

**2004 Annual Data Report
January-December**

for the

**Rock Creek Ambient Air and Meteorological Monitoring
Project**

Nome, Alaska

November 2005

prepared for

Alaska Gold Company

prepared by

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EXECUTIVE SUMMARY

This project was conducted by Alaska Gold Company to collect meteorological data at the Rock Creek Mine Development Site (Rock Creek).

The start date for the meteorological monitoring was January 1, 2004. Monitoring is still taking place at Rock Creek. This report includes data collected from January 1 through December 31, 2004.

Data capture summaries are provided in Tables E-1 and E-2. Table E-1 shows the valid hours per month and Table E-2 shows the percent data capture.

Table E-1. Meteorological Data Capture – Valid Hours per Month

Period	Meteorological Parameters								
	2-m Temp	10-m Temp	WS	WD	Wind Sigma	RH	Solar	BP	Precip
January	740	740	740	740	740	740	744	744	N/A
February	696	696	696	696	696	696	696	696	N/A
March	744	744	729	744	744	744	744	744	N/A
April	720	720	717	720	720	720	720	720	N/A
May	731	731	705	731	731	731	744	744	N/A
June	720	720	720	720	720	720	720	720	N/A
July	744	744	744	744	744	744	744	744	N/A
August	744	744	744	744	744	744	744	744	205
September	720	720	720	720	720	720	720	720	716
October	744	744	744	744	744	744	744	744	743
November	720	720	705	720	720	720	720	720	131
December	738	737	738	738	738	738	744	744	78

Table E-2. Meteorological Data Capture – Percent Data Capture

Period	Meteorological Parameter								
	2-m Temp	10-m Temp	WS	WD	Wind Sigma	RH	Solar	Precip	BP
January	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	100.0%	-	100.0%
February	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
March	100.0%	100.0%	98.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
1st Quarter	99.8%	99.8%	99.1%	99.8%	99.8%	99.8%	100.0%	-	100.0%
April	100.0%	100.0%	99.6%	100.0%	100.0%	100.0%	100.0%	-	100.0%
May	98.3%	98.3%	96.2%	98.3%	98.3%	98.3%	100.0%	-	100.0%
June	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
2nd Quarter	99.4%	99.4%	98.6%	99.4%	99.4%	99.4%	100.0%	-	100.0%
July	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
August	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	27.7%	100.0%
September	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	100.0%
3rd Quarter	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	42.4%	100.0%
October	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%
November	100.0%	100.0%	97.9%	100.0%	100.0%	100.0%	100.0%	18.2%	100.0%
December	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	100.0%	10.5%	100.0%
4th Quarter	99.7%	99.7%	99.0%	99.7%	99.7%	99.7%	100.0%	42.8%	100.0%
YTD	99.7%	99.7%	99.2%	99.7%	99.7%	99.7%	100.0%	42.6%	100.0%

1.0 INTRODUCTION

Alaska Gold Company is conducting meteorological monitoring at the Rock Creek Mine Development Site (Rock Creek) to support an Environmental Assessment (EA) and future permitting needs.

1.1 Project Summary

This project is being conducted by Alaska Gold Company to collect meteorological data at Rock Creek that may be used for an Environmental Assessment and an air quality construction permit application, if such a permit is determined to be necessary. The meteorological data will provide one year of representative surface observations for use in dispersion modeling.

The Rock Creek Air Monitoring Program includes continuous meteorological monitoring. Monitoring will occur over a period of 24 months.

The meteorological monitoring program collects data for the following parameters:

- Wind speed (meters per second [m/s])
- Wind direction (degrees [°])
- Wind direction standard deviation (wind sigma [σ_0])
- Air temperature, two meters above ground (degrees Celsius [°C])
- Air temperature, ten meters above ground (degrees Celsius [°C])
- Relative humidity, motor-aspirated shield (percent [%])
- Solar radiation (watts per square meter [watts/m²])
- Barometric pressure (millibars [mb])
- Precipitation (inches [in.]).

