6.0	6.0	--	4.0	4.0	6.0	6.0	5.0	5.0	3.0	1.0	3.0	5.0	6.0	7.0	5.0	4.0	8.0	5.4	9.0	1.0
13	9.0	9.0	7.0	4.0	4.0	5.0	6.0	6.0	6.0	4.0	--	7.0	10.0	7.0	7.0	9.0	9.0	8.0	8.0	8.0	9.0	12.0	21.0	--	8.0	21.0	4.0
14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
16	--	--	--	--	--	--	4.0	8.0	8.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	3.0	4.0	5.0	5.0	5.0	6.0	6.0	4.7	8.0	3.0	
17	9.0	9.0	7.0	6.0	5.0	7.0	9.0	--	--	--	-5.0	-4.0	0.0	4.0	4.0	3.0	3.0	4.0	5.0	5.0	5.0	6.0	6.0	5.3	9.0	-5.0	
18	7.0	7.0	7.0	7.0	8.0	9.0	9.0	8.0	6.0	7.0	8.0	6.0	7.0	8.0	6.0	7.0	6.0	4.0	4.0	7.0	9.0	8.0	8.0	7.1	9.0	4.0	
19	9.0	8.0	7.0	6.0	8.0	9.0	6.0	8.0	6.0	5.0	5.0	3.0	6.0	7.0	6.0	6.0	5.0	6.0	5.0	4.0	8.0	9.0	7.0	6.5	9.0	3.0	
20	10.0	11.0	8.0	5.0	5.0	10.0	9.0	6.0	6.0	4.0	2.0	4.0	5.0	3.0	4.0	5.0	6.0	4.0	6.0	8.0	9.0	8.0	6.0	4.0	6.2	11.0	2.0
21	5.0	5.0	5.0	6.0	6.0	5.0	6.0	7.0	3.0	3.0	6.0	7.0	7.0	3.0	3.0	8.0	7.0	6.0	7.0	7.0	8.0	8.0	8.0	6.0	8.0	3.0	
22	6.0	6.0	8.0	10.0	9.0	10.0	11.0	8.0	6.0	4.0	4.0	2.0	1.0	1.0	3.0	3.0	3.0	5.0	8.0	11.0	11.0	8.0	7.0	9.0	6.4	11.0	1.0
23	8.0	7.0	6.0	5.0	8.0	8.0	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.0	5.0	
24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
26	--	--	--	--	--	--	--	--	--	--	--	--	--	-2.0	-4.0	-2.0	0.0	3.0	2.0	2.0	3.0	3.0	4.0	5.0	--	5.0	-4.0
27	6.0	4.0	1.0	1.0	0.0	0.0	2.0	2.0	2.0	1.0	-2.0	-2.0	-1.0	1.0	2.0	2.0	2.0	5.0	6.0	5.0	8.0	7.0	4.0	2.4	8.0	-2.0	
28	5.0	6.0	6.0	3.0	0.0	-1.0	1.0	2.0	0.0	0.0	0.0	1.0	3.0	2.0	2.0	2.0	3.0	4.0	6.0	10.0	6.0	5.0	7.0	4.0	3.2	10.0	-1.0
29	5.0	5.0	5.0	6.0	3.0	3.0	5.0	3.0	1.0	1.0	4.0	5.0	6.0	5.0	4.0	5.0	5.0	6.0	4.0	4.0	6.0	6.0	4.0	4.5	6.0	1.0	
30	2.0	4.0	6.0	6.0	7.0	7.0	8.0	7.0	6.0	5.0	6.0	6.0	4.0	5.0	4.0	2.0	3.0	5.0	5.0	4.0	5.0	5.0	5.0	5.1	8.0	2.0	
Avg	6.9	7.1	6.4	6.2	5.9	6.3	6.7	6.6	5.2	4.4	4.5	4.2	4.7	4.5	4.4	4.9	5.1	5.9	7.1	7.3	7.2	7.1	7.4	6.5	6.0	--	--
Max	17.0	18.0	17.0	19.0	16.0	16.0	16.0	12.0	11.0	14.0	12.0	10.0	10.0	15.0	11.0	10.0	16.0	21.0	27.0	21.0	20.0	16.0	21.0	14.0	--	27.0	--
Min	1.0	1.0	1.0	1.0	0.0	-1.0	1.0	2.0	0.0	-1.0	-4.0	-5.0	-4.0	-2.0	-4.0	-2.0	0.0	2.0	2.0	2.0	3.0	1.0	1.0	4.0	--	--	-5.0

-- Indicates Invalid Data

SAROAD for Resolution, West_Plant
"Component, Channel: Table126_West_Plant_μg/m³_ACT_PM_{2.5}"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	8.0	8.0	8.0	7.0	6.0	4.0	7.0	7.0	0.0	1.0	4.0	3.0	1.0	2.0	5.0	3.0	1.0	1.0	0.0	2.0	6.0	3.0	2.0	5.0	3.9	8.0	0.0
2	2.0	0.0	5.0	8.0	6.0	6.0	7.0	6.0	6.0	4.0	3.0	1.0	-1.0	-1.0	0.0	2.0	0.0	1.0	3.0	3.0	3.0	3.0	6.0	6.0	3.3	8.0	-1.0
3	4.0	3.0	4.0	2.0	2.0	4.0	1.0	2.0	3.0	1.0	1.0	3.0	-1.0	-2.0	0.0	0.0	1.0	1.0	2.0	3.0	4.0	7.0	4.0	2.0	2.1	7.0	-2.0
4	4.0	2.0	1.0	3.0	4.0	5.0	4.0	3.0	3.0	2.0	3.0	6.0	4.0	-1.0	0.0	4.0	4.0	4.0	6.0	5.0	6.0	8.0	5.0	3.0	3.7	8.0	-1.0
5	3.0	5.0	3.0	3.0	6.0	8.0	9.0	5.0	2.0	2.0	3.0	2.0	0.0	3.0	5.0	4.0	6.0	6.0	7.0	8.0	7.0	5.0	6.0	7.0	4.8	9.0	0.0
6	5.0	4.0	3.0	3.0	3.0	5.0	6.0	6.0	6.0	5.0	1.0	0.0	5.0	3.0	1.0	1.0	2.0	3.0	4.0	7.0	7.0	8.0	6.0	3.0	4.0	8.0	0.0
7	6.0	6.0	2.0	4.0	3.0	2.0	6.0	4.0	2.0	2.0	3.0	4.0	3.0	4.0	5.0	5.0	4.0	4.0	3.0	3.0	5.0	5.0	5.0	5.0	4.0	6.0	2.0
8	6.0	7.0	4.0	2.0	3.0	3.0	4.0	5.0	4.0	3.0	4.0	5.0	5.0	4.0	2.0	5.0	4.0	4.0	8.0	8.0	5.0	3.0	2.0	3.0	4.3	8.0	2.0
9	5.0	7.0	8.0	4.0	-1.0	1.0	2.0	1.0	2.0	2.0	2.0	2.0	1.0	3.0	5.0	5.0	9.0	54.0	39.0	35.0	13.0	6.0	2.0	3.0	8.8	54.0	-1.0
10	4.0	4.0	0.0	-2.0	1.0	2.0	1.0	0.0	1.0	2.0	0.0	1.0	4.0	4.0	2.0	1.0	5.0	7.0	8.0	6.0	6.0	7.0	7.0	8.0	3.3	8.0	-2.0
11	6.0	5.0	3.0	8.0	9.0	8.0	9.0	5.0	4.0	4.0	8.0	8.0	6.0	6.0	6.0	6.0	6.0	5.0	3.0	3.0	5.0	5.0	5.0	5.0	5.7	9.0	3.0
12	7.0	5.0	4.0	2.0	1.0	5.0	7.0	2.0	3.0	7.0	8.0	5.0	3.0	5.0	3.0	3.0	3.0	1.0	1.0	2.0	3.0	5.0	4.0	4.0	3.9	8.0	1.0
13	22.0	0.0	5.0	8.0	7.0	6.0	7.0	6.0	5.0	4.0	3.0	4.0	3.0	3.0	4.0	4.0	3.0	3.0	4.0	5.0	7.0	7.0	5.0	4.0	5.4	22.0	0.0
14	5.0	4.0	9.0	14.0	11.0	9.0	9.0	7.0	7.0	19.0	9.0	6.0	4.0	7.0	6.0	5.0	5.0	3.0	3.0	-2.0	-2.0	5.0	5.0	3.0	6.3	19.0	-2.0
15	4.0	5.0	4.0	5.0	6.0	4.0	2.0	3.0	6.0	4.0	1.0	0.0	1.0	1.0	3.0	3.0	2.0	0.0	-1.0	1.0	2.0	2.0	2.0	3.0	2.6	6.0	-1.0
16	5.0	4.0	5.0	6.0	4.0	2.0	2.0	2.0	2.0	3.0	3.0	4.0	3.0	2.0	2.0	3.0	4.0	-2.0	0.0	1.0	0.0	3.0	3.0	1.0	2.6	6.0	-2.0
17	0.0	1.0	2.0	4.0	2.0	1.0	4.0	4.0	2.0	-1.0	-1.0	0.0	0.0	0.0	0.0	3.0	4.0	1.0	0.0	0.0	1.0	4.0	3.0	3.0	1.5	4.0	-1.0
18	6.0	6.0	6.0	4.0	6.0	7.0	6.0	5.0	5.0	4.0	4.0	4.0	1.0	0.0	3.0	5.0	5.0	5.0	7.0	6.0	6.0	6.0	8.0	10.0	5.3	10.0	0.0
19	8.0	6.0	5.0	5.0	4.0	3.0	4.0	5.0	3.0	2.0	4.0	4.0	4.0	4.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	8.0	4.3	8.0	2.0	
20	10.0	8.0	7.0	4.0	5.0	6.0	7.0	7.0	6.0	8.0	7.0	6.0	5.0	6.0	5.0	5.0	5.0	7.0	6.0	6.0	6.0	9.0	10.0	5.0	6.5	10.0	4.0
21	4.0	8.0	9.0	6.0	5.0	6.0	6.0	7.0	8.0	8.0	5.0	3.0	5.0	3.0	5.0	4.0	1.0	2.0	5.0	5.0	4.0	4.0	7.0	6.0	5.3	9.0	1.0
22	3.0	3.0	3.0	5.0	7.0	6.0	8.0	7.0	6.0	7.0	8.0	9.0	8.0	5.0	5.0	6.0	5.0	6.0	6.0	6.0	7.0	4.0	1.0	5.0	5.8	9.0	1.0
23	5.0	3.0	3.0	2.0	3.0	5.0	6.0	5.0	-1.0	-2.0	1.0	5.0	5.0	3.0	2.0	3.0	6.0	8.0	11.0	13.0	17.0	21.0	23.0	19.0	6.9	23.0	-2.0
24	15.0	16.0	15.0	13.0	11.0	10.0	9.0	8.0	4.0	3.0	4.0	4.0	3.0	3.0	2.0	3.0	5.0	3.0	7.0	12.0	11.0	11.0	20.0	23.0	9.0	23.0	2.0
25	15.0	11.0	9.0	10.0	9.0	6.0	7.0	6.0	2.0	1.0	2.0	3.0	3.0	3.0	4.0	6.0	9.0	13.0	13.0	10.0	10.0	9.0	8.0	11.0	7.5	15.0	1.0
26	12.0	10.0	6.0	6.0	5.0	5.0	6.0	6.0	5.0	15.0	11.0	10.0	9.0	7.0	5.0	2.0	-1.0	-1.0	0.0	3.0	3.0	2.0	2.0	3.0	5.5	15.0	-1.0
27	1.0	2.0	3.0	0.0	-1.0	2.0	3.0	3.0	2.0	1.0	-2.0	-3.0	-1.0	0.0	1.0	2.0	1.0	-3.0	-3.0	2.0	4.0	2.0	2.0	3.0	0.9	4.0	-3.0
28	4.0	5.0	5.0	6.0	5.0	1.0	-1.0	0.0	0.0	0.0	1.0	2.0	1.0	-1.0	0.0	1.0	-2.0	-1.0	1.0	3.0	4.0	3.0	4.0	5.0	1.9	6.0	-2.0
29	5.0	3.0	2.0	2.0	2.0	4.0	8.0	6.0	7.0	11.0	11.0	6.0	3.0	3.0	1.0	0.0	1.0	3.0	2.0	2.0	2.0	1.0	4.0	3.8	11.0	0.0	
30	5.0	4.0	3.0	2.0	3.0	4.0	5.0	6.0	2.0	2.0	4.0	3.0	3.0	4.0	4.0	1.0	-1.0	0.0	3.0	4.0	3.0	3.0	0.0	3.0	2.9	6.0	-1.0
31	6.0	5.0	3.0	4.0	6.0	4.0	4.0	2.0	1.0	--	3.0	5.0	4.0	3.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.0	4.1	6.0	1.0	
Avg	6.3	5.2	4.8	4.8	4.6	4.6	5.2	4.6	3.5	4.0	3.8	3.9	3.2	2.8	3.1	3.3	3.4	4.6	5.1	5.5	5.3	5.6	5.4	5.7	4.5	--	--
Max	22.0	16.0	15.0	14.0	11.0	10.0	9.0	8.0	8.0	19.0	11.0	11.0	9.0	8.0	6.0	6.0	9.0	54.0	39.0	35.0	17.0	21.0	23.0	23.0	--	54.0	--
Min	0.0	0.0	0.0	-2.0	-1.0	1.0	-1.0	0.0	-1.0	-2.0	-2.0	-3.0	-1.0	-2.0	0.0	0.0	-2.0	-3.0	-3.0	-2.0	-2.0	2.0	0.0	1.0	--	--	-3.0

SAROAD for Resolution, West_Plant
"Component, Channel: Table126_West_Plant_$\mu\text{g}/\text{m}^3$_ACT_PM_{2.5}"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	4.0	3.0	3.0	4.0	4.0	5.0	7.0	5.0	5.0	6.0	2.0	1.0	0.0	3.0	6.0	7.0	9.0	10.0	9.0	10.0	12.0	13.0	11.0	11.0	6.3	13.0	0.0
2	10.0	11.0	12.0	9.0	6.0	5.0	9.0	9.0	6.0	5.0	8.0	6.0	6.0	4.0	5.0	6.0	6.0	7.0	5.0	9.0	10.0	8.0	16.0	13.0	8.0	16.0	4.0
3	15.0	11.0	12.0	12.0	10.0	6.0	5.0	4.0	3.0	3.0	5.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.0	3.0
4	--	--	--	--	--	--	--	--	--	--	--	--	--	5.0	-1.0	1.0	7.0	5.0	5.0	4.0	2.0	4.0	4.0	6.0	--	7.0	-1.0
5	5.0	-1.0	0.0	1.0	-1.0	-1.0	-1.0	0.0	1.0	0.0	1.0	4.0	5.0	5.0	4.0	2.0	1.0	2.0	1.0	0.0	2.0	2.0	1.0	4.0	1.5	5.0	-1.0
6	6.0	3.0	-1.0	0.0	2.0	3.0	7.0	6.0	1.0	1.0	-1.0	1.0	2.0	0.0	3.0	5.0	2.0	0.0	3.0	3.0	4.0	4.0	3.0	6.0	2.6	7.0	-1.0
7	7.0	6.0	6.0	7.0	6.0	4.0	5.0	5.0	2.0	1.0	1.0	-1.0	0.0	-1.0	-4.0	-2.0	-1.0	-1.0	-2.0	-3.0	-1.0	-1.0	0.0	-1.0	1.3	7.0	-4.0
8	-4.0	2.0	3.0	0.0	-1.0	1.0	6.0	6.0	0.0	1.0	-1.0	0.0	2.0	0.0	0.0	1.0	-2.0	-3.0	-3.0	-4.0	-2.0	1.0	0.0	2.0	0.2	6.0	-4.0
9	5.0	5.0	5.0	2.0	-2.0	-3.0	-4.0	-3.0	-2.0	-2.0	-2.0	-2.0	-1.0	0.0	2.0	1.0	0.0	0.0	0.0	2.0	3.0	1.0	2.0	0.2	5.0	-4.0	
10	1.0	2.0	2.0	-1.0	2.0	2.0	1.0	1.0	0.0	-1.0	-3.0	-4.0	-3.0	-2.0	-2.0	-2.0	0.0	1.0	-1.0	-1.0	0.0	0.0	0.0	-0.4	2.0	-4.0	
11	1.0	3.0	5.0	5.0	9.0	10.0	8.0	7.0	9.0	36.0	34.0	4.0	3.0	1.0	4.0	5.0	1.0	0.0	-1.0	-3.0	-2.0	3.0	3.0	0.0	6.0	36.0	-3.0
12	-2.0	-1.0	2.0	2.0	3.0	2.0	1.0	3.0	24.0	8.0	6.0	3.0	0.0	-1.0	0.0	1.0	-2.0	-3.0	0.0	1.0	0.0	2.0	3.0	4.0	2.3	24.0	-3.0
13	2.0	0.0	2.0	1.0	1.0	0.0	1.0	0.0	-3.0	-5.0	-2.0	5.0	7.0	2.0	-1.0	-1.0	-1.0	0.0	0.0	-1.0	1.0	2.0	1.0	5.0	0.7	7.0	-5.0
14	7.0	7.0	5.0	1.0	1.0	2.0	2.0	0.0	0.0	0.0	-3.0	2.0	4.0	-2.0	-1.0	2.0	2.0	-2.0	-3.0	0.0	2.0	4.0	2.0	3.0	1.5	7.0	-3.0
15	7.0	9.0	9.0	8.0	6.0	4.0	6.0	4.0	4.0	6.0	7.0	9.0	6.0	1.0	-4.0	0.0	1.0	-2.0	1.0	2.0	1.0	1.0	5.0	5.0	4.0	9.0	-4.0
16	3.0	6.0	7.0	5.0	4.0	3.0	3.0	3.0	5.0	7.0	4.0	3.0	3.0	5.0	9.0	10.0	7.0	20.0	3.0	3.0	26.0	16.0	6.0	9.0	7.1	26.0	3.0
17	7.0	5.0	5.0	5.0	4.0	2.0	3.0	6.0	7.0	2.0	1.0	3.0	1.0	1.0	3.0	2.0	0.0	0.0	2.0	8.0	9.0	6.0	6.0	5.0	3.9	9.0	0.0
18	4.0	1.0	4.0	5.0	4.0	7.0	10.0	8.0	--	6.0	5.0	2.0	3.0	4.0	2.0	3.0	5.0	7.0	10.0	8.0	5.0	6.0	9.0	12.0	5.7	12.0	1.0
19	12.0	7.0	6.0	8.0	9.0	7.0	8.0	6.0	3.0	2.0	3.0	0.0	-3.0	-1.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	3.0	6.0	3.4	12.0	-3.0	
20	7.0	10.0	25.0	42.0	47.0	43.0	47.0	34.0	26.0	22.0	15.0	15.0	10.0	8.0	6.0	4.0	4.0	6.0	7.0	5.0	3.0	3.0	4.0	3.0	16.5	47.0	3.0
21	5.0	6.0	4.0	3.0	5.0	7.0	8.0	6.0	1.0	-1.0	1.0	2.0	5.0	5.0	3.0	2.0	0.0	1.0	5.0	7.0	9.0	7.0	4.0	6.0	4.2	9.0	-1.0
22	9.0	5.0	4.0	10.0	10.0	11.0	9.0	5.0	4.0	6.0	7.0	4.0	2.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0	7.0	10.0	7.0	4.0	6.0	11.0	2.0
23	1.0	1.0	3.0	3.0	3.0	2.0	4.0	4.0	4.0	4.0	5.0	2.0	4.0	4.0	4.0	7.0	7.0	6.0	4.0	5.0	7.0	10.0	9.0	5.0	4.6	10.0	1.0
24	1.0	1.0	2.0	4.0	5.0	4.0	8.0	9.0	2.0	1.0	2.0	1.0	2.0	3.0	1.0	1.0	3.0	6.0	6.0	10.0	9.0	8.0	9.0	4.3	10.0	1.0	
25	9.0	8.0	7.0	7.0	5.0	7.0	7.0	3.0	3.0	2.0	1.0	0.0	4.0	5.0	3.0	5.0	7.0	6.0	8.0	10.0	3.0	4.0	7.0	6.0	5.3	10.0	0.0
26	6.0	6.0	4.0	5.0	6.0	8.0	7.0	5.0	5.0	7.0	6.0	5.0	6.0	4.0	5.0	6.0	5.0	5.0	6.0	8.0	3.0	-2.0	0.0	3.0	5.0	8.0	-2.0
27	3.0	3.0	2.0	3.0	2.0	0.0	5.0	3.0	2.0	3.0	--	94.0	13.0	9.0	7.0	8.0	38.0	6.0	34.0	1.0	33.0	11.0	6.0	3.0	12.6	94.0	0.0
28	5.0	3.0	1.0	2.0	1.0	5.0	6.0	4.0	2.0	-1.0	3.0	5.0	4.0	4.0	3.0	4.0	6.0	6.0	8.0	8.0	5.0	5.0	8.0	4.3	8.0	-1.0	
29	9.0	8.0	8.0	8.0	5.0	4.0	8.0	7.0	5.0	7.0	6.0	5.0	5.0	6.0	6.0	4.0	4.0	4.0	6.0	7.0	8.0	6.0	3.0	6.0	9.0	3.0	
30	3.0	2.0	2.0	5.0	5.0	7.0	10.0	17.0	15.0	15.0	17.0	13.0	12.0	11.0	10.0	5.0	3.0	5.0	6.0	4.0	3.0	5.0	5.0	4.0	7.7	17.0	2.0
Avg	5.1	4.6	5.1	5.7	5.6	5.4	6.8	5.8	4.8	4.9	4.5	6.6	3.7	2.9	2.6	3.2	4.0	3.3	4.3	3.5	5.6	5.0	4.7	5.0	4.7	--	--
Max	15.0	11.0	25.0	42.0	47.0	43.0	47.0	34.0	26.0	36.0	34.0	94.0	13.0	11.0	10.0	10.0	38.0	20.0	34.0	10.0	33.0	16.0	16.0	13.0	--	94.0	--
Min	-4.0	-1.0	-1.0	-1.0	-2.0	-3.0	-4.0	-3.0	-3.0	-5.0	-3.0	-4.0	-3.0	-2.0	-4.0	-2.0	-2.0	-3.0	-3.0	-4.0	-2.0	0.0	-1.0	--	--	--	-5.0

-- Indicates Invalid Data

Appendix E: NO₂, SO₂, O₃ Data – East Plant - Hourly

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, NO2_ppb"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	-1.7	--	--	-1.5	-1.1	2.7	1.8	-0.1	-1.4	-1.4	-1.6	-1.7	-1.5	-1.5	-1.5	-1.5	-1.4	-1.3	-1.4	-1.0	-1.1	-1.3	-1.0	-0.2	-0.9	2.7	-1.7	
2	1.3	--	1.3	1.7	1.7	-0.1	0.7	2.1	-0.5	-0.8	--	--	0.7	1.3	-0.2	-0.6	-1.5	-1.5	-1.1	-0.8	2.8	0.0	-0.3	-0.3	0.3	2.8	-1.5	
3	-0.3	--	6.7	9.6	13.7	6.2	5.7	2.2	2.4	2.3	1.5	0.3	-0.6	-0.6	-0.7	-0.7	-1.2	-0.7	0.5	2.3	2.5	1.5	0.6	2.7	2.4	13.7	-1.2	
4	1.7	--	1.8	3.1	10.1	5.2	8.7	5.9	1.9	-0.4	-0.2	-0.4	-0.4	-0.9	0.1	-1.5	-1.5	-1.4	-1.1	-0.8	0.4	3.2	6.7	3.3	1.9	10.1	-1.5	
5	1.2	--	0.7	12.0	3.5	10.5	3.9	1.6	-0.3	-1.4	-0.7	0.3	-0.9	-1.8	-1.4	-1.7	-1.5	-1.0	-1.3	-0.9	-0.5	-0.3	-0.2	-0.3	0.8	12.0	-1.8	
6	-0.8	--	-1.8	-1.3	-0.3	1.3	5.1	5.4	0.8	0.2	-1.3	0.7	2.8	2.0	0.0	-1.2	-1.2	-1.3	-0.4	1.0	0.9	2.1	6.4	4.1	1.0	6.4	-1.8	
7	3.0	--	-0.3	-0.9	-1.2	-1.6	-1.5	-0.9	-0.9	-0.8	0.0	0.8	1.3	-0.1	-1.5	-1.1	-0.5	-1.2	-1.2	-0.3	-1.1	-0.3	3.0	6.7	0.0	6.7	-1.6	
8	0.6	--	0.0	0.5	-0.3	-0.8	-0.7	-0.4	0.0	0.1	-1.4	-1.1	-1.0	-1.2	-0.8	-0.5	-1.7	-0.9	3.2	5.9	7.1	12.9	21.2	8.9	2.2	21.2	-1.7	
9	10.1	--	7.6	8.2	0.6	0.0	5.0	2.1	3.5	0.4	-0.7	1.9	0.3	0.1	-0.3	-1.1	-0.9	-0.8	0.3	5.5	7.9	13.0	16.3	12.8	4.0	16.3	-1.1	
10	4.0	--	16.1	13.0	14.6	5.8	2.6	3.8	2.5	-0.2	-1.9	2.3	0.7	0.2	-0.5	0.0	-1.0	-1.0	-0.8	2.3	0.5	-0.6	1.2	1.7	2.9	16.1	-1.9	
11	3.1	--	8.3	1.5	-1.1	-0.1	-0.8	-0.8	-0.6	-0.4	-0.9	-0.4	0.2	-5.2	-5.8	--	--	--	-0.8	-0.7	-1.0	-0.6	0.4	-0.3	8.3	-5.8		
12	0.6	--	-1.6	-1.3	-0.9	0.0	5.0	4.7	0.6	0.3	-0.2	-0.3	-0.2	-0.6	-0.9	-0.5	-1.1	-1.0	-0.8	-0.8	0.9	0.5	5.0	9.1	0.7	9.1	-1.6	
13	4.1	--	2.2	1.1	2.0	4.2	8.0	3.3	-0.3	0.3	-0.2	-1.1	-0.6	-1.0	-0.9	-0.5	-1.2	-1.2	-0.8	-1.2	-1.3	-1.3	-1.4	-1.5	0.5	8.0	-1.5	
14	-1.6	--	-1.3	-1.6	-1.4	-1.3	-1.1	0.0	-1.0	0.7	-0.6	-0.9	-0.3	-0.8	-1.1	-1.2	-1.4	-1.3	-1.3	-1.0	0.8	0.5	2.6	-0.7	2.6	-1.6		
15	0.7	--	3.9	4.7	2.0	1.7	3.0	1.9	0.1	0.6	-0.4	0.3	0.0	-0.3	0.1	-0.3	-0.4	0.6	0.8	1.3	3.8	4.7	5.1	8.3	1.8	8.3	-0.4	
16	6.5	--	5.5	6.1	10.3	6.4	3.1	1.5	0.8	0.6	1.0	0.1	0.8	0.0	-0.1	-0.4	-0.7	-1.0	-0.7	-0.5	0.4	4.9	7.0	3.6	2.4	10.3	-1.0	
17	1.5	--	1.8	-0.4	-0.3	2.0	1.6	1.7	0.4	-0.4	-0.9	-0.3	-1.2	-1.1	0.6	1.2	0.7	-0.1	-0.7	-0.6	6.5	8.6	6.2	10.2	1.6	10.2	-1.2	
18	6.8	--	22.5	9.2	7.8	4.4	7.9	7.0	1.9	1.6	1.2	-0.2	-0.2	-1.0	-0.7	-0.6	-0.7	-0.8	-0.8	-0.4	-0.3	2.0	5.4	5.3	3.4	22.5	-1.0	
19	0.7	--	2.3	4.0	2.1	1.1	6.5	2.5	-0.6	0.3	0.7	-0.6	0.4	-0.3	-0.2	-0.5	-0.9	-0.4	-0.1	0.8	0.8	1.5	2.8	1.6	1.1	6.5	-0.9	
20	0.1	--	2.9	2.5	-0.4	-1.1	-0.4	1.2	0.5	1.0	0.4	0.8	2.5	0.4	-0.4	-1.0	-0.2	0.0	0.0	0.8	0.9	8.7	27.8	8.5	2.4	27.8	-1.1	
21	6.1	--	10.4	0.6	0.9	0.7	1.5	1.2	0.3	-0.3	3.1	1.2	0.1	0.3	-0.5	-0.6	-0.1	0.7	0.1	2.5	3.8	6.6	2.9	19.6	2.7	19.6	-0.6	
22	16.0	--	15.5	16.7	8.5	4.9	5.5	1.2	5.5	0.1	0.0	-0.9	-1.2	-1.6	-1.5	-1.5	-1.5	-1.4	-0.8	-0.6	0.0	4.8	6.0	9.8	3.6	16.7	-1.6	
23	6.3	--	11.3	5.5	5.0	8.8	10.8	14.8	1.8	0.5	-1.0	-0.8	3.4	0.8	5.2	2.4	1.5	-1.1	-1.1	-0.8	6.2	0.1	0.3	2.3	3.6	14.8	-1.1	
24	1.7	--	2.9	0.8	6.4	19.1	5.6	3.5	-0.1	-0.5	-0.1	0.1	-0.7	-0.4	--	-3.7	-3.3	-3.7	-3.7	-2.7	5.6	9.3	7.1	1.8	19.1	-3.7		
25	1.5	--	2.3	8.3	10.9	3.5	8.2	8.6	1.9	0.3	-2.9	-2.2	-2.3	-0.9	-1.1	-1.9	-1.4	0.9	-1.1	-0.7	0.3	2.6	4.1	8.3	2.0	10.9	-2.9	
26	7.5	--	-1.9	-3.2	-3.4	0.8	-0.3	-0.7	-2.7	-3.6	-3.8	-3.2	-2.5	-1.4	-2.7	-3.2	-2.7	-3.3	-3.1	-2.9	-2.9	-2.6	2.7	7.8	-1.4	7.8	-3.8	
27	7.1	--	7.0	9.8	11.5	8.4	3.7	-0.5	-2.4	-0.8	-3.2	-3.0	-1.2	-2.6	-2.6	-3.6	-3.5	-3.0	-2.2	-0.1	-0.3	0.3	1.8	2.8	1.0	11.5	-3.6	
28	-1.4	--	5.3	-2.0	-0.7	4.0	7.3	-1.0	-1.8	-2.5	-2.7	-2.9	-2.8	-3.1	-3.1	-2.3	-2.8	-2.7	-0.8	-1.3	6.2	-2.4	1.6	1.3	-0.5	7.3	-3.1	
29	-0.9	--	6.8	0.8	-1.8	5.2	4.0	0.3	-3.2	-3.3	-3.4	-3.3	-2.9	-3.3	-3.5	-3.6	-3.6	-3.9	-3.8	-3.6	-3.7	-3.4	2.3	5.9	8.5	-0.5	8.5	-3.7
30	4.0	--	6.3	6.9	0.7	0.5	8.9	4.1	3.6	-2.2	-0.6	-0.3	-0.5	-2.3	-3.6	-3.6	-3.6	-3.9	-3.8	-3.6	-2.5	-2.6	-3.5	-2.5	-2.9	-0.2	8.9	-3.9
Avg	3.0	--	5.0	3.8	3.3	3.4	4.0	2.5	0.4	-0.4	-0.7	-0.5	-0.3	-0.9	-1.0	-1.0	-1.4	-1.1	-0.9	-0.1	1.1	2.4	4.8	5.1	1.3	--	--	
Max	16.0	--	22.5	16.7	14.6	19.1	10.8	14.8	5.5	2.3	3.1	2.3	3.4	2.0	5.2	4.4	1.5	3.8	3.2	5.9	7.9	13.0	27.8	19.6	--	27.8	--	
Min	-1.7	--	-1.9	-3.2	-3.4	-1.6	-1.5	-1.0	-3.2	-3.6	-3.8	-3.3	-2.9	-5.2	-5.8	-3.7	-3.9	-3.8	-3.7	-3.7	-3.4	-3.5	-2.5	-2.9	--	--	-5.8	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, NO2_ppb"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0.4	--	-0.5	1.3	14.5	4.1	1.5	-1.9	-2.5	-0.1	-3.0	-3.1	-2.7	-2.6	-3.7	-2.9	-3.6	-3.5	-3.4	-3.4	-2.4	0.4	-0.5	-1.9	-0.8	14.5	-3.7	
2	-0.9	--	-0.1	1.0	-2.8	-2.1	-0.9	-2.2	-5.1	-4.7	-5.0	-4.2	-3.5	-4.9	-4.2	-3.8	-3.3	-4.1	-5.1	-4.6	-0.7	-1.9	1.3	-1.7	-2.8	1.3	-5.1	
3	-0.4	--	-5.0	-4.9	3.7	8.2	6.7	6.0	-4.7	-1.9	-4.3	-4.0	-3.7	-4.8	-4.4	-3.5	-4.8	-4.5	-5.0	-3.5	-3.1	-1.2	-1.9	2.2	-1.7	8.2	-5.0	
4	2.0	--	-0.2	-1.7	-2.0	0.9	7.5	1.3	-3.0	-3.9	-4.1	-1.9	-1.9	-2.4	-2.0	-2.1	-2.2	-1.3	-1.6	-0.5	0.3	0.1	7.3	16.3	0.2	16.3	-4.1	
5	8.1	--	6.2	6.7	7.7	7.1	1.3	0.4	-1.4	-2.2	-2.2	-2.0	-1.0	-1.7	-1.8	-2.4	-1.6	-1.7	-1.5	-1.9	4.7	1.6	4.2	6.1	1.4	8.1	-2.4	
6	2.9	--	19.9	8.3	5.1	4.7	6.7	6.7	-0.9	-0.9	-1.5	-2.2	-1.8	-2.1	-1.8	-2.2	-2.4	-2.0	-2.2	-2.0	-1.6	2.6	4.0	3.2	1.8	19.9	-2.4	
7	0.9	--	4.4	3.1	2.8	1.1	4.7	1.8	-1.9	-1.5	0.7	-0.9	-1.4	-1.5	-1.4	-1.9	-1.4	-1.6	-2.1	-1.7	-0.9	0.1	-1.4	-1.0	0.0	4.7	-2.1	
8	4.5	--	14.1	13.4	3.5	2.8	3.1	0.6	2.4	0.1	-0.2	0.1	-0.1	-1.0	-0.5	0.1	-0.9	-0.8	-1.3	-1.4	-0.9	2.7	0.4	0.4	1.8	14.1	-1.4	
9	-0.5	--	-0.5	2.3	-0.3	-0.2	0.3	0.3	-0.1	0.7	9.2	0.8	-0.6	0.2	-0.2	-0.2	0.0	-0.1	0.3	1.7	1.8	1.2	1.3	2.0	0.8	9.2	-0.6	
10	0.8	--	-0.1	0.5	1.5	2.6	2.8	1.4	1.1	0.4	--	--	--	0.6	1.3	1.0	0.8	1.0	1.3	1.7	1.9	1.8	1.6	0.8	1.2	2.8	-0.1	
11	1.3	--	0.6	1.7	8.0	7.4	6.4	5.0	4.2	0.2	0.2	-0.1	0.0	0.3	0.3	-0.3	-0.7	-0.8	-0.7	0.7	4.7	6.9	7.5	7.8	2.6	8.0	-0.8	
12	7.4	--	25.5	14.6	3.5	6.6	12.4	2.5	0.5	-1.3	-1.2	-0.4	-0.7	-0.1	-0.5	-1.2	-1.1	-1.2	-0.5	1.1	0.5	0.8	6.3	0.9	3.2	25.5	-1.3	
13	2.0	--	-0.3	-1.3	3.3	14.6	9.5	4.2	-0.1	0.2	1.2	0.9	-0.3	-0.7	-0.9	-1.2	-1.0	-0.6	-0.5	1.3	0.6	0.1	0.1	-0.4	1.3	14.6	-1.3	
14	-0.7	--	-1.1	1.4	-1.4	-1.0	1.7	4.1	1.7	0.3	1.2	0.4	0.3	-0.1	0.2	-0.3	-1.1	-1.0	0.7	1.6	3.6	0.7	-0.1	-0.3	0.4	4.1	-1.4	
15	0.2	--	-0.4	-0.9	-0.4	0.7	2.5	1.1	0.3	0.0	-0.8	0.7	-0.3	0.3	2.2	-0.3	-0.7	-1.1	-1.2	-1.3	0.8	-0.9	-0.6	-0.7	0.0	2.5	-1.3	
16	-0.3	--	-0.7	-0.6	-0.2	0.6	3.5	0.8	5.2	1.4	0.8	-0.3	-0.3	-0.7	-1.0	-0.7	-0.8	-0.9	-0.7	-0.2	-0.3	0.0	-0.5	1.8	0.3	5.2	-1.0	
17	6.3	--	5.5	3.4	2.9	1.3	7.4	7.3	0.5	0.0	-0.5	-1.0	-0.6	-0.8	-0.2	-0.9	-1.0	-1.0	-1.1	-1.5	-1.4	-1.3	-1.1	-1.0	0.9	7.4	-1.5	
18	0.5	--	1.3	-1.2	-1.2	1.2	-0.3	0.2	-0.8	-1.2	-0.6	-0.6	-0.5	-1.0	-0.9	-0.6	-0.9	-1.1	-1.2	0.0	2.2	1.3	0.4	2.8	-0.1	2.8	-1.2	
19	2.2	--	15.3	3.0	13.6	3.7	9.0	1.2	-0.5	0.1	0.1	-0.4	-0.6	-0.7	-1.0	-1.0	-1.0	-0.9	2.1	1.3	1.0	3.3	1.5	4.4	3.2	2.6	15.3	-1.0
20	8.1	--	10.8	27.1	6.4	4.4	1.2	0.1	-0.8	-0.1	0.0	0.0	0.0	-0.1	-0.4	-0.4	-0.4	-1.0	-0.5	-0.9	2.3	3.1	2.0	5.7	6.6	3.2	27.1	-1.0
21	7.3	--	9.0	11.0	9.1	2.2	2.2	2.3	1.5	4.6	2.6	3.1	0.8	-0.3	2.0	-0.2	-0.4	-0.5	-1.1	-1.4	-1.1	-1.0	-0.1	6.0	2.5	11.0	-1.4	
22	17.4	--	1.4	2.1	4.4	6.5	8.8	29.5	9.4	5.6	6.5	1.4	2.4	3.6	1.1	2.3	0.2	-0.4	-0.4	0.4	0.1	-0.6	-0.7	-0.8	4.4	29.5	-0.8	
23	-0.5	--	-1.7	0.4	2.3	2.0	0.3	0.1	2.4	0.0	-0.8	-0.5	-0.4	0.4	-0.7	0.1	-1.1	-1.2	-1.4	-0.9	-1.1	-1.3	-1.1	-1.3	-0.3	2.4	-1.7	
24	-0.9	--	-0.5	0.9	0.3	1.1	-0.8	0.0	--	--	--	-0.5	0.9	-0.8	-1.1	-1.3	-1.3	-1.3	-1.3	-1.0	-0.8	-0.7	-0.5	-0.5	1.1	-1.3		
25	-0.2	--	0.9	-0.6	-1.2	-0.3	-0.7	-0.5	-1.0	-0.8	-1.3	-0.9	-0.8	-0.7	-0.8	-1.1	-0.7	-0.7	-1.1	-1.0	-0.5	0.1	0.2	0.5	-0.6	0.9	-1.3	
26	0.4	--	5.0	-0.7	-1.3	-1.1	-1.0	-1.0	-0.7	-0.7	-0.6	-0.9	-0.7	-0.6	-1.1	-0.8	-0.9	-0.9	-0.7	-0.4	-1.0	-1.4	-1.4	0.1	-0.5	5.0	-1.4	
27	0.7	--	14.3	6.3	8.7	9.0	2.5	-0.6	-1.5	-0.5	-0.9	-1.0	-1.2	-1.2	-1.1	-1.0	-0.9	-1.4	-1.4	-0.8	-0.8	-0.8	0.3	3.9	1.3	14.3	-1.5	
28	-0.5	--	5.6	7.5	7.2	1.7	2.2	-0.1	-0.8	-0.3	0.2	-0.1	-0.6	-1.4	-1.4	-1.5	-1.6	-1.5	-1.4	-1.3	-0.4	3.3	7.3	5.8	1.2	7.5	-1.6	
29	3.3	--	6.7	10.6	10.1	6.2	7.3	1.3	1.8	2.3	0.7	0.0	-0.2	-1.3	-0.7	0.3	-1.3	-0.7	-1.2	-0.4	-1.1	0.7	1.9	1.0	2.1	10.6	-1.3	
30	0.5	--	0.3	12.6	11.3	6.7	8.2	5.5	7.8	9.1	5.3	3.5	3.2	2.2	3.1	0.9	0.0	-0.4	0.0	1.0	1.8	1.3	3.1	0.2	3.8	12.6	-0.4	
31	-0.1	--	1.8	1.3	6.0	8.2	10.8	10.2	6.4	8.9	6.8	1.4	2.7	2.3	0.1	0.1	0.4	0.6	0.8	1.2	2.1	2.5	-0.8	-1.2	3.1	10.8	-1.2	
Avg	2.3	--	4.4	4.1	4.0	3.6	4.1	2.8	0.7	0.5	0.3	-0.4	-0.5	-0.6	-0.7	-0.9	-1.2	-1.1	-1.1	-0.5	0.4	0.7	1.5	2.0	1.1	--	--	
Max	17.4	--	25.5	27.1	14.5	14.6	12.4	29.5	9.4	9.1	9.2	3.5	3.2	3.6	3.1	2.3	0.8	2.1	1.3	2.3	4.7	6.9	7.5	16.3	--	29.5	--	
Min	-0.9	--	-5.0	-4.9	-2.8	-2.1	-1.0	-2.2	-5.1	-4.7	-5.0	-4.2	-3.7	-4.9	-4.4	-3.8	-4.8	-4.5	-5.1	-4.6	-3.1	-1.9	-1.9	-1.9	--	--	-5.1	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, NO2_ppb"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	-0.8	--	9.6	11.3	7.7	10.9	15.1	4.1	0.1	0.0	0.0	3.0	1.7	0.6	-0.5	0.0	-1.0	-0.5	0.0	-0.2	-0.4	0.1	0.2	0.4	2.7	15.1	-1.0
2	3.0	--	0.9	-0.1	1.7	5.5	3.2	2.9	0.9	0.3	-0.5	-1.3	-1.1	-0.8	-1.2	-1.3	-1.2	-1.0	-1.5	-1.2	-0.8	7.8	0.8	-0.3	0.6	7.8	-1.5
3	1.3	--	5.3	6.6	7.3	4.5	6.0	2.2	-0.8	-0.8	-0.8	-1.0	0.1	-1.0	-1.2	-1.3	-1.2	-1.2	-1.0	-1.0	0.5	4.9	6.6	4.1	1.7	7.3	-1.3
4	0.1	--	-0.6	1.6	1.4	2.5	8.0	1.1	5.6	5.8	5.1	0.7	2.2	0.2	1.6	2.2	-1.0	-1.2	-1.3	-1.0	-0.7	1.2	2.6	1.5	1.6	8.0	-1.3
5	0.9	--	2.4	3.8	7.4	4.2	5.7	2.1	5.2	4.0	2.0	0.1	0.8	1.9	0.7	0.1	-1.0	-1.0	-1.3	-0.6	0.1	0.1	0.3	0.6	1.7	7.4	-1.3
6	0.7	--	12.4	13.5	12.6	20.4	6.7	3.7	0.4	-0.3	0.6	3.7	0.2	1.5	1.3	1.3	-0.4	-0.9	-0.8	-0.4	0.5	4.1	2.2	11.9	4.1	20.4	-0.9
7	9.6	--	5.0	6.6	7.7	13.3	11.9	4.9	1.3	--	-1.3	-2.0	-0.4	-0.3	-1.8	-1.9	-1.6	-2.2	-2.6	-2.6	-0.7	0.4	3.2	5.5	2.4	13.3	-2.6
8	-0.9	--	-2.9	-2.8	-1.8	-1.9	8.2	1.1	2.9	-1.4	4.4	-1.7	0.2	-2.6	-2.9	-2.8	-2.7	-2.9	-3.2	-3.0	-3.2	-2.8	-1.3	4.6	-0.8	8.2	-3.2
9	0.5	--	-0.8	-3.4	-2.5	-1.8	-0.2	-2.2	-3.1	-3.2	-3.8	-3.7	-3.6	-3.7	-3.1	-3.4	-3.4	-3.5	-3.9	-3.9	-3.6	-3.1	-2.2	-1.2	-2.7	0.5	-3.9
10	-3.1	--	-3.1	-3.9	-2.3	-1.9	-2.3	-3.2	-3.6	-3.7	-3.6	-3.6	-3.4	-3.4	-3.5	-3.4	-3.5	-3.5	-3.4	-2.3	-1.5	-0.4	9.0	5.7	-2.1	9.0	-3.9
11	0.1	--	4.1	1.4	3.5	5.0	5.2	2.5	-0.2	4.5	5.0	2.6	0.6	-2.1	-1.0	-1.1	-2.7	-3.5	-3.7	-3.5	-3.5	-2.9	-2.3	-2.9	0.2	5.2	-3.7
12	-2.5	--	-2.9	-3.2	-2.9	-3.1	1.2	0.2	4.6	4.0	-0.7	-1.1	-1.0	-2.2	-2.6	-3.5	-3.8	-3.7	-3.7	-3.6	-3.4	-1.2	-2.3	-2.4	-1.7	4.6	-3.8
13	-2.7	--	-2.9	-3.2	-3.4	-3.3	-2.7	1.2	0.9	-2.0	-0.6	-1.7	-2.2	-2.4	-0.5	-3.1	-3.1	-3.3	-3.6	-3.1	-3.1	4.2	6.8	-1.6	-1.5	6.8	-3.6
14	-0.5	--	1.0	2.2	6.2	5.2	2.3	0.4	-3.2	-2.7	-1.8	-2.4	-2.6	-2.6	-2.7	-1.8	-2.9	-3.3	-2.7	-2.4	2.3	0.6	-1.1	-1.0	-0.8	6.2	-3.3
15	-0.4	--	-2.8	-2.1	-0.6	7.5	2.4	-2.6	-2.6	-3.0	-3.0	-2.8	-3.1	-2.8	-2.6	-2.9	-3.2	-3.0	-2.4	-2.2	-1.4	-1.0	5.2	6.0	-1.0	7.5	-3.2
16	2.7	--	2.8	6.6	5.5	6.2	1.2	-2.1	-1.5	-3.0	-2.8	-2.9	-2.9	-3.0	-3.0	-3.4	-3.2	-3.0	-2.3	-2.8	-2.4	-2.7	-2.9	-0.9	6.6	-3.4	
17	-2.1	--	-2.4	-1.9	-1.4	-2.0	-1.7	-2.1	-1.7	-2.1	-2.6	-2.5	-3.3	-3.2	-3.0	-3.0	-2.5	-2.7	-2.0	-1.5	-1.7	0.7	1.1	-0.4	-1.9	1.1	-3.3
18	0.0	--	-1.1	-0.1	2.8	9.1	10.6	2.1	3.6	-0.4	-1.1	-2.0	-1.7	-1.5	-1.2	-1.9	-2.4	-2.9	-2.7	-3.0	-2.6	-2.8	-2.6	0.5	0.0	10.6	-3.0
19	-0.4	--	-0.9	-0.1	0.4	5.7	5.3	-2.2	-2.7	-2.1	-2.6	-1.7	-0.7	-0.2	-1.6	-2.7	-2.9	-2.9	-2.5	-2.3	-1.7	0.2	-1.7	-2.3	-1.0	5.7	-2.9
20	-2.4	--	-2.7	1.4	8.5	6.5	9.0	7.8	2.4	1.2	-0.9	-1.6	-2.4	-2.9	-2.2	-2.6	-3.6	-3.6	-3.5	-1.4	1.0	2.5	-1.1	0.3	9.0	-3.6	
21	-2.0	--	2.0	4.3	5.3	9.1	14.2	0.6	0.6	-0.8	-2.2	-1.9	-2.5	0.5	--	-1.1	-1.3	-1.7	-1.6	-1.3	-1.4	4.3	19.9	3.3	2.1	19.9	-2.5
22	7.7	--	2.8	5.5	16.1	0.3	3.5	-0.8	-2.0	-1.4	-2.2	0.5	1.0	1.7	-1.9	-3.1	-2.9	-3.2	-3.2	-3.4	-2.4	-0.8	-0.9	2.1	0.6	16.1	-3.4
23	9.7	--	15.2	9.6	0.6	12.9	5.2	2.1	0.9	-1.7	-2.4	-1.8	-2.0	-2.8	-2.5	-2.5	-2.2	-2.5	-2.5	-3.3	-2.5	-2.4	-2.3	-3.0	0.9	15.2	-3.3
24	0.8	--	3.4	0.8	0.0	2.8	0.4	-1.9	-2.3	-2.4	-2.7	-2.5	-2.6	-2.9	-2.7	-2.6	-2.7	-2.6	-2.4	-1.9	-0.4	0.4	-2.8	-3.1	-1.3	3.4	-3.1
25	-2.2	--	1.6	3.4	1.3	4.6	3.4	4.6	3.1	2.3	0.8	1.5	-0.6	-1.0	-0.8	-1.6	-2.2	-2.3	-2.3	-1.7	-1.2	0.7	-0.7	-1.7	0.4	4.6	-2.3
26	0.9	--	8.4	7.4	1.5	6.5	6.9	4.5	6.1	3.2	1.8	2.7	0.8	2.9	0.9	-0.5	-2.6	-2.7	-2.4	-2.5	-2.4	-3.3	-2.4	-2.2	1.5	8.4	-3.3
27	-1.5	--	1.7	11.3	2.2	8.1	13.3	8.9	7.0	-0.5	0.2	-1.1	-0.9	-1.4	-1.1	-1.4	-2.4	-2.6	-2.2	-2.5	-1.3	-1.5	-0.3	-1.1	1.3	13.3	-2.6
28	-0.1	--	-2.4	1.9	6.3	8.8	1.5	1.3	0.5	-0.2	-1.5	-0.5	-0.8	-1.2	-2.2	-3.2	-2.7	-1.9	-1.8	-2.2	-2.4	-1.4	-2.2	-0.3	8.8	-3.2	
29	--	--	1.9	3.9	2.8	9.9	1.3	-1.3	-0.6	-1.7	1.2	-1.7	-2.5	-2.6	-2.7	-2.2	-2.9	-1.5	-2.0	-2.3	-2.2	-1.0	-1.4	-1.3	-0.4	9.9	-2.9
30	--	--	-1.6	-1.2	-0.9	-1.2	-1.8	-1.9	-2.1	-2.0	-3.0	-2.9	-1.5	-1.3	-0.8	-2.1	-2.6	-2.4	-2.2	-1.4	-1.4	-1.8	-2.1	-2.5	-1.9	-0.8	-3.0
Avg	0.6	--	1.8	2.6	3.1	5.1	4.8	1.3	0.6	-0.3	-0.6	-1.0	-1.1	-1.3	-1.5	-1.9	-2.4	-2.5	-2.4	-2.2	-1.5	0.0	1.0	0.4	0.1	--	--
Max	9.7	--	15.2	13.5	16.1	20.4	15.1	8.9	7.0	5.8	5.1	3.7	2.2	2.9	1.6	2.2	-0.4	-0.5	0.0	-0.2	2.3	7.8	19.9	11.9	--	20.4	--
Min	-3.1	--	-3.1	-3.9	-3.4	-3.3	-2.7	-3.2	-3.6	-3.7	-3.8	-3.7	-3.6	-3.7	-3.5	-3.8	-3.7	-3.9	-3.9	-3.6	-3.3	-2.8	-3.1	--	--	--	-3.9