The Rock Creek site is located about 7 miles north of Nome adjacent to Glacier Creek Road. Figures 1-1 and 1-2 are maps of the Rock Creek area. Rock Creek is located near the southern coast of Alaska's Seward Peninsula at 64° 37' N latitude and 165° 26' W longitude.

1.2 Measurement Methods Table

A listing of each meteorological parameter and sampling method used during the monitoring program is provided in Table 1-1. All meteorological parameters are collected as hourly averages, except barometric pressure, which is recorded at the start of each hour, and precipitation, which is recorded as an hourly total. The monitoring station also records the minimum and maximum instantaneous temperature and the maximum instantaneous wind speed during the previous hour. A photograph of the monitoring station is included as Figure 1-3.

All instruments meet or exceed U.S. Environmental Protection Agency (EPA) PSD requirements for range accuracies, thresholds, response times, resolutions, damping ratios, and other performance measures.

Table 1-1. Meteorological Measurement Methods

Parameter	Manufacturer/ Model	Range	Method
Wind Speed	Climatronics Model F460	0.2 to 60 m/s (0.5 to 125 mph)	Three-cup anemometer assembly, photochopper frequency proportional to wind speed
Wind Direction	Climatronics Model F460	0° to 360°	Vane, potentiometer voltage output is proportional to wind direction
Ambient Temperature & Delta Temperature	Met One Model 062	-50°C to +50°C	Platinum 4-wire probe and thermistor in a motor-aspirated shield
Relative Humidity	Campbell Scientific HMP-45C	-40°C to +60°C (-40°F to +140°F) (0% to 100% RH)	Capacitive polymer H chip (integrated with temperature probe listed above) in a motor-aspirated shield
Precipitation	Texas Electronics TE525WS with CS705 snowfall adapter	0 to 3 inches/hour	Tipping bucket switch closure mechanism; seasonally outfitted with snowfall adapter
Solar Radiation	Campbell Scientific/ LiCor LI200X	400 to 1,100 nanometers	Silicon photovoltaic detector mounted in cosine-corrected head
Barometric Pressure	Vaisala PTB-101B	600 – 1,060 millibars	Silicon capacitive pressure sensor
Datalogger	Campbell Scientific Model CR10X-XT	Operates at extended temperatures of -55°C to +85°C	1.0-second scans, processed to hourly averages recorded on the hour

1.3 Variations from QAPP

The data manager listed in the QAPP has been replaced by Theresa Barnard.