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, SO2_ppb"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.7	--	0.8	0.8	0.7	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.7	0.7	0.8	0.8	0.7	0.7	0.6	0.7	0.8	0.7	0.9	0.6
2	0.9	--	0.9	1.0	1.1	1.0	0.9	0.9	0.7	0.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.9	1.1	0.7
3	--	--	1.6	1.6	1.4	1.3	1.4	1.3	1.3	1.7	2.6	3.3	2.6	1.5	1.5	1.3	1.3	1.3	1.2	1.4	1.4	1.4	1.4	1.5	1.6	3.3	1.2
4	1.8	--	1.4	1.3	1.3	1.3	1.3	1.5	3.3	3.0	2.5	2.8	3.9	5.3	2.3	1.7	1.6	1.5	1.4	1.3	1.1	1.3	1.4	1.2	2.0	5.3	1.1
5	1.6	--	1.3	1.3	1.1	1.1	1.8	6.1	11.6	6.2	3.1	2.1	3.4	2.1	1.2	1.5	1.8	1.5	1.4	1.4	1.3	1.3	1.5	1.6	2.5	11.6	1.1
6	1.5	--	1.5	1.4	1.3	1.4	1.2	1.1	1.1	1.1	1.1	1.3	1.4	1.3	1.3	1.3	1.2	1.5	1.5	1.4	1.3	1.2	1.3	1.3	1.3	1.5	1.1
7	1.0	--	1.3	1.4	1.3	1.1	0.9	0.7	1.0	1.3	1.2	1.9	4.4	5.9	2.3	1.1	0.7	2.3	2.2	1.2	1.2	0.9	0.8	0.5	1.6	5.9	0.5
8	0.6	--	0.9	1.0	3.3	4.8	3.7	1.3	0.9	0.4	0.7	0.9	0.8	0.9	1.5	2.1	1.8	1.9	1.1	1.4	1.1	1.2	0.6	0.9	1.5	4.8	0.4
9	0.6	--	0.9	1.1	0.9	1.0	0.6	1.0	1.0	1.4	1.9	4.4	4.0	35.1	3.2	0.9	0.7	0.7	0.7	0.8	0.7	0.6	0.6	0.7	2.8	35.1	0.6
10	5.6	--	0.5	0.7	0.6	0.5	0.2	0.4	1.4	5.8	1.5	2.4	2.0	1.5	1.0	0.7	0.7	0.6	0.7	0.7	0.6	0.7	0.9	1.0	1.3	5.8	0.2
11	5.7	--	1.0	1.0	1.1	1.3	0.8	0.9	1.2	1.1	1.1	1.0	--	4.2	0.5	0.7	5.9	--	-0.6	0.4	0.4	0.4	0.4	0.4	1.4	5.9	-0.6
12	6.0	--	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.6	6.0	0.3	
13	5.0	--	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.7	0.6	0.6	0.7	0.7	0.8	0.8	0.7	0.7	0.8	0.8	1.1	1.2	0.8	0.8	5.0	0.3
14	4.5	--	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.6	4.5	0.3	
15	4.1	--	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	4.1	0.2	
16	4.0	--	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	1.2	1.5	1.6	1.3	0.8	0.6	0.3	0.1	0.2	0.1	0.2	0.2	--	0.2	0.7	4.0	0.1
17	5.6	--	0.9	0.5	0.3	0.8	5.5	9.0	7.7	2.3	0.4	0.4	0.5	0.5	0.5	0.6	0.4	0.3	0.3	0.5	0.5	0.5	0.4	0.4	1.7	9.0	0.3
18	--	0.5	0.4	0.4	0.2	0.4	0.5	0.4	12.5	8.9	2.6	2.2	1.4	1.0	0.3	0.3	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	1.5	12.5	0.1
19	--	0.2	0.2	0.7	1.7	1.2	1.0	1.3	1.1	0.9	1.5	1.0	0.9	0.6	0.6	0.4	0.3	0.2	0.2	0.3	0.2	0.0	0.2	0.2	0.7	1.7	0.0
20	--	0.4	0.4	0.1	0.1	0.0	-0.1	--	0.5	0.5	1.1	1.8	1.4	1.1	0.8	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.6	1.8	-0.1	
21	--	0.4	0.4	0.3	0.4	0.3	0.5	0.7	0.9	0.8	0.9	1.1	1.6	1.8	1.8	1.7	1.2	0.7	0.4	0.4	0.5	0.4	0.4	0.4	0.8	1.8	0.3
22	--	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.6	7.6	3.7	1.9	0.8	0.7	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	1.0	7.6	0.4	
23	--	0.5	0.4	0.4	1.2	2.2	3.2	2.1	1.3	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.9	3.2	0.4	
24	--	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.5	--	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.8	0.3
25	--	0.4	0.4	0.4	0.4	0.3	0.6	0.7	5.4	3.5	2.7	1.3	1.4	2.0	2.3	2.2	1.8	0.9	0.9	0.9	0.6	0.6	0.6	1.3	5.4	0.3	
26	--	1.0	1.1	1.4	2.0	4.2	3.1	1.0	0.7	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.9	4.2	0.3	
27	--	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.5	0.6	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.5	0.8	0.3	
28	--	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.7	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.9	0.4	
29	--	0.4	0.5	0.6	0.5	0.5	0.5	0.7	0.8	0.7	0.6	0.5	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.6	0.3	0.4	0.4	0.5	0.8	0.3
30	--	0.3	0.6	0.8	0.6	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.8	0.3	
Avg	3.1	0.5	0.7	0.7	0.9	1.0	1.1	1.2	2.0	1.5	1.4	1.3	1.4	2.5	1.0	0.8	0.9	0.7	0.6	0.7	0.7	0.6	0.6	0.6	1.1	--	--
Max	6.0	1.0	1.6	1.6	3.3	4.8	5.5	9.0	12.5	8.9	7.6	4.4	4.4	35.1	3.2	2.2	5.9	2.3	2.2	1.5	1.4	1.5	1.6	--	35.1	--	
Min	0.6	0.2	0.2	0.1	0.1	0.0	-0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.1	0.1	-0.6	0.1	0.2	0.0	0.1	0.1	--	--	-0.6	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, SO2_ppb"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min		
1	--	1.0	0.9	0.8	0.8	0.9	1.4	1.2	0.8	0.8	0.7	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.3	0.6	1.4	0.3		
2	--	0.6	0.7	0.6	0.7	0.8	0.7	0.9	0.5	0.3	0.3	0.3	--	0.4	0.4	0.5	0.6	0.3	0.3	0.3	0.8	0.8	1.1	0.7	0.6	1.1	0.3		
3	--	0.8	0.8	0.5	0.6	0.6	0.7	0.7	0.8	--	1.6	5.6	1.6	1.5	-0.8	1.9	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.4	0.9	5.6	-0.8	
4	--	0.7	0.5	0.6	0.5	0.4	0.4	0.3	0.4	0.5	1.2	1.0	0.6	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.5	1.2	0.3	
5	--	0.5	0.5	0.4	0.4	0.5	0.7	0.6	0.4	0.3	0.5	0.5	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.7	0.3	
6	--	0.4	0.4	0.5	0.4	0.4	0.4	0.6	0.6	1.3	0.9	0.8	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.3	0.3	
7	--	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.6	0.5	0.4	0.4	0.4	0.3	0.2	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.6	0.2		
8	--	0.3	0.3	0.4	0.3	0.3	0.6	1.3	2.2	0.6	0.9	1.7	0.8	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.3	2.2	0.5	0.7	0.7	2.2	0.3	
9	--	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	1.3	2.1	1.7	1.4	0.5	2.1	0.2	
10	--	2.9	2.7	1.5	0.7	0.5	0.4	0.4	0.4	0.4	--	--	--	-0.7	-0.7	-0.8	-0.9	-0.7	-0.7	-0.7	-0.7	-0.8	-0.7	-0.5	0.1	2.9	-0.9		
11	--	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.6	-0.7	-0.7	-0.6	-0.6	-0.5	-0.5	-0.5	-0.6	-0.4	-0.7		
12	--	-0.6	-0.6	-0.7	-0.7	-0.8	-0.7	-0.8	-0.7	-0.4	-0.3	-0.1	-0.1	0.0	0.1	-0.5	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.6	-0.5	-0.5	0.1	-0.8	
13	--	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.4	1.1	2.8	2.8	1.2	0.5	-0.4	-0.6	-0.6	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.1	2.8	-0.7		
14	--	-0.6	-0.7	-0.7	-0.6	-0.7	-0.7	-0.7	-0.3	0.3	-0.4	-0.1	0.1	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5	-0.5	0.3	-0.7	
15	--	-0.3	-0.7	-0.7	-0.8	-0.8	-0.7	-0.8	-0.8	-0.8	-0.8	-0.7	-0.8	-0.7	-0.2	0.0	-0.5	-0.5	-0.4	-0.7	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	0.0	-0.8	
16	--	-0.7	-0.7	-0.7	-0.7	-0.7	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.3	-0.3	-0.4	-0.4	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.3	-0.7		
17	--	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.1	0.6	1.8	0.1	-0.4	-0.5	-0.5	-0.5	-0.6	-0.7	-0.7	-0.6	-0.5	-0.5	-0.4	-0.3	1.8	-0.7		
18	--	-0.4	-0.4	0.1	0.3	0.1	-0.4	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.4	-0.2	-0.1	-0.1	-0.4	-0.6	-0.6	-0.6	-1.0	-0.4	0.3	-1.0		
19	--	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.1	-0.6	0.1	-0.7		
20	--	-0.6	-0.6	-0.6	-0.7	-0.8	-0.7	-0.7	-0.7	-0.6	-0.3	0.7	0.9	1.1	0.7	0.2	-0.1	-0.4	-0.5	-0.6	-0.7	-0.7	-0.6	-0.6	-0.3	1.1	-0.8		
21	--	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	5.9	3.6	1.0	0.0	-0.3	-0.3	-0.3	-0.6	-0.5	-0.5	-0.5	-0.7	-0.8	-0.8	-0.8	-0.7	-0.7	0.0	5.9	-0.8		
22	--	-0.7	-0.6	-0.5	-0.6	-0.5	-0.6	0.0	0.8	2.8	4.3	1.3	0.3	-0.3	-0.5	-0.4	-0.5	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.7	-0.5	0.0	4.3	-0.7	
23	--	-0.6	-0.6	-0.6	-0.6	-0.5	-0.2	-0.3	-0.3	-0.2	-0.4	-0.5	-0.5	-0.4	-0.4	-0.4	-0.7	-0.5	-0.1	-0.2	-0.4	-0.3	0.1	0.2	-0.4	0.2	-0.7		
24	--	0.3	0.3	0.0	-0.4	-0.6	-0.7	-0.6	--	--	--	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.7	0.7	1.0	1.0	0.2	1.0	-0.7			
25	--	1.0	0.9	0.8	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.3	0.5	0.7	0.6	0.5	0.3	0.4	0.6	0.5	1.0	0.2	
26	--	0.6	0.7	0.7	0.8	0.8	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.8	0.1		
27	--	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.3	0.0	
28	--	0.2	0.2	0.2	0.2	0.1	0.1	0.3	1.0	1.2	1.1	1.3	1.2	1.0	0.7	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.4	1.3	0.1		
29	--	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	1.9	3.8	3.7	1.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	3.8	0.1		
30	--	0.2	0.3	0.3	0.3	0.1	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	
31	--	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.2		
Avg	--	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.2	0.5	0.7	0.3	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.1	--	--		
Max	--	2.9	2.7	1.5	0.8	0.9	5.9	3.6	2.2	2.8	4.3	5.6	3.7	1.5	1.0	1.9	0.6	0.5	0.7	0.6	1.3	2.2	1.7	1.4	--	5.9	--		
Min	--	-0.7	-0.7	-0.7	-0.8	-0.8	-0.7	-0.8	-0.8	-0.8	-0.7	-0.8	-0.7	-0.8	-0.7	-0.9	-0.8	-0.7	-0.8	-0.8	-0.7	-1.0	--	--	-1.0				

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, SO2_ppb"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	--	0.2	0.1	0.1	0.2	0.2	0.2	0.8	2.1	2.2	3.0	1.8	1.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.7	3.0	0.1
2	--	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.6	0.3	0.6	0.2
3	--	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.3	0.4	0.0
4	--	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.4	0.1	
5	--	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.5	0.2	0.5	0.1	
6	--	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.5	1.5	1.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.4	1.5	0.1	
7	--	0.3	0.3	0.2	0.3	0.3	0.3	0.5	0.4	0.5	--	0.0	-0.1	-0.3	-0.3	-0.3	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.1	0.0	0.5	-0.4
8	--	-0.3	-0.2	-0.3	-0.3	-0.2	-0.3	-0.2	0.1	1.0	2.7	1.7	1.4	0.8	0.5	0.3	0.1	0.0	0.0	0.1	0.1	0.1	0.3	0.8	0.4	2.7	-0.3	
9	--	0.6	0.2	0.0	-0.1	-0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	-0.3	-0.8	0.1	0.1	0.1	0.3	0.2	0.0	-0.1	0.1	0.0	0.6	-0.8		
10	--	-0.1	0.0	0.0	0.1	0.3	0.7	0.9	1.1	0.7	0.3	0.2	0.1	0.0	0.0	0.0	-0.2	-0.1	-0.3	-0.1	-0.1	-0.1	0.1	0.2	0.2	1.1	-0.3	
11	--	0.0	0.5	0.5	0.6	0.5	0.4	0.4	0.7	1.2	1.9	1.3	0.8	0.6	0.2	0.0	0.1	0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.1	0.4	1.9	-0.1	
12	--	-0.1	0.0	0.0	0.0	0.0	-0.1	--	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	-0.1	
13	--	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.3	0.0	
14	--	0.2	0.3	0.2	0.3	0.1	0.1	0.0	0.2	0.3	0.5	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.5	0.0	
15	--	0.4	0.2	0.1	0.1	0.2	0.2	0.4	0.3	0.3	0.3	1.3	0.6	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.3	0.0	
16	--	0.3	0.3	0.4	0.3	0.2	0.2	0.7	1.9	0.9	0.5	0.5	1.3	1.9	1.1	0.7	0.4	1.2	1.5	0.2	0.2	0.4	0.2	0.1	0.7	1.9	0.1	
17	--	0.9	2.2	2.4	1.8	2.5	1.4	0.9	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.6	2.5	0.1	
18	--	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.1	
19	--	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	
20	--	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.1	1.2	0.4	0.4	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.3	1.2	0.1	
21	--	0.1	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	--	--	0.3	0.3	0.3	0.4	0.5	0.3	0.3	0.3	0.5	0.1	
22	--	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.5	0.2	
23	--	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.1	
24	--	0.2	0.3	0.3	0.3	0.2	0.3	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.3	0.4	0.5	0.3	0.3	0.2	0.5	0.0	
25	--	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	
26	--	0.2	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.4	0.6	0.4	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	-0.1	0.2	0.6	-0.1	
27	--	0.1	0.2	0.0	0.0	0.2	3.0	7.9	5.5	3.5	3.3	0.9	0.9	0.2	0.2	0.2	0.2	0.4	0.0	0.1	0.0	0.1	0.1	1.2	7.9	0.0		
28	--	0.1	0.4	0.9	1.3	3.4	3.6	1.0	0.5	0.7	0.9	0.9	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.4	0.7	3.6	0.1			
29	--	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.1		
30	--	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.3	0.5	0.5	0.4	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.5	0.1		
Avg	--	0.2	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.5	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	--	--	
Max	--	0.9	2.2	2.4	1.8	3.4	3.6	7.9	5.5	3.5	3.3	1.8	1.5	1.9	1.1	0.7	0.4	1.2	1.5	0.4	0.5	0.5	0.4	0.8	--	7.9	--	
Min	--	-0.291	-0.227	-0.264	-0.307	-0.201	-0.29	-0.234	0.059	0.058	-0.019	-0.035	-0.068	-0.266	-0.31	-0.803	-0.368	-0.303	-0.32	-0.313	-0.282	-0.327	-0.325	-0.101	--	--	-0.803	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant, rolling 8-hour average
"Component, Channel: TableAmbient_Hourly, O3_ppm"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0.035	0.036	0.036	0.037	0.037	0.037	0.038	0.040	0.042	0.044	0.046	0.047	0.049	0.050	0.051	0.051	0.051	0.048	0.047	0.046	0.045	0.044	0.043	0.042	0.044	0.051	0.035	
2	0.041	0.043	0.043	0.043	0.043	0.043	0.043	0.044	0.045	0.047	0.048	0.050	0.052	0.053	0.054	0.054	0.054	0.052	0.052	0.049	0.046	0.042	0.040	0.037	0.047	0.054	0.037	
3	0.036	0.037	0.038	0.038	0.040	0.042	0.044	0.045	0.047	0.048	0.050	0.051	0.052	0.053	0.053	0.053	0.053	0.051	0.050	0.049	0.048	0.046	0.044	0.042	0.046	0.053	0.036	
4	0.040	0.042	0.043	0.043	0.045	0.047	0.049	0.051	0.053	0.054	0.055	0.056	0.057	0.057	0.056	0.055	0.054	0.052	0.051	0.050	0.047	0.046	0.044	0.044	0.050	0.057	0.040	
5	0.043	0.045	0.046	0.046	0.048	0.050	0.053	0.054	0.056	0.057	0.058	0.060	0.061	0.061	0.060	0.059	0.058	0.056	0.055	0.053	0.052	0.050	0.048	0.047	0.053	0.061	0.043	
6	0.045	0.046	0.047	0.047	0.047	0.047	0.048	0.051	0.054	0.056	0.058	0.059	0.061	0.063	0.063	0.061	0.060	0.057	0.056	0.055	0.055	0.057	0.058	0.054	0.063	0.045		
7	0.059	0.061	0.061	0.060	0.059	0.058	0.058	0.057	0.057	0.057	0.057	0.056	0.056	0.055	0.054	0.052	0.050	0.049	0.047	0.047	0.046	0.045	0.044	0.054	0.061	0.044		
8	0.044	0.045	0.044	0.044	0.045	0.045	0.045	0.046	0.047	0.048	0.049	0.049	0.049	0.048	0.046	0.042	0.041	0.037	0.035	0.034	0.034	0.035	0.037	0.043	0.049	0.033		
9	0.038	0.040	0.041	0.042	0.044	0.044	0.044	0.045	0.046	0.048	0.048	0.049	0.048	0.047	0.046	0.044	0.042	0.039	0.038	0.034	0.033	0.031	0.032	0.033	0.042	0.049	0.031	
10	0.034	0.036	0.038	0.035	0.036	0.038	0.040	0.041	0.042	0.043	0.043	0.048	0.046	0.045	0.043	0.041	0.038	0.033	0.031	0.027	0.025	0.023	0.022	0.021	0.036	0.048	0.021	
11	0.021	0.022	0.023	0.024	0.025	0.026	0.028	0.030	0.033	0.035	0.038	0.039	0.042	0.044	0.045	0.046	0.046	0.044	0.044	0.042	0.042	0.042	0.041	0.036	0.046	0.021		
12	0.041	0.043	0.044	0.045	0.046	0.047	0.049	0.051	0.053	0.055	0.057	0.058	0.060	0.060	0.060	0.059	0.057	0.053	0.051	0.049	0.047	0.046	0.044	0.043	0.051	0.060	0.041	
13	0.044	0.047	0.048	0.049	0.051	0.053	0.056	0.060	0.064	0.067	0.070	0.072	0.073	0.075	0.076	0.076	0.076	0.072	0.068	0.065	0.062	0.058	0.055	0.063	0.076	0.044		
14	0.052	0.053	0.052	0.053	0.053	0.053	0.053	0.054	0.054	0.055	0.056	0.056	0.056	0.057	0.056	0.055	0.053	0.053	0.051	0.049	0.047	0.046	0.044	0.053	0.057	0.044		
15	0.044	0.046	0.049	0.051	0.052	0.053	0.055	0.057	0.058	0.060	0.059	0.060	0.062	0.063	0.063	0.062	0.059	0.058	0.055	0.052	0.049	0.047	0.046	0.055	0.063	0.044		
16	0.046	0.048	0.049	0.050	0.051	0.054	0.056	0.058	0.059	0.061	0.062	0.063	0.064	0.065	0.064	0.062	0.061	0.058	0.057	0.055	0.053	0.051	0.050	0.050	0.056	0.065	0.046	
17	0.050	0.052	0.052	0.054	0.055	0.057	0.059	0.061	0.063	0.066	0.067	0.069	0.070	0.070	0.068	0.068	0.066	0.065	0.061	0.060	0.057	0.057	0.058	0.058	0.061	0.070	0.050	
18	0.058	0.059	0.063	0.065	0.067	0.069	0.071	0.073	0.076	0.077	0.077	0.076	0.076	0.075	0.074	0.072	0.070	0.067	0.065	0.062	0.061	0.059	0.058	0.057	0.056	0.067	0.077	0.056
19	0.056	0.056	0.056	0.057	0.058	0.059	0.060	0.062	0.064	0.064	0.065	0.066	0.067	0.067	0.066	0.065	0.064	0.063	0.060	0.058	0.055	0.054	0.052	0.051	0.060	0.067	0.051	
20	0.050	0.049	0.049	0.050	0.051	0.051	0.053	0.055	0.056	0.058	0.060	0.063	0.065	0.066	0.066	0.064	0.063	0.063	0.059	0.058	0.056	0.054	0.053	0.054	0.057	0.066	0.049	
21	0.053	0.052	0.054	0.054	0.055	0.056	0.058	0.061	0.063	0.066	0.068	0.069	0.070	0.069	0.068	0.067	0.063	0.060	0.058	0.057	0.054	0.053	0.053	0.052	0.060	0.070	0.052	
22	0.054	0.055	0.057	0.059	0.062	0.064	0.065	0.067	0.069	0.071	0.072	0.073	0.074	0.075	0.075	0.074	0.073	0.072	0.070	0.068	0.066	0.063	0.061	0.058	0.067	0.075	0.054	
23	0.054	0.052	0.052	0.052	0.052	0.054	0.054	0.055	0.058	0.059	0.060	0.060	0.059	0.056	0.053	0.049	0.046	0.043	0.039	0.037	0.035	0.034	0.032	0.033	0.049	0.060	0.032	
24	0.033	0.034	0.034	0.035	0.035	0.035	0.039	0.039	0.043	0.047	0.051	0.054	0.059	0.062	0.063	0.061	0.060	0.059	0.058	0.057	0.054	0.051	0.051	0.049	0.063	0.033		
25	0.050	0.050	0.049	0.051	0.053	0.056	0.058	0.061	0.063	0.065	0.066	0.066	0.065	0.064	0.062	0.060	0.057	0.054	0.054	0.052	0.051	0.050	0.048	0.047	0.056	0.066	0.047	
26	0.046	0.045	0.041	0.039	0.035	0.033	0.034	0.036	0.038	0.041	0.044	0.048	0.051	0.052	0.051	0.049	0.046	0.043	0.042	0.038	0.035	0.032	0.033	0.041	0.052	0.032		
27	0.035	0.039	0.042	0.044	0.048	0.051	0.055	0.058	0.060	0.061	0.064	0.066	0.069	0.071	0.073	0.073	0.073	0.072	0.070	0.069	0.066	0.062	0.058	0.053	0.060	0.073	0.035	
28	0.050	0.049	0.050	0.051	0.052	0.054	0.057	0.060	0.063	0.066	0.068	0.070	0.072	0.073	0.074	0.074	0.073	0.071	0.069	0.068	0.064	0.061	0.057	0.053	0.062	0.074	0.049	
29	0.050	0.050	0.050	0.052	0.053	0.055	0.058	0.061	0.063	0.064	0.064	0.065	0.065	0.066	0.064	0.063	0.061	0.059	0.058	0.056	0.052	0.050	0.048	0.045	0.057	0.066	0.045	
30	0.043	0.041	0.041	0.042	0.044	0.045	0.046	0.050	0.052	0.055	0.057	0.058	0.059	0.060	0.061	0.062	0.061	0.059	0.057	0.056	0.052	0.047	0.043	0.040	0.051	0.062	0.040	
Avg	0.045	0.046	0.046	0.047	0.048	0.049	0.051	0.053	0.055	0.056	0.058	0.059	0.060	0.061	0.060	0.059	0.058	0.056	0.054	0.052	0.050	0.048	0.047	0.046	0.053	--	--	
Max	0.059	0.061	0.063	0.065	0.067	0.069	0.071	0.073	0.076	0.077	0.076	0.076	0.075	0.075	0.076	0.076	0.076	0.072	0.072	0.069	0.066	0.063	0.061	0.058	--	0.077	--	
Min	0.021	0.022	0.023	0.024	0.025	0.026	0.028	0.030	0.033	0.035	0.038	0.039	0.042	0.044	0.043	0.041	0.038	0.033	0.031	0.027	0.025	0.023	0.022	0.021	--	--	0.021	

SAROAD for Resolution, East_Plant, rolling 8-hour average
"Component, Channel: TableAmbient_Hourly, O3_ppm"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0.040	0.041	0.042	0.044	0.046	0.049	0.052	0.055	0.056	0.057	0.058	0.058	0.059	0.058	0.057	0.055	0.054	0.052	0.049	0.048	0.045	0.043	0.043	0.042	0.050	0.059	0.040	
2	0.041	0.042	0.043	0.043	0.046	0.048	0.049	0.051	0.053	0.054	0.054	0.054	0.054	0.053	0.051	0.048	0.046	0.043	0.042	0.040	0.041	0.040	0.039	0.038	0.046	0.054	0.038	
3	0.038	0.039	0.040	0.041	0.040	0.041	0.042	0.043	0.041	0.042	0.042	0.043	0.044	0.045	0.045	0.046	0.050	0.048	0.046	0.045	0.043	0.042	0.041	0.038	0.043	0.050	0.038	
4	0.038	0.039	0.041	0.043	0.045	0.046	0.048	0.052	0.054	0.055	0.057	0.057	0.058	0.058	0.057	0.055	0.052	0.050	0.049	0.048	0.046	0.045	0.043	0.045	0.049	0.058	0.038	
5	0.046	0.047	0.047	0.048	0.049	0.050	0.052	0.053	0.055	0.056	0.057	0.058	0.059	0.058	0.059	0.057	0.056	0.054	0.053	0.052	0.050	0.050	0.048	0.046	0.053	0.059	0.046	
6	0.045	0.046	0.047	0.048	0.049	0.051	0.052	0.054	0.057	0.058	0.059	0.060	0.061	0.062	0.062	0.062	0.062	0.062	0.060	0.058	0.057	0.055	0.056	0.062	0.045	0.056	0.062	0.045
7	0.054	0.054	0.055	0.056	0.058	0.059	0.061	0.063	0.065	0.066	0.066	0.067	0.067	0.067	0.067	0.066	0.065	0.062	0.061	0.058	0.056	0.055	0.054	0.061	0.067	0.054	0.061	
8	0.053	0.054	0.057	0.058	0.061	0.063	0.065	0.067	0.068	0.070	0.070	0.070	0.069	0.068	0.067	0.065	0.064	0.063	0.062	0.061	0.060	0.060	0.059	0.058	0.063	0.070	0.053	
9	0.056	0.055	0.054	0.054	0.054	0.054	0.054	0.055	0.055	0.056	0.056	0.057	0.057	0.056	0.055	0.055	0.054	0.054	0.053	0.052	0.051	0.050	0.049	0.048	0.054	0.057	0.048	
10	0.048	0.048	0.049	0.049	0.049	--	--	--	--	--	--	0.073	0.074	0.075	0.077	0.078	0.078	0.078	0.076	0.076	0.073	0.069	0.066	0.061	0.066	0.078	0.048	
11	0.058	0.056	0.056	0.057	0.057	0.059	0.061	0.064	0.066	0.068	0.068	0.069	0.069	0.068	0.066	0.064	0.061	0.059	0.055	0.053	0.050	0.048	0.047	0.045	0.059	0.069	0.045	
12	0.045	0.046	0.049	0.051	0.054	0.056	0.058	0.062	0.064	0.066	0.067	0.069	0.069	0.070	0.071	0.071	0.072	0.073	0.072	0.072	0.072	0.071	0.067	0.065	0.064	0.073	0.045	
13	0.061	0.060	0.059	0.061	0.061	0.063	0.066	0.068	0.071	0.073	0.074	0.075	0.075	0.074	0.073	0.073	0.071	0.070	0.067	0.066	0.064	0.064	0.063	0.062	0.067	0.075	0.059	
14	0.061	0.061	0.061	0.062	0.062	0.063	0.064	0.065	0.067	0.068	0.069	0.070	0.070	0.069	0.068	0.068	0.067	0.065	0.063	0.062	0.060	0.060	0.058	0.056	0.064	0.070	0.056	
15	0.055	0.055	0.056	0.057	0.058	0.059	0.061	0.063	0.064	0.065	0.066	0.067	0.067	0.066	0.065	0.064	0.063	0.062	0.062	0.061	0.061	0.061	0.060	0.062	0.067	0.055	0.062	
16	0.060	0.059	0.059	0.059	0.059	0.060	0.061	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.061	0.060	0.059	0.058	0.056	0.053	0.050	0.046	0.059	0.062	0.046	
17	0.044	0.043	0.045	0.046	0.047	0.049	0.051	0.054	0.056	0.057	0.058	0.058	0.059	0.059	0.058	0.057	0.056	0.055	0.055	0.054	0.054	0.053	0.052	0.053	0.059	0.043	0.061	
18	0.051	0.050	0.049	0.049	0.048	0.048	0.048	0.050	0.050	0.051	0.053	0.054	0.056	0.058	0.059	0.061	0.062	0.063	0.061	0.062	0.061	0.058	0.056	0.052	0.055	0.063	0.048	
19	0.049	0.048	0.049	0.050	0.051	0.053	0.055	0.058	0.061	0.064	0.066	0.068	0.070	0.071	0.073	0.074	0.074	0.073	0.071	0.070	0.065	0.062	0.060	0.059	0.062	0.074	0.048	
20	0.058	0.059	0.061	0.062	0.066	0.069	0.071	0.072	0.073	0.073	0.074	0.074	0.074	0.073	0.072	0.070	0.069	0.067	0.065	0.064	0.061	0.059	0.058	0.058	0.067	0.074	0.058	
21	0.058	0.059	0.059	0.060	0.061	0.063	0.063	0.064	0.064	0.066	0.068	0.069	0.070	0.070	0.071	0.073	0.071	0.068	0.065	0.064	0.062	0.060	0.057	0.054	0.064	0.073	0.054	
22	0.050	0.052	0.054	0.055	0.057	0.059	0.061	0.064	0.070	0.072	0.073	0.073	0.072	0.071	0.069	0.068	0.065	0.063	0.062	0.061	0.059	0.057	0.056	0.056	0.062	0.073	0.050	
23	0.055	0.055	0.055	0.056	0.057	0.058	0.059	0.059	0.060	0.060	0.061	0.061	0.061	0.060	0.060	0.059	0.058	0.057	0.055	0.054	0.052	0.050	0.049	0.057	0.061	0.049	0.061	
24	0.048	0.048	--	--	--	--	--	--	--	0.055	0.054	0.053	0.052	0.051	0.049	0.048	0.047	0.046	0.045	0.046	0.046	0.047	0.047	--	--	--		
25	0.048	0.048	0.049	0.049	0.050	0.051	0.053	0.055	0.057	0.059	0.061	0.063	0.064	0.066	0.066	0.066	0.064	0.062	0.059	0.058	0.056	0.055	0.053	0.052	0.057	0.066	0.048	
26	0.053	0.055	0.057	0.057	0.058	0.059	0.060	0.062	0.063	0.064	0.065	0.066	0.067	0.067	0.067	0.067	0.066	0.064	0.061	0.058	0.055	0.051	0.049	0.060	0.067	0.049	0.061	
27	0.048	0.049	0.052	0.054	0.057	0.060	0.063	0.066	0.067	0.068	0.069	0.070	0.071	0.071	0.072	0.073	0.073	0.074	0.073	0.073	0.072	0.070	0.069	0.068	0.066	0.074	0.048	
28	0.068	0.067	0.068	0.069	0.071	0.073	0.074	0.075	0.076	0.077	0.078	0.078	0.079	0.079	0.077	0.076	0.074	0.071	0.069	0.067	0.064	0.062	0.061	0.071	0.079	0.061	0.061	
29	0.062	0.062	0.064	0.065	0.068	0.070	0.071	0.073	0.075	0.076	0.076	0.077	0.077	0.077	0.076	0.075	0.074	0.072	0.069	0.068	0.065	0.061	0.059	0.057	0.069	0.077	0.057	
30	0.055	0.054	0.054	0.055	0.056	0.057	0.059	0.061	0.062	0.064	0.066	0.068	0.070	0.071	0.072	0.072	0.071	0.070	0.069	0.067	0.066	0.064	0.062	0.060	0.063	0.072	0.054	
31	0.059	0.058	0.058	0.059	0.059	0.061	0.063	0.066	0.069	0.073	0.076	0.079	0.081	0.082	0.082	0.081	0.080	0.078	0.075	0.074	0.069	0.066	0.063	0.059	0.070	0.082	0.058	
Avg	0.052	0.052	0.053	0.054	0.055	0.057	0.058	0.060	0.062	0.063	0.064	0.065	0.066	0.066	0.065	0.065	0.064	0.063	0.061	0.060	0.058	0.056	0.055	0.053	0.060	--	--	
Max	0.068	0.067	0.068	0.069	0.071	0.073	0.074	0.075	0.076	0.077	0.078	0.079	0.081	0.082	0.082	0.081	0.080	0.078	0.076	0.076	0.073	0.071	0.069	0.068	--	0.082	--	
Min	0.038	0.039	0.040	0.041	0.040	0.041	0.042	0.043	0.041	0.042	0.042	0.043	0.044	0.045	0.045	0.046	0.046	0.043	0.042	0.040	0.040	0.039	0.038	--	--	0.038	--	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant, rolling 8-hour average
"Component, Channel: TableAmbient_Hourly, O3_ppm"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.057	0.056	0.056	0.058	0.060	0.061	0.063	0.067	0.069	0.071	0.072	0.072	0.073	0.074	0.075	0.074	0.074	0.072	0.070	0.069	0.068	0.066	0.064	0.062	0.067	0.075	0.056
2	0.060	0.060	0.061	0.062	0.063	0.065	0.068	0.070	0.072	0.074	0.074	0.075	0.074	0.073	0.071	0.069	0.067	0.064	0.061	0.060	0.056	0.053	0.052	0.051	0.065	0.075	0.051
3	0.050	0.052	0.054	0.056	0.058	0.061	0.063	0.066	0.068	0.069	0.069	0.068	0.068	0.067	0.066	0.063	0.060	0.059	0.057	0.056	0.053	0.050	0.047	0.045	0.059	0.069	0.045
4	0.043	0.041	0.039	0.040	0.040	0.042	0.043	0.046	0.049	0.051	0.053	0.054	0.054	0.053	0.052	0.050	0.048	0.046	0.043	0.042	0.039	0.036	0.035	0.033	0.045	0.054	0.033
5	0.031	0.031	0.031	0.033	0.035	0.038	0.040	0.043	0.045	0.048	0.049	0.050	0.050	0.049	0.049	0.048	0.048	0.047	0.044	0.044	0.042	0.041	0.039	0.039	0.042	0.050	0.031
6	0.041	0.043	0.047	0.048	0.051	0.054	0.058	0.061	0.062	0.062	0.063	0.063	0.062	0.061	0.060	0.058	0.057	0.055	0.054	0.052	0.049	0.046	0.041	0.055	0.063	0.041	
7	0.040	0.041	0.043	0.043	0.042	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
11	--	--	--	--	--	--	--	--	--	--	--	--	0.041	0.041	0.041	0.041	0.042	0.041	0.041	0.041	0.041	0.041	0.040	0.040	0.040	--	--
12	0.039	0.039	0.041	0.042	0.042	0.043	0.043	0.044	0.045	0.045	0.045	0.045	0.046	0.047	0.047	0.046	0.046	0.045	0.044	0.043	0.041	0.040	0.039	0.037	0.043	0.047	0.037
13	0.035	0.034	0.034	0.035	0.036	0.037	0.038	0.040	0.042	0.044	0.045	0.046	0.046	0.047	0.046	0.045	0.046	0.045	0.044	0.043	0.041	0.039	0.037	0.036	0.041	0.047	0.034
14	0.033	0.033	0.033	0.034	0.034	0.036	0.038	0.040	0.041	0.042	0.042	0.042	0.041	0.040	0.038	0.037	0.036	0.034	0.033	0.032	0.031	0.029	0.028	0.036	0.042	0.028	
15	0.028	0.028	0.028	0.029	0.030	0.031	0.033	0.036	0.038	0.039	0.040	0.041	0.041	0.042	0.041	0.039	0.037	0.035	0.033	0.032	0.030	0.029	0.027	0.028	0.034	0.042	0.027
16	0.029	0.031	0.033	0.034	0.035	0.037	0.040	0.042	0.043	0.044	0.044	0.044	0.044	0.044	0.043	0.042	0.040	0.040	0.039	0.038	0.037	0.036	0.036	0.039	0.044	0.029	
17	0.036	0.037	0.039	0.041	0.043	0.045	0.047	0.049	0.050	0.051	0.052	0.053	0.054	0.055	0.054	0.053	0.052	0.049	0.047	0.044	0.041	0.038	0.035	0.047	0.055	0.035	
18	0.033	0.033	0.034	0.035	0.036	0.039	0.043	0.048	0.051	0.053	0.054	0.055	0.055	0.054	0.052	0.049	0.047	0.045	0.043	0.042	0.041	0.040	0.038	0.037	0.044	0.055	0.033
19	0.037	0.037	0.038	0.039	0.041	0.043	0.046	0.050	0.052	0.055	0.058	0.062	0.063	0.064	0.064	0.063	0.062	0.060	0.057	0.054	0.052	0.048	0.046	0.043	0.051	0.064	0.037
20	0.040	0.039	0.040	0.041	0.042	0.045	0.047	0.051	0.054	0.057	0.058	0.059	0.060	0.061	0.061	0.060	0.060	0.060	0.059	0.057	0.055	0.052	0.048	0.053	0.061	0.039	
21	0.045	0.043	0.042	0.043	0.044	0.044	0.045	0.047	0.048	0.049	0.049	0.049	0.050	0.050	0.049	0.046	0.046	0.045	0.043	0.042	0.040	0.036	0.036	0.038	0.045	0.050	0.036
22	0.036	0.036	0.035	0.036	0.036	0.038	0.039	0.040	0.042	0.043	0.044	0.045	0.046	0.049	0.052	0.053	0.052	0.050	0.048	0.049	0.046	0.042	0.036	0.033	0.043	0.053	0.033
23	0.032	0.033	0.036	0.038	0.042	0.044	0.047	0.050	0.051	0.052	0.052	0.051	0.051	0.053	0.055	0.056	0.055	0.054	0.051	0.051	0.048	0.041	0.034	0.029	0.046	0.056	0.029
24	0.028	0.027	0.028	0.029	0.031	0.033	0.035	0.038	0.041	0.044	0.048	0.051	0.054	0.056	0.057	0.057	0.056	0.054	0.050	0.048	0.043	0.040	0.036	0.033	0.042	0.057	0.027
25	0.031	0.030	0.031	0.032	0.033	0.034	0.037	0.040	0.043	0.047	0.050	0.053	0.056	0.058	0.059	0.060	0.059	0.056	0.051	0.049	0.044	0.040	0.034	0.029	0.044	0.060	0.029
26	0.026	0.025	0.027	0.029	0.030	0.032	0.036	0.040	0.043	0.045	0.046	0.047	0.047	0.048	0.049	0.049	0.048	0.047	0.046	0.046	0.043	0.041	0.038	0.035	0.040	0.049	0.025
27	0.033	0.033	0.034	0.036	0.038	0.040	0.044	0.047	0.048	0.050	0.051	0.051	0.051	0.051	0.050	0.049	0.048	0.046	0.045	0.044	0.042	0.039	0.037	0.036	0.043	0.051	0.033
28	0.036	0.037	0.038	0.039	0.040	0.042	0.045	0.046	0.048	0.050	0.051	0.055	0.057	0.057	0.056	0.055	0.053	0.050	0.046	0.042	0.037	0.033	0.030	0.028	0.045	0.057	0.028
29	0.027	0.027	0.028	0.030	0.031	0.033	0.036	0.039	0.041	0.044	0.049	0.051	0.053	0.053	0.053	0.052	0.051	0.048	0.044	0.042	0.039	0.037	0.035	0.033	0.041	0.053	0.027
30	0.032	0.032	0.032	0.033	0.034	0.036	0.038	0.041	0.044	0.047	0.050	0.052	0.053	0.053	0.053	0.052	0.051	0.049	0.047	0.046	0.045	0.044	0.043	0.042	0.044	0.053	0.032
Avg	0.037	0.037	0.038	0.039	0.040	0.042	0.045	0.047	0.049	0.051	0.052	0.053	0.054	0.054	0.054	0.053	0.052	0.050	0.048	0.047	0.044	0.042	0.039	0.037	0.046	--	--
Max	0.060	0.060	0.061	0.062	0.063	0.065	0.068	0.070	0.072	0.074	0.074	0.075	0.074	0.074	0.075	0.074	0.072	0.070	0.069	0.068	0.066	0.064	0.062	--	0.075	--	
Min	0.026	0.025	0.027	0.029	0.030	0.031	0.033	0.036	0.038	0.039	0.040	0.041	0.040	0.038	0.037	0.036	0.034	0.033	0.032	0.030	0.029	0.028	0.027	--	--	0.025	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, O3_ppm"
Month: Apr 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.031	--	0.039	0.038	0.037	0.032	0.032	0.035	0.039	0.040	0.040	0.039	0.039	0.043	0.046	0.049	0.056	0.053	0.053	0.051	0.050	0.051	0.048	0.046	0.043	0.056	0.031
2	0.032	--	0.045	0.043	0.043	0.044	0.043	0.040	0.043	0.044	0.044	0.043	0.044	0.046	0.048	0.051	0.054	0.056	0.057	0.056	0.053	0.055	0.053	0.051	0.047	0.057	0.032
3	0.036	--	0.038	0.033	0.028	0.037	0.039	0.042	0.042	0.041	0.044	0.046	0.048	0.049	0.050	0.051	0.054	0.056	0.056	0.053	0.052	0.051	0.053	0.050	0.046	0.056	0.028
4	0.035	--	0.047	0.044	0.039	0.041	0.037	0.039	0.045	0.051	0.051	0.053	0.056	0.056	0.054	0.056	0.057	0.058	0.058	0.059	0.057	0.050	0.046	0.050	0.050	0.050	0.035
5	0.038	--	0.051	0.039	0.046	0.037	0.046	0.047	0.050	0.053	0.053	0.053	0.057	0.060	0.061	0.060	0.060	0.062	0.062	0.061	0.060	0.056	0.052	0.050	0.053	0.062	0.037
6	0.042	--	0.052	0.051	0.049	0.043	0.039	0.050	0.052	0.052	0.050	0.050	0.055	0.060	0.062	0.065	0.066	0.067	0.065	0.063	0.054	0.050	0.054	0.053	0.067	0.038	
7	0.041	--	0.062	0.063	0.063	0.063	0.061	0.058	0.058	0.058	0.058	0.056	0.056	0.058	0.057	0.055	0.056	0.060	0.056	0.050	0.053	0.052	0.048	0.044	0.056	0.063	0.041
8	0.037	--	0.048	0.046	0.047	0.046	0.044	0.042	0.041	0.043	0.047	0.050	0.048	0.047	0.050	0.049	0.049	0.051	0.050	0.046	0.039	0.032	0.023	0.035	0.044	0.051	0.023
9	0.023	--	0.039	0.039	0.044	0.044	0.038	0.039	0.039	0.046	0.050	0.051	0.047	0.044	0.047	0.048	0.049	0.051	0.053	0.047	0.040	0.036	0.030	0.033	0.042	0.053	0.023
10	0.026	--	0.030	0.034	0.032	0.040	0.040	0.038	0.041	0.046	0.009	0.047	0.048	0.049	0.048	0.047	0.050	0.048	0.044	0.038	0.039	0.033	0.026	0.025	0.038	0.050	0.009
11	0.015	--	0.016	0.022	0.025	0.023	0.022	0.022	0.024	0.027	0.028	0.030	0.030	0.044	0.039	0.042	0.043	0.045	--	0.049	0.049	0.048	0.046	0.042	0.033	0.049	0.015
12	0.030	--	0.040	0.042	0.046	0.046	0.041	0.042	0.046	0.048	0.050	0.052	0.054	0.057	0.058	0.060	0.061	0.063	0.062	0.062	0.058	0.056	0.049	0.041	0.051	0.063	0.030
13	0.033	--	0.046	0.049	0.048	0.046	0.042	0.043	0.054	0.055	0.059	0.062	0.066	0.069	0.072	0.076	0.079	0.075	0.074	0.076	0.079	0.078	0.075	0.070	0.062	0.079	0.033
14	0.050	--	0.049	0.054	0.054	0.056	0.054	0.050	0.051	0.051	0.053	0.054	0.054	0.055	0.056	0.056	0.057	0.056	0.057	0.058	0.057	0.055	0.053	0.050	0.054	0.058	0.049
15	0.038	--	0.046	0.043	0.046	0.046	0.040	0.047	0.051	0.072	0.059	0.054	0.055	0.057	0.058	0.060	0.064	0.065	0.067	0.068	0.064	0.060	0.055	0.051	0.055	0.072	0.038
16	0.039	--	0.050	0.047	0.040	0.045	0.050	0.051	0.054	0.054	0.056	0.061	0.062	0.063	0.064	0.064	0.064	0.066	0.068	0.066	0.055	0.051	0.053	0.056	0.068	0.039	
17	0.040	--	0.053	0.055	0.053	0.048	0.050	0.051	0.052	0.058	0.063	0.063	0.068	0.068	0.067	0.067	0.071	0.073	0.074	0.074	0.064	0.058	0.060	0.055	0.060	0.074	0.040
18	0.060	0.046	--	0.057	0.061	0.064	0.060	0.055	0.066	0.076	0.076	0.078	0.077	0.077	0.077	0.078	0.077	0.075	0.072	0.070	0.069	0.062	0.055	0.056	0.067	0.078	0.046
19	0.062	0.054	--	0.056	0.059	0.057	0.049	0.054	0.060	0.059	0.061	0.066	0.065	0.066	0.065	0.066	0.067	0.070	0.069	0.063	0.061	0.057	0.057	0.061	0.070	0.049	
20	0.057	0.043	--	0.048	0.053	0.050	0.048	0.048	0.049	0.049	0.053	0.055	0.058	0.062	0.063	0.061	0.062	0.067	0.071	0.070	0.069	0.064	0.045	0.058	0.057	0.071	0.043
21	0.055	0.041	--	0.058	0.057	0.055	0.052	0.050	0.051	0.055	0.056	0.064	0.070	0.070	0.071	0.070	0.071	0.069	0.069	0.067	0.066	0.062	0.058	0.044	0.060	0.071	0.041
22	0.047	0.053	--	0.050	0.056	0.059	0.054	0.057	0.059	0.068	0.071	0.071	0.070	0.071	0.070	0.071	0.073	0.078	0.081	0.081	0.076	0.068	0.066	0.064	0.066	0.081	0.047
23	0.065	0.058	--	0.065	0.057	0.053	0.046	0.036	0.051	0.054	0.058	0.061	0.061	0.063	0.058	0.060	0.061	0.060	0.059	0.051	0.040	0.035	0.029	0.030	0.053	0.065	0.029
24	0.037	0.034	--	0.042	0.033	0.022	0.033	0.034	0.037	0.041	0.041	0.036	0.040	0.048	--	0.059	0.063	0.067	0.067	0.068	0.065	0.052	0.046	0.050	0.046	0.068	0.022
25	0.058	0.058	--	0.047	0.044	0.051	0.049	0.046	0.051	0.055	0.064	0.066	0.069	0.066	0.068	0.067	0.064	0.061	0.064	0.063	0.059	0.053	0.049	0.041	0.057	0.069	0.041
26	0.044	0.056	--	0.057	0.051	0.042	0.040	0.036	0.036	0.029	0.023	0.026	0.032	0.043	0.048	0.050	0.051	0.053	0.055	0.054	0.053	0.051	0.038	0.034	0.043	0.057	0.023
27	0.030	0.032	--	0.029	0.030	0.034	0.043	0.050	0.055	0.054	0.058	0.059	0.059	0.062	0.065	0.067	0.068	0.074	0.078	0.077	0.076	0.076	0.071	0.065	0.057	0.078	0.029
28	0.063	0.057	--	0.053	0.050	0.045	0.038	0.048	0.055	0.059	0.060	0.062	0.065	0.066	0.067	0.071	0.075	0.077	0.078	0.079	0.068	0.073	0.067	0.064	0.063	0.079	0.038
29	0.063	0.061	--	0.049	0.050	0.043	0.041	0.047	0.059	0.061	0.063	0.063	0.064	0.064	0.065	0.066	0.067	0.068	0.064	0.066	0.055	0.051	0.050	0.058	0.068	0.041	
30	0.053	0.053	--	0.041	0.044	0.041	0.032	0.037	0.039	0.049	0.053	0.052	0.054	0.055	0.057	0.059	0.062	0.063	0.064	0.061	0.061	0.064	0.057	0.053	0.064	0.032	
Avg	0.043	0.050	0.044	0.047	0.046	0.045	0.043	0.044	0.048	0.052	0.052	0.054	0.055	0.058	0.059	0.060	0.062	0.063	0.064	0.062	0.059	0.055	0.050	0.049	0.053	--	--
Max	0.065	0.061	0.062	0.065	0.063	0.064	0.061	0.058	0.066	0.076	0.076	0.078	0.077	0.077	0.077	0.078	0.079	0.081	0.081	0.079	0.078	0.075	0.070	--	0.081	--	
Min	0.015	0.032	0.016	0.022	0.025	0.022	0.022	0.024	0.027	0.009	0.026	0.030	0.043	0.039	0.042	0.043	0.045	0.044	0.038	0.039	0.032	0.023	0.025	--	--	0.009	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, O3_ppm"
Month: May 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0.045	0.043	--	0.037	0.024	0.034	0.042	0.052	0.053	0.052	0.054	0.053	0.055	0.058	0.061	0.061	0.060	0.059	0.057	0.056	0.054	0.047	0.046	0.051	0.050	0.061	0.024	
2	0.045	0.041	--	0.035	0.039	0.042	0.043	0.043	0.049	0.048	0.049	0.052	0.055	0.057	0.057	0.057	0.056	0.056	0.053	0.051	0.048	0.043	0.042	0.037	0.036	0.047	0.057	0.035
3	0.036	0.040	--	0.051	0.040	0.032	0.031	0.034	0.046	0.045	0.048	0.048	0.042	0.042	0.041	0.015	0.051	0.052	0.054	0.051	0.052	0.048	0.047	0.042	0.043	0.054	0.015	
4	0.041	0.036	--	0.036	0.043	0.039	0.032	0.042	0.047	0.050	0.051	0.054	0.054	0.055	0.058	0.059	0.061	0.060	0.058	0.055	0.054	0.050	0.042	0.037	0.049	0.061	0.032	
5	0.046	0.051	--	0.046	0.040	0.042	0.050	0.047	0.050	0.051	0.053	0.054	0.052	0.057	0.064	0.062	0.059	0.059	0.057	0.059	0.051	0.058	0.054	0.049	0.053	0.064	0.040	
6	0.046	0.046	--	0.047	0.046	0.047	0.041	0.041	0.052	0.056	0.055	0.055	0.056	0.058	0.060	0.060	0.062	0.061	0.062	0.064	0.065	0.061	0.065	0.059	0.055	0.065	0.041	
7	0.061	0.057	--	0.052	0.053	0.055	0.049	0.054	0.062	0.064	0.063	0.064	0.064	0.066	0.067	0.068	0.068	0.068	0.068	0.067	0.065	0.063	0.066	0.066	0.062	0.068	0.049	
8	0.053	0.046	--	0.047	0.054	0.055	0.055	0.059	0.060	0.067	0.068	0.068	0.070	0.071	0.072	0.072	0.071	0.067	0.066	0.065	0.062	0.058	0.060	0.061	0.062	0.072	0.046	
9	0.063	0.060	--	0.057	0.057	0.054	0.052	0.052	0.054	0.055	0.050	0.056	0.058	0.057	0.057	0.057	0.056	0.057	0.055	0.053	0.052	0.052	0.051	0.055	0.063	0.050		
10	0.053	0.050	--	0.047	0.046	0.044	0.044	0.048	0.053	0.056	--	--	--	0.063	0.068	0.071	0.075	0.078	0.083	0.082	0.078	0.078	0.077	0.075	0.063	0.083	0.044	
11	0.070	0.068	--	0.063	0.054	0.052	0.048	0.051	0.056	0.066	0.065	0.067	0.067	0.068	0.069	0.070	0.069	0.070	0.069	0.066	0.059	0.057	0.051	0.049	0.062	0.070	0.048	
12	0.049	0.042	--	0.040	0.050	0.046	0.038	0.050	0.058	0.062	0.062	0.065	0.066	0.064	0.066	0.068	0.072	0.074	0.073	0.072	0.070	0.073	0.070	0.076	0.061	0.076	0.038	
13	0.073	0.071	--	0.070	0.060	0.050	0.053	0.053	0.062	0.066	0.070	0.074	0.075	0.073	0.073	0.074	0.075	0.077	0.077	0.072	0.069	0.069	0.066	0.064	0.068	0.077	0.050	
14	0.063	0.057	--	0.062	0.063	0.063	0.061	0.059	0.060	0.062	0.064	0.065	0.068	0.070	0.071	0.072	0.072	0.072	0.066	0.059	0.063	0.065	0.064	0.065	0.072	0.057		
15	0.060	0.055	--	0.057	0.056	0.052	0.051	0.055	0.058	0.061	0.063	0.064	0.066	0.067	0.067	0.067	0.068	0.068	0.067	0.066	0.064	0.059	0.062	0.061	0.060	0.061	0.068	0.051
16	0.060	0.060	--	0.061	0.060	0.060	0.057	0.060	0.057	0.060	0.061	0.062	0.064	0.067	0.067	0.061	0.059	0.059	0.062	0.062	0.063	0.064	0.063	0.057	0.061	0.067	0.057	
17	0.052	0.046	--	0.044	0.044	0.046	0.037	0.037	0.051	0.054	0.056	0.055	0.056	0.060	0.061	0.057	0.059	0.060	0.059	0.058	0.059	0.056	0.054	0.052	0.053	0.061	0.037	
18	0.051	0.053	--	0.055	0.054	0.049	0.048	0.045	0.046	0.048	0.046	0.047	0.050	0.052	0.053	0.055	0.058	0.059	0.059	0.061	0.063	0.066	0.070	0.063	0.054	0.070	0.045	
19	0.059	0.050	--	0.055	0.046	0.052	0.038	0.045	0.052	0.053	0.059	0.062	0.063	0.065	0.067	0.068	0.071	0.071	0.076	0.077	0.075	0.078	0.072	0.070	0.062	0.078	0.038	
20	0.064	0.056	--	0.041	0.056	0.059	0.065	0.068	0.068	0.067	0.073	0.074	0.075	0.076	0.075	0.073	0.074	0.073	0.074	0.072	0.070	0.068	0.059	0.061	0.067	0.076	0.041	
21	0.058	0.058	--	0.054	0.055	0.061	0.062	0.061	0.060	0.059	0.065	0.067	0.069	0.065	0.062	0.067	0.070	0.075	0.074	0.074	0.074	0.076	0.071	0.056	0.065	0.076	0.054	
22	0.045	0.052	--	0.062	0.057	0.055	0.052	0.029	0.055	0.066	0.067	0.073	0.074	0.073	0.075	0.076	0.074	0.069	0.068	0.070	0.063	0.060	0.062	0.058	0.062	0.076	0.029	
23	0.057	0.059	--	0.055	0.050	0.053	0.057	0.056	0.054	0.059	0.062	0.059	0.059	0.060	0.060	0.060	0.060	0.062	0.064	0.061	0.057	0.056	0.052	0.051	0.058	0.064	0.050	
24	0.051	0.049	--	0.046	0.048	0.048	0.050	0.048	--	--	--	--	0.057	0.054	0.055	0.055	0.056	0.053	0.049	0.047	0.045	0.044	0.046	0.046	0.050	0.057	0.044	
25	0.045	0.044	--	0.049	0.050	0.048	0.048	0.049	0.050	0.051	0.050	0.054	0.057	0.063	0.068	0.065	0.065	0.065	0.067	0.067	0.068	0.064	0.051	0.057	0.068	0.044		
26	0.047	0.044	--	0.053	0.056	0.057	0.058	0.058	0.057	0.059	0.061	0.064	0.069	0.069	0.067	0.067	0.067	0.067	0.067	0.066	0.066	0.066	0.066	0.060	0.061	0.069	0.044	
27	0.056	0.044	--	0.045	0.045	0.042	0.049	0.059	0.063	0.063	0.065	0.068	0.068	0.069	0.070	0.070	0.071	0.074	0.073	0.072	0.073	0.075	0.075	0.073	0.063	0.075	0.042	
28	0.076	0.066	--	0.064	0.061	0.067	0.066	0.072	0.074	0.074	0.075	0.076	0.077	0.076	0.078	0.081	0.081	0.080	0.080	0.077	0.065	0.063	0.062	0.073	0.081	0.061		
29	0.063	0.061	--	0.058	0.059	0.064	0.061	0.067	--	0.074	0.072	0.076	0.073	0.075	0.075	0.078	0.082	0.081	0.078	0.074	0.074	0.068	0.067	0.068	0.070	0.082	0.058	
30	0.065	0.057	--	0.053	0.051	0.051	0.050	0.056	0.058	0.059	0.060	0.061	0.063	0.065	0.070	0.071	0.074	0.078	0.079	0.072	0.067	0.064	0.063	0.063	0.079	0.050		
31	0.063	0.064	--	0.066	0.060	0.054	0.051	0.054	0.060	0.061	0.064	0.070	0.070	0.071	0.076	0.082	0.088	0.088	0.087	0.083	0.078	0.072	0.073	0.072	0.070	0.088	0.051	
Avg	0.055	0.052	--	0.052	0.051	0.051	0.050	0.052	0.056	0.059	0.060	0.062	0.063	0.064	0.065	0.065	0.067	0.067	0.067	0.066	0.063	0.062	0.061	0.058	0.060	--	--	
Max	0.076	0.071	--	0.070	0.063	0.067	0.066	0.072	0.074	0.074	0.075	0.076	0.077	0.077	0.076	0.082	0.088	0.088	0.087	0.083	0.078	0.078	0.077	0.076	--	0.088	--	
Min	0.036	0.036	--	0.035	0.024	0.032	0.031	0.029	0.046	0.045	0.046	0.047	0.042	0.042	0.041	0.015	0.051	0.052	0.049	0.047	0.043	0.042	0.037	0.036	--	--	0.015	

-- Indicates Invalid Data

SAROAD for Resolution, East_Plant
"Component, Channel: TableAmbient_Hourly, O3_ppm"
Month: Jun 2012