Figure 1-1. Project Location Map

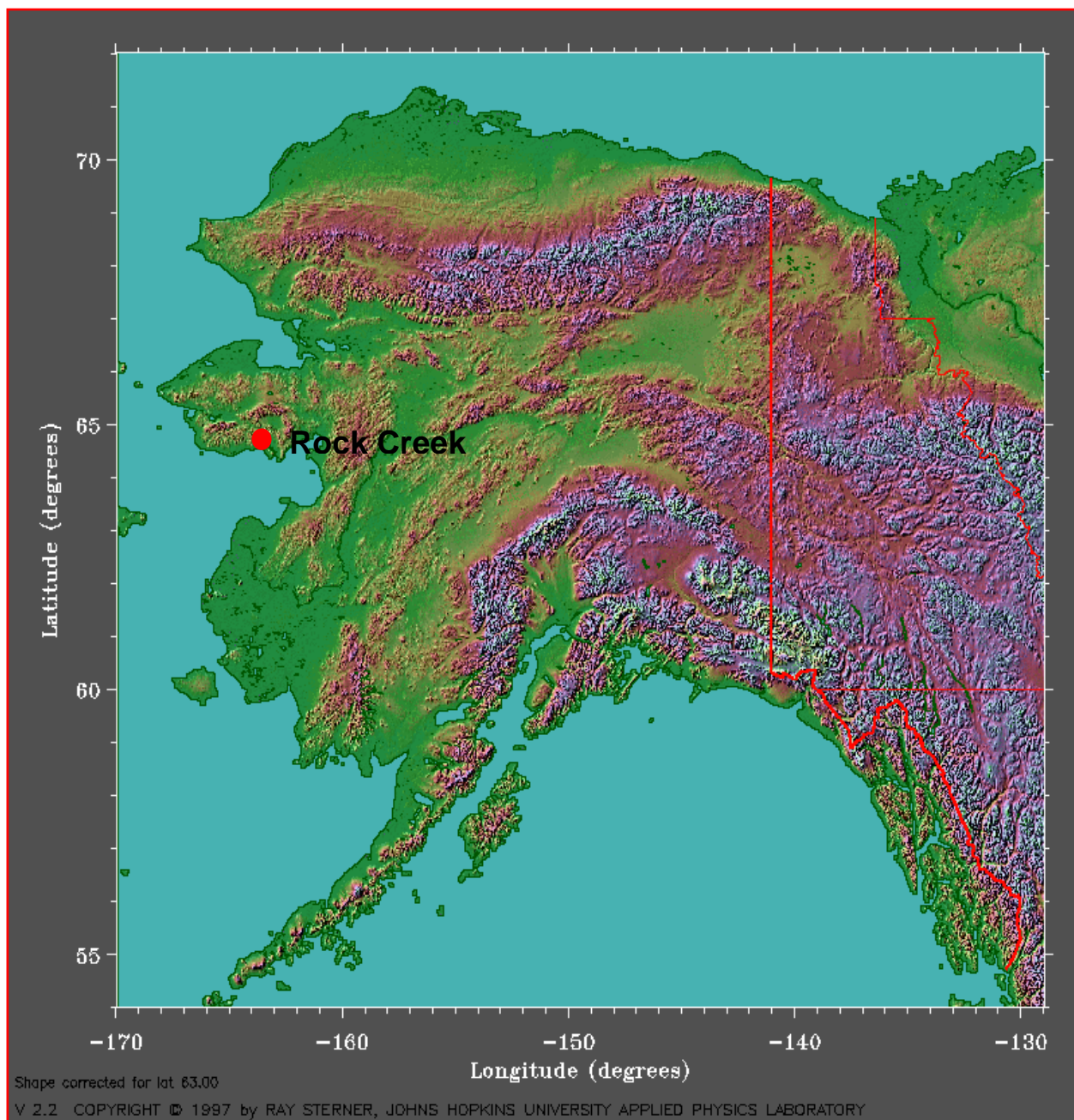


Figure 1-2. Rock Creek Development and Surrounding Area Map

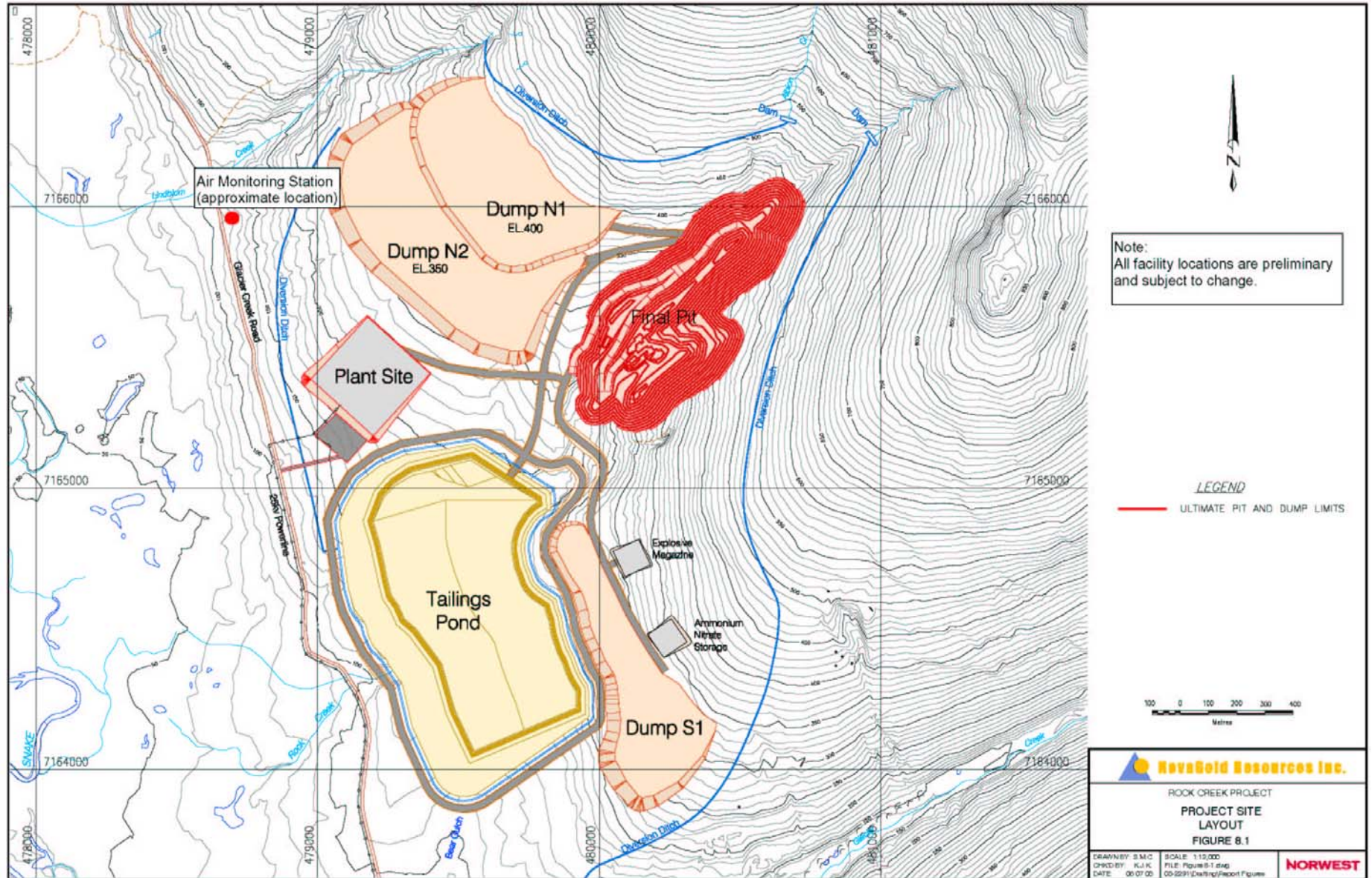


Figure 1-3. Rock Creek Monitoring Station



2.0 STATION PERFORMANCE SUMMARY

2.1 Significant Project Events

Table 2-1 summarizes the log of significant events at the Rock Creek monitoring station.

Table 2-1. Chronology of Significant Events

Date	Event
December 11-17, 2003	Initial site installation and setup
January 8-9, 2004	Initial Audit and Calibration, PM ₁₀ training
March 22-23, 2004	Frozen (likely) anemometer - 15 hours of data lost
May 27-28, 2004	Audit and calibration of meteorological sensors, flow audit of PM ₁₀ samplers.
August 23, 2004	Precipitation gauge added to monitoring station.
September 23, 2004	Snowfall adapter added to precipitation gauge.
November 6, 2004	Snowfall adapter maintenance.
December 2, 2004	Updates to precipitation gauge mount, and generator system started for season.
December 28, 2004	Audit and calibration of meteorological sensors, flow audit of PM ₁₀ samplers. Snowfall adapter maintenance.