Hour of day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	0.071	0.066	--	0.054	0.055	0.050	0.044	0.056	0.065	0.069	0.070	0.067	0.064	0.067	0.074	0.077	0.077	0.077	0.076	0.074	0.072	0.071	0.072	0.070	0.067	0.077	0.044	
2	0.064	0.060	--	0.066	0.061	0.055	0.056	0.056	0.065	0.068	0.070	0.074	0.075	0.076	0.075	0.075	0.075	0.074	0.073	0.073	0.071	0.068	0.056	0.059	0.059	0.067	0.076	0.055
3	0.054	0.050	--	0.048	0.046	0.050	0.050	0.054	0.065	0.064	0.068	0.069	0.067	0.071	0.073	0.071	0.067	0.066	0.064	0.063	0.063	0.057	0.049	0.051	0.060	0.073	0.046	
4	0.056	0.053	--	0.043	0.041	0.039	0.030	0.039	0.038	0.042	0.043	0.050	0.051	0.054	0.054	0.056	0.059	0.054	0.051	0.050	0.047	0.041	0.041	0.041	0.047	0.059	0.030	
5	0.040	0.034	--	0.030	0.026	0.031	0.026	0.033	0.035	0.038	0.044	0.048	0.050	0.050	0.049	0.050	0.052	0.051	0.048	0.046	0.048	0.047	0.045	0.046	0.042	0.052	0.026	
6	0.044	0.031	--	0.034	0.039	0.036	0.046	0.057	0.061	0.056	0.055	0.058	0.068	0.065	0.067	0.066	0.059	0.057	0.060	0.061	0.058	0.059	0.062	0.049	0.054	0.068	0.031	
7	0.048	0.041	--	0.044	0.041	0.034	0.031	0.044	0.055	0.050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
11	--	--	--	--	--	--	--	--	--	--	--	--	--	0.042	0.037	0.043	0.047	0.041	0.038	0.039	0.043	0.042	0.040	0.042	--	--	--	
12	0.041	0.040	--	0.040	0.037	0.040	0.036	--	0.042	0.051	0.048	0.040	0.041	0.042	0.046	0.046	0.045	0.048	0.051	0.049	0.047	0.041	0.040	0.042	0.043	0.051	0.036	
13	0.042	0.039	--	0.038	0.035	0.034	0.031	0.029	0.033	0.040	0.041	0.045	0.045	0.044	0.042	0.047	0.048	0.047	0.048	0.048	0.048	0.048	0.035	0.041	0.050	0.041	0.050	0.029
14	0.040	0.039	--	0.035	0.030	0.027	0.028	0.033	0.038	0.039	0.040	0.041	0.043	0.043	0.042	0.042	0.043	0.041	0.039	0.037	0.030	0.031	0.032	0.031	0.037	0.043	0.027	
15	0.030	0.031	--	0.033	0.029	0.021	0.024	0.030	0.030	0.032	0.035	0.036	0.036	0.039	0.046	0.046	0.043	0.041	0.040	0.039	0.038	0.036	0.028	0.029	0.034	0.046	0.021	
16	0.027	0.028	--	0.026	0.026	0.027	0.031	0.036	0.040	0.043	0.040	0.040	0.041	0.045	0.047	0.047	0.047	0.042	0.042	0.042	0.042	0.041	0.039	0.040	0.038	0.047	0.026	
17	0.037	0.034	--	0.034	0.033	0.035	0.037	0.040	0.044	0.050	0.053	0.052	0.051	0.050	0.049	0.051	0.053	0.056	0.064	0.060	0.054	0.046	0.045	0.045	0.047	0.064	0.033	
18	0.041	0.039	--	0.037	0.032	0.026	0.024	0.036	0.038	0.044	0.045	0.048	0.051	0.061	0.060	0.059	0.054	0.054	0.052	0.048	0.045	0.042	0.041	0.039	0.044	0.061	0.024	
19	0.042	0.039	--	0.040	0.037	0.030	0.029	0.043	0.043	0.045	0.048	0.051	0.055	0.056	0.059	0.062	0.064	0.072	0.072	0.065	0.060	0.054	0.053	0.052	0.051	0.072	0.029	
20	0.052	0.046	--	0.046	0.034	0.037	0.032	0.034	0.045	0.048	0.052	0.054	0.055	0.058	0.060	0.062	0.064	0.062	0.061	0.060	0.059	0.058	0.057	0.063	0.052	0.064	0.032	
21	0.061	0.055	--	0.045	0.043	0.039	0.031	0.042	0.044	0.050	0.051	0.048	0.049	0.047	--	0.046	0.050	0.051	0.053	0.053	0.051	0.035	0.024	0.047	0.046	0.061	0.024	
22	0.043	0.041	--	0.039	0.025	0.036	0.033	0.037	0.038	0.037	0.041	0.040	0.041	0.042	0.045	0.049	0.051	0.047	0.045	0.051	0.063	0.062	0.053	0.045	0.044	0.063	0.025	
23	0.036	0.029	--	0.031	0.037	0.024	0.029	0.036	0.044	0.052	0.055	0.057	0.055	0.051	0.050	0.047	0.049	0.054	0.048	0.050	0.072	0.070	0.057	0.043	0.047	0.072	0.024	
24	0.035	0.029	--	0.026	0.025	0.021	0.027	0.031	0.033	0.034	0.036	0.039	0.040	0.045	0.049	0.052	0.056	0.066	0.066	0.061	0.057	0.051	0.046	0.045	0.042	0.066	0.021	
25	0.042	0.035	--	0.029	0.031	0.024	0.026	0.032	0.035	0.037	0.040	0.039	0.042	0.045	0.048	0.058	0.064	0.067	0.065	0.058	0.057	0.058	0.054	0.047	0.045	0.067	0.024	
26	0.039	0.031	--	0.023	0.025	0.019	0.019	0.027	0.032	0.040	0.045	--	0.043	0.043	0.046	0.047	0.049	0.050	0.050	0.049	0.049	0.048	0.046	0.044	0.039	0.050	0.019	
27	0.043	0.041	--	0.031	0.035	0.026	0.024	0.034	0.040	0.048	0.049	0.050	0.052	0.051	0.048	0.049	0.054	0.052	0.052	0.051	0.048	0.046	0.042	0.040	0.044	0.054	0.024	
28	0.039	0.040	--	0.039	0.030	0.028	0.037	0.040	0.044	0.045	0.046	0.047	0.049	0.049	0.051	0.053	0.055	0.060	0.077	0.063	0.049	0.044	0.039	0.037	0.046	0.077	0.028	
29	0.032	0.028	--	0.027	0.025	0.018	0.025	0.031	0.034	0.037	0.038	0.040	0.042	0.044	0.045	0.050	0.059	0.071	0.059	0.052	0.047	0.042	0.039	0.038	0.040	0.071	0.018	
30	0.038	0.035	--	0.035	0.031	0.027	0.029	0.032	0.034	0.037	0.040	0.042	0.044	0.048	0.052	0.057	0.058	0.059	0.057	0.050	0.046	0.047	0.045	0.044	0.043	0.059	0.027	
Avg	0.044	0.040	--	0.037	0.035	0.032	0.032	0.039	0.043	0.046	0.048	0.049	0.050	0.051	0.053	0.054	0.055	0.056	0.056	0.054	0.052	0.049	0.046	0.045	0.046	--	--	
Max	0.071	0.066	--	0.066	0.061	0.055	0.056	0.057	0.065	0.069	0.070	0.074	0.075	0.076	0.075	0.077	0.077	0.077	0.077	0.074	0.072	0.071	0.072	0.070	--	0.077	--	
Min	0.027	0.028	--	0.023	0.025	0.018	0.019	0.027	0.030	0.032	0.035	0.036	0.036	0.039	0.037	0.042	0.043	0.041	0.038	0.037	0.030	0.031	0.024	0.029	--	--	0.018	

-- Indicates Invalid Data

Appendix F: West Plant Meteorological Site Check Forms

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 04. 05. 2012Time: 10:31 amOperator: Kane Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propellers and the wind direction vanes are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 m	3.8 m	4.0
Direction* 10m (deg)	South	140.20	134
Ambient Temperature (°C)	23 °C	25.4 °C	24.53
Relative Humidity (%)	10%	10.3%	10.23
Aspirated Temp 2m	23 °C	25.2 °C	24.57
Aspirated Temp 10m	21 °C	23.1 °C	22.99
Delta Temperature (°C)	N/A	-2.17	-1.573
Solar Radiation (w/m ²)	Sunny, Partly cloudy, Cloudy	893.2	800
Barometric Pressure	N/A	1080.1	1080.1
Battery Voltage (V)	N/A	12.8	12.8
Time (MST)	N/A	10:34 am	1030 hrs 15
Date	N/A	4.5.2012	4/5/12

*Direction wind is from

~~*INVALIDATED~~ 0.039" PRECIP RECEIVED @ 1030 HRS - RPAComments/Unusual Occurrences or Weather: Poured water in precip gauge to ensure functionality

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. DURHAM PORTLAND	
KJD	4/20/12
REVIEWED BY	RDA
AUDITED BY	DATE 4/22/12

Site Operator Signature: Kane Ballard

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4/12/2012

Time: 8:02 am

Operator: Kami Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust. (*Poured water to check functionality*)
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3	2.2 m/s	1.533
Direction* 10m (deg)	SW	201°	197.3
Ambient Temperature (°C)	11°C	12.6°C	12.63
Relative Humidity (%)	30%	47.2%	47.89 KJD
Aspirated Temp 2m	11°C	12.4°C	12.47
Aspirated Temp 10m	9°C	11.7°C	11.82
Delta Temperature (°C)	N/A	-0.7	-0.648
Solar Radiation (w/m ²)	Sunny - Partly cloudy (Cloudy)	200.83	210.5
Barometric Pressure (mmHg)	N/A	103.8	103.9
Battery Voltage (V)	N/A	13.02	13.03
Time (MST)	N/A	8:05 am	0815 hrs CT
Date	N/A	4-12-2012	4/12/12

*Direction wind is from

* INVALIDATED 0.028" PRECIP RECORDED AT 0815 HRS. -RPA

Comments/Unusual Occurrences or Weather: No signal to monitor.

Refilled precip pan during site visit on 4-11-2012

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. <small>DENVER PORTLAND</small>	
<u>KJD</u> <small>REVIEWED BY</small> <u>RJA</u> <small>AUDITED BY</small>	
<u>4/30/12</u> <small>DATE</small> <u>4/22/12</u> <small>DATE</small>	

Site Operator Signature:

Kami Ballard

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4/19/2012 Time: 7:33 am Operator: Kami Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	1	.46 m/s	0.274
Direction* 10m (deg)	East	95.76°	114.2
Ambient Temperature (°C)	20° C	22.4° C	21.86
Relative Humidity (%)	16%	18.5%	18.5 KJD
Aspirated Temp 2m	20° C	21.1° C	20.74
Aspirated Temp 10m	18° C	20.4° C	20.39
Delta Temperature (°C)	N/A	- .78	- .035 KJD
Solar Radiation (w/m ²)	Sunny	339.05	326.8
Barometric Pressure (mmHg)	N/A	682.03	682.1
Battery Voltage (V)	N/A	12.9	12.38
Time (MST)	N/A	7:40 am	0745 hrs
Date	N/A	4/19/2012	4/19/12

*Direction wind is from

d INVALIDATE) 0.02" OF PRECIP RECORDED @ 0745 HRS - RA

Comments/Unusual Occurrences or Weather: Poured water onto precip. gauge.

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. DENVER, COLORADO	
KJD	4/30/12
REVIEWED BY	RPA
AUDITED BY	DATE 4/22/12

Site Operator Signature: Kami Ballard

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4-23-2012

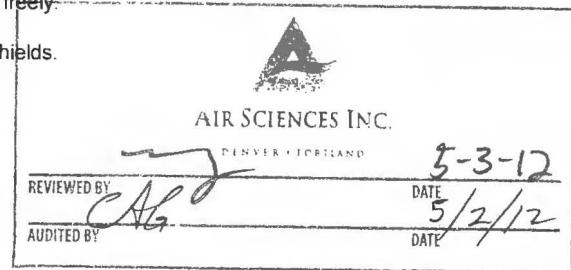
Time: 0730

Operator: Attwidge

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.



Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2	1.38	1.45 m/s
Direction* 10m (deg)	NE	69.4	55.4 Deg
Ambient Temperature (°C)	30	27.7	26.8 °C
Relative Humidity (%)	10	13.3	143.5 %*
Aspirated Temp 2m	30	26.9	25.88 °C
Aspirated Temp 10m	30	25.7	25.05 °C
Delta Temperature (°C)	N/A	-1.11	-0.83 °C
Solar Radiation (w/m ²)	Sunny	311.0	267.4 W/m ²
Barometric Pressure (mmHg)	N/A	682.7	682.7 mm Hg
Battery Voltage (V)	N/A	12.8	12.82 V
Time (MST)	N/A	0735	0730 HRS LT
Date	N/A	4-23-2012	1/4 5D

*Direction wind is from

Comments/Unusual Occurrences or Weather: FILLED EVAP TANK

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

* Operator typo. True value is 14.35% mg Site Operator Signature: R Attwidge

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5-03-2012

Time: 9:05 am

Operator: Kacie Baak

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	1 m/s	3.6 m/s	3.615
Direction* 10m (deg)	3	157.8°	149.0
Ambient Temperature (°C)	25° C	25.2 °C	25.16
Relative Humidity (%)	11%	16.8%	16.68
Aspirated Temp 2m	25° C	24.9 °C	25.13
Aspirated Temp 10m	23° C	23.5 °C	23.35
Delta Temperature (°C)	N/A	-1.5°	-1.78
Solar Radiation (w/m ²)	Sunny / Partly cloudy / Cloudy	711.9	705.1
Barometric Pressure (mmHg)	N/A	682.4 mmHg	682.6
Battery Voltage (V)	N/A	12.8	12.8
Time (MST)	N/A	5-03-12	0915 hrs CT
Date	N/A	9:09 am	5/3/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Poured water into Precip. gauge to check for accuracy. INNUNDED 0.004" Precip. Recorded @ 0915 hrs - RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY CAG RPA	DATE 6/5/12
AUDITED BY	DATE 6/5/12

Site Operator Signature:

Kacie Baak

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5-10-12Time: 10:15 amOperator: K. Baaks

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2 mph	3.2 m/s	2.34
Direction* 10m (deg)	SW	240.19	283.5
Ambient Temperature (°C)	80°F	24.53	24.12
Relative Humidity (%)	20%	32%	31.26
Aspirated Temp 2m	80°F	23.61	23.55
Aspirated Temp 10m	78°F	22.74	22.58
Delta Temperature (°C)	N/A	- .82	-0.97
Solar Radiation (w/m ²)	Sunny	898.03	895.0
Barometric Pressure (mmHg)	N/A	680.69	680.7
Battery Voltage (V)	N/A	12.79	12.80
Time (MST)	N/A	10:23	1030 hrs LT
Date	N/A	5-10-12	5/10/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled evap pan, poured water in to precip. gauge
INVAULATED 0.004" Precip Recorded @ 1030 hrs - RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY	CAG
AUDITED BY	RPA
DATE	6/10/12
DATE	6/10/12

Site Operator Signature:

Kari Baaks



**WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1**

Date: 5-17-12

Time: 1:05 pm

Operator: Kacie Baak

YES NO **

1. The tower is intact and upright.
 2. The anemometer propeller and the wind direction vane are turning freely.
 3. All temperature shields are intact, and the probes are inside their shields.
 4. The aspirator fans are operating.
 5. The solar radiation sensor is level and has been cleaned.
 6. The solar panel is facing south and is clean.
 7. The precipitation gauge is clean and free of bugs and dust.
 8. The data logger is reading the correct time and day.
 9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
 10. Estimate and document the parameters below.

freely.	
shields.	
	AIR SCIENCES INC.
	DENVER • PORTLAND
REVIEWED BY <i>CSA</i> <i>WRT</i>	6/4/12
AUDITED BY	DATE 6/5/12

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 mph	4.3 m/s	4.44
Direction* 10m (deg)	SW	172.03°	186.2
Ambient Temperature (°C)	95°F	34.71°C	34.66
Relative Humidity (%)	8%	6.68%	7.06
Aspirated Temp 2m	95°F	35.01°C	34.68
Aspirated Temp 10m	92°F	32.56°C	32.42
Delta Temperature (°C)	N/A	-2.45°C	-2.26
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	1031.92 w/m ²	1030
Barometric Pressure (mmHg)	N/A	679.65 mmHg	679.6
Battery Voltage (V)	N/A	12.69V	12.69
Time (MST)	N/A	1:12 PM	13:15 hrs LT
Date	N/A	5-17-12	5/17/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled evap. gauge & poured a bit of water in
precip. gauge - INSTRUMENTED 0.004" precip recorded @ 1315 hrs - RPT

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

Karen Bask

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5/24/2012Time: 7:45 amOperator: K. Ballard**YES NO ****

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	5 m/s	4.2 m/s	1.143
Direction* 10m (deg)	SW	195.15	235.8
Ambient Temperature (°C)	25°	26.4	26.3
Relative Humidity (%)	15%	14.9%	15.74
Aspirated Temp 2m	25°	26.4°	24.93
Aspirated Temp 10m	23°	24.9°	RPT 24.93 24.38
Delta Temperature (°C)	N/A	-1.4	-0.549
Solar Radiation (w/m ²)	Sunny, Partly cloudy, Cloudy	469.2	414.1
Barometric Pressure (mmHg)	N/A	676.3	676.3
Battery Voltage (V)	N/A	12.7	12.66
Time (MST)	N/A	7:51	0745 hrs LT
Date	N/A	5.24.12	5/24/12

 {
 0.901-0715
0.786-073
4.297-082
4.333-083
}

*Direction wind is from

Comments/Unusual Occurrences or Weather: Refilled evap. pan; Poured water into precip. gauge. Transferred 0.012" precip recorded @ 0745 hrs - RPT

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY	CAG
AUDITED BY	RPT
DATE	6/5/12
DATE	6/5/12

Site Operator Signature: Kami Ballard

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5-31-2012Time: 8:38 amOperator: Kami Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>
<u>CSC</u> REVIEWED BY <u>RPA</u> DATE <u>5/31/12</u>
<u></u> AUDITED BY <u></u> DATE <u>6/5/12</u>

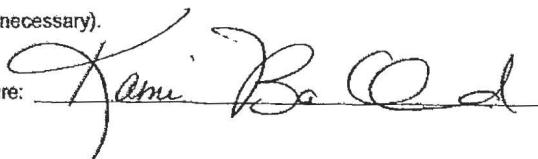
Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	1 m/s	.5 m/s	0.639
Direction* 10m (deg)	8.	195.5	205.7
Ambient Temperature (°C)	28°	29.5°	29.87
Relative Humidity (%)	10%	9.5%	9.48
Aspirated Temp 2m	28°	28.1°	28.64
Aspirated Temp 10m	26°	27.7°	27.91
Delta Temperature (°C)	N/A	- .58	-0.731
Solar Radiation (w/m ²)	Sunny	639.7	640.1
Barometric Pressure (mmHg)	N/A	680.0	680.0
Battery Voltage (V)	N/A	12.75	12.75
Time (MST)	N/A	8:38 am	0845 hrs CT
Date	N/A	5-31-2012	5/31/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Poured water into precip. gauge. Filled trap pan - INVALIDATED 0.012" precip recorded @ 0845 hrs-RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:





AIR SCIENCES INC.

DENVER • PORTLAND

KJD

REVIEWED BY
RPA

AUDITED BY

6/12/12

DATE
6/11/12

DATE

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1



Date: 06-07-2012

Time: 8:26 am

Operator: Kami Ballard

YES NO **

X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	1 m/s	.51 m/s	122 0.817
Direction* 10m (deg)	SW	176.3	166.75 133.3
Ambient Temperature (°C)	27 °	29.4	29.23
Relative Humidity (%)	10 %	12.2	12.61
Aspirated Temp 2m	27 °	28.5	28.31
Aspirated Temp 10m	25 °	27.3	27.29
Delta Temperature (°C)	N/A	-1.03	-1.02
Solar Radiation (w/m ²)	Sunny	620.9	592.0
Barometric Pressure (mmHg)	N/A	680.4	680.6
Battery Voltage (V)	N/A	12.71	12.72
Time (MST)	N/A	8:30 am	0830 hrs LT
Date	N/A	06-07-2012	6/7/12

8:00 - 112.7
8:15 - 106.8
8:45 - 253.2
9:00 - 328.3

- KJD

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled evap. pan & tipped precip. gauge
INVALIDATE 0.028" OF PRECIPITATION READING @ OBSITES RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 6/14/2012

Time: 10:26am

Operator: Kami Ballard

YES NO **

X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

 AIR SCIENCES INC. DENVER PORTLAND	
RPA	6/22/12
REVIEWED BY <u>KJD</u>	DATE <u>6/18/12</u>
AUDITED BY	DATE

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 m/s	2.8 m/s	3.299
Direction* 10m (deg)	South	183.9	151.5
Ambient Temperature (°C)	33°	34.3°	33.48
Relative Humidity (%)	8%	6.9%	6.808
Aspirated Temp 2m	33°	33.9°	33.45
Aspirated Temp 10m	31°	31.2°	31.12
Delta Temperature (°C)	N/A	-2.8	-2.335
Solar Radiation (w/m²)	Sunny - Partly cloudy - Cloudy	930.4	936
Barometric Pressure (mmHg)	N/A	680.2	680.2
Battery Voltage (V)	N/A	12.7	12.7
Time (MST)	N/A	10:29 am	10:30 L.T.
Date	N/A	6/14/2012	6/14/12

10:00 - 189.4
 10:15 - 146.9
 10:45 - 153.8
 11:00 - 185.7

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled up pan. Tipped precip. gauge
INVALIDATED RECORDED PRECIP. TRIGGERS - DRY

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature: Kami Ballard

WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 6-21-2012Time: 10:55 amOperator: Kami Ballard

YES NO **

<input checked="" type="checkbox"/>

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
PRA	6/28/12
REVIEWED BY	DATE
AJD	6/26/12
AUDITED BY	DATE

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 m/s	3.1 m/s	3.141
Direction* 10m (deg)	5	178.7	230.1
Ambient Temperature (°C)	36 °	35.9 °	34.98
Relative Humidity (%)	10%	7.4 %	9.18
Aspirated Temp 2m	36 °	35.8 °	34.66
Aspirated Temp 10m	34 °	33.9 °	33.64
Delta Temperature (°C)	N/A	-1.8	-1.022
Solar Radiation (w/m ²)	Sunny, Partly cloudy, Cloudy	975.3	966.0
Barometric Pressure (mmHg)	N/A	681.6	681.5
Battery Voltage (V)	N/A	12.7	12.68
Time (MST)	N/A	10:59 am	11:00 L.T.
Date	N/A	06-21-2012	6/21/12

10:30 - 209.6
 10:45 - 262.3
 11:15 - 247.9
 11:30 - 239.8

*Direction wind is from

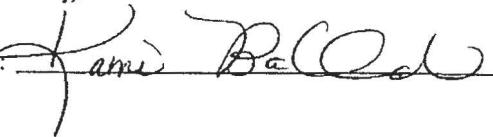
Comments/Unusual Occurrences or Weather: Filled evap pan & stopped precip. gauge
Removed dead mouse from evaporation pan.

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Invalidate precip at 11:00 hrs dueto site operator maintenance.

Site Operator Signature:

- KJD



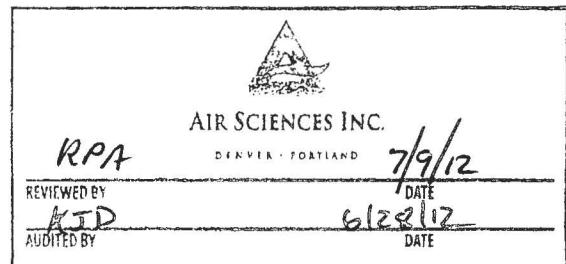
WEST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 6.27.12Time: 10:02Operator: K. Baak

YES NO**

X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.



Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2 m/s	3.4 m/s	2.939
Direction* 10m (deg)	S.	165.9°	205.9
Ambient Temperature (°C)	36°	36.7°	36.15
Relative Humidity (%)	20%	17%	19.1
Aspirated Temp 2m	36°	36.3°	35.66
Aspirated Temp 10m	34°	34.2°	34.23
Delta Temperature (°C)	N/A	-2.11	-1.433
Solar Radiation (w/m²)	Sunny, Partly cloudy, Cloudy	887.25	842.0
Barometric Pressure (mmHg)	N/A	681.00	681.0
Battery Voltage (V)	N/A	12.6	12.66
Time (MST)	N/A	10:04	10:15 L.T
Date	N/A	6.27.2012	6/27/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled evap pans & stopped precip. gauge
Invalidate precip at 10:15 hrs. - KJD

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 Site Operator Signature: K. Baak

Appendix G: West Plant PM₁₀ and PM_{2.5} Site Check Forms and Flow Audits

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 04.05.2012

Time: 10:30 am

Operator: Karen Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (if it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

Comments/Unusual Occurrences:



AIR SCIENCES INC.

PORTLAND, OREGON

KJD

RPA

4/30/12

DATE

4/22/12

Signature:

Karen Ballard

AUDITED BY *Fax completed form to Air Sciences DATE 303-279-3796

WEST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 4/12/2012 Time: 8:10

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). *Power fail 4/11 - 7:32 4/9 - 16:10*
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

3/27-9:03 3/26-13:33

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<i>RPA</i>
<input type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<i>RPA</i>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<i>RPA</i>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<i>RPA</i>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: *Electicians working w/ the Science to find
obstruction to power/venturi issues*

AIR SCIENCES INC.
KJD
REVIEWED BY
RPA
DATE
4/30/12
DATE
4/22/12

Signature:

Kami Ballard

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4/19/2012

Time: 7:45 am

Operator: Karen Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).

*Power Fail: 4/17 - 10:39 am
Count Fail: 4/16 - 14:51 / 4/13 10:50 am*

7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

Comments/Unusual Occurrences:



AIR SCIENCES INC.

KJD
REVIEWED BY
RPA

DENVER • PORTLAND

4/30/12
DATE
4/22/12
DATE

Signature: Karen Ballard

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4. 24. 2012 Time: 12:57 pm Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
CAG	DENVER • PORTLAND
REVIEWED BY RPA	DATE 6/15/12
AUDITED BY	DATE

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences: Tape broke during inlet cleaning.
Reattached & performed Sensor & Tape test.

Signature: Kami Ballard

WEST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-3-12

Time: 9:10 am

Operator: Kacie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 4/30 - Maintenance
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

REVIEWED BY:	 <u>C.G.</u>	AUDITED BY:	 <u>RPA</u>
DATE:	<u>6/4/12</u>	DATE:	<u>6/5/12</u>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

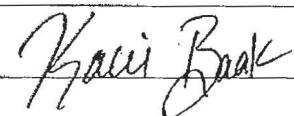
YES NO

	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature:


Kacie Baak

WEST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-10-12 Time: 10:25 am operator: K. Baak

I. BAM SAMPLER - Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER - Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY	DATE
<u>Cal</u>	<u>6/10/12</u>
AUDITED BY	DATE
	<u>6/10/12</u>

III. BAM SAMPLER - Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER - Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER - Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature:

WEST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-17-12

Time: 1:15 PM

Operator: Kacie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (if it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC. DENVER • PORTLAND
REVIEWED BY <u>CAB</u>
AUDITED BY <u>RPA</u>
DATE <u>6/8/12</u>
DATE <u>6/5/12</u>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: Kacie Baak

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5/24/12 Time: 7:59 am Operator: K. Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X
X
X
X
X
X
X

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

/
/
/
/
/

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
REVIEWED BY	6/18/12
RPA	DATE
AUDITED BY	6/15/12
DATE	

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

/
/

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

/
/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

/
/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: Karen Ballard

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5.31.2012

Time: 8:39

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 5/30 & 5/31 - Tape Break
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

✓	
✓	
✓	
✓	
✓	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned



II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	↙
	↙

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: Tape Change

Signature: Kami Ballard



AIR SCIENCES INC.

DENVER • PORTLAND

KJD

REVIEWED BY

RPA

6/12/12

DATE

WEST PLANT
BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1

AUDITED BY

Date: 6-07-2012

DATE

Time: 8:36



AIR SCIENCES INC.

DENVER • PORTLAND

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 5/31 - Tape Error
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO RPA

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO RPA

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO RPK

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

**Comments/Unusual Occurrences:

Signature: Kami Ballard

WEST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 6/14/2012 Time: 10:38 am Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>
<u>RPA</u> <small>REVIEWED BY</small> <u>KJD</u> <small>AUDITED BY</small>
<u>6/22/12</u> <small>DATE</small>
<u>6/18/12</u> <small>DATE</small>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:

Signature:

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6/21/2012

Time: 11:08 am

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). *6/18 @ 9:31 → count failed*
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned


AIR SCIENCES INC.
DENVER - PORTLAND
RPA
REVIEWED BY <u>KJD</u> DATE <u>6/28/12</u>
AUDITED BY _____ DATE <u>6/26/12</u>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:

Signature:

Kami Ballard

WEST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6-27-12

Time: 10:05

Operator: K. Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned - Will clean when tape is changed

AIR SCIENCES INC.	
DENVER • PORTLAND	
RPA	7/9/12
REVIEWED BY <u>KJD</u>	DATE <u>6/28/12</u>
AUDITED BY	DATE

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:

Signature: Kami Baak



AIR SCIENCES INC.

Monthly Flow Verification PM₁₀

West Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One BAM 1020 PM₁₀: S/N: M8712
Firmware: 8236-D0 V3.6.3
Calibrator: Delta Cal S/N: 1034

Date of Flow Audit: 7-24-2012
Time of Flow Audit: 1:10 pm

BAM	STD
31.3	31.5
683	683

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15	0.0	15.08	-0.5
		14.700 - 15.300	+/- 2%	14.250 - 15.750	+/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0	18.39	0.1
		18.032 - 18.768	+/- 2%	17.480 - 19.320	+/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0	16.76	-0.4
		16.336 - 17.034	+/- 2%	15.865 - 17.535	+/- 5%

Calculations:

(1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
 (2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

(2) Leak Test

Should be < 1.0 LPM

AIR SCIENCES INC.
DENVER • PORTLAND

REVIEWED BY CAG DATE 6/8/12
AUDITED BY RPA DATE 6/5/12

Comments/Abnormalities:

Signature:

Upon completion of this form, fax to Air Sciences at 303-279-3796



AIR SCIENCES INC.

DRAFT - REVISED

Monthly Flow Verification PM₁₀

West Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One BAM 1020 PM₁₀: S/N: M8712
Firmware: 3236-06 V3.4.3
Calibrator: DELTA CAL S/N: 1034

Date of Flow Audit: 5.31.2012
Time of Flow Audit: 8:55 am

	BAM	STD
Ambient Temperature (AT) °C	31.6	31.5
Berometric Pressure mmHg	676	676

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.0	0.0	15.05	-0.3
		14.700 - 15.300	+/- 2%	14.250 - 15.750	+/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0	18.3	0.5
		18.032 - 18.768	+/- 2%	17.480 - 19.320	+/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0	16.65	0.3
		16.336 - 17.034	+/- 2%	15.865 - 17.535	+/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
(2) Leak Test .1 Should be < 1.0 LPM

AIR SCIENCES INC.	
REVIEWED BY	CAG
AUDITED BY	RDA
DATE	6/18/12
DATE	6/5/12

Comments/Abnormalities: _____

Signature: Jami Ballard

Upon completion of this form, fax to Air Sciences at 303-279-3796



Monthly Flow Verification PM₁₀

West Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 282-1

Met One BAM 1020 PM₁₀: S/N: M 87/2
Firmware: 3236-06 V3.6.3
Calibrator: Delta Cal S/N: 1034

Date of Flow Audit: 6/27/2012
Time of Flow Audit: 10:10 am

	BAM	STD	
Ambient Temperature (AT) °C	35.9	36.4	Cal 35.7
Berometric Pressure mmHg	674	674	Cal 682

	Set Point (lpm)	BAM	% Diff (1)	RPA	STD Flow Meter	% Diff (2)	KJD
(1) Actual Flow <i>Acceptable Differential</i>	15	15.0	0.0		15.05	-0.332	
		14.700 - 15.300	+/- 2%		14.250 - 15.750	+/- 5%	
(2) Actual Flow <i>Acceptable Differential</i>	18.4	18.4	0.0		18.28	0.656	
		18.032 - 18.768	+/- 2%		17.480 - 19.320	+/- 5%	
(3) Actual Flow <i>Acceptable Differential</i>	16.7	16.7	0.0		16.63	0.421	
		16.336 - 17.034	+/- 2%		15.865 - 17.535	+/- 5%	

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
(2) Leak Test 1 Should be < 1.0 LPM

AIR SCIENCES INC.	DENVER • PORTLAND	7/9/12
RPA		DATE
REVIEWED BY	KJD	6/28/12
AUDITED BY		

Comments/Abnormalities:

Signature: John Bodd

Upon completion of this form, fax to Air Sciences at 303-279-3796

WEST PLANT

BAM PM2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 04.05.2012 Time: 10:39 am

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:



AIR SCIENCES INC.

DENVER • PORTLAND

KJD

REVIEWED BY
RPA

DATE

4/30/12

DATE

4/22/12

DATE

Signature:

Kami Ballard

Fax completed form to Air Sciences at 303-279-3796

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4/12/2012

Time: 8:14 am

Operator: Karen Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months). *Power fail - 4/09 - 16:08 ; 4/11 - 7:30, 12:45*
6. Error log was checked (F3), and errors followed up on (see manual). *Count fail - 4/11 - 18:16*
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<i>RPA</i>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<i>RPA</i>	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<i>RPA</i>	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<i>RPA</i>	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: Electricians/Air Sciences troubleshooting ongoing circuit/power issues

	Signature:
AIR SCIENCES INC. DENVER • PORTLAND	
KJD	
REVIEWED BY Fax completed form to Air Sciences at 303-279-3796	
AUDITED BY JMK	
DATE 4/30/12	
DATE 4/12/12	

Signature: Jeanne R.C.

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4/19/2012 Time: 7:48 am Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). *Power Fail: 4/17 - 10:37 am*
Count Fail: 4/12 - 8:16 am
7. Climate control appears operational (if it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

- RPA*
- | |
|-------------------------------------|
| <input checked="" type="checkbox"/> |
1. Inlet Flow check Performed
 2. Visual inspection and dust removal
 3. Leak check performed
 4. PM10 and 2.5 cyclone particle trap cleaned
 5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

- RPA*
- | |
|-------------------------------------|
| <input checked="" type="checkbox"/> |
1. Filter tape replaced
 2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

- RPA*
- | |
|-------------------------------------|
| <input checked="" type="checkbox"/> |
1. Replaced muffler on the pump (*Work performed by Air Sciences)
 2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

- RPA*
- | |
|-------------------------------------|
| <input checked="" type="checkbox"/> |
1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
 2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

	<p>AIR SCIENCES INC. DENVER • PORTLAND</p>
<p>KJD</p>	<p>4/19/12</p>
REVIEWED BY	DATE
<p>RPA</p>	<p>4/22/12</p>
AUDITED BY	Fax completed form to Air Sciences at 303-279-3796

Signature:

Kami Ballard

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4-26-12

Time: 1300

Operator: Arreola

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	
X	
X	
X	

AIR SCIENCES INC.
<i>[Signature]</i>
DENVER / PORTLAND
5-3-12
REVIEWED BY
<i>[Signature]</i>
DATE
5/2/12
AUDITED BY
[Signature]
DATE

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
X	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
X	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
X	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: 72 HR BKGD CAL COMPLETED

Signature: R. Attwells

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-03-2012 Time: 9:10 am

Operator: Kacie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 4/24 - Maintenance
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
REVIEWED BY	CAG DENVER • PORTLAND
RPA	C/4/12
AUDITED BY	DATE
	6/5/12
	DATE

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature: Kacie Baak

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-10-12

Time: 10:25 am

Operator: K. Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

	AIR SCIENCES INC. DENVER • PORTLAND
REVIEWED BY <i>CA/G</i> <i>RPT</i>	DATE <i>5/5/12</i>
AUDITED BY	DATE <i>5/5/12</i>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: K. Baak

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-17-12 Time: 1:15 PM Operator: Kacie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

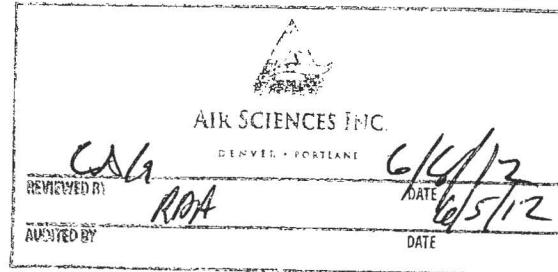
1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned



III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

**Comments/Unusual Occurrences:

Signature: Kacie Baak

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-24-12 Time: 7:55 am Operator: K. Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	
/	
/	
/	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

	AIR SCIENCES INC DENVER • PORTLAND
REVIEWED BY	CAG
AUDITED BY	RPA
DATE	6/19/12
DATE	6/5/12

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature:

WEST PLANT
 BAM PM 2.5 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-31-2012 Time: 9:14 am Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

✓	
✓	
✓	
✓	
✓	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.
 DENVER / PORTLAND
 REVIEWED BY CG DATE 5/31/12
 RPA
 AUDITED BY DATE 5/31/12

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature:

Kami Ballard



AIR SCIENCES INC.

DENVER • PORTLAND

KJD

REVIEWED BY
RPA

AUDITED BY

WEST PLANT

6/12/12 BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1AIR SCIENCES INC.
DENVER • PORTLAND

Date: 06-07-2012 Time: 8:34 am

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X
X
X
X
X
X
X

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 06/04 - Tape Error
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

FIR
Signature: K. Ballard

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6/14/2012

Time: 10:33 am

Operator: Kami Baldad

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 6/14 → Tape Tension
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

KJD

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned


AIR SCIENCES INC.
DENVER • PORTLAND
RPA
REVIEWED BY
<u>KJD</u>
AUDITED BY
DATE
<u>6/26/12</u>
6/18/12

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

**Comments/Unusual Occurrences:

Signature: Kami Baldad

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6-21-2012

Time: 11:03 am

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

- KJD
1. Inlet Flow check Performed
 2. Visual inspection and dust removal
 3. Leak check performed
 4. PM10 and 2.5 cyclone particle trap cleaned
 5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
DENVER • PORTLAND	
RPA	<u>6/28/12</u>
REVIEWED BY	<u>KJD</u>
AUDITED BY	<u>6/26/12</u>
DATE	

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature:

Kami Ballard

WEST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6-27-12

Time: 10:05

Operator: K Best

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned - *Clean when tape is changed*

AIR SCIENCES INC.	
RPA	DENVER • PORTLAND
REVIEWED BY <i>KJD</i>	DATE <i>7/9/12</i>
AUDITED BY	DATE <i>6/28/12</i>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: Karen Ballard



Monthly Flow Verification PM_{2.5}

West Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One BAM 1020 PM_{2.5}: S/N: m 8133
Firmware: Delta Cal S/N: 1034
Calibrator:

Date of Flow Audit: 4-26-2012
Time of Flow Audit: 1300 hrs

	BAM	STD
Ambient Temperature (AT) °C	<u>15.7</u>	<u>15.6</u>
Berometric Pressure mmHg	<u>684</u>	<u>684</u>

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)	
(1) Actual Flow <i>Acceptable Differential</i>	15	<u>15.0</u>	<u>0.0</u> +/- 2%	<u>15.29</u>	<u>-1.9</u> +/- 5%	KAG
(2) Actual Flow <i>Acceptable Differential</i>	18.4	<u>18.4</u>	<u>0.0</u> +/- 2%	<u>18.62</u>	<u>-1.2</u> +/- 5%	SAG
(3) Actual Flow <i>Acceptable Differential</i>	16.7	<u>16.7</u>	<u>0.0</u> +/- 2%	<u>16.76</u>	<u>-0.4</u> +/- 5%	SAG

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM 0.2 Should be < 1.0 LPM
(2) Leak Test

	AIR SCIENCES INC.	DENVER • PORTLAND
REVIEWED BY	<u>CAG</u>	5-3-12
AUDITED BY		DATE <u>5/2/12</u>

Comments/Abnormalities: 721hr BKGD CAL COMPLETED

Invalidate concentration from 0800 hrs on 4/23/12 to 1300 hrs on 4/26/12 for Background test. CAL

Signature:

Upon completion of this form, fax to Air Sciences at 303-279-3796



AIR SCIENCES INC.

DENVER • PORTLAND

Monthly Flow Verification PM_{2.5}

West Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One BAM 1020 PM_{2.5}: S/N: M 8133
Firmware: 3236-06 V3.43
Calibrator: DELTA CAL S/N: 1039

Date of Flow Audit: 5-31-2012
Time of Flow Audit: 9:18 am

BAM	STD
34.2	34.1
1081	681

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.0	0.0 +/- 2%	14.74	1.8 +/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0 +/- 2%	18.32	0.4 +/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0 +/- 2%	16.52	1.1 +/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
(2) Leak Test .2 Should be < 1.0 LPM

AIR SCIENCES INC. DENVER • PORTLAND	6/18/12 DATE
REVIEWED BY <i>Cal</i> <i>RPA</i>	6/18/12 DATE
AUDITED BY	

Comments/Abnormalities: _____

Signature: *Kami Bellard*

Upon completion of this form, fax to Air Sciences at 303-279-3796



Monthly Flow Verification PM_{2.5}

West Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One BAM 1020

PM_{2.5}: S/N: M8133

Firmware:

3236 - 01

V3.63

Calibrator:

Delta Cal

S/N: 1084

Date of Flow Audit:
Time of Flow Audit:

6/27/2012
10:20 am

Ambient Temperature (AT) °C

BAM	STD	% Cal
36.8	36.6	36.8
682	683	682

Berometric Pressure mmHg

(1) Actual Flow

Acceptable Differential

Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)	KJD
15	15	0.0	14.59	2.810	

14.700 - 15.300

+/- 2%

14.250 - 15.750

+/- 5%

(2) Actual Flow

Acceptable Differential

18.4	18.4	0.0	18.08	1.770	KJD
------	------	-----	-------	-------	-----

18.032 - 18.768

+/- 2%

17.480 - 19.320

+/- 5%

(3) Actual Flow

Acceptable Differential

16.7	16.7	0.0	16.32	2.328	KJD
------	------	-----	-------	-------	-----

16.336 - 17.034

+/- 2%

15.865 - 17.535

+/- 5%

Calculations:

(1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)

(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM

(2) Leak Test

1.9

Should be < 1.0 LPM

RPA		AIR SCIENCES INC.
REVIEWED BY	KJD	DENVER • PORTLAND
7/9/12		DATE
AUDITED BY		6/28/12
		DATE

Comments/Abnormalities: 6.0 PM went below 1.0 for a second but kept stabilizing at 1.9 or 2 LPM.

Signature:

Jane BCO

Upon completion of this form, fax to Air Sciences at 303-279-3796

Appendix H: East Plant Meteorological Site Check Forms

EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4.4.2012

Time: 1:00 pm

Operator: Kami Ballard

YES NO **

✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	
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1. The tower is intact and upright.
2. The anemometer propellers and the wind direction vanes are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	0 m/s	1.68 m/s	2.67
Direction* 10m (deg)	NW	330.1	284.3
Ambient Temperature (°C)	22 °C	20.1 °C	20.47
Relative Humidity (%)	15 %	14.5 %	14.07
Aspirated Temp 2m	22 °C	20.4 °C	20.36
Aspirated Temp 10m	20 °C	18.6 °C	18.51
Delta Temperature (°C)	N/A	-1.76	-1.851
Solar Radiation (w/m ²)	Sunny - Partly cloudy - Cloudy	997.9	967
Barometric Pressure	N/A	1012.06	1011.652
Battery Voltage (V)	N/A	12.8	12.77
Time (MST)	N/A	1:06 pm	1315 1605 UT
Date	N/A	4/4/2012	4/4/12

*Direction wind is from

† = INVALIDATED 0.004 " PRECIP RECORDED @ 1315 MRS. - RPM

Comments/Unusual Occurrences or Weather: Poured small amount of water into precip gauge, to ensure it is functioning properly.

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

Kami Ballard

AIR SCIENCES INC.	
KJD	LEADER FORTIME
REVIEWED BY	4/30/12
RPA	DATE
AUDITED BY	4/22/12
DATE	



**EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1**

Date: 4-11-2012 Time: 12:00 pm Operator: K. Piallard

YES NO **

1. The tower is intact and upright.
 2. The anemometer propeller and the wind direction vane are turning freely.
 3. All temperature shields are intact, and the probes are inside their shields.
 4. The aspirator fans are operating.
 5. The solar radiation sensor is level and has been cleaned.
 6. The solar panel is facing south and is clean.
 7. The precipitation gauge is clean and free of bugs and dust.
 8. The data logger is reading the correct time and day.
 9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
 10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	10 m/s	8 m/s	5.5
Direction* 10m (deg)	SE	147°	185.1
Ambient Temperature (°C)	21 °C	18.7 °C	18.37
Relative Humidity (%)	23 %	36 %	39.6
Aspirated Temp 2m	21 °C	19.4 °C	18.96
Aspirated Temp 10m	19 °C	17.4 °C	16.84
Delta Temperature (°C)	N/A	-2.8	-2.1
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	1026.8	1010 1014
Barometric Pressure (mmHg)	N/A	651.7	653.7 656.6
Battery Voltage (V)	N/A	12.7	12.9 12.82
Time (MST)	N/A	12:02 pm	1200 hrs LT
Date	N/A	4.11.2012	4/11/12

*Direction wind is from

Comments/Unusual Occurrences or Weather:

When form is completed, please fax to Air Sciences Inc. @	
 AIR SCIENCES INC. DENVER, COLORADO	
REVIEWED BY <u>KJD</u> <u>RPA</u>	DATE <u>4/30/12</u> <u>4-22-12</u>

When form is completed, please fax to Air Sciences Inc. @ 803-279-3796 (no cover sheet is necessary).

Site Operator Signature:

EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4/19/2011 Time: 11:22 am Operator: Kami Ballard

YES NO**

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2	1.9 m/s	1.71
Direction* 10m (deg)	SW	229.9°	233.2
Ambient Temperature (°C)	23°C	25.2°C	24.15
Relative Humidity (%)	13%	11.6%	10.77
Aspirated Temp 2m	23°C	25.4°C	23.96
Aspirated Temp 10m	21°C	22.7°C	22.07
Delta Temperature (°C)	N/A	-2.5	-1.885
Solar Radiation (w/m²)	Sunny	1013.7	1007
Barometric Pressure (mmHg)	N/A	1053.1	1053.1
Battery Voltage (V)	N/A	12.7	12.7
Time (MST)	N/A	11:35 am	11:30 AM ET
Date	N/A	4/19	4/19/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled Precip. Pan

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature: Kami Ballard

AIR SCIENCES INC.	
REVIEWED BY <u>RJA</u>	DATE <u>4/30/12</u>
AUDITED BY	DATE <u>KJD</u>
4/19/12	



EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4-23-12 Time: 0958 Operator: ATTRIDGE

YES NO **

<input checked="" type="checkbox"/>	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY <u>CAG</u>	DATE <u>5-3-12</u>
AUDITED BY <u></u>	DATE <u>5/2/12</u>

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	4	2.45	1.64 m/s
Direction* 10m (deg)	SW	257.7	260.6 Deg
Ambient Temperature (°C)	30	27.6	28.23
Relative Humidity (%)	10	13.4	13.64 %
Aspirated Temp 2m	30	26.8	26.58 °C
Aspirated Temp 10m	30	25.4	25.28 °C
Delta Temperature (°C)	N/A	-1.4	-1.3 °C
Solar Radiation (w/m ²)	Sunny	822	838 W/m ²
Barometric Pressure (mmHg)	N/A	654.2	654.3 mmHg
Battery Voltage (V)	N/A	12.6	12.69 V
Time (MST)	N/A	-0950 1000 Hrs	1000 HRS LT
Date	N/A	4-23-12	1141 JD

*Direction wind is from

Comments/Unusual Occurrences or Weather: NONE - RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

R Attridge

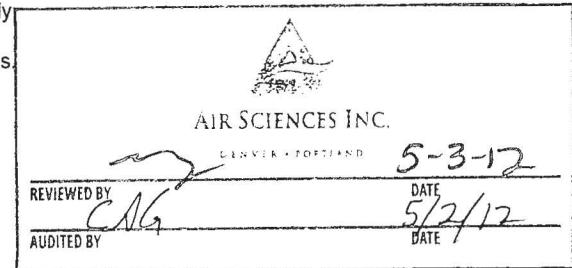
EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 4.24.2012 Time: 1:44 pm Operator: Kami Ballard

YES NO **

<input checked="" type="checkbox"/>	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.



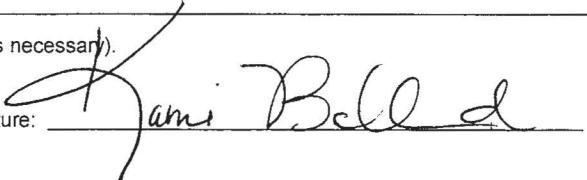
Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	6 m/s	5.3 m/s	2.81 m/s
Direction* 10m (deg)	W	207.3	213.8 Deg
Ambient Temperature (°C)	30 °	27.2 °	27.29 °C
Relative Humidity (%)	12%	11.8%	15.72%
Aspirated Temp 2m	30 °	28.1 °	27.55 °C
Aspirated Temp 10m	28°	26.3 °	25.64 °C
Delta Temperature (°C)	N/A	-1.7	-1.91 °C
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	956.87	972.0 W/m ²
Barometric Pressure (mmHg)	N/A	653.2	653.2 mmHg
Battery Voltage (V)	N/A	12.7	12.68 V
Time (MST)	N/A	1:47 pm	1345 HRS LT
Date	N/A	4.24.12	115 SD

*Direction wind is from

Comments/Unusual Occurrences or Weather:

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:



EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5-3-12 Time: 9:31 am Operator: Kacie Baak

YES NO **

<input checked="" type="checkbox"/>	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 m/s	3.33	2.14
Direction* 10m (deg)	SW	198.1	157.5
Ambient Temperature (°C)	23 °C	27.11	22.59
Relative Humidity (%)	15 %	18.05	19.27
Aspirated Temp 2m	23 °C	21.72	22.61
Aspirated Temp 10m	22 °C	20.12	20.43
Delta Temperature (°C)	N/A	-1.73	-1.97
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	834.43	794.7
Barometric Pressure (mmHg)	N/A	653.19	653.2
Battery Voltage (V)	N/A	12.76	12.77
Time (MST)	N/A	9:35	0930 hrs LT
Date	N/A	5-3-12	5-3-12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled evap pan, and dropped water into evap gauge - (INVALIDATE) 0.004" Precip measured by SITE OPERATOR - RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

AIR SCIENCES INC.

REVIEWED BY
CAG
RPA

DATE
6/15/12

AUDITED BY

Site Operator Signature:

Kacie Baak

EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5-10-12Time: 11:30 amOperator: K. Baak**YES NO ****

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 mph	2.86 m/s	3.09
Direction* 10m (deg)	W	234.61°	235.0
Ambient Temperature (°C)	78°F	21.6°C	21.69
Relative Humidity (%)	25%	35.3%	35.25
Aspirated Temp 2m	78°F	21.2°C	21.65
Aspirated Temp 10m	76°F	19.9°C	19.95
Delta Temperature (°C)	N/A	-1.2	-1.69
Solar Radiation (w/m²)	Sunny Partly cloudy Cloudy	1031.1	1021.0
Barometric Pressure (mmHg)	N/A	650.93	651.0
Battery Voltage (V)	N/A	12.75	12.75
Time (MST)	N/A	11:39	1130 HRS LT
Date	N/A	5-10-12	5-10-12

*Direction wind is from

Comments/Unusual Occurrences or Weather: poured water in to precip gauge (@ approx. 12.30 pm
No precip recorded in data set, verified proper operation of rain gauge. -RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY	<u>SGC</u>
DATE	<u>6/10/12</u>
AUDITED BY	<u>RPA</u>
DATE	<u>6/10/12</u>

Site Operator Signature:





**EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1**

Date: 5-17-12

Time: 12:05 PM

Operator: Kacie Baak

YES NO **

1. The tower is intact and upright.
 2. The anemometer propeller and the wind direction vane are turning freely.
 3. All temperature shields are intact, and the probes are inside their shields.
 4. The aspirator fans are operating.
 5. The solar radiation sensor is level and has been cleaned.
 6. The solar panel is facing south and is clean.
 7. The precipitation gauge is clean and free of bugs and dust.
 8. The data logger is reading the correct time and day.
 9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
 10. Estimate and document the parameters below.

AIR SCIENCES INC.
DENVER • PORTLAND
REVIEWED BY CSK DATE CFI/12
AUDITED BY RDF DATE CFI/12

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2 mph	.92 m/s	3.317
Direction* 10m (deg)	SW	300.97°	158.4
Ambient Temperature (°C)	92°F	30.44°C	29.8
Relative Humidity (%)	5%	8.08%	7.87
Aspirated Temp 2m	92°F	31.92°C	30.5
Aspirated Temp 10m	90°F	28.77°C	28.38
Delta Temperature (°C)	N/A	-2.84°C	-2.11
Solar Radiation (w/m ²)	(Sunny) Partly cloudy Cloudy	1071.97 w/m ²	1074.0
Barometric Pressure (mmHg)	N/A	651.71 mmHg	651.7
Battery Voltage (V)	N/A	12.65 V	12.65
Time (MST)	N/A	12:20 PM	12:15 hrs LT
Date	N/A	5-17-12	5/17/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: filled evap pan : added a bit of water to
precip. gauge. INSTRUMENTS 0.004" recorded @ 1215hrs - RPT

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

Kaci Brook

EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5.24.2012Time: 8:37 amOperator: K. Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	4 m/s	2.8 m/s	2.53
Direction* 10m (deg)	SW	195.8°	206.8
Ambient Temperature (°C)	24 °	24 °	23.81
Relative Humidity (%)	15 %	17.2 %	17.13
Aspirated Temp 2m	24 °	28.8 °	23.73
Aspirated Temp 10m	22 °	22.3 °	22.20
Delta Temperature (°C)	N/A	-1.5	-1.53
Solar Radiation (w/m²)	Sunny	Partly cloudy	Cloudy
Barometric Pressure (mmHg)	N/A	647.5	647.5
Battery Voltage (V)	N/A	12.7	12.74
Time (MST)	N/A	8:43 am	0845 Hrs LT
Date	N/A	05.24.2012	5/24/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Poured water into precip. gauge; Refilled swap. par. INVALIDATED 0.004" Precip Recorded @ 0845 Hrs - RPA

When form is completed, please fax to Air Sciences Inc. at 303-279-3796 (no cover sheet is necessary).

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	Site Operator Signature:	
	<u>C.G.</u>	<u>6/18/12</u>
REVIEWED BY: <u>RPA</u>	DATE: <u>6/5/12</u>	
AUDITED BY:	DATE:	

Site Operator Signature: Kami Ballard

EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 5-31-2012

Time: 1:32

Operator: Kami Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	5 m/s	4 m/s	3.90
Direction* 10m (deg)	SUS	.210.2	252.1
Ambient Temperature (°C)	35 °	33.1 °	32.92
Relative Humidity (%)	10 %	6.4 %	6.56
Aspirated Temp 2m	35 °	33.4 °	33.24
Aspirated Temp 10m	33 °	31.4 °	31.35
Delta Temperature (°C)	N/A	-2.11	-1.88
Solar Radiation (w/m ²)	Sunny	1004.4	1024.0
Barometric Pressure (mmHg)	N/A	650.24	650.3
Battery Voltage (V)	N/A	12.4	12.63
Time (MST)	N/A	5-31-2012	1330 HRS LT
Date	N/A	1:48 pm	5/31/12

1300 - 256.3
 1345 - 243.0
 1345 - 233.2
 1400 - 247.0

*Direction wind is from

Comments/Unusual Occurrences or Weather: Ref 11-d Evap pan. Poured water in
precip. gauge - INVALIDATED 0.004" RECORDED @ 1345 HRS - RPA

When form is completed, please fax to Air Sciences Inc. at 303-279-3796 (no cover sheet is necessary).

AIR SCIENCES INC. DENVER - PORTLAND	6/5/12	Site Operator Signature:
		<u>Kami Ballard</u>
REVIEWED BY <u>CBA</u>	DATE <u>6/5/12</u>	
AUDITED BY <u>RPA</u>	DATE <u>6/5/12</u>	



AIR SCIENCES INC.

DENVER - PORTLAND

KJD

REVIEWED BY

RPA

AUDITED BY

6/12/12

DATE

6/11/12

DATE



EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 06.07.2012

Time: 9:17 am

Operator: Kami Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 m/s	2.7	2.42 1.962
Direction* 10m (deg)	SW	207.05	190.9 208.7
Ambient Temperature (°C)	27°	27°	26.4 27.07
Relative Humidity (%)	10%	11.7	13.3 12.8
Aspirated Temp 2m	27°	27.8°	26.7 26.87
Aspirated Temp 10m	25°	25.8°	24.8 25.18
Delta Temperature (°C)	N/A	-2.14	-1.8 -1.69
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	843.4	803.0 803.0
Barometric Pressure (mmHg)	N/A	652.04	652.0 652.0
Battery Voltage (V)	N/A	12.68	12.69 12.69
Time (MST)	N/A	9:20 am	09:05 hrs LT 0915
Date	N/A	06.07.2012	6/7/12 6/7/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled evap. pan & stopped precip. gauge
 INVALIDATED 0.004" PRECIP RECORDED AT 0915 HRS. — RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

KJD

Site Operator Signature:

Kami Ballard

EAST PLANT
MET SITE CHECK FORM
 Resolution
 PROJECT NO. 262-1

Date: 6-15-2012Time: 9:10Operator: Kami Ballard

YES NO **

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1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

	
AIR SCIENCES INC.	
KJD	DATE 7/26/12
REVIEWED BY RPA	DATE 6/19/12
AUDITED BY	

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2.5	2.2	3.18
Direction* 10m (deg)	SW	214.5	167.7
Ambient Temperature (°C)	28°	27.4°	26.89
Relative Humidity (%)	13%	16.4%	16.39
Aspirated Temp 2m	28°	27.8°	27.27
Aspirated Temp 10m	26°	25.1°	25.16
Delta Temperature (°C)	N/A	-2.8	-2.112
Solar Radiation (w/m²)	Sunny, Partly cloudy, Cloudy	782.9	778.4
Barometric Pressure (mmHg)	N/A	601.8	651.9
Battery Voltage (V)	N/A	12.7	12.7
Time (MST)	N/A	9:13 am	0915 HRS LT
Date	N/A	6-15-2012	6/15/12

(0845-167.2
 0900-190.2
 0930Z 06.6
 0945-189.6

*Direction wind is from

Comments/Unusual Occurrences or Weather: leaded anem. pan & stopped precip. gauge.
INVALIDATED 0.004" OF PRECIP RECORDED @ 0915 HRS - RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

 Site Operator Signature: Kami Ballard



**EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1**

Date: 4-21-2012

Time: 2:45 pm

Operator: Kami Ballard

YES NO **

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

1. The tower is intact and upright.
 2. The anemometer propeller and the wind direction vane are turning freely.
 3. All temperature shields are intact, and the probes are inside their shields.
 4. The aspirator fans are operating.
 5. The solar radiation sensor is level and has been cleaned.
 6. The solar panel is facing south and is clean.
 7. The precipitation gauge is clean and free of bugs and dust.
 8. The data logger is reading the correct time and day.
 9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
 10. Estimate and document the parameters below.

The logo for Air Sciences Inc. features a stylized aircraft, possibly a propeller plane, depicted in flight. The aircraft has a dark body with light-colored wings and tail. Below the aircraft, the words "AIR SCIENCES INC." are printed in a bold, sans-serif font. The entire logo is contained within a rectangular border.

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	2 m/s	1.3 m/s	2.41
Direction* 10m (deg)	West	280	254.5
Ambient Temperature (°C)	36°	35°	35.48
Relative Humidity (%)	10%	8.6 %	7.73
Aspirated Temp 2m	36°	34.4 °	35.55
Aspirated Temp 10m	34 °	32.9 °	33.21
Delta Temperature (°C)	N/A	-1.6	-2.338
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	853.9	880.0
Barometric Pressure (mmHg)	N/A	101.9	652.0
Battery Voltage (V)	N/A	12.6	12.6
Time (MST)	N/A	2:47 pm	1445 hrs LT
Date	N/A	6-21-2012	6/21/12

$$x^2 \text{ above and below } 1445$$

(274.0
237.6
290.0
305.5)

*Direction wind is from

Comments/Unusual Occurrences or Weather: Spurred precip. gauge.
INVALIDATED 0.004" PRECIP @ 1445 hrs - RPT

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

796 (no cover sheet is necessary).
Site Operator Signature: Jane Ballou

EAST PLANT
MET SITE CHECK FORM
Resolution
PROJECT NO. 262-1

Date: 6.27.12

Time: 8:55 am

Operator: K. Ballard

YES NO **

X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	
X	

1. The tower is intact and upright.
2. The anemometer propeller and the wind direction vane are turning freely.
3. All temperature shields are intact, and the probes are inside their shields.
4. The aspirator fans are operating.
5. The solar radiation sensor is level and has been cleaned.
6. The solar panel is facing south and is clean.
7. The precipitation gauge is clean and free of bugs and dust.
8. The data logger is reading the correct time and day.
9. The site has been visually inspected for unusual wildlife occurrences (dead birds, etc.).
10. Estimate and document the parameters below.

 AIR SCIENCES INC. DENVER • PORTLAND	
KJD	7/26/12
REVIEWED BY <u>RPA</u>	DATE <u>6/28/12</u>
AUDITED BY	

Parameter	Estimated	Logger	Audit
Speed 10m (m/s)	3 m/s	1.7 m/s	3.05
Direction* 10m (deg)	SW	194.7	179.8
Ambient Temperature (°C)	33°	31.3°	31.51
Relative Humidity (%)	18%	25%	31.25.12
Aspirated Temp 2m	33°	31.8°	31.83
Aspirated Temp 10m	31	29.9°	29.87
Delta Temperature (°C)	N/A	-1.9	-1.954
Solar Radiation (w/m ²)	Sunny Partly cloudy Cloudy	787.9	695.8
Barometric Pressure (mmHg)	N/A	652.7	652.7
Battery Voltage (V)	N/A	12.4	12.64
Time (MST)	N/A	9:03 am	0900 HRS LT
Date	N/A	6.27.2012	6/27/12

*Direction wind is from

Comments/Unusual Occurrences or Weather: Filled swap pans & stopped precip. gauge
INVALIDATED 0.004" PRECIP RECORDED @ 0900 - RPA

When form is completed, please fax to Air Sciences Inc. @ 303-279-3796 (no cover sheet is necessary).

Site Operator Signature:

Karen Ballard

Appendix I: East Plant PM₁₀ and PM_{2.5} Site Check Forms and Flow Audits

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1

Date: 4/4/2012Time: 1:11 pmOperator: Kami Ballard

I. BAM SAMPLER - Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). - No errors
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER - Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER - Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>	
<input type="checkbox"/>	

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER - Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>	
<input type="checkbox"/>	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER - Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>	
<input type="checkbox"/>	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: Gaseous monitors being checked remotely.

	AIR SCIENCES INC.
4/30/12	Fax completed form to Air Sciences at 303-279-3796
REVIEWED BY: RPA	DATE: 4/22/12

Signature: Kami Ballard

EAST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 4/11/2012 Time: 12:55 pm Operator: K. Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). Power fail - 4/10/2012 @ 10:33 am
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Replaced muffler on the pump ("Work performed by Air Sciences")
2. Complete calibration of flow system ("Work performed by Air Sciences")

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Carbon vanes in pump checked/replaced ("Work performed by Air Sciences")
2. Intel system cleaned ("Work performed by Air Sciences")

"Comments/Unusual Occurrences: Planned outage at East Plant 4/10/2012
Reason for power fail

AIR SCIENCES INC

KJP
RPA

4/30/12
4/22/12

Signature: Karen Ballard

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4/19/2012 Time: 11:41

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

Comments/Unusual Occurrences:	
AIR SCIENCES INC.	
DENVER • PORTLAND	
REVIEWED BY	4/30/12
RPA	DATE
AUDITED BY	4/30/12
	DATE

Signature: Kami Ballard

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 24.06.2012

Time: 1:28

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
<u>CAG</u>	<u>6/16/12</u>
REVIEWED BY <u>RPA</u>	AUDITED BY <u>6/15/12</u>

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature:

Kami Ballard

EAST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-3-12 Time: 9:36 am Operator: Kacie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). *5-2 Count Failed 13:50*
4-30 Pressure &Pressure 13:29
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

<i>CG</i>	<i>RPA</i>	<i>6/6/12</i>	<i>6/5/12</i>
REVIEWED BY		AUDITED BY	

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature:

Kacie Baak

EAST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-10-12 Time: 11:40 am Operator: K. Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

✓	
✓	
✓	
✓	
✓	
✓	
✓	
✓	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months). *S-2 count failed*
6. Error log was checked (F3), and errors followed up on (see manual). *S-3 power fail*
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

	✓
	✓
	✓
	✓
	✓

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC. DENVER & PORTLAND	CAG	6/9/12
REVIEWED BY	APM	DATE
AUDITED BY		6/5/12

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

	✓
	✓

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

	✓
	✓

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

	✓
	✓

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: Karie Baak

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-17-12

Time: 12:30 pm

Operator: Kacie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC. DENVER • PORTLAND	
REVIEWED BY	CSK
AUDITED BY	RPA
DATE	6/19/12
DATE	6/5/12

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: Kacie Baak

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-24-2012

Time: 8:47 am

Operator: J. Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

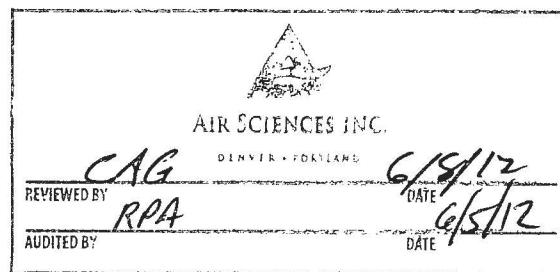
1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 5-23 - tape reset / 5-22 - Tape Break
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	
/	
/	
/	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned



III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature: J. Ballard

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-31-2012 Time: 1:35 pm Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

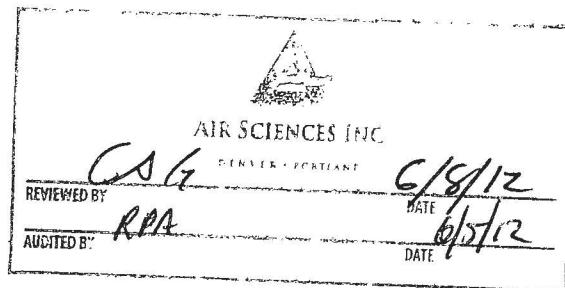
1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	
X	
X	
X	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned



II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences: _____

Signature: Kami Ballard



AIR SCIENCES INC.

DENVER - PORTLAND

KJD

REVIEWED BY
RPA
AUDITED BY

6/12/13

DATE
6/11/13
DATE

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1

Date: 06-07-2013 Time: 9:27

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 5/31 - Tape Change
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X

RPA

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X

RPA

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X

RPA

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X

RPA

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: _____

Signature:

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6-15-2012

Time: 9:20

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 5/30 @ 14:01 → Tape Late
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

 AIR SCIENCES INC. <small>DENVER - PORTLAND</small>	
KJD	DATE <u>7/26/12</u>
REVIEWED BY RPA	DATE <u>6/19/12</u>
AUDITED BY	DATE

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: BAM LEFT IN "ERROR SCREEN" DURING SITE VISIT
RESULTING IN DISRUPTION OR HALT OF SAMPLING FROM 6/15/12 1000HRS
to 6/18/12 1400HRS - RPA

Signature:

EAST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 6.21.2012

Time: 2:52 pm

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months) *6/18 @ 14:08 → count failed*
6. Error log was checked (F3), and errors followed up on (see manual). *6/18 @ 13:59 → count failed*
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool) *6/18 @ 13:38 → maintenance*

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO *RPA*

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
DENVER • PORTLAND	<i>7/26/12</i>
KJD	DATE
REVIEWED BY <i>RPA</i>	<i>6/25/12</i>
AUDITED BY	DATE

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO *RPA*

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO *RPA*

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO *RPA*

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:

Signature:

EAST PLANT
 BAM PM10 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 6-27-2012

Time: 9:07 am

Operator: K. Bellard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	
X	
/	X
	X

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.
 DENVER • PORTLAND
 KJD
 REVIEWED BY RPA
 DATE 6/26/12
 AUDITED BY
 DATE 6/28/12

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

KPA

	X
	X

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

	X
	X

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

	X
	X

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

Comments/Unusual Occurrences: INVALIDATED 1000 HRS FLOW & CONCENTRATION DUE TO THE MONTHLY FLOW VERIFICATION - RPA

Signature:

Kane Bellard

Monthly Flow Verification PM₁₀East Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1Met One BAM 1020 PM₁₀: S/N:
Firmware: 3236-06 V3.6.3
Calibrator: Delta Cal S/N: 1004Date of Flow Audit: 4.30.2012
Time of Flow Audit: 1:28 pm

	BAM	STD
Ambient Temperature (AT) °C	30.6	25.0
Berometric Pressure mmHg	658	653

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.1	0.7 +/- 2%	14.9	1.3 +/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0 +/- 2%	18.25	0.8 +/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0 +/- 2%	16.54	1.0 +/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

(2) Leak Test BAM
Should be < 1.0 LPM

AIR SCIENCES INC.	
REVIEWED BY	DATE
RPA	6/13/12
AUDITED BY	DATE
6/15/12	

Comments/Abnormalities:

Signature: Kami Ballard

Upon completion of this form, fax to Air Sciences at 303-279-3796



Monthly Flow Verification PM₁₀

East Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 282-1

Met One PM₁₀: S/N: M8714
Firmware: 823b-04 V3.6, 3
Calibrator: DELTA CAL S/N:

Date of Flow Audit: 5-31-2012
Time of Flow Audit: 2:04

	BAM	STD
Ambient Temperature (AT) °C	37.8	37.3
Berometric Pressure mmHg	1006	656

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.0	0.0 +/- 2%	14.9	0.7 +/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0 +/- 2%	18.35	0.3 +/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0 +/- 2%	16.55	0.9 +/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
(2) Leak Test .3 Should be < 1.0 LPM

Comments/Abnormalities:

Signature:

Upon completion of this form, fax to Air Sciences at 303-279-3796

	AIR SCIENCES INC.		
REVIEWED BY	CAG	DATE	6/14/17
	RPA		6/15/12
AUDITED BY		DATE	

 AIR SCIENCES INC. DENVER • PORTLAND	
KJD	DATE 7/26/12
REVIEWED BY <u>RPA</u>	DATE 6/28/12
AUDITED BY	DATE



Monthly Flow Verification PM₁₀

East Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One	PM ₁₀ :	S/N: 18714
Firmware:	3234-04	V8.6.3
Calibrator:	DeHa Cal	S/N: 1034

Date of Flow Audit: 6.27.2012
 Time of Flow Audit: 9:07 am

	BAM	STD	<u>Delta Cal</u>
Ambient Temperature (AT) °C	36.7	32.3	36.3
Berometric Pressure mmHg	1061	1053	641

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.0	0.0 +/- 2%	14.94 14.250 - 15.750	0.4 +/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0 +/- 2%	18.27 17.480 - 19.320	0.7 +/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0 +/- 2%	16.57 15.865 - 17.535	0.8 +/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
 (2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
 (2) Leak Test .4 Should be < 1.0 LPM

Comments/Abnormalities:

Signature: Jame Ballard

Upon completion of this form, fax to Air Sciences at 303-279-3796

EAST PLANT

BAM PM2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4-4-2012

Time: 1:15 PM

Operator: Kami Ballard

I. BAM SAMPLER - Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). (No errors)
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER - Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	<i>RPA</i>
<input type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER - Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	<i>RPA</i>
<input type="checkbox"/>	

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER - Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	<i>RPA</i>
<input type="checkbox"/>	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER - Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	<i>RPA</i>
<input type="checkbox"/>	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:



AIR SCIENCES INC.

LIAISON POLICE

4/18/12

DATE

4/22/12

KID

RPA

DATE

4/22/12

REVIEWED BY

AUDITED BY

RPA

**Fax completed form to Air Sciences at 303-279-3796

Signature:

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4. 11. 2012 Time: 12:59 pm

Operator: K. Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). *Power fail - 4/10 - 10:35 am*
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

KJD

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

KJD

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

KJD

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

KJD

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: Planned outage at East Plant - reason for power fail

Signature:

K. Ballard

AIR SCIENCES INC.

PENTON, OHIO

4/30/12

KJD

REVIEWED BY

KJD

Fax completed form to Air Sciences at 303-279-3796

4/30/12

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 4/19/2012 Time: 11:40 am

Operator: Karie Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

	
AIR SCIENCES INC.	
KJD	4/30/12
REVIEWED BY	DATE
APR	4/21/12
AUDITED BY	Fax completed form to Air Sciences at 303-279-8796

Signature: Karie Ballard

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1

Date: 4-26-2012Time: 1200 HRSOperator: ATTRIDGE**I. BAM SAMPLER – Weekly Checks.**YES

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.YES

X	
X	
X	
X	
X	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
DENVER • PORTLAND	
REVIEWED BY	<u>CAG</u>
AUDITED BY	
DATE 5-3-12	
DATE 5/2/12	

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.YES

	X
X	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.YES

	X
X	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.YES

	X
X	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: 72 HR BKGD CAL COMPLETE!

Signature:

EAST PLANT
 BAM PM 2.5 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-3-12 Time: 9:36 am Operator: Karie Baak

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). **4-2G Maintenance**
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
REVIEWED BY	DATE
<i>CAG</i>	<i>6/19/12</i>
AUDITED BY	DATE
<i>ROA</i>	
<i>6/5/12</i>	

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature: Karie Baak

EAST PLANT
 BAM PM 2.5 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-10-12 Time: 11:40 am Operator: K. Brak

I. **BAM SAMPLER – Weekly Checks.**

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). S-3 power fail
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. **BAM SAMPLER – Routine Maintenance (monthly).** Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<input checked="" type="checkbox"/>	/

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

REVIEWED BY: <u>CAG</u>	AUDITED BY: <u>RPA</u>
AIR SCIENCES INC.	
6/8/12	
6/5/12	

III. **BAM SAMPLER – Routine Maintenance (every 2 months).** Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Filter tape replaced
2. Ran the Self-Test function

IV. **BAM SAMPLER – Routine Maintenance (semiannual).** Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. **BAM SAMPLER – Routine Maintenance (annual).** Check yes if maintenance was performed during this visit. See page 56 of *BAM manual*.

YES NO

<input checked="" type="checkbox"/>	/
<input checked="" type="checkbox"/>	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature: K. Brak

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5-17-12

Time: 12:30 PM

Operator: Kacie Bank

I. BAM SAMPLER - Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER - Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
REVIEWED BY	CAG
AUDITED BY	RPA
DATE	6/5/12
DATE	6/5/12

III. BAM SAMPLER - Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER - Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER - Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature:

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 5/24/2012

Time: 8:50 am

Operator: K. Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	
/	
/	
/	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC	
REVIEWED BY	CAG
RPA	DATE 6/8/12
AUDITED BY	DATE 6/5/12

III. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	/
X	/

1. Filter tape replaced
2. Ran the Self-Test function

IV. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

V. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

/	
/	

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: Changed Tape.

Signature:

K. Ballard

EAST PLANT
 BAM PM 2.5 WEEKLY SITE CHECK FORM
 RESOLUTION MONITORING PROJECT
 PROJECT NO. 262-1



Date: 5-31-2012 Time: 1:42 pm Operator: Kari Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	
X	
X	
X	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.
C16 DATE 6/5/12
REVIEWED BY RPA
AUDITED BY DATE 6/5/12

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semianual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	/
	/

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences:

Signature:



AIR SCIENCES INC.