2.2 Missing, Invalid, and Adjusted Data

The data sets were carefully reviewed during the quality assurance (QA) process. Some data were removed as a result of activity (audit and calibration, filter retrieval) at the monitoring site. The quantities of the data sets that were flagged under the EPA criteria but not removed are listed in Table 2-2. Flagged data are carefully examined, but are generally not removed unless the values are outside the normal range of variation, the values become almost constant for an unidentified reason, maintenance activity has occurred at the site, instruments have been damaged, or if the flags continue uninterrupted for an extended period without explanation.

Table 2-2. Percentage of Final Data Set Flagged

Parameter	Criterion	
Wind Speed	Exceeds 25 m/s	0.0%
	Varies less than 0.1 m/s over 3 consecutive hours	2.0%
	Varies less than 0.5 m/s over 12 consecutive hours	0.5%
Wind Direction	Exceeds 360°	0.0%
	Varies less than 1° over 3 consecutive hours	0.5
	Varies less than 10° for 18 consecutive hours	0.0%
Temperature 2 Meters	Varies more than 5°C in one hour	0.1%
	Varies less than 0.5°C over 12 consecutive hours	0.8%
	Temperature < -50°C	0.0%
Temperature 10 Meters	Varies more than 5°C in one hour	0.1%
	Varies less than 0.5°C over 12 consecutive hours	0.6%
	Temperature < -50°C	0.0%

2.3 Network Data Completeness

Table 2-3. Station Performance Summary - Data Recovery 2004

Period	Meteorological								
	Temp 2m	Temp 10m	WS	WD	Sigma	RH	Solar	Precip	Barometric Pressure
January	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	100.0%	-	100.0%
February	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
March	100.0%	100.0%	98.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
1st Quarter	99.8%	99.8%	99.1%	99.8%	99.8%	99.8%	100.0%	-	100.0%
April	100.0%	100.0%	99.6%	100.0%	100.0%	100.0%	100.0%	-	100.0%
May	98.3%	98.3%	96.2%	98.3%	98.3%	98.3%	100.0%	-	100.0%
June	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
2nd Quarter	99.4%	99.4%	98.6%	99.4%	99.4%	99.4%	100.0%	-	100.0%
July	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
August	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	27.7%	100.0%
September	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	100.0%
3rd Quarter	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	42.4%	100.0%
October	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%
November	100.0%	100.0%	97.9%	100.0%	100.0%	100.0%	100.0%	18.2%	100.0%
December	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	100.0%	10.5%	100.0%
4th Quarter	99.7%	99.7%	99.0%	99.7%	99.7%	99.7%	100.0%	42.8%	100.0%
YTD	99.7%	99.7%	99.2%	99.7%	99.7%	99.7%	100.0%	42.6%	100.0%

2.4 Precision Statistics

2.4.1 Monitoring Network Precision Statistics

Not applicable.

2.4.2 Analytical Laboratory Precision Statistics (for Gravimetric Analysis of Particulate Samples)

Not applicable.

2.4.3 Analytical Laboratory Precision Statistics for Lead Analysis of Particulate Samples

Not applicable.

2.5 Accuracy Statistics

2.5.1 Instrument Calibration Statistics

Not applicable.

2.5.2 Independent Quality Assurance Audits

The technical systems audit was performed on January 9, 2004. The power supply, data acquisition system, communications system, and sensors all worked properly. The systems audit indicated that the 12-meter station is well-planned, equipped with PSD-quality equipment, outfitted with a robust power supply, and sited according to criteria recommended by EPA. The operator provided adequate manuals for system maintenance and proper documentation to report operational and quality control activities. The operator was knowledgeable and competent with all of the meteorological equipment, communications equipment and the power supply. Appendix C.3 contains the complete technical systems audit.