DENVER PORTLAND

KJD

REVIEWED BY
FJA

AUDITED BY

6/12/12 DATE

EAST PLANT
BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1

6/11/12 DATE

Date: 06-07-2012

Time: 9:29



AIR SCIENCES INC.

DENVER PORTLAND

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X
X
X
X
X
X
X

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual). 5/31 - Tape Latch
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RAA

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

PAA

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

PAA

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:

For
Signature: K. BALLARD

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 06/15/2012

Time: 9:17 am

Operator: Jane Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
**6/13 @ 12:14 6/14 @ 13:47 → Flow 5% Out - of - Regulation*
7. Climate control appears operational (if it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	

- RPA
1. Inlet Flow check Performed
 2. Visual inspection and dust removal
 3. Leak check performed
 4. PM10 and 2.5 cyclone particle trap cleaned
 5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
REVIEWED BY	RJD
DATE 7/26/12	
AUDITED BY	RPA
DATE 6/19/12	

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	

- RPA
1. Filter tape replaced
 2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	

- RPA
1. Replaced muffler on the pump (*Work performed by Air Sciences)
 2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	

- RPA
1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
 2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: 257 Fire burning for 1st part of the week.

Signature: Jane Ballard

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6/21/2012

Time: 2:55 pm

Operator: Kami Ballard

I. BAM SAMPLER – Weekly Checks.

YES NO

✓	
✓	
✓	
✓	
✓	
✓	
✓	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months). *(6/13 through 6/19 → Flow 5% out of bag)*
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool).

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
KJD	7/26/12
REVIEWED BY	RPA
DATE 6/25/12	
AUDITED BY	
DATE	

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences:

Signature:

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 6-27-12

Time: 9:07

Operator: K. Buck

I. BAM SAMPLER – Weekly Checks.

YES NO

<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

AIR SCIENCES INC.	
KJD	DENVER • PORTLAND
REVIEWED BY <i>RPA</i>	DATE <i>6/28/12</i>
AUDITED BY	DATE <i>6/28/12</i>

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

RPA

<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

"Comments/Unusual Occurrences: INVALIDATED 1000 HRS FLOW & CONCENTRATION DUE TO THE MONTHLY FLOW VERIFICATIONS. - RPA

Signature: Kyle Buck



Monthly Flow Verification PM_{2.5}

East Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One BAM 1020 PM_{2.5}: S/N: M 6466
Firmware: Delta Cal S/N: 1034
Calibrator:

Date of Flow Audit: 4-26-2012
Time of Flow Audit: 1200 HRS

	BAM	STD
Ambient Temperature (AT) °C	17.1	17.3
Berometric Pressure mmHg	651	652

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)	
(1) Actual Flow Acceptable Differential	15	15.0	0.0	15.30	-2.0	GAG
		14.700 - 15.300	+/- 2%	14.250 - 15.750	+/- 5%	
(2) Actual Flow Acceptable Differential	18.4	18.4	0.0	18.43	-0.2	EAG
		18.032 - 18.768	+/- 2%	17.480 - 19.320	+/- 5%	
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0	16.89	-1.1	GAG
		16.336 - 17.034	+/- 2%	15.865 - 17.535	+/- 5%	

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
0.2 Should be < 1.0 LPM
(2) Leak Test

	AIR SCIENCES INC.
<i>[Signature]</i>	LEVER & PORTLAND
REVIEWED BY <i>[Signature]</i>	DATE <u>5-3-12</u>
AUDITED BY <i>[Signature]</i>	DATE <u>5/2/12</u>

Comments/Abnormalities: 72 HR BKGD CAL COMPLETED
Invalidate concentration from 1200-1300 HRS. CAG

Signature: R. Attwidge

Upon completion of this form, fax to Air Sciences at 303-279-3796



AIR SCIENCES INC.

DENVER • PORTLAND

Monthly Flow Verification PM_{2.5}

East Plant
PARTICULATE MONITORING PROJECT
PROJECT NO. 262-1

Met One PM_{2.5}: S/N: M60466
Firmware: 3234-06 V3.6.3
Calibrator: DETA Cal S/N: _____

Date of Flow Audit: 5.31.2012
Time of Flow Audit: 2:28 pm

BAM	STD
37.1	36.9
647	647

Ambient Temperature (AT) °C

Barometric Pressure mmHg

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.1	0.7 +/- 2%	15.110 14.250 - 15.750	-0.4 +/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.5	0.5 +/- 2%	18.1 17.480 - 19.320	2.2 +/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7	0.0 +/- 2%	16.6 15.865 - 17.535	0.0 +/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
(2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM

(2) Leak Test

Should be < 1.0 LPM

	AIR SCIENCES INC.
REVIEWED BY <u>CG</u> <u>RRA</u>	DENVER • PORTLAND DATE <u>6/8/12</u>
AUDITED BY	DATE <u>6/5/12</u>

Comments/Abnormalities: _____

Signature: Kami Ballance

Upon completion of this form, fax to Air Sciences at 303-279-3796

	
KJD	DATE 7/26/12
REVIEWED BY RPA	DATE 6/28/12
AUDITED BY	DATE



Monthly Flow Verification PM_{2.5}

East Plant
 PARTICULATE MONITORING PROJECT
 PROJECT NO. 262-1

Met One	PM _{2.5} :	S/N: M16466
Firmware:	3236-04	V3.6.3
Calibrator:	Delta Cal	S/N: 1036

Date of Flow Audit: 6-27-2012
 Time of Flow Audit: 9:25

	BAM	STD	Delta Cal
Ambient Temperature (AT) °C	37.1	36.9	32.2
Berometric Pressure mmHg	418	648	653 *

	Set Point (lpm)	BAM	% Diff (1)	STD Flow Meter	% Diff (2)
(1) Actual Flow Acceptable Differential	15	15.0 14.700 - 15.300	0.0 +/- 2%	14.97 14.250 - 15.750	0.2 +/- 5%
(2) Actual Flow Acceptable Differential	18.4	18.4 18.032 - 18.768	0.0 +/- 2%	17.84 17.480 - 19.320	3.1 +/- 5%
(3) Actual Flow Acceptable Differential	16.7	16.7 16.336 - 17.034	0.0 +/- 2%	16.42 15.865 - 17.535	1.7 +/- 5%

Calculations:

- (1) % Diff = [(BAM - Set Point)/Set Point]*100 (+/- 2%)
 (2) % Diff = [(BAM - Calibrator)/Calibrator]*100 (+/- 5%)

BAM
 (2) Leak Test .4 Should be < 1.0 LPM

Comments/Abnormalities: REQUIRED ADJUSTMENTS TO THE AT AND BP - RPA

Signature: Kami Ballard

Upon completion of this form, fax to Air Sciences at 303-279-3796

Appendix J: East Plant SO₂, NO_x, and O₃ Site Check and Audit Forms



AIR SCIENCES INC.

DENVER & PORTLAND

Resolution EAST

SO₂ Monitoring Site

Site Operator: Kami BallardDate: 4.11.2012

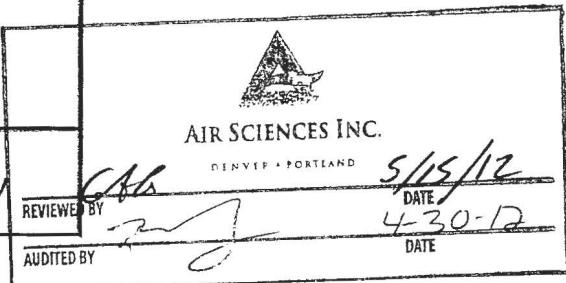
Sampler Make and Model	Teledyne T100	
Sampler SN	#224	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	/

Instrument Check Start Time	12:52 LT
Instrument Check Stop Time	1:04 LT
Filter Replacement Y/N	Y
Shelter Temp (5 to 40 °C)	26.2 °C
Instrument Range	500 ppb
Source Gas Conc.	40 ppm SO ₂

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span PPB with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	SO ₂ Response (PPB)	Final SO ₂ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	38	/	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	108.2	/	≤ ± 10% (90 to 110 PPB)	N



Check the Analog vs. Digital SO₂nverter.

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 1 PPB	
100 PPB			± 1 PPB	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL.)
Zero Air			#DIV/0!	PASS, <2% FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!
			Best Fit Line (BFL)	
			#NAME?	
			R² =	#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL.)
Zero Air			#DIV/0!	PASS, <2% FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!
			Best Fit Line (BFL)	
			#NAME?	
			R² =	#DIV/0!

Sample Flow (800 ± 80 cc/min) = 471 cc/m

SO2 Slope ($1 \pm .3$) = 1.94

SO2 Offset (0 ± 0.3 PPB) = 20

Site Operator Comments/observations:

filter changed

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY <u>616</u>	AUDITED BY <u> </u>
DATE <u>5/15/12</u>	
DATE <u>4-30-12</u>	

Air Sciences Inc. Reviewed On (Date and Time): 4-30-12 10:45 N. Lee



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

SO2 Monitoring Site

Site Operator: Kami BallardDate: 4/24/2012

Sampler Make and Model	Teledyne T100	
Sampler SN	# 193	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	/

Instrument Check Start Time	<u>2:10 LT</u>
Instrument Check Stop Time	<u>2:25 LT</u>
Filter Replacement Y/N	<u>Yes</u>
Shelter Temp (5 to 40 °C)	<u>23.7</u>
Instrument Range	<u>500 ppb</u>
Source Gas Conc.	<u>40 ppm SO2</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span PPB with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	.272	/	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	94.212	/	≤ ± 10% (90 to 110 PPB)	N


AIR SCIENCES INC.
 DENVER • PORTLAND 4-30-12
 REVIEWED BY CBG DATE 5/15/12
 AUDITED BY DATE

Check the Analog vs. Digital SO2nverter.

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 1 PPB	
100 PPB			± 1 PPB	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, <2% FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#NAME?

$R^2 =$

#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, <2% FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#NAME?

$R^2 =$

#DIV/0!

Sample Flow (800 ± 80 cc/min) = 481 cc/m

SO2 Slope ($1 \pm .3$) = 1.485

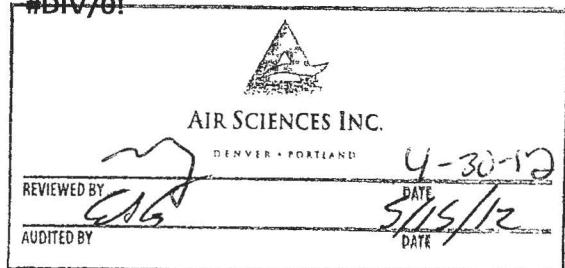
SO2 Offset (0 ± 0.3 PPB) = 16.4 m/V

Site Operator Comments/observations:

Parameters Not w/in range ??

Air Sciences Inc. Reviewed On (Date and Time): 4-30-12 4:12pm ✓

The T100 has been verified operating to standard.
Values are outside the normal range but do not effect
operation on valid data collection. ✓



Resolution EAST

SO2 Monitoring Site

Site Operator: K. Back

Date: 5-10-12

Sampler Make and Model	Teledyne T100	
Sampler SN	224	
Dilution Calibrator Type/SN	Primary Transfer	T700

Instrument Check Start Time	11:50 am
Instrument Check Stop Time	12:06 pm
Filter Replacement Y/N	Y
Shelter Temp (5 to 40 °C)	23.45 °C
Instrument Range	500 PPB
Source Gas Conc.	40 PPM SO ₂

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span PPB with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	-1.17	—	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	94.01	—	≤ ± 10% (90 to 110 PPB)	N

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY	<u>[Signature]</u>
AUDITED BY	<u>[Signature]</u>
DATE <u>6-6-12</u>	
DATE <u>6/6/12</u>	

Check the Analog vs. Digital SO2nverter.

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 1 PPB	
100 PPB			± 1 PPB	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, <2%FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#NAME?

R² = #DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, <2%FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#NAME?

R² = #DIV/0!

450 my
Sample Flow (800 ± 80 cc/min) = 471

SO2 Slope (1 ± .3) = 1.18

< 250 my

SO2 Offset (0 ± 0.3 PPB) = 18

Site Operator Comments/observations:

T700 screen read "MFC Flow Warning" will check if ok w/
Air Science - calibrated normally

Air Sciences Inc. Reviewed On (Date and Time): 6/5/12 @ 1200

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AUDITED BY	
6-6-12	
DATE	6/5/12



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

SO2 Monitoring Site

Site Operator: Kami BallardsDate: 5.24.2012

Sampler Make and Model	Teledyne T100	
Sampler SN	193	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	

Instrument Check Start Time	9:32 am
Instrument Check Stop Time	9:54 am
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	21.5
Instrument Range	500 ppb
Source Gas Conc.	40 ppm SO2

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span PPB with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	- .124	—	± 3 % of full Scale (-15 to 15 PPB)	N
100 PPB	98.78	—	≤ ± 10% (90 to 110 PPB)	N

Check the Analog vs. Digital SO2nverter.

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 1 PPB	
100 PPB			± 1 PPB	

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<u>KFA</u>	6.6.12
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6/6/12	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, <2% FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!
Best Fit Line (BFL)			#NAME?	
$R^2 =$			#DIV/0!	

Transfer Standard:

Target (PPB)	Actual Generated T100 (PPB)	SO2 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, <2% FS
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
400 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!
Best Fit Line (BFL)			#NAME?	
$R^2 =$			#DIV/0!	

450 ± 45
Sample Flow (800 ± 80 cc/min) = 477

SO2 Slope ($1 \pm .3$) = 1.178

< 250
SO2 Offset (0 ± 0.3 PPB) = 16.6

Site Operator Comments/observations:

Fiber Changed

Air Sciences Inc. Reviewed On (Date and Time): 6/5/12 @ 120

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AUDITED BY	
<i>6-6-12</i> DATE 6/5/12 DATE	



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RPA

6/12/12

DATE

Resolution EAST

AUDITED BY

DATE

SO₂ Monitoring Form

AIR SCIENCES INC.

DENVER • PORTLAND

Site Operator: Kami Ballard

Date: 06.07.2012

Sampler Make/Model		T100
Sampler SN		SN 193
Dilution Calibrator Model/SN	Primary	T700 SN 191
	Transfer	—

Instrument Check Start Time	10:28 LT
Instrument Check Stop Time	10:48 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	78.9
Instrument Range	500 ppb
Source Gas Conc.	40 ppm SO ₂

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator:

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	- .38	—	± 3% of Full Scale (-15 to 15 PPB)	No
100	69.7	100.3	≤ ± 10% (90 to 110 PPB)	Yes

Check the real time Analog vs. Digital Converter:

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	- .38	.34	± 2 PPB	No
100 PPB	100.3	100.4	± 2 PPB	No

Verify instrument parameters:

Sample Flow (450 ± 45 cc/min)	485	Sample Press. (Ambient ± 2 in-Hg)	23.1
UV Lamp (1000 - 4800 mV)	3484.1	Lamp Ratio (30 - 120%)	97.1
Slope (1 ± 0.3)	1.6	BOX Temp.	32.4
Offset (<250 mV)	16.7	HVPS (400 - 900 V)	571

Operator comments/observations:

Operator Signature: Kami Ballard

- * Slope is out of range. The instrument must have been re-calibrated improperly.¹ We have contacted K. Ballard regarding the issue.



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

SO₂ Monitoring Form

Site Operator: ATMENGEDate: 6/12/12

Sampler Make/Model		T 100
Sampler SN		193
Dilution Calibrator Model/SN	Primary	T 700 / 191
	Transfer	/

Instrument Check Start Time	0715
Instrument Check Stop Time	0730
Filter Replacement Y/N	N
Shelter Temp (5 to 40 °C)	21.8
Instrument Range	500 PPB
Source Gas Conc.	40 ppm SO ₂

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator:

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	0.557	—	± 3% of Full Scale (-15 to 15 PPB)	/✓
100	144.372	100.277	≤ ± 10% (90 to 110 PPB)	✓

Check the real time Analog vs. Digital Converter:

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 2 PPB	
100 PPB			± 2 PPB	

Verify instrument parameters:

Sample Flow (450 ± 45 cc/min)	476	Sample Press. (Ambient ± 2 in-Hg)	22.7
UV Lamp (1000 - 4800 mV)	3466.7	Lamp Ratio (30 - 120%)	96.7
Slope (1 ± 0.3)	1.183	BOX Temp. (7 ± 2°C)	32.2
Offset (< 250 mV)	16.7	HVPS (400 - 900 V)	571

Operator comments/observations:PERFORMED REMOTE SPAN TO FACILITATE ACCEPTABLE CRITERIA - LAST DAILY SPAN FAILED.Operator Signature: R. H. J.

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
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DATE	6-12-12
AUDITED BY	<u>R. H. J.</u>
DATE	6/12/12



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RMA

6-27-12

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6/25/12

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Resolution EAST

SO₂ Monitoring Form

AIR SCIENCES INC.

DENVER • PORTLAND

6-21-2012

Site Operator: Kami Ballard

Date: 6-21-2012

Sampler Make /Model		T100
Sampler SN		SN 193
Dilution Calibrator Model/SN	Primary	T700/6N 191
	Transfer	—

Instrument Check Start Time	14:58 LT
Instrument Check Stop Time	15:15 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	23.5 °C
Instrument Range	500 PPB
Source Gas Conc.	40% SO ₂

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator:

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	- .11	—	± 3% of Full Scale (-15 to 15 PPB)	No
100	100.5	—	≤ ± 10% (90 to 110 PPB)	No

Check the real time Analog vs. Digital Converter:

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	- .11	- .12	± 2 PPB	No
100 PPB	100.5	100.7	± 2 PPB	No

Verify instrument parameters:

Sample Flow (450 ± 45 cc/min)	480	Sample Press. (Ambient ± 2 in-Hg)	22.9
UV Lamp (1000 - 4800 mV)	3442.5	Lamp Ratio (30 - 120%)	95.9
Slope (1 ± 0.3)	1.183	BOX Temp. (Ambient ± 5°C)	31.6
Offset (< 250 mV)	16.7	HVPS (400 - 900 V)	571

Operator comments/observations:

Operator Signature:

Kami Ballard



AIR SCIENCES INC.

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Resolution EAST

NOx Monitoring Site

Site Operator: Karen BallardDate: 4/11/2012

Sampler Make and Model	Teledyne T200	
Sampler SN	#197	
Dilution Calibrator Type/SN	Primary	T700 #191
	Transfer	/

Instrument Check Start Time	12:16 LT
Instrument Check Stop Time	12:52 LT
Filter Replacement Y/N	Y
Shelter Temp (20 to 30 °C)	24.9 °C
Instrument Full Scale Range	500 PPB
Source Gas Conc.	40 PPB NO

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution of Nox (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	Nox Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	0.1	3.8	3.4	0.2	± 3% of full Scale (-15 to 15 PPB)	Y
100 PPB	97.9	3.0	100.9	—	≤ ± 10% (90 to 110 PPB)	N

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)			CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO			NO		± 2 PPB	
	NO ₂			NO ₂			
	NO _x			NO _x			
100 PPB	NO			NO		± 2 PPB	
	NO ₂			NO ₂			
	NO _x			NO _x			

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AUDITED BY <u>~2</u>	DATE <u>4-30-12</u>

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!
				Best Fit Line (BFL) #DIV/0! $R^2 =$		

Transfer Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!
				Best Fit Line (BFL) #DIV/0! $R^2 =$		

Sample Flow (500 ± 50 cc/min) = 493 cc/m

Ozone Flow (80 ± 15 cc/min) = 76 cc/m

NOx Slope (1 ± 0.3) = .788

NOx Offset (0 ± 100) = 16.2

Moly Temperature ($315 \pm 5^\circ\text{C}$) = 315.4^\circ\text{C}

Site Operator comments/observations:

Replaced filter

 AIR SCIENCES INC. <u>CAG</u> GENEVA • PORTLAND		<u>5/15/12</u>
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AUDITED BY	<u> </u>	DATE

Air Sciences Inc. Reviewed On (Date and Time): 4-30-12 10:53 AM N. Lee



AIR SCIENCES INC.

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Resolution EAST

NOx Monitoring Site

Site Operator: Kami BallardDate: 4.24.12

Sampler Make and Model	Teledyne T200	
Sampler SN	#197	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	/

Instrument Check Start Time	<u>1:46 pm -</u>	<u>LT</u>
Instrument Check Stop Time	<u>2:08 pm -</u>	<u>LT</u>
Filter Replacement Y/N	<u>Yes</u>	
Shelter Temp (20 to 30 °C)	<u>23.7</u>	
Instrument Full Scale Range	<u>500 ppb</u>	
Source Gas Conc.	<u>40 ppm NO</u>	

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution of Nox (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	Nox Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	- .2	- .4	- .8	-	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	93.4	- .9	92.7	-	≤ ± 10% (90 to 110 PPB)	N

↑?

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)		CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO		NO		± 2 PPB	
	NO ₂		NO ₂			
	NO _x		NO _x			
100 PPB	NO		NO		± 2 PPB	
	NO ₂		NO ₂			
	NO _x		NO _x			

AIR SCIENCES INC.

DENVER • PORTLAND

4-30-12

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CPLDATE
5/18/12

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Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Sample Flow (500 ± 50 cc/min) = 495 cc/m

Ozone Flow (80 ± 15 cc/min) = 76 cc/m

NOx Slope (1 ± 0.3) = 1.052

NOx Offset (0 ± 100) = 8.5 mV

Moly Temperature ($315 \pm 5^\circ C$) = 316.2

Site Operator comments/observations:



Air Sciences Inc. Reviewed On (Date and Time): 4-30-12 4:28 PM mjf



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Resolution EAST

NOx Monitoring Site

Site Operator: K. BrakDate: 5-10-12

Sampler Make and Model	Teledyne T200	
Sampler SN	197	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	

Instrument Check Start Time	11:33
Instrument Check Stop Time	11:49
Filter Replacement Y/N	Y
Shelter Temp (20 to 30 °C)	23.45 °C
Instrument Full Scale Range	500 PPB
Source Gas Conc.	40 PPM NO

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution of Nox (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	Nox Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	- .1	1.5	1.5	—	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	98.2	1.5	99.8	—	≤ ± 10% (90 to 110 PPB)	N

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)		CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO	NO	NO	NO	± 2 PPB	
	NO ₂	NO ₂	NO ₂	NO ₂		
	NO _x	NO _x	NO _x	NO _x		
100 PPB	NO	NO	NO	NO	± 2 PPB	
	NO ₂	NO ₂	NO ₂	NO ₂		
	NO _x	NO _x	NO _x	NO _x		

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Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Sample Flow (500 ± 50 cc/min) = 493

Ozone Flow (80 ± 15 cc/min) = 76

NOx Slope (1 ± 0.3) = 1.082

NOx Offset (0 ± 100) = 3.1

Moly Temperature ($315 \pm 5^\circ\text{C}$) = 315.6

Site Operator comments/observations:

I700 machine read "MFC Flow warning" - didn't know what that meant → calibrated normally

Air Sciences Inc. Reviewed On (Date and Time): 6/5/12 @ 1200 hrs

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Resolution EAST

NOx Monitoring Site

Site Operator: Kami BallardDate: 5.24.2012

Sampler Make and Model	T200	
Sampler SN	197	
Dilution Calibrator Type/SN	Primary Transfer	T700 SW 191

Instrument Check Start Time	9:12 am
Instrument Check Stop Time	9:32 am
Filter Replacement Y/N	Yes
Shelter Temp (20 to 30 °C)	22.1
Instrument Full Scale Range	500 PPB
Source Gas Conc.	40 PPM NO

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution of Nox (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	Nox Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	.0	.5	.4	—	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	99.7	1.1	100.8	—	≤ ± 10% (90 to 110 PPB)	N

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)			CR3000 Response (PPM)			Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO			NO			± 2 PPB	
	NO ₂			NO ₂				
	NO _x			NO _x				
100 PPB	NO			NO			± 2 PPB	
	NO ₂			NO ₂				
	NO _x			NO _x				

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>		<u>6.6.12</u>
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AUDITED BY		DATE

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 ~ 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!
Best Fit Line (BFL)						
#DIV/0!						
R² =				#DIV/0!		

Transfer Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air					#DIV/0!	PASS, 0 ± 5
100 PPB					#DIV/0!	#DIV/0!
200 PPB					#DIV/0!	#DIV/0!
300 PPB					#DIV/0!	#DIV/0!
400 PPB					#DIV/0!	#DIV/0!
500 PPB					#DIV/0!	#DIV/0!
Best Fit Line (BFL)						
#DIV/0!						
R² =				#DIV/0!		

Sample Flow (500 ± 50 cc/min) = 498

Ozone Flow (80 ± 15 cc/min) = 75

NOx Slope (1 ± 0.3) = 1.082

NOx Offset (0 ± 100) = 3.1

Moly Temperature ($315 \pm 5^\circ\text{C}$) = 315.2

Site Operator comments/observations:

Changed Filter

Air Sciences Inc. Reviewed On (Date and Time): Kami B 6/5/12 @ 1220

 AIR SCIENCES INC. Randy REVIEWED BY <u>RAT</u>		6-6-12 DATE <u>6/5/12</u> AUDITED BY
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RPA J

6/12/12

DATE

6/11/12

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Resolution EAST

NO_x Monitoring FormSite Operator: Kani BallardDate: 06-07-2012

Sampler Make/Model		T200
Sampler SN		SN 197
Dilution Calibrator Model/SN	Primary	T700 SN 191
	Transfer	—

Instrument Check Start Time	9:29 am
Instrument Check Stop Time	10:01 LT
Filter Replacement Y/N	Y
Shelter Temp (5 to 40 °C)	21.43
Instrument Range	500 ppb
Source Gas Conc.	40 ppm NO

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	Nox Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	0	1.2	1.2	—	± 3% of full Scale (±15 PPB)	N
100 PPB	92.4	1.2	93.7	—	≤± 10% (90 to 110 PPB)	N

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)		CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO	0	NO	0	± 2 PPB	N
	NO ₂	1.2	NO ₂	1.2		
	NO _x	1.2	NO _x	1.5		
100 PPB	NO	92.4	NO	92.4	± 2 PPB	N
	NO ₂	1.2	NO ₂	1.0		
	NO _x	93.7	NO _x	93.4		

Verify instrument parameters:

Sample Flow (500 ± 50 cc/min)	495	Moly Temp. (315 ± 5°C)	315.2
Ozone Flow (80 ± 15 cc/min)	76	HVPS (400 - 900 V)	600 V
NOx Slope (1 ± 0.3)	1.082	NO Slope (1 ± 0.3)	1.077
NOx Offset (0 ± 100)	3.1	NO Offset (0 ± 100)	.9

Operator comments/observations:

Operator Signature:

Kani Ballard

REVIEWED BY	<i>RPA</i>	DATE	6/27/12
AUDITED BY		DATE	6/25/12



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DENVER / PORTLAND

Resolution EAST

NO_x Monitoring Form

Site Operator: Karen Bellard

Date: 06.21.2012

Sampler Make /Model		T200
Sampler SN		197
Dilution Calibrator Model/SN	Primary	T7001 191
	Transfer	

Instrument Check Start Time	15:16 LT
Instrument Check Stop Time	15:34 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	23.9
Instrument Range	000 PPB
Source Gas Conc.	40% NO

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	Nox Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	.3	-1.5	-1.8	-	±3% of full Scale (±15 PPB)	No
100 PPB	99.9	.4	100.4		≤±10% (90 to 110 PPB)	No

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)		CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO	- .31	NO	- .45	± 2 PPB	No
	NO ₂	- 1.6	NO ₂	- 1.5		
	NO _x	- 1.8	NO _x	- 1.7		
100 PPB	NO	99.9	NO	99.7	± 2 PPB	No
	NO ₂	.4	NO ₂	.1		
	NO _x	100.4	NO _x	100.1		

Verify instrument parameters:

Sample Flow (500 ± 50 cc/min)	501	Moly Temp. (315 ± 5°C)	314.9
Ozone Flow (80 ± 15 cc/min)	710	HVPS (400 - 900 V)	600
NO _x Slope (1 ± 0.3)	1.11	NO Slope (1 ± 0.3)	1.083
NO _x Offset (0 ± 100)	7.9	NO Offset (0 ± 100)	.1

Operator comments/observations:

Operator Signature: Karen Bellard



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Resolution EAST

O3 Monitoring Site

Site Operator: Kami Ballard

Date: 4/11/2012

Sampler Make and Model	Teledyne T400	
Sampler SN	#224	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	/

Instrument Check Start Time	13:08'
Instrument Check Stop Time	13:29
Filter Replacement Y/N	Y
Shelter Temp (5 to 40 °C)	28.8 °C
Instrument Range	500 PPB

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O3 Response (PPB)	Final O3 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	0	/	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	89.8	101.8	≤ ± 7% (93 to 107 PPB)	Y

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5/15/12

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AUDITED BY	/	4-30-12

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPM)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 2 PPB	
100 PPB			± 2 PPB	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 – 500ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T400 (ppb)	O3 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, 0 ± 5
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
4000 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!
Best Fit Line (BFL)				#DIV/0!
$R^2 =$				#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T400 (ppb)	O3 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, 0 ± 5
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
4000 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!
Best Fit Line (BFL)				#DIV/0!
$R^2 =$				#DIV/0!

Sample Flow (800 ± 80 cc/min) = 846 cc/m

O3 Slope ($1 \pm .15$) = 1.617

O3 Offset (0 ± 5.0 PPB) = -4 PPB

Site Operator comments/observations:

Replaced filter

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<u>CTG</u>	<u>5/15/12</u>
AUDITED BY	DATE
	<u>4-30-12</u>

Air Sciences Inc. Reviewed On (Date and Time): 4-30-12 11:00 AM N. Lee



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Resolution EAST

O3 Monitoring Site

Site Operator: Kacie BaakDate: 4.24.2012

Sampler Make and Model	Teledyne T400	
Sampler SN	# 224	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	—

Instrument Check Start Time	2:24 LT
Instrument Check Stop Time	2:58 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	23.7
Instrument Range	500 ppb

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O3 Response (PPB)	Final O3 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	-1.0	—	± 3% of full Scale (-15 to 15 PPB)	N
100 PPB	106.2	—	≤ ± 7% (93 to 107 PPB)	N


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REVIEWED BY	<u>EGL</u>	DATE <u>4-30-12</u>
AUDITED BY	<u>EGL</u>	
	DATE <u>5/18/12</u>	

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPM)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 2 PPB	
100 PPB			± 2 PPB	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T400 (ppb)	O3 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, 0 ± 5
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
4000 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T400 (ppb)	O3 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, 0 ± 5
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
4000 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Sample Flow (800 ± 80 cc/min) = 557 cc/m

O3 Slope ($1 \pm .15$) = 1. 017

O3 Offset (0 ± 5.0 PPB) = .4

 AIR SCIENCES INC. <small>PINTER • PORTLAND</small>	
REVIEWED BY <u>mg</u>	DATE <u>4-30-12</u>
AUDITED BY <u>CS6</u>	DATE <u>5/15/12</u>

Site Operator comments/observations:

Sample Flow not w/in parameters ??

Air Sciences Inc. Reviewed On (Date and Time): 4-30-12 4: 38 pm *rj*

Instrument is operating normally with the lower flow rates. Instrument has been confirmed operating to STD, ^m



AIR SCIENCES INC.

DENVER & PORTLAND

Resolution EAST

O3 Monitoring Site

Site Operator: K. BrakDate: 5-10-12

Sampler Make and Model	Teledyne T400	
Sampler SN	224	
Dilution Calibrator Type/SN	Primary	T700
	Transfer	

Instrument Check Start Time	12:07
Instrument Check Stop Time	12:25
Filter Replacement Y/N	Y
Shelter Temp (5 to 40 °C)	23.45
Instrument Range	500 PPB

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O3 Response (PPB)	Final O3 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N	REVIEWED BY	AUDITED BY	DATE
Zero Air	- .9	—	± 3% of full Scale (-15 to 15 PPB)	N	R.BA		6-6-12
100 PPB	105.2	—	≤ ± 7% (93 to 107 PPB)	N			6-6-12

Check the Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPM)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 2 PPB	
100 PPB			± 2 PPB	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T400 (ppb)	O3 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, 0 ± 5
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
4000 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

Transfer Standard:

Target (PPB)	Actual Generated T400 (ppb)	O3 Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air			#DIV/0!	PASS, 0 ± 5
100 PPB			#DIV/0!	#DIV/0!
200 PPB			#DIV/0!	#DIV/0!
300 PPB			#DIV/0!	#DIV/0!
4000 PPB			#DIV/0!	#DIV/0!
500 PPB			#DIV/0!	#DIV/0!

Best Fit Line (BFL)

#DIV/0!

$R^2 =$

#DIV/0!

550 ± 55

Sample Flow (800 ± 80 cc/min) = 554

O3 Slope ($1 \pm .15$) = .988

O3 Offset (0 ± 5.0 PPB) = .4

Site Operator comments/observations:

*I700 read "MFC Flow Warning" - will check w/ airscience if
OK - calibrated normally*
Air Sciences Inc. Reviewed On (Date and Time): 6/5/12 @ 1200

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AUDITED BY		DATE

6-6-12
6/5/12



AIR SCIENCES INC.

DENVER, COLORADO

Resolution EAST

O₃ Monitoring FormSite Operator: Kam Ba CardDate: 5-29-2012

Sampler Make/Model	T700	
Sampler SN	#224	
Dilution Calibrator Model/SN	Primary	#191
	Transfer	

Instrument Check Start Time	1000
Instrument Check Stop Time	1145
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	21.6
Instrument Range	500

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	0.0	0.0	≤ ± 2% of Full Scale (±10 PPB)	N
100	101.4	101.4	≤ ± 7% (93 to 107 PPB)	N

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	0.0	0.235	± 2 PPB	N
100 PPB	100.9	101.6	± 2 PPB	N

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	546	Sample Temp. (10 - 50 °C)	39.7
Photo Lamp (58 ± 1 °C)	58.0	BOX Temp. (30 ± 20 °C)	26.9
Slope (1 ± 0.15)	1.084	O ₃ Measure (2500 - 4800 mV)	4402
Offset (0.0 ± 5 PPB)	-1.2	O ₃ Reference (2500 - 4800 mV)	4406

Operator comments/observations:

Kam Ba Card

Operator Signature: _____

AIR SCIENCES INC. DENVER, COLORADO <i>[Signature]</i> REVIEWED BY: <u>RPA</u>	6-6-12 DATE: <u>6/6/12</u> AUDITED BY:
--	--



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RPA

6/12/12

DATE

6/11/12

AUDITED BY



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DENVER + PORTLAND

Resolution EAST

O₃ Monitoring Form

Site Operator: Kami Ballard

Date: 06-07-2012

Sampler Make/Model		T400
Sampler SN		SN 224
Dilution Calibrator Model/SN	Primary	T700 SN 191
	Transfer	—

Instrument Check Start Time	10:04 LT
Instrument Check Stop Time	10:58 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	22.7
Instrument Range	500 PPB

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	1.5	—	≤ ± 2% of Full Scale (±10 PPB)	N
100	62.4	63.1	≤ ± 7% (93 to 107 PPB)	Yes

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	1.5	2.1	± 2 PPB	N
100 PPB	63.1	63.8	± 2 PPB	N

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	578	Sample Temp. (10 - 50 °C)	38.6
Photo Lamp (58 ± 1 °C)	58.0	BOX Temp. (30 ± 20 °C)	26.4
Slope (1 ± 0.15)	1.019	O ₃ Measure (2500 - 4800 mV)	4325.0
Offset (0.0 ± 5 PPB)	1.1	O ₃ Reference (2500 - 4800 mV)	4326.2

Operator comments/observations:

Cannot get O₃ within range of 100 ppb again
Operator Signature: Kami Ballard

* R. Attridge contacted K. Ballard to resolve the issue.



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6-12-12

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DATE
6/11/12

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DENVER • PORTLAND

Resolution EAST

O₃ Monitoring FormSite Operator: ATRIQUEDate: 6/11/12

Sampler Make/Model	T400	
Sampler SN	224	
Dilution Calibrator Model/SN	Primary	T700 / 191
	Transfer	

Instrument Check Start Time	0958
Instrument Check Stop Time	1100
Filter Replacement Y/N	N
Shelter Temp (5 to 40 °C)	22.1
Instrument Range	500 PPB

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	5.1	0.1	≤ ± 2% of Full Scale (±10 PPB)	YES
100	54	53	≤ ± 7% (93 to 107 PPB)	YES

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 2 PPB	
100 PPB			± 2 PPB	

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	590	Sample Temp. (10 - 50 °C)	39.7
Photo Lamp (58 ± 1 °C)	58.0	BOX Temp. (30 ± 20 °C)	27.1
Slope (1 ± 0.15)	1.075	O ₃ Measure (2500 - 4800 mV)	4324.2
Offset (0.0 ± 5 PPB)	4.3	O ₃ Reference (2500 - 4800 mV)	4326.2

Operator comments/observations:

REMOTE LEVEL 1 ZERO/SPAN RESULTED IN THE T400 FAILING TO MEET THE ACCEPTANCEOperator Signature: [Signature]

- CRITERIA FOR 100 PPB SPAN REQUESTED 1

K. BALLARD TO INSPECT / CHANGE T400 PARTICLE FILTER.



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6-11-12

DATE

6/11/12

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Resolution EAST

O₃ Monitoring FormSite Operator: Kami BallardDate: 6-11-2012

Sampler Make/Model	T400	
Sampler SN	SN 224	
Dilution Calibrator Model/SN	Primary	T700 SN 191
	Transfer	_____

Instrument Check Start Time	12:09 LT
Instrument Check Stop Time	12:29 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	23.6°
Instrument Range	500 PPB

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	-5.2	—	≤ ± 2% of Full Scale (±10 PPB)	N
100	103	—	≤ ± 7% (93 to 107 PPB)	N

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	-5.2	Did not record #	± 2 PPB	—
100 PPB	103	104.1	± 2 PPB	N

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	554	Sample Temp. (10 - 50 °C)	—
Photo Lamp (58 ± 1 °C)	—	BOX Temp. (30 ± 20 °C)	—
Slope (1 ± 0.15)	1.043	O ₃ Measure (2500 - 4800 mV)	—
Offset (0.0 ± 5 PPB)	4.2	O ₃ Reference (2500 - 4800 mV)	—

Operator comments/observations:

Fire nearby - smoke surrounding area near EP Met Station

Operator Signature: Kami Ballard

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AUDITED BY	DATE <i>6/25/12</i>



Resolution EAST

O₃ Monitoring Form

DENVER • PORTLAND

Site Operator: Karie Ballard

Date: 6.21.2012

Sampler Make/Model		T400
Sampler SN		SN 224
Dilution Calibrator Model/SN	Primary	T700/ SN191
	Transfer	—

Instrument Check Start Time	16:34 LT
Instrument Check Stop Time	16:51 LT
Filter Replacement Y/N	Yes
Shelter Temp (5 to 40 °C)	24.4
Instrument Range	500 PPB

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	-5.1	—	≤ ± 2% of Full Scale (± 10 PPB)	No
100	101.9	—	≤ ± 7% (93 to 107 PPB)	No

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	-5.1	-4.6	± 2 PPB	No
100 PPB	101.9	102.5	± 2 PPB	No

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	562	Sample Temp. (10 - 50 °C)	38.9
Photo Lamp (58 ± 1 °C)	58.0	BOX Temp. (30 ± 20 °C)	26.8
Slope (1 ± 0.15)	1.043	O ₃ Measure (2500 - 4800 mV)	4254.3
Offset (0.0 ± 5 PPB)	4.2	O ₃ Reference (2500 - 4800 mV)	4258.0

Operator comments/observations:

Operator Signature: Karie Ballard

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APPROVED BY <i>RPA</i>	DATE 6/27/12
AUDITED BY	DATE



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Resolution EAST

O₃ Monitoring Form

Site Operator: R. Artridge

Date: 6/26/12

Sampler Make/Model	T 400	
Sampler SN	224	
Dilution Calibrator Model/SN	Primary	T700 / SN 191
	Transfer	

Instrument Check Start Time	1130
Instrument Check Stop Time	1150
Filter Replacement Y/N	NO
Shelter Temp (5 to 40 °C)	23.09
Instrument Range	500

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	-5.0 PPB	0.1 PPB	≤ ± 2% of Full Scale (±10 PPB)	YES
100	108.3	99.6	≤ ± 7% (93 to 107 PPB)	YES

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air			± 2 PPB	
100 PPB			± 2 PPB	

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	548	Sample Temp. (10 - 50 °C)	39.5
Photo Lamp (58 ± 1 °C)	58	BOX Temp. (30 ± 20 °C)	26.8
Slope (1 ± 0.15)	0.917	O ₃ Measure (2500 - 4800 mV)	4273
Offset (0.0 ± 5 PPB)	0.7	O ₃ Reference (2500 - 4800 mV)	4274

Operator comments/observations:

No Analog vs Digital comparisons completed

Operator Signature: R. Artridge

Appendix K: Audits and Calibrations

**Meteorological,
Particulate, and Air
Quality Calibration
Report
East Plant
Monitoring Station**

PREPARED FOR:

RESOLUTION COPPER
MINING



PROJECT 262-1
APRIL 2012

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2.0 System Description	3
3.0 Calibration Methodology	5
3.1 Meteorological Sensor Calibration Procedures	5
3.2 Particulate Matter Calibration Procedures.....	6
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Appendices

Appendix A: Calibration Forms

1.0 INTRODUCTION

On March 1, March 29, and April 11, 2012, meteorological, particulate and air quality instrumentation was installed and calibrated at the Resolution Copper East Plant, near Superior, AZ. The East monitoring station is operated by the Resolution Copper Mining Company and is located approximately two miles east of the West operation plant (see Figure 1). The purpose of this document is to provide a brief synopsis of the air quality monitoring system installed and of the calibration procedures for the meteorological, particulate, and ambient gas instrumentation at the East plant site. The installation and calibration was conducted in accordance with the following guideline documents:

- Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Quality Monitoring Program (EPA-454/B-08-003, December 2008)
- Quality Assurance Handbook of Air Pollution Measurement Systems, Volume IV: Meteorological Measurements (EPA-454/B-08-002, March 2008)
- Transfer Standards for the Calibration of Ambient Air Monitoring Analyzers for Ozone (EPA-454/B-10-001)
- Code of Federal Regulations (40 CFR Parts 50 and 58)
- Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD) (EPA-450/4-87-007, May 1987)
- Meteorological Monitoring Guidance for Regulatory Modeling Applications (EPA-454/R-99-005, February 2000)

The meteorological sensors were installed on March 1, 2012, and the particulate and ambient air instrumentation was installed on March 29, 2012. Follow-up maintenance and calibration on the ambient gas analyzers was performed on April 11, 2012. A PM_{2.5} Background Calibration was performed on April 26, 2012.

Figure 1: East Plant Monitoring Station



2.0 SYSTEM DESCRIPTION

Meteorological, particulate, and air quality conditions recorded at the site include horizontal wind speed and wind direction, vertical height temperature difference (delta temperature), solar radiation, precipitation, barometric pressure, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), ozone, (O_3) and particulate matter less than 2.5 and 10 microns in diameter ($\text{PM}_{2.5}$ and PM_{10}).

The site infrastructure consists of a 35-foot open-lattice tower, which is hinged at the base for easy drop-down access to the meteorological sensors, and a walk-in shelter, which houses the particulate and air quality instrumentation. The shelter is equipped with a climate control system and roof access to inlets and manifolds. All meteorological instrumentation sensors are mounted on the tower except precipitation. The precipitation sensor is mounted at ground level. Sensor heights are listed in Table 1. Heights are estimated and are measured from ground level.

Table 1. Sensor Installation Heights

Parameter	Approximate Height (meters)
Wind Speed	10
Wind Direction	10
Ambient Temperature	2
Delta Temperature*	2, 10
Solar Radiation	2
Relative Humidity	2
Precipitation	1
Barometric Pressure	1.5
PM_{10}	3
$\text{PM}_{2.5}$	3
NO_2	3
SO_2	3
O_3	3

* Temperature difference of the upper and lower aspirated temperatures

All site data are recorded via analog inputs on two Campbell Scientific CR3000 dataloggers, each powered independently by either DC solar or by locally supplied AC line power. All sensors are programmed on a two-second scan interval, and the output is digitally processed and recorded into 15-minute averages. The raw 15-minute averages are temporarily stored on the datalogger memory, and a local computer is automatically configured to permanently back up datalogger files on a 15-minute interval. The raw 15-minute data averages are securely transmitted, via cellular broadband internet, to

the Air Sciences Inc. server and processed into the Data Acquisition System (DAS) for quality assurance checks. These raw 15-minute averages are used as input for the calculation of one-hour averages.

3.0 CALIBRATION METHODOLOGY

This section provides the calibration procedures for the meteorological, particulate, and ambient gas instrumentation at the East monitoring site. Copies of the completed calibration forms for each parameter are included in Appendix A.

3.1 Meteorological Sensor Calibration Procedures

The wind speed sensor calibration was performed by rotating the sensor shaft using a DC-powered variable-speed motor equipped with an optical encoder output referenced to a crystal oscillator. A target sensor speed was calculated based on the calibration rotational speed and compared to the instantaneous datalogger reading. An R.M. Young Torque Disc was used to measure the anemometer starting torque. All data were recorded on a standardized form.

The calibration of the wind direction system was performed by aligning the tail vane of the sensor to its mounting cross-arm. A Brunton Precision Magnetic Compass (BPMC) mounted on a tripod was used to establish the orientation of the cross-arm using the Magnetic Declination Method.¹ With the wind direction sensor oriented along the axis of the cross-arm, the sensor response was compared to the BPMC-measured value and recorded on a standardized form. The potentiometer linearity was checked by installing a degree wheel on the sensor and recording the system response at 45-degree intervals over the operating range of the system. Data were recorded on a standardized form.

The ambient temperature sensor calibration was performed by comparing the temperature sensor in-situ to a NIST-traceable² temperature sensor. Both thermometer and datalogger readings were recorded on a standardized form.

The differential temperature sensor calibration was performed by immersing both temperature sensors in a series of three water baths within the range of the temperature sensors. Positive and negative temperature differentials were checked by immersing the sensors in separate water baths. All cabling and associated wiring remained intact for the calibration of both sensors. A Precision Temperature Sensor was used to measure the bath temperatures. All calibration data were recorded on standardized forms.

The solar radiation sensor calibration was performed by comparing the sensor in-situ to a calibrated pyranometer wired to an independent datalogger. Both the standard and the datalogger readings were recorded on a standardized form.

¹ Refer to section 2.5.2.2 of the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Version 2.0, March 2008, for more details.

² National Institute of Standards and Technology

The relative humidity sensor calibration was performed by comparing the humidity sensor in-situ to a NIST-traceable humidity sensor. Both the standard and datalogger readings were recorded on a standardized form.

The precipitation gauge was calibrated by employing a graduated syringe and distilled water. The volume of water required to cause the tipping bucket to activate was measured repeatedly, averaged, and compared to the calculated value for the activation. All volumes were recorded on a standardized form.

The barometric pressure sensor calibration was performed by comparing the sensor in-situ to a NIST-traceable barometric pressure standard. Both the standard and datalogger readings were recorded on a standardized form.

3.2 Particulate Matter Calibration Procedures

The BAM 1020 PM₁₀ and BAM 1020 PM_{2.5} monitors were assessed and calibrated by comparing and then adjusting the temperature, barometric pressure, and internal flow to a certified deltaCal Volumetric Air Flow Calibrator. All required maintenance was performed on the instrument to assure optimal operations. The temperature, barometric pressure, and flow output readings from the deltaCal and the instrument were recorded on a standardized form.

3.3 Ambient Gas Calibration Procedures

Calibration of the Teledyne T100 SO₂ analyzer involved a Single-Point Calibration (SPC) with a Multi-Point Audit (MPA), and an Analog to Digital (A2D) verification. The SPC was performed by using the T700 calibrator to dilute NIST-traceable EPA-protocol calibration gas with a clean zero-air source to calibrate the T100 analyzer at zero, and at a single point within the instrument range – typically a point from 100 to 500 PPB of SO₂. An MPA was then performed to evaluate the calibration by verifying the analyzer's response to zero and five upscale spans. An A2D verification check of the T100 instrument response against the CR3000 datalogger response was performed to guarantee accurate representation of the digital scale from the analog output signals.

Calibration of the Teledyne T200 NO_x analyzer involved an SPC with an MPA, a Gas Phase Titration (GPT), and an A2D verification. The SPC was performed by using the T700 calibrator to dilute NIST-traceable EPA-protocol calibration gas with a clean zero-air source to calibrate the T200 analyzer at zero, and at a single point within the instrument range – typically a point from 100 to 500 PPB of NO_x. An MPA was then performed to evaluate the calibration by verifying the analyzer's response to zero and five upscale spans. After the instrument calibration, a GPT was performed to compute the molybdenum converter efficiency using the dynamic dilution calibrator to test the analyzer response against a known dilution of generated NO and O₃ titrations. A verification check of the T200 instrument response against the CR3000 datalogger response was performed to guarantee accurate representation of the digital scale from the analog output signals.

Calibration of the Teledyne T400 O₃ analyzer involved an SPC with an MPA, and an A2D verification. The SPC was performed by using the T700 calibrator to generate O₃ gas to calibrate the T400 analyzer at zero, and at a single point within the instrument range—typically a point from 100 to 500 PPB of O₃. An MPA was then performed to evaluate the calibration by verifying the analyzer's response to zero and five upscale spans. After the instrument calibration, a verification check of the T400 instrument against the CR3000 datalogger response was performed to guarantee accurate representation of the digital scale from the analog output signals.

4.0 RESULTS AND RECOMMENDATIONS

All instruments and sensors were within their recommended tolerance parameters after installation and calibration at the Resolution Copper East monitoring site.

Appendix A: Calibration Forms

METEOROLOGICAL CALIBRATION DATA



AIR SCIENCES INC.

DENVER • PORTLAND

Client: Resolution Copper Company

Job No.: 262-1-3

Site: East Plant

Date: 3/1/2012

Time: 0930-1230hrs

Auditors: R. Attridge, K. DeHenau

Data Logger

Model: CR3000

Serial No.: 6591

AIR SCIENCES INC.	
DENVER • PORTLAND	
REVIEWED BY <i>KJD</i>	DATE <i>6/12/12</i>
AUDITED BY	

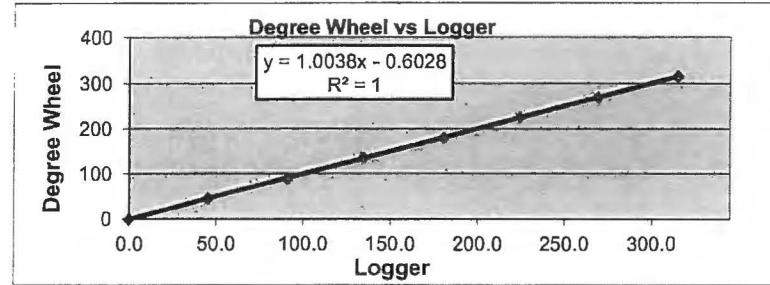
WIND SPEED, 10mModel: 05305
Serial No: 112953Calibration Motor No.: CA 03337
Calibration Disk No.: 2**System Linearity Check**

	Input <u>rpm</u>	Target* <u>m/s</u>	Logger Reading <u>m/s</u>	Difference <u>m/s</u>	Acceptance <u>Criteria</u>
1.	0.0	0.00	0.00	0.00	0.0
2.	200.0	1.02	1.02	0.00	0.3
3.	400.0	2.05	2.05	0.00	0.3
4.	600.0	3.07	3.07	0.00	0.4
5.	800.0	4.10	4.10	0.00	0.4
6.	1000.0	5.12	5.12	0.00	0.5
7.	2000.0	10.24	10.24	0.00	0.7
8.	3000.0	15.36	15.36	0.00	1.0
9.	4000.0	20.48	20.48	0.00	1.2
10.	5000.0	25.60	25.60	0.00	1.5

Bearing Torque Test (Passing 0.5 m/s = 0.4 g-cm)RM Young
*Target (m/s) = rpm x 0.00512Clockwise 0.2 g-cm
Counterclockwise 0.2 g-cm**WIND DIRECTION, 10m**Model: 05305Serial No: 112953Compass No.: 5080695331**System Linearity Check**Declination = 10 East

Orientation	Compass (Degrees)	Target (Degrees)	Logger Reading (Degrees)	Difference (Degrees)	Acceptance Criteria
1. Vane	355.0	345.0	346.3	1.3	±5
Tail	175.0	165.0	164.0	-1.0	±5

	Initial Logger (Degrees)	Difference (Degrees)	Corrected Logger (Degrees)	Difference (Degrees)	Acceptance Criteria
0	0.1	0.1	0.1	0.1	±3
45	45.6	0.6	45.6	0.6	±3
90	91.1	1.1	91.1	1.1	±3
135	134.7	-0.3	134.7	-0.3	±3
180	180.4	0.4	180.4	0.4	±3
225	224.3	-0.7	224.3	-0.7	±3
270	269.1	-0.9	269.1	-0.9	±3
315	314.8	-0.2	314.8	-0.2	±3
Avg		0.0			



Ambient Temperature, 2m

Model: HC2S3-L Serial No: 60749863
Standard Id: HMP45AC - V2830010

System Linearity Check

	Measured (°C)	Logger Reading (°C)	Difference (°C)	Acceptance Criteria
1.	11.8	11.7	0.1	±0.5
2.	11.9	11.6	0.3	±0.5
3.	12.0	11.6	0.4	±0.5
4.	12.0	11.6	0.4	±0.5
5.	11.9	11.4	0.5	±0.5
6.	12.2	11.7	0.5	±0.5
7.	12.2	11.9	0.3	±0.5
8.	12.0	11.9	0.1	±0.5
9.	12.1	11.9	0.2	±0.5
10.	12.0	11.8	0.2	±0.5

Relative Humidity, 2m

Model: HC2S3-L Serial No: 60749863
Standard Id: HMP45AC

System Linearity Check

	Measured (%)	Logger Reading (%)	Difference (%)	Acceptance Criteria (%)
1.	26.8	27.3	0.5	±5
2.	26.9	27.5	0.6	±5
3.	27.5	28.0	0.5	±5
4.	27.6	28.7	1.1	±5
5.	26.3	28.0	1.7	±5
6.	27.0	28.0	1.0	±5
7.	26.9	28.1	1.2	±5
8.	26.7	28.2	1.5	±5
9.	26.5	28.0	1.5	±5
10.	26.2	28.0	1.8	±5

Delta Temperature, 2m, 10m

Model: <u>41342</u>	Serial No (2m): <u>20208</u>
Standard Id: <u>4681</u>	Serial No (10m): <u>20213</u>

System Linearity Check

Standard	2m Temp (°C)	10m Temp (°C)	Difference	Difference	Difference
			2m Temp ^[1] (°C)	10m Temp ^[1] (°C)	Delta T ^[2] (°C)
Bath 1	0.36	0.40	0.36	0.04	0.00
Bath 2	32.10	32.28	32.26	0.18	0.16
Bath 3	54.90	54.90	54.82	0.00	0.08

1. The acceptance criteria for deviation from the standard for both upper and lower temperatures is ± 0.5 2. The acceptance criteria for deviation from the standard for delta temperatures is ± 0.1 **Barometric Pressure, 2m**

Model: <u>PTB110</u>	Serial No: <u>G0077095</u>
Standard Id: <u>PTB110</u>	

System Linearity Check

Measured (mmHg)	Logger Reading (mmHg)	Difference (mmHg)	Acceptance Criteria (mmHg)
1. 685.2	684.9	0.3	± 2.3
2. 685.2	684.9	0.3	± 2.3
3. 685.2	684.9	0.3	± 2.3
4. 685.2	684.9	0.3	± 2.3

SOLAR RADIATION, 2mModel: CMP-3Serial No: 115422Standard Serial No: LCPY545582**System Linearity Check**

	Standard (w/m ²)	Logger Reading (w/m ²)	Difference (w/m ²)	Acceptance Criteria
1.	629.0	630.0	1.0	± 25 W/m ² or 10%
2.	627.0	632.0	5.0	± 25 W/m ² or 10%
3.	634.0	633.0	1.0	± 25 W/m ² or 10%
4.	628.0	635.0	7.0	± 25 W/m ² or 10%
5.	631.0	637.0	6.0	± 25 W/m ² or 10%
6.	631.0	637.0	6.0	± 25 W/m ² or 10%
7.	631.0	637.0	6.0	± 25 W/m ² or 10%
8.	632.0	638.0	6.0	± 25 W/m ² or 10%
9.	631	636.0	5.0	± 25 W/m ² or 10%
10.	631	626.0	5.0	± 25 W/m ² or 10%
	Avg		4.8	

PRECIPITATIONModel: 52202Serial No: TB8721**System Linearity Check**

	Water (cc)	Calculated Target* (inches)	Logger Reading (inches)	Difference (inches)
1.	2.40	0.005	0.004	0.001
2.	2.20	0.004	0.004	0.000
3.	2.40	0.005	0.004	0.001
4.	2.40	0.005	0.004	0.001
5.	2.40	0.005	0.004	0.001
6.	2.20	0.004	0.004	0.000
7.	2.40	0.005	0.004	0.001
8.	2.40	0.005	0.004	0.001
9.	2.20	0.004	0.004	0.000
10.	2.40	0.005	0.004	0.001
Total	23.40	0.047	0.040	0.007

Reading taken from final storage for period averaged data = 0.040 inches

*Target (RM Young gauge) = water (cc)/2.01 * 0.004 (inches)

COMMENTSMet station installed and calibrated by R. Attridge and K. DeHenau.Existing Evap pan and gauge will be placed into service NLT 4/1/12. -RPA

East Plant BAM-1020 PM₁₀ Calibration Sheet

Model: **BAM-1020**

Serial Number: **M8714**

Audit Date: **03/29/2012**

Audited By: **R. Attridge**

Audit Time: **1735hrs**

Firmware: 3236-06 V3.6.3

Flow Audits			
Flow Reference Standard Used:	Model: Delta Cal	Serial No: 1034	Calibration Date: 8/3/2011
Temperature Standard Used:	Model: Delta Cal	Serial No: 1034	Calibration Date: 8/3/2011
Barometric Pressure Standard Used:	Model: Delta Cal	Serial No: 1034	Calibration Date: 8/3/2011

Leak Check Value:

as found: **0.3 LPM**

Should Be:
<1.0

as left: **0.2 LPM**

Should Be:
<1.0

Ambient Temperature (°C):

	BAM	Ref. Std.
as found:	22.4	25.8

Barometric Pressure (mmHg):

	BAM	Ref. Std.
as found:	652	652

Flow Rate (15.0 LPM):

	BAM	Ref. Std.
as found:	15.0	15.33

Flow Rate (18.4 LPM):

	BAM	Ref. Std.
as found:	18.4	18.86

Flow Rate (16.7 LPM):

	BAM	Ref. Std.
as found:	16.7	17.06

	BAM	Ref. Std.
as left:	25.8	25.8
as left:	652	652
as left:	15.0	14.97
as left:	18.4	18.44
as left:	16.7	16.67

Adjusted	X
Adjusted	
Adjusted	
Adjusted	X
Adjusted	X

Audit Notes: Initial deployment of monitor.

Mechanical Audits

Pump muffler unclogged:	As found	X	As left	X	PM10 particle trap clean:	As found	X	As left	X	N/A	
Sample nozzle clean:	As found	X	As left	X	PM10 drip jar empty:	As found	X	As left	X	N/A	
Tape support vane clean:	As found	X	As left	X	PM10 bug screen clear:	As found	X	As left	X	N/A	
Capstan shaft clean:	As found	X	As left	X	PM2.5 particle trap clean:	As found	X	As left	X	N/A	
Rubber pinch rollers clean:	As found	X	As left	X	Inlet tube water-tight seal OK:	As found	X	As left	X		
Chassis ground wire installed:	As found	X	As left	X	Inlet tube perpendicular to BAM:	As found	X	As left	x		

Signature:

Roy Attridge

East Plant BAM-1020 PM_{2.5} Calibration Sheet

Model: **BAM-1020**

Serial Number: **M8193**

Audit Date: **03/29/2012**

Audited By:

R. Attridge

Audit Time: **1710hrs**

Firmware: 3236-06 V3.6.3

Flow Audits				
Flow Reference Standard Used:	Model: Delta Cal	Serial No: 1034	Calibration Date: 8/3/2011	
Temperature Standard Used:	Model: Delta Cal	Serial No: 1034	Calibration Date: 8/3/2011	
Barometric Pressure Standard Used:	Model: Delta Cal	Serial No: 1034	Calibration Date: 8/3/2011	

Leak Check Value:

as found: **0.3 LPM**

Should Be:
<1.0

as left: **0.2 LPM**

Should Be:
<1.0

Ambient Temperature (°C):

as found:	BAM	Ref. Std.
	23.3	24.7

as left:	BAM	Ref. Std.
	24.7	24.7

Adjusted **X**

Barometric Pressure (mmHg):

as found:	BAM	Ref. Std.
	651	652

as left:	BAM	Ref. Std.
	652	652

Adjusted **X**

Flow Rate (15.0 LPM):

as found:	BAM	Ref. Std.
	15.0	15.26

as left:	BAM	Ref. Std.
	15.0	15.15

Adjusted **X**

Flow Rate (18.4 LPM):

as found:	BAM	Ref. Std.
	18.4	18.89

as left:	BAM	Ref. Std.
	18.4	18.31

Adjusted **X**

Flow Rate (16.7 LPM):

as found:	BAM	Ref. Std.
	16.7	16.79

as left:	BAM	Ref. Std.
	16.7	16.78

Adjusted **X**

Audit Notes: Initial deployment of monitor.

Mechanical Audits

Pump muffler unclogged: As found

X	As left	X

PM10 particle trap clean: As found

X	As left	X	N/A
X	As left	X	N/A
X	As left	X	N/A
X	As left	X	N/A
X	As left	X	
X	As left	X	

Sample nozzle clean: As found

PM10 drip jar empty: As found

Tape support vane clean: As found

PM10 bug screen clear: As found

Capstan shaft clean: As found

PM2.5 particle trap clean: As found

Rubber pinch rollers clean: As found

Inlet tube water-tight seal OK: As found

Chassis ground wire installed: As found

Inlet tube perpendicular to BAM: As found

Signature:

Roy Attridge

<p style="text-align: center;">KJD</p> <p>REVIEWED BY</p> <p>AUDITED BY RAT</p>	<p style="text-align: center;">4/30/12</p> <p>DATE</p> <p style="text-align: right;">4/30/12</p>
---	--

EAST PLANT

BAM PM10 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



AJR SCIENCES INC.

Date: 3-29-12

Time: 1600

Operator: ATMIRAGE

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
Y	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	
X	
X	
X	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semianual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
	X

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
	X

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

Comments/Unusual Occurrences: BAM CALIBRATION CONCLUDED THIS DATE - INITIAL OPERATION



AIR SCIENCES INC.

DENVER PORTLAND

REVIEWED BY

KJD

DATE
4/30/12

AUDITED BY

RAT

4/24/12

Signature:

EAST PLANT

BAM PM 2.5 WEEKLY SITE CHECK FORM
RESOLUTION MONITORING PROJECT
PROJECT NO. 262-1



Date: 3-29-12

Time: 1600

Operator: ARRANGE

I. BAM SAMPLER – Weekly Checks.

YES NO

X	
X	
X	
X	
X	
X	
X	

1. The sampler is intact and the inlet head is unobstructed.
2. The vacuum pump is running and sounds normal.
3. The temperature shield is intact, and the sensor is inside of it.
4. The BAM is reading the correct time and day.
5. The tape is in the proper position and does not need to be changed (tape should be changed every 2 months).
6. Error log was checked (F3), and errors followed up on (see manual).
7. Climate control appears operational (If it's cold out the shelter should feel warm, if it's hot out the shelter should feel cool)

II. BAM SAMPLER – Routine Maintenance (monthly). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	
X	
X	
X	

1. Inlet Flow check Performed
2. Visual inspection and dust removal
3. Leak check performed
4. PM10 and 2.5 cyclone particle trap cleaned
5. Inlet nozzle and nozzle are cleaned

II. BAM SAMPLER – Routine Maintenance (every 2 months). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

X	
X	

1. Filter tape replaced
2. Ran the Self-Test function

III. BAM SAMPLER – Routine Maintenance (semiannual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
	X

1. Replaced muffler on the pump (*Work performed by Air Sciences)
2. Complete calibration of flow system (*Work performed by Air Sciences)

IV. BAM SAMPLER – Routine Maintenance (annual). Check yes if maintenance was performed during this visit. See page 56 of BAM manual.

YES NO

	X
	X

1. Carbon vanes in pump checked/replaced (*Work performed by Air Sciences)
2. Inlet system cleaned (*Work performed by Air Sciences)

*Comments/Unusual Occurrences: BAM CALIBRATION CONCLUDED THIS DATE - INITIAL OPERATION



AIR SCIENCES INC.

KJD	DATER	4/30/12
REVIEWED BY	DATE	4/12/12
AUDITED BY	DATE	4/12/12

Fax completed form to Air Sciences at 303-279-3796

Signature:



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

SO₂ Monitoring Form

Site Operator: Nao LeeDate: 3-29-2012

Sampler Make/Model		<u>Telodyne T100</u>
Sampler SN		<u>#193</u>
Dilution Calibrator Model/SN	Primary	<u>T700 #191</u>
	Transfer	<u>N/A</u>

Instrument Check Start Time	<u>12:00 LT</u>
Instrument Check Stop Time	<u>18:00 LT</u>
Filter Replacement Y/N	<u>YES</u>
Shelter Temp (5 to 40 °C)	<u>23.8</u>
Instrument Range	<u>500 PPB</u>
Source Gas Conc.	<u>40 ppm SO₂</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator:

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	<u>0.5</u>	<u>0.5</u>	$\pm 3\%$ of Full Scale (-15 to 15 PPB)	<u>No</u>
100	<u>99.1</u>	<u>99.1</u>	$\leq \pm 10\%$ (90 to 110 PPB)	<u>No</u>

Check the real time Analog vs. Digital Converter:

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	<u>0.5</u>	<u>0.6</u>	± 2 PPB	<u>No</u>
100 PPB	<u>99.1</u>	<u>100.2</u>	± 2 PPB	<u>No</u>

Verify instrument parameters:

Sample Flow (450 ± 45 cc/min)	<u>462</u>	Sample Press. (Ambient ± 2 in-Hg)	<u>22.4</u>
UV Lamp (1000 - 4800 mV)	<u>1213</u>	Lamp Ratio (30 - 120%)	<u>39</u>
Slope (1 ± 0.3)	<u>.548</u>	BOX Temp.	<u>27.1</u>
Offset (< 250 mV)	<u>22.1</u>	HVPS (400 - 900 V)	<u>570</u>

Operator comments/observations:

Operator Signature: [Signature]

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<small>REVIEWED BY</small> <u>KJD</u>	<small>DATE</small> <u>6/12/12</u>
<small>AUDITED BY</small>	<small>DATE</small>

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 – 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated SO2 (PPB)	SO2 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air	0.0	0.5	0.0	PASS, <2%FS
100 PPB	101.0	99.1	99.8	PASS, 0.7%
200 PPB	200.0	198.1	197.7	PASS, 0.2%
300 PPB	301.0	295.6	297.6	PASS, 0.7%
400 PPB	401.0	397.7	396.4	PASS, 0.3%
500 PPB	501.0	495.5	495.3	PASS, 0%

Best Fit Line (BFL)

$$Y = 0.9887x + -0.0369$$

$$R^2 =$$

$$0.99996$$

Transfer Standard:

Target (PPB)	Actual Generated SO2 (PPB)	SO2 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air				
100 PPB				
200 PPB				
300 PPB				
400 PPB				
500 PPB				

Best Fit Line (BFL)

$$R^2 =$$

Operator Comments/observations:

Operator Signature (Date and Time):

3-29-2012



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

NO_x Monitoring Form

Site Operator: Nao LeeDate: 3-29-2012

Sampler Make/Model		<u>Teledyne T200</u>
Sampler SN		<u>#197</u>
Dilution Calibrator Model/SN	Primary	<u>T700 # 191</u>
	Transfer	_____

Instrument Check Start Time	<u>12:00 LT</u>
Instrument Check Stop Time	<u>18:00 LT</u>
Filter Replacement Y/N	<u>YES</u>
Shelter Temp (5 to 40 °C)	<u>23.9</u>
Instrument Range	<u>500 PPB</u>
Source Gas Conc.	<u>40 PPm NO</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	NOx Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	-0.1	-0.1	-0.2	-0.2	± 3% of full Scale (±15 PPB)	NO
100 PPB	101.5	0.7	102.2	102.2	≤ ± 10% (90 to 110 PPB)	NO

Check the real time Analog vs. Digital converter.

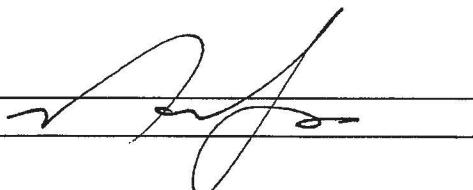
Target Dilution (PPB)	T200 Response (PPB)		CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO	-0.1	NO	-0.2	± 2 PPB	NO
	NO ₂	-0.4	NO ₂	-0.8		
	NO _x	-0.4	NO _x	-0.7		
100 PPB	NO	101.5	NO	100.3	± 2 PPB	NO
	NO ₂	0.7	NO ₂	-0.2		
	NO _x	102.2	NO _x	101.8		

Verify instrument parameters:

Sample Flow (500 ± 50 cc/min)	494	Moly Temp. (315 ± 5°C)	315.0
Ozone Flow (80 ± 15 cc/min)	78	HVPS (400 - 900 V)	600
NOx Slope (1 ± 0.3)	.998	NO Slope (1 ± 0.3)	1.024
NOx Offset (0 ± 100)	2.1	NO Offset (0 ± 100)	0.9

Operator comments/observations:

AIR SCIENCES INC.
DENVER • PORTLAND

Operator Signature: 

1

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6/12/12
DATE

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 – 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air	0	-0.1	-0.1	-0.2	0.2	PASS, 0 \pm 5
100 PPB	101	101.5	0.7	102.2	101.2	PASS, 1%
200 PPB	202	201.2	-1.0	200.2	202.1	PASS, 1%
300 PPB	301	300.4	2.0	302.4	301.1	PASS, 0.4%
400 PPB	401	400.2	1.9	402.1	401.1	PASS, 0.2%
500 PPB	502	499.5	1.6	501.1	502.1	PASS, 0.2%

Best Fit Line (BFL)

$$Y = 0.9998x + 0.1799$$

$$R^2 = 0.99995$$

Transfer Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air						
100 PPB						
200 PPB						
300 PPB						
400 PPB						
500 PPB						

Best Fit Line (BFL)

$$R^2 =$$

Operator comments/observations:

Operator Signature (Date and Time):  3-29-2012

Gas Phase Titration Analyzer Converter Check (quarterly, or as needed)

Check the analyzer converter efficiency with the standard Dynamic Dilution Calibrator.

Date:	3-29-2012	Time:	14:00 LT	Operator:	Nao Lee
Line #	TEST	RESULT			
1	LEAK-CHECK (WHEN HOT)	<u>No</u>	(Yes or no?)		
2	NO _x RESPONSE (MOLY BYPASSED)	<u>448.3</u>			
3	NO _x RESPONSE (MOLY IN-LINE)	<u>447.9</u>			
4	OUT-GASSING	<u>0.4</u>	(>5 ppb, <5 ppb)		
5	(NO _x ORIG) (NO _x mode, O ₃ off)	<u>447.9</u>	ppb		
6	(NO _x REM) (NO _x mode, O ₃ on)	<u>448.9</u>	ppb		
7	NO _x LOSS (Line #5 - #6) = A	<u>1</u>	(A) (<4% of NO _x ORIG: for 445, 4% is 18 ppb)		
8	(NO ORIG) (NO mode, O ₃ off)	<u>453.9</u>	ppb		
9	(NO REM) (NO mode, O ₃ on)	<u>455.5</u>	ppb		
10	NO ₂ (Line #8 - #9) = B	<u>408.4</u>	(B) (>300 ppb)		
11	Efficiency LOSS [(A/B)×100]=C%	<u>0.245</u>	(C) %		
12	Total Conv Eff [100%-C] = D%	<u>99.76%</u>	(D) (102%>D>96%)		

Site Operator Comments/Observations:

 <p>AIR SCIENCES INC. DENVER • PORTLAND</p>	
REVIEWED BY <i>KJD</i>	Operator Signature: <i>Nao Lee</i>
AUDITED BY <i>KJD</i>	DATE <i>6/12/12</i>



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

O₃ Monitoring Form

Site Operator: Nan LeeDate: 3-29-2012

Sampler Make/Model		<u>Telephne T400</u>
Sampler SN		<u># 224</u>
Dilution Calibrator Model/SN	Primary	<u>T700 # 191</u>
	Transfer	<u>M700E # 1098</u>

Instrument Check Start Time	<u>12:00 LT</u>
Instrument Check Stop Time	<u>18:00 LT</u>
Filter Replacement Y/N	<u>Yes</u>
Shelter Temp (5 to 40 °C)	<u>23.8</u>
Instrument Range	<u>500 PPB</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	<u>-0.4</u>	<u>-0.4</u>	$\leq \pm 2\%$ of Full Scale (± 10 PPB)	<u>NO</u>
100	<u>100.2</u>	<u>100.2</u>	$\leq \pm 7\%$ (93 to 107 PPB)	<u>NO</u>

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	<u>-0.4</u>	<u>0.01</u>	± 2 PPB	<u>NO</u>
100 PPB	<u>100.2</u>	<u>100.8</u>	± 2 PPB	<u>NO</u>

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	<u>576</u>	Sample Temp. (10 - 50 °C)	<u>24.1</u>
Photo Lamp (58 ± 1 °C)	<u>58.0</u>	BOX Temp. (30 ± 20 °C)	<u>28.4</u>
Slope (1 ± 0.15)	<u>.998</u>	O ₃ Measure (2500 - 4800 mV)	<u>3374</u>
Offset (0.0 ± 5 PPB)	<u>-0.1</u>	O ₃ Reference (2500 - 4800 mV)	<u>3380</u>

Operator comments/observations:AIR SCIENCES INC.
DENVER • PORTLANDOperator Signature: J. Lee

1

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6/12/12

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 – 500ppb range with the Dilution Calibrator.

Primary Standard: T700 # 191

Target (PPB)	Actual Generated O3 (PPB)	O3 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air	0.0	-0.4	-0.1	PASS, <2% FS
100 PPB	100.0	100.2	101.0	PASS, 0.8%
200 PPB	200.0	202.2	202.2	PASS, 0%
300 PPB	300.0	304.4	303.3	PASS, 0.4%
400 PPB	401.0	404.7	405.5	PASS, 0.2%
500 PPB	498.0	503.6	503.6	PASS, 0%

Best Fit Line (BFL)

$$Y = 1.0115x + -0.1279$$

$$R^2 =$$

0.99999

Transfer Standard: M700 E # 1098

Target (PPB)	Actual Generated O3 (PPB)	O3 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air	0.000	-0.400	-0.2	PASS, <2% FS
100 PPB	98.000	98.900	97.1	PASS, 1.9%
200 PPB	198.000	199.800	196.3	PASS, 1.8%
300 PPB	298.000	296.400	295.5	PASS, 0.3%
400 PPB	397.000	393.000	393.7	PASS, 0.2%
500 PPB	498.000	493.800	493.8	PASS, 0%

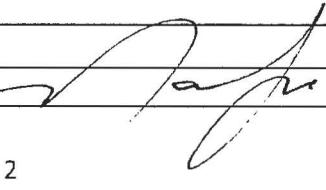
Best Fit Line (BFL)

$$Y = 0.992x + -0.1524$$

$$R^2 =$$

0.99999

Operator Comments/observations:

Operator Signature (Date and Time):  3-29-2012



AIR SCIENCES INC.

Resolution EAST

SO₂ Monitoring Form

DENVER • PORTLAND

Site Operator: Nao LeeDate: 4-11-12

Sampler Make/Model		<u>Teledyne T100</u>
Sampler SN		# 193
Dilution Calibrator Model/SN	Primary	T700 # 191
	Transfer	N/A

Instrument Check Start Time	<u>16:15 LT</u>
Instrument Check Stop Time	<u>18:15 LT</u>
Filter Replacement Y/N	<u>Yes</u>
Shelter Temp (5 to 40 °C)	<u>21.4 °C</u>
Instrument Range	<u>500 PPB</u>
Source Gas Conc.	<u>40 PPB SO₂</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator:

Target Dilution (PPB)	SO2 Response (PPB)	Final SO2 Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	0.13	0.13	± 3% of Full Scale (-15 to 15 PPB)	No
100	100.4	100.4	≤ ± 10% (90 to 110 PPB)	No

Check the real time Analog vs. Digital Converter:

Target Dilution (PPB)	T100 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	0.13	0.18	± 2 PPB	No
100 PPB	100.4	99.8	± 2 PPB	No

Verify instrument parameters:

Sample Flow (450 ± 45 cc/min)	469	Sample Press. (Ambient ± 2 in-Hg)	22.4
UV Lamp (1000 - 4800 mV)	3526.1	Lamp Ratio (30 - 120%)	98.9
Slope (1 ± 0.3)	1.098	BOX Temp.	32.4
Offset (< 250 mV)	14.2	HVPS (400 - 900 V)	570

Operator comments/observations:

Operator Signature: J. D. Lee 4-11-12

 AIR SCIENCES INC. <small>DENVER • PORTLAND</small>	
REVIEWED BY <u>KJD</u>	DATE <u>6/12/12</u>
AUDITED BY	

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated SO2 (PPB)	SO2 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air	zero	0.004	2.294	<2% FS Pass
100 PPB	99	99.42	101.032	1.6% Pass
200 PPB	199	202.4	200.767	0.8% Pass
300 PPB	300	305.3	301.500	1.3% Pass
400 PPB	399	404.1	400.238	1.0% Pass
500 PPB	499	494.6	499.973	1.1% Pass

Best Fit Line (BFL)

$$Y = 0.9974 X + 2.2936$$

R² =

0.99954

Transfer Standard:

Target (PPB)	Actual Generated SO2 (PPB)	SO2 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air				
100 PPB				
200 PPB				
300 PPB				
400 PPB				
500 PPB				

Best Fit Line (BFL)

R² =

Operator Comments/observations:

Operator Signature (Date and Time): *[Signature]* 4-11-12



AIR SCIENCES INC.

DENVER - PORTLAND

Resolution EAST

NO_x Monitoring Form

Site Operator: Nao LeeDate: 4-11-12

Sampler Make/Model		<u>Teledyne T200</u>
Sampler SN		<u># 197</u>
Dilution Calibrator Model/SN	Primary	<u>T700 #191</u>
	Transfer	<u>NA</u>

Instrument Check Start Time	<u>12:15 LT</u>
Instrument Check Stop Time	<u>18:15 LT</u>
Filter Replacement Y/N	<u>Yes</u>
Shelter Temp (5 to 40 °C)	<u>21.8°C</u>
Instrument Range	<u>500 PPB</u>
Source Gas Conc.	<u>40 ppm NO</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	NO Response (PPB)	NO ₂ Response (PPB)	NOx Response (PPB)	Final NO _x Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	<u>0.4</u>	<u>-0.2</u>	<u>-0.2</u>	<u>-0.2</u>	$\pm 3\% \text{ of Full Scale } (\pm 15 \text{ PPB})$	<u>No</u>
100 PPB	<u>99.9</u>	<u>0</u>	<u>99.9</u>	<u>99.0</u>	$\leq \pm 10\% \text{ (90 to 110 PPB)}$	<u>No</u>

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T200 Response (PPB)		CR3000 Response (PPM)		Acceptance Criteria	Adjustment Required? Y/N
Zero Air	NO	<u>-0.1</u>	NO	<u>-0.28</u>	$\pm 2 \text{ PPB}$	<u>No</u>
	NO ₂	<u>-0.6</u>	NO ₂	<u>-0.88</u>		
	NO _x	<u>-0.9</u>	NO _x	<u>-1.28</u>		
100 PPB	NO	<u>99.0</u>	NO	<u>99.13</u>	$\pm 2 \text{ PPB}$	<u>No</u>
	NO ₂	<u>0.0</u>	NO ₂	<u>-0.24</u>		
	NO _x	<u>99.0</u>	NO _x	<u>98.64</u>		

Verify instrument parameters:

Sample Flow (500 ± 50 cc/min)	<u>493</u>	Moly Temp. (315 ± 5°C)	<u>315.0</u>
Ozone Flow (80 ± 15 cc/min)	<u>76</u>	HVPS (400 - 900 V)	<u>600</u>
NOx Slope (1 ± 0.3)	<u>.997</u>	NO Slope (1 ± 0.3)	<u>.994</u>
NOx Offset (0 ± 100)	<u>2.4</u>	NO Offset (0 ± 100)	<u>12.3</u>

Operator comments/observations:AIR SCIENCES INC.
DENVER - PORTLANDOperator Signature: J. Lee

1

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Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 – 500 ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air	zero	-0.6	-0.2	0.8	0.6	0±5 Pass
100 PPB	100	99.0	6.2	99.2	100.3	1.1% Pass
200 PPB	201	197	3.6	201	201.1	0.0% Pass
300 PPB	300	298	2.2	300	299.8	0.1% Pass
400 PPB	399	400	1.1	401.6	398.6	0.8% Pass
500 PPB	499	493	1.8	496	498.3	0.5% Pass

Best Fit Line (BFL)

$$Y = 0.9975 X + 0.5642$$

$$R^2 = 0.9999$$

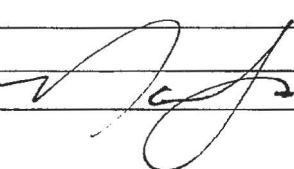
Transfer Standard:

Target (PPB)	Actual Generated T200 (ppb)	NO Response	NO2 Response	NOx Response	Best Fit Line	Acceptable Criteria ($\pm 2\%$ from BFL)
Zero Air		/	/	/	/	/
100 PPB		/	/	/	/	/
200 PPB		/	/	/	/	/
300 PPB		/	/	/	/	/
400 PPB		/	/	/	/	/
500 PPB		/	/	/	/	/

Best Fit Line (BFL)

$$R^2 =$$

Operator comments/observations:

Operator Signature (Date and Time):  4-11-12



AIR SCIENCES INC.

DENVER • PORTLAND

Resolution EAST

O₃ Monitoring FormSite Operator: Nao LuDate: 4-11-12

Sampler Make/Model		<u>Teledyne T400</u>
Sampler SN		<u>#224</u>
Dilution Calibrator Model/SN	Primary	<u>T700 #191</u>
	Transfer	<u>N/A</u>

Instrument Check Start Time	<u>18:15 LT</u>
Instrument Check Stop Time	<u>19:15 LT</u>
Filter Replacement Y/N	<u>Yes</u>
Shelter Temp (5 to 40 °C)	<u>20.7°C</u>
Instrument Range	<u>500 ppb</u>

Level 1 Zero/Span (once every 2 weeks)

Check the Zero/Span ppb with the T700 Dynamic Dilution Calibrator.

Target Dilution (PPB)	O ₃ Response (PPB)	Final O ₃ Response (PPB)	Acceptance Criteria (PPB)	Adjustment Required? Y/N
Zero Air	.01	.01	≤ ± 2% of Full Scale (±10 PPB)	No
100	101.4	101.4	≤ ± 7% (93 to 107 PPB)	No

Check the real time Analog vs. Digital converter.

Target Dilution (PPB)	T400 Response (PPB)	CR3000 Response (PPB)	Acceptance Criteria	Adjustment Required? Y/N
Zero Air	0.01	-0.3	± 2 PPB	No
100 PPB	101.4	100.85	± 2 PPB	No

Verify instrument parameters:

Sample Flow (550 ± 55 cc/min)	<u>556</u>	Sample Temp. (10 - 50 °C)	<u>39.6</u>
Photo Lamp (58 ± 1 °C)	<u>58.0</u>	BOX Temp. (30 ± 20 °C)	<u>26.7</u>
Slope (1 ± 0.15)	<u>.988</u>	O ₃ Measure (2500 - 4800 mV)	<u>4409</u>
Offset (0.0 ± 5 PPB)	<u>-0.4</u>	O ₃ Reference (2500 - 4800 mV)	<u>4415</u>

Operator comments/observations:



AIR SCIENCES INC.

DENVER • PORTLAND

Operator Signature: [Signature]

1

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KJD

AUDITED BY

DATE
6/12/12

Multipoint Calibration (Quarterly, or as needed)

Check the analyzer response over 0 - 500ppb range with the Dilution Calibrator.

Primary Standard:

Target (PPB)	Actual Generated O3 (PPB)	O3 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air	0.0	0.8	0.5	PASS, <2%FS
100 PPB	103.0	103.5	103.9	PASS, 0.4%
200 PPB	202.0	203.2	203.4	PASS, 0.1%
300 PPB	302.0	302.8	303.8	PASS, 0.3%
400 PPB	402.0	404.6	404.3	PASS, 0.1%
500 PPB	503.0	506.1	505.7	PASS, 0.1%

Best Fit Line (BFL)

$$Y = 1.0045x + 0.4541$$

$$R^2 =$$

0.99999

Transfer Standard:

Target (PPB)	Actual Generated O3 (PPB)	O3 Response (PPB)	Best Fit Line (PPB)	Acceptable Criteria (± 2% from BFL)
Zero Air				
100 PPB				
200 PPB				
300 PPB				
400 PPB				
500 PPB				

Best Fit Line (BFL)

$$R^2 =$$

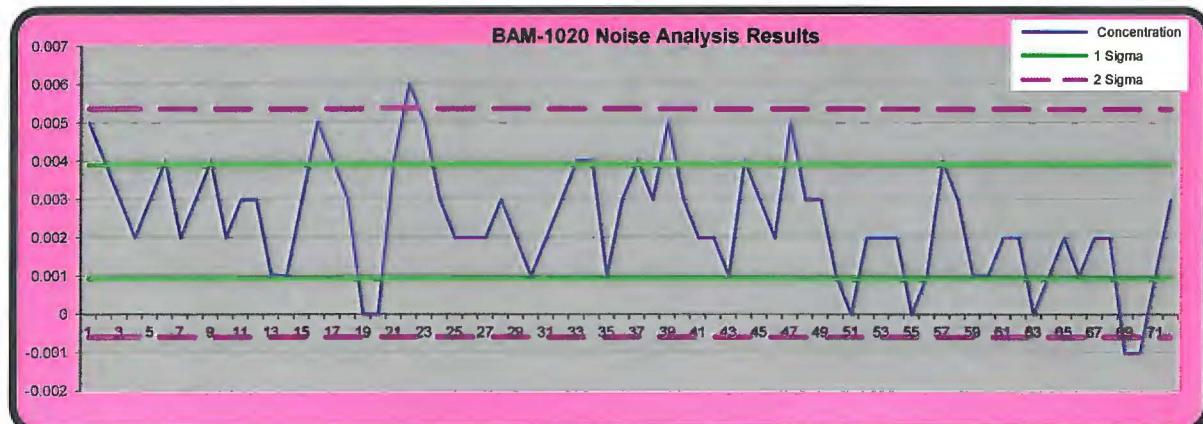
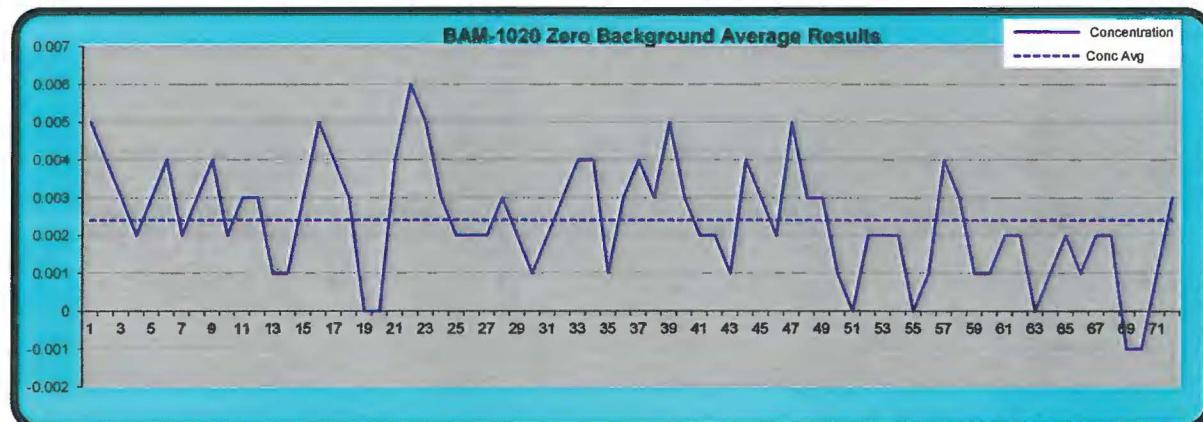
#DIV/0!

Operator Comments/observations:

Operator Signature (Date and Time): ✓ Jap - 4-11-12

Test Records	
BAM-1020 Serial Number:	M6466
Test Performed By:	R. Attridge
Test Start Date:	4/23/2012
Test End Date:	4/26/2012
Previous BKGD Value:	-0.0036
BKGD Value During Test:	-0.0036

Dataset Statistics (milligrams)		
Zero Average	0.0024	Within Bounds!
Hourly Standard Deviation (σ)	0.0015	Within Bounds!
Hourly Detection Limit (2σ)	0.0030	Within Bounds!
Background (BKGD)	0.0024	value in the BAM-1020



**Meteorological and
Particulate
Calibration Report
West Plant
Monitoring Station**

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PROJECT 262-1
APRIL 2012

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Appendices

Appendix A: Calibration Forms

1.0 INTRODUCTION

On February 2, 2012, meteorological and particulate instrumentation was installed and calibrated at the Resolution Copper West Plant, near Superior, AZ. The West monitoring station is operated by the Resolution Copper Mining Company and is located one quarter mile west of the administration building. The purpose of this document is to provide a brief synopsis of the air quality monitoring system installed and of the calibration procedures for the meteorological and particulate instrumentation at the West plant site. The installation and calibration was conducted in accordance with the following guideline documents:

- Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Quality Monitoring Program (EPA-454/B-08-003, December 2008)
- Quality Assurance Handbook of Air Pollution Measurement Systems, Volume IV: Meteorological Measurements (EPA-454/B-08-002, March 2008)
- Code of Federal Regulations (40 CFR Parts 50 and 58)
- Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD) (EPA-450/4-87-007, May 1987)
- Meteorological Monitoring Guidance for Regulatory Modeling Applications (EPA-454/R-99-005, February 2000)

The meteorological sensors and particulate instrumentation were installed and calibrated on February 2, 2012. A Background Calibration was performed on the PM_{2.5} instrument on April 26, 2012.

Figure 1: West Plant Monitoring Station



2.0 SYSTEM DESCRIPTION

Meteorological and particulate conditions recorded at the site include horizontal wind speed and wind direction, vertical height temperature difference (delta temperature), solar radiation, precipitation, barometric pressure, and particulate matter less than 2.5 and 10 microns in diameter (PM_{2.5} and PM₁₀).

The site infrastructure consists of a 35-foot open-lattice tower, which is hinged at the base for easy drop-down access to the meteorological sensors, and a instrument-sized shelter, which houses the particulate instrumentation. The shelter is equipped with a climate control system and roof access to inlets. All meteorological instrumentation sensors are mounted on the tower except precipitation. The precipitation sensor is mounted at ground level. Sensor heights are listed in Table 1. Heights are estimated and are measured from ground level.

Table 1. Sensor Installation Heights

Parameter	Approximate Height (meters)
Wind Speed	10
Wind Direction	10
Ambient Temperature	2
Delta Temperature*	2, 10
Solar Radiation	2
Relative Humidity	2
Precipitation	1
Barometric Pressure	1.5
PM ₁₀	2
PM _{2.5}	2

* Temperature difference of the upper and lower aspirated temperatures

All site data are recorded via analog inputs on two Campbell Scientific CR3000 dataloggers, each powered independently by either DC solar or by locally supplied AC line power. All sensors are programmed on a two-second scan interval, and the output is digitally processed and recorded into 15-minute averages. The raw 15-minute averages are temporarily stored on the datalogger memory, and a local computer is automatically configured to permanently back up datalogger files on a 15-minute interval. The raw 15-minute data averages are securely transmitted, via cellular broadband internet, to the Air Sciences Inc. server and processed into the Data Acquisition System (DAS) for quality assurance checks. These raw 15-minute averages are used as input for the calculation of one-hour averages.

3.0 CALIBRATION METHODOLOGY

This section provides the calibration procedures for the meteorological and particulate instrumentation at the West monitoring site. Copies of the completed calibration forms for each parameter are included in Appendix A.

3.1 Meteorological Sensor Calibration Procedures

The wind speed sensor calibration was performed by rotating the sensor shaft using a DC-powered variable-speed motor equipped with an optical encoder output referenced to a crystal oscillator. A target sensor speed was calculated based on the calibration rotational speed and compared to the instantaneous datalogger reading. An R.M. Young Torque Disc was used to measure the anemometer starting torque. All data were recorded on a standardized form.

The calibration of the wind direction system was performed by aligning the tail vane of the sensor to its mounting cross-arm. A Brunton Precision Magnetic Compass (BPMC) mounted on a tripod was used to establish the orientation of the cross-arm using the Magnetic Declination Method.¹ With the wind direction sensor oriented along the axis of the cross-arm, the sensor response was compared to the BPMC-measured value and recorded on a standardized form. The potentiometer linearity was checked by installing a degree wheel on the sensor and recording the system response at 45-degree intervals over the operating range of the system. Data were recorded on a standardized form.

The ambient temperature sensor calibration was performed by comparing the temperature sensor in-situ to a NIST-traceable temperature sensor. Both thermometer and datalogger readings were recorded on a standardized form.

The differential temperature sensor calibration was performed by immersing both temperature sensors in a series of three water baths within the range of the temperature sensors. Positive and negative temperature differentials were checked by immersing the sensors in separate water baths. All cabling and associated wiring remained intact for the calibration of both sensors. A Precision Temperature Sensor was used to measure the bath temperatures. All calibration data were recorded on standardized forms.

The solar radiation sensor calibration was performed by comparing the sensor in-situ to a calibrated pyranometer wired to an independent datalogger. Both the standard and the datalogger readings were recorded on a standardized form.

The relative humidity sensor calibration was performed by comparing the humidity sensor in-situ to a NIST-traceable humidity sensor. Both the standard and datalogger readings were recorded on a standardized form.

¹ Refer to section 2.5.2.2 of the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Version 2.0, March 2008, for more details.

The precipitation gauge was calibrated by employing a graduated syringe and distilled water. The volume of water required to cause the tipping bucket to activate was measured repeatedly, averaged, and compared to the calculated value for the activation. All volumes were recorded on a standardized form.

The barometric pressure sensor calibration was performed by comparing the sensor in-situ to a NIST-traceable barometric pressure standard. Both the standard and datalogger readings were recorded on a standardized form.

3.2 Particulate Matter Calibration Procedures

The BAM 1020 PM₁₀ and BAM 1020 PM_{2.5} monitors were assessed and calibrated by comparing and then adjusting the temperature, barometric pressure, and internal flow to a certified deltaCal Volumetric Air Flow Calibrator. All required maintenance was performed on the instrument to assure optimal operations. The temperature, barometric pressure, and flow output readings from the deltaCal and the instrument were recorded on a standardized form.

4.0 RESULTS AND RECOMMENDATIONS

All instruments and sensors were within their recommended tolerance parameters after installation and calibration at the Resolution Copper West monitoring site.

Appendix A: Calibration Forms

METEOROLOGICAL CALIBRATION DATA



AIR SCIENCES INC.

DENVER • PORTLAND

Client : Resolution Copper Company

Job No. : 262-1-3

Site : West Plant

Date : 2/2/2012

Time: 1545-1730hrs

Auditors: R. Attridge, K. DeHenau

Data Logger

Model : CR3000

Serial No : 6590

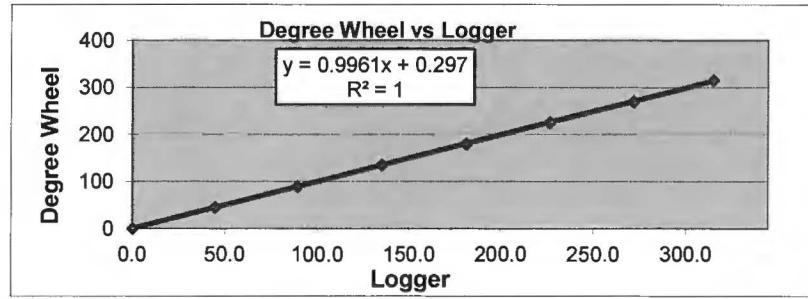
WIND SPEED, 10mModel: 05305
Serial No: 112952Calibration Motor No.: CA 03337
Calibration Disk No.: 2**System Linearity Check**

	Input <u>rpm</u>	Target* <u>m/s</u>	Logger Reading <u>m/s</u>	Difference <u>m/s</u>	Acceptance <u>Criteria</u>
1.	0.0	0.00	0.00	0.00	0.0
2.	200.0	1.02	1.02	0.00	0.3
3.	400.0	2.05	2.05	0.00	0.3
4.	600.0	3.07	3.07	0.00	0.4
5.	800.0	4.10	4.10	0.00	0.4
6.	1000.0	5.12	5.12	0.00	0.5
7.	2000.0	10.24	10.24	0.00	0.7
8.	3000.0	15.36	15.36	0.00	1.0
9.	4000.0	20.48	20.48	0.00	1.2
10.	5000.0	25.60	25.60	0.00	1.5

Bearing Torque Test (Passing 0.5 m/s = 0.4 g-cm)Clockwise 0.2 g-cm
Counterclockwise 0.2 g-cmRM Young
*Target (m/s) = rpm x 0.00512**WIND DIRECTION, 10m**Model: 05305 Serial No: 112952 Compass No.: 5080695331**System Linearity Check**Declination = 10 East

Orientation	Compass (Degrees)	Target (Degrees)	Logger Reading (Degrees)	Difference (Degrees)	Acceptance Criteria
1. Vane	350.0	340.0	339.8	-0.2	±5
Tail	170.0	160.0	158.7	-1.3	±5

	Initial Logger (Degrees)	Difference (Degrees)	Corrected Logger (Degrees)	Difference (Degrees)	Acceptance Criteria
0	0.1	0.1	-0.2	-0.2	±3
45	44.7	-0.3	44.4	-0.6	±3
90	89.2	-0.8	88.9	-1.1	±3
135	134.9	-0.1	134.6	-0.4	±3
180	181.0	1.0	180.7	0.7	±3
225	226.4	1.4	226.1	1.1	±3
270	271.4	1.4	271.1	1.1	±3
315	314.9	-0.1	314.6	-0.4	±3
Avg		0.3			



Ambient Temperature, 2m

Model: HC2S3-L Serial No: 60749962
Standard Id: HMP45AC - V2830010

System Linearity Check

	Measured (°C)	Logger Reading (°C)	Difference (°C)	Acceptance Criteria
1.	21.3	21.2	0.1	±0.5
2.	21.4	21.1	0.3	±0.5
3.	21.3	21.3	0.0	±0.5
4.	21.5	21.3	0.2	±0.5
5.	21.5	21.3	0.1	±0.5
6.	21.2	21.4	-0.2	±0.5
7.	21.0	21.2	-0.2	±0.5
8.	21.2	21.4	-0.1	±0.5
9.	21.1	21.3	-0.2	±0.5
10.	21.3	21.3	0.0	±0.5

Relative Humidity, 2m

Model: HC2S3-L Serial No: 60749962
Standard Id: HMP45AC

System Linearity Check

	Measured (%)	Logger Reading (%)	Difference (%)	Acceptance Criteria (%)
1.	11.2	11.5	0.3	±5
2.	11.2	11.4	0.2	±5
3.	11.2	11.4	0.2	±5
4.	11.3	11.5	0.2	±5
5.	11.5	11.7	0.3	±5
6.	11.3	11.5	0.2	±5
7.	11.4	11.3	0.0	±5
8.	11.5	11.5	0.0	±5
9.	11.3	11.5	0.2	±5
10.	11.2	11.3	0.1	±5

Delta Temperature, 2m, 10m

Model: <u>41342</u>	Serial No (2m): <u>20205</u>
Standard Id: <u>4681</u>	Serial No (10m): <u>20211</u>

System Linearity Check

	Standard (°C)	2m Temp (°C)	10m Temp (°C)	Difference	Difference	Difference
				2m Temp ^[1]	10m Temp ^[1]	Delta T ^[1]
Bath 1	4.30	4.30	4.30	0.00	0.00	0.00
Bath 2	23.50	23.50	23.50	0.00	0.00	0.00
Bath 3	34.30	34.42	34.30	0.12	0.00	0.12

1. The acceptance criteria for deviation from the standard for both upper and lower temperatures is ± 0.5 2. The acceptance criteria for deviation from the standard for delta temperatures is ± 0.1 **Barometric Pressure, 2m**

Model: <u>PTB110</u>	Serial No: <u>G0077095</u>
Standard Id: <u>PTB110</u>	

System Linearity Check

	Measured (mmHg)	Logger Reading (mmHg)	Difference (mmHg)	Acceptance Criteria (mmHg)
1.	685.8	685.9	-0.1	± 2.3
2.	685.8	685.9	-0.1	± 2.3
3.	685.8	685.9	-0.1	± 2.3
4.	685.8	685.9	-0.1	± 2.3

SOLAR RADIATION, 2mModel: CMP-3 Serial No: 115433 Standard Serial No: LCPY545582**System Linearity Check**

	Standard (w/m ²)	Logger (w/m ²)	Difference (w/m ²)	Acceptance Criteria
1.	412.0	415.0	3.0	± 25 W/m ² or 10%
2.	428.0	427.0	1.0	± 25 W/m ² or 10%
3.	425.0	430.0	5.0	± 25 W/m ² or 10%
4.	420.0	428.0	8.0	± 25 W/m ² or 10%
5.	424.0	433.0	9.0	± 25 W/m ² or 10%
6.	441.0	441.0	0.0	± 25 W/m ² or 10%
7.	441.0	450.0	9.0	± 25 W/m ² or 10%
8.	444.0	450.0	6.0	± 25 W/m ² or 10%
9.	450	458.0	8.0	± 25 W/m ² or 10%
10.	471	469.0	2.0	± 25 W/m ² or 10%
		Avg	5.1	

PRECIPITATIONModel: 52202 Serial No: TB8730**System Linearity Check**

	Water (cc)	Calculated Target* (inches)	Logger Reading (inches)	Difference (inches)
1.	2.40	0.005	0.004	0.001
2.	2.50	0.005	0.004	0.001
3.	2.50	0.005	0.004	0.001
4.	2.50	0.005	0.004	0.001
5.	2.40	0.005	0.004	0.001
6.	2.50	0.005	0.004	0.001
7.	2.40	0.005	0.004	0.001
8.	2.50	0.005	0.004	0.001
9.	2.50	0.005	0.004	0.001
10.	2.40	0.005	0.004	0.001
Total	24.60	0.049	0.040	0.009

Reading taken from final storage for period averaged data = 0.040 inches

Target (RM Young gauge) = water (cc)/2.01 0.004 (inches)

COMMENTS

Met station installed and calibrated by R. Attridge and K. DeHenau.

Discovered existing Evap pan and gauge installed incorrectly; corrections will be conducted during next visit. RPA

West Plant BAM-1020 PM₁₀ Calibration Sheet

Model: **BAM-1020**

Serial Number: **M8712**

Audit Date: **02/02/2012**

Audited By: **R. Attridge**

Audit Time: **1715hrs**

Firmware: 3236-06 V3.6.3

Flow Audits			
Flow Reference Standard Used:	Model: Delta Cal	Serial No: 1031	Calibration Date: 8/3/2011
Temperature Standard Used:	Model: Delta Cal	Serial No: 1031	Calibration Date: 8/3/2011
Barometric Pressure Standard Used:	Model: Delta Cal	Serial No: 1031	Calibration Date: 8/3/2011

Leak Check Value: as found: **0.2 LPM** Should Be: **<1.0** as left: **0.2 LPM** Should Be: **<1.0**

	BAM	Ref. Std.		BAM	Ref. Std.		Adjusted	X
Ambient Temperature (°C): as found:	18.4	19.7		19.6	19.6			
Barometric Pressure (mmHg): as found:	684	684		684	684			
Flow Rate (15.0 LPM): as found:	15.1	15.04		15.1	15.03			
Flow Rate (18.4 LPM): as found:	18.4	18.29		18.4	18.33			
Flow Rate (16.7 LPM): as found:	16.7	16.66		16.7	16.68			

Audit Notes: Initial deployment of monitor.

Mechanical Audits								
Pump muffler unclogged:	As found	<input checked="" type="checkbox"/>	As left	<input checked="" type="checkbox"/>	PM10 particle trap clean:	As found	<input checked="" type="checkbox"/>	N/A
Sample nozzle clean:	As found	<input checked="" type="checkbox"/>	As left	<input checked="" type="checkbox"/>	PM10 drip jar empty:	As found	<input checked="" type="checkbox"/>	N/A
Tape support vane clean:	As found	<input checked="" type="checkbox"/>	As left	<input checked="" type="checkbox"/>	PM10 bug screen clear:	As found	<input checked="" type="checkbox"/>	N/A
Capstan shaft clean:	As found	<input checked="" type="checkbox"/>	As left	<input checked="" type="checkbox"/>	PM2.5 particle trap clean:	As found	<input checked="" type="checkbox"/>	N/A
Rubber pinch rollers clean:	As found	<input checked="" type="checkbox"/>	As left	<input checked="" type="checkbox"/>	Inlet tube water-tight seal OK:	As found	<input checked="" type="checkbox"/>	x
Chassis ground wire installed:	As found	<input checked="" type="checkbox"/>	As left	<input checked="" type="checkbox"/>	Inlet tube perpendicular to BAM:	As found	<input checked="" type="checkbox"/>	x

Signature:

West Plant BAM-1020 PM_{2.5} Calibration Sheet

Model: **BAM-1020**

Serial Number:

M3193

Audit Date: **02/02/2012**

Audited By:

R. Attridge

Audit Time: **1710hrs**

Firmware: 3236-06 V3.6.3

Flow Audits			
Flow Reference Standard Used:	Model: Delta Cal	Serial No: 1031	Calibration Date: 8/3/2011
Temperature Standard Used:	Model: Delta Cal	Serial No: 1031	Calibration Date: 8/3/2011
Barometric Pressure Standard Used:	Model: Delta Cal	Serial No: 1031	Calibration Date: 8/3/2011

Leak Check Value: as found: **0.3 LPM** Should Be: <1.0 as left: **0.2 LPM** Should Be: <1.0

	BAM	Ref. Std.		BAM	Ref. Std.		Adjusted	X
Ambient Temperature (°C):	as found:	18.4	20.3	as left:	19.8	19.8		
Barometric Pressure (mmHg):	as found:	684	684	as left:	684	684		
Flow Rate (15.0 LPM):	as found:	15.0	14.99	as left:	15.0	14.98		
Flow Rate (18.4 LPM):	as found:	18.4	18.40	as left:	18.4	18.42		
Flow Rate (16.7 LPM):	as found:	16.7	16.68	as left:	16.7	16.65		

Audit Notes: Initial deployment of monitor.

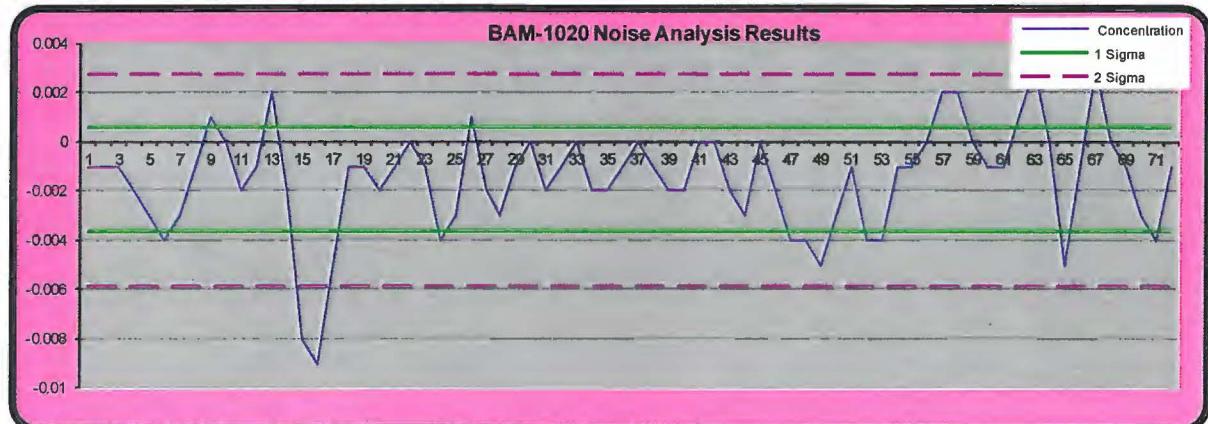
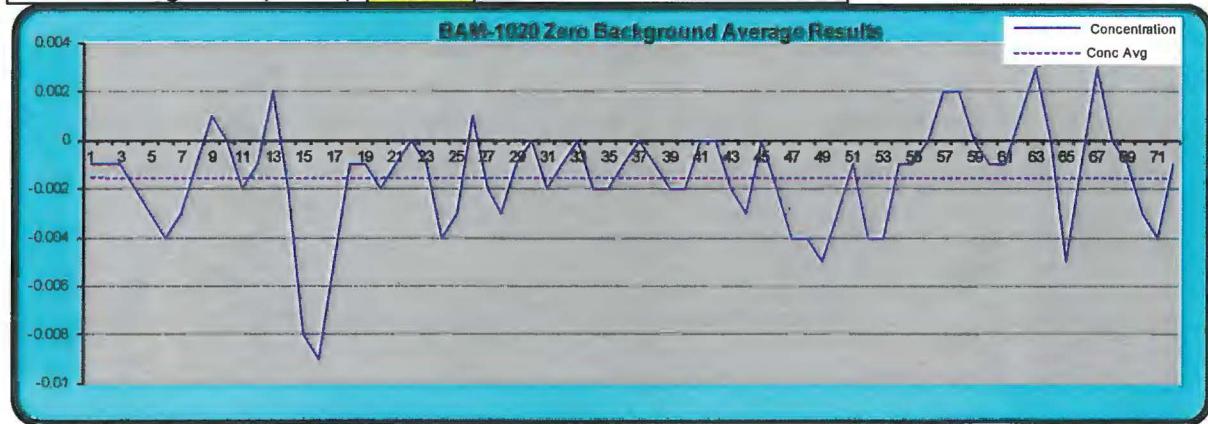
Mechanical Audits								
Pump muffler unclogged:	As found	X	As left	X	PM10 particle trap clean:	As found	X	As left
Sample nozzle clean:	As found	X	As left	X	PM10 drip jar empty:	As found	X	As left
Tape support vane clean:	As found	X	As left	X	PM10 bug screen clear:	As found	X	As left
Capstan shaft clean:	As found	X	As left	X	PM2.5 particle trap clean:	As found	X	As left
Rubber pinch rollers clean:	As found	X	As left	X	Inlet tube water-tight seal OK:	As found	X	As left
Chassis ground wire installed:	As found	X	As left	X	Inlet tube perpendicular to BAM:	As found	X	As left

Signature:

Roy Attridge

Test Records	
BAM-1020 Serial Number:	West Plant PM2.5 M8133
Test Performed By:	R. Attridge
Test Start Date:	4/23/2012
Test End Date:	4/26/2012
Previous BKGD Value:	0.0023
BKGD Value During Test:	0.0023

Dataset Statistics (milligrams)		
Zero Average	-	Within Bounds!
Hourly Standard Deviation (σ)	0.0021	Within Bounds!
Hourly Detection Limit (2σ)	0.0043	Within Bounds!
Background (BKGD)	0.0015	Set this value in the BAM-1020



Appendix L: CD