The first performance audit of the station was conducted on January 9, 2004. The performance audit involves reading the data acquisition systems output for each meteorological sensor and comparing the value with the input from an appropriate piece of audit equipment, or from calibrated instruments collocated with the sensor. For each reading, the difference between the station value and the predicted value is compared with established PSD limits to assess the instruments accuracy. The results of this audit are presented in Table 2-5. The complete performance audit is available in Appendix C.3

**Table 2-5. Rock Creek Meteorological Performance Audit Summary Results
First Quarter 2004**

Parameter	EPA Limit	Units	Maximum Reading	Pass/Fail
Datalogger Time (AST)	$\leq \pm 5:00$	Min:Sec	-0:48	Pass
Temperature Accuracy (2-m)	$\leq \pm 0.5$	°C	0.10	Pass
Temperature Accuracy (10-m)	$\leq \pm 0.5$	°C	0.14	Pass
Temperature Difference (ΔT)	$\leq \pm 0.1$	°C	0.05	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Speed Torque	≤ 0.35	g-cm	<0.1	Pass
Wind Direction Alignment	$\leq \pm 5$	°	1.7	Pass
Wind Direction Accuracy	$\leq \pm 5$	°	1.3	Pass
Wind Direction Linearity	≤ 3	°	0.5	Pass
Wind Direction Torque	≤ 7.5	g-cm	6.5	Pass ¹
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.2	Pass
Barometric Pressure	$\leq \pm 3$	mb	-1.7	Pass

Note: 1: High wind direction torque for new instrument.

Performance audits were conducted on May 27, 2004 and December 28, 2004. Each sensor was challenged with certified audit equipment, and the starting torques of the anemometer and wind vane were tested. The sensors were tested for compliance with the PSD performance accuracy requirements and starting torque threshold limits. The results of the performance audits are presented in Tables 2-6 and 2-7. The complete performance audits are available in Appendix C.3

**Table 2-6. Rock Creek Meteorological Performance Audit Summary Results
Second Quarter 2004**

Parameter	EPA Limit	Units	Maximum Reading	Pass/Fail
Datalogger Time (AST)	≤ ±5:00	Min:Sec	0:04	Pass
Temperature Accuracy (2-m)	≤ ±0.5	°C	0.09	Pass
Temperature Accuracy (10-m)	≤ ±0.5	°C	0.09	Pass
Temperature Difference (ΔT)	≤ ±0.1	°C	0.00	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	≤ ±5	% input	0.0	Pass
Wind Speed Torque	≤ 0.35	g-cm	<0.2	Pass
Wind Direction Alignment	≤ ±5	°	4	Pass
Wind Direction Accuracy	≤ ±5	°	2.2	Pass
Wind Direction Linearity	≤ 3	°	0.8	Pass
Wind Direction Torque	≤ 7.5	g-cm	1.5	Pass
Relative Humidity (dew point)	≤ ± 1.5	°C	0.5	Pass
Barometric Pressure	≤ ±3	mb	1.03	Pass

**Table 2-7. Rock Creek Meteorological Performance Audit Summary Results
Fourth Quarter 2004**

Parameter	EPA Limit	Units	Maximum Reading	Pass/Fail
Datalogger Time (AST)	$\leq \pm 5:00$	Min:Sec	-2:52	Pass
Temperature Accuracy (2-m)	$\leq \pm 0.5$	°C	0.09	Pass
Temperature Accuracy (10-m)	$\leq \pm 0.5$	°C	0.32	Pass
Temperature Difference (ΔT)	$\leq \pm 0.1$	°C	0.05	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Speed Torque	≤ 0.35	g-cm	<0.2	Pass
Wind Direction Alignment	$\leq \pm 5$	°	3	Pass
Wind Direction Accuracy	$\leq \pm 5$	°	-2.805	Pass
Wind Direction Linearity	≤ 3	°	1.44	Pass
Wind Direction Torque	≤ 7.5	g-cm	4.3	Pass
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	1.5	Pass
Barometric Pressure	$\leq \pm 3$	mb	0.8	Pass

3.0 MONITORING DATA NETWORK SUMMARY

3.1 Air Quality Data Summary

Not applicable.

3.2 Meteorological Data Summary

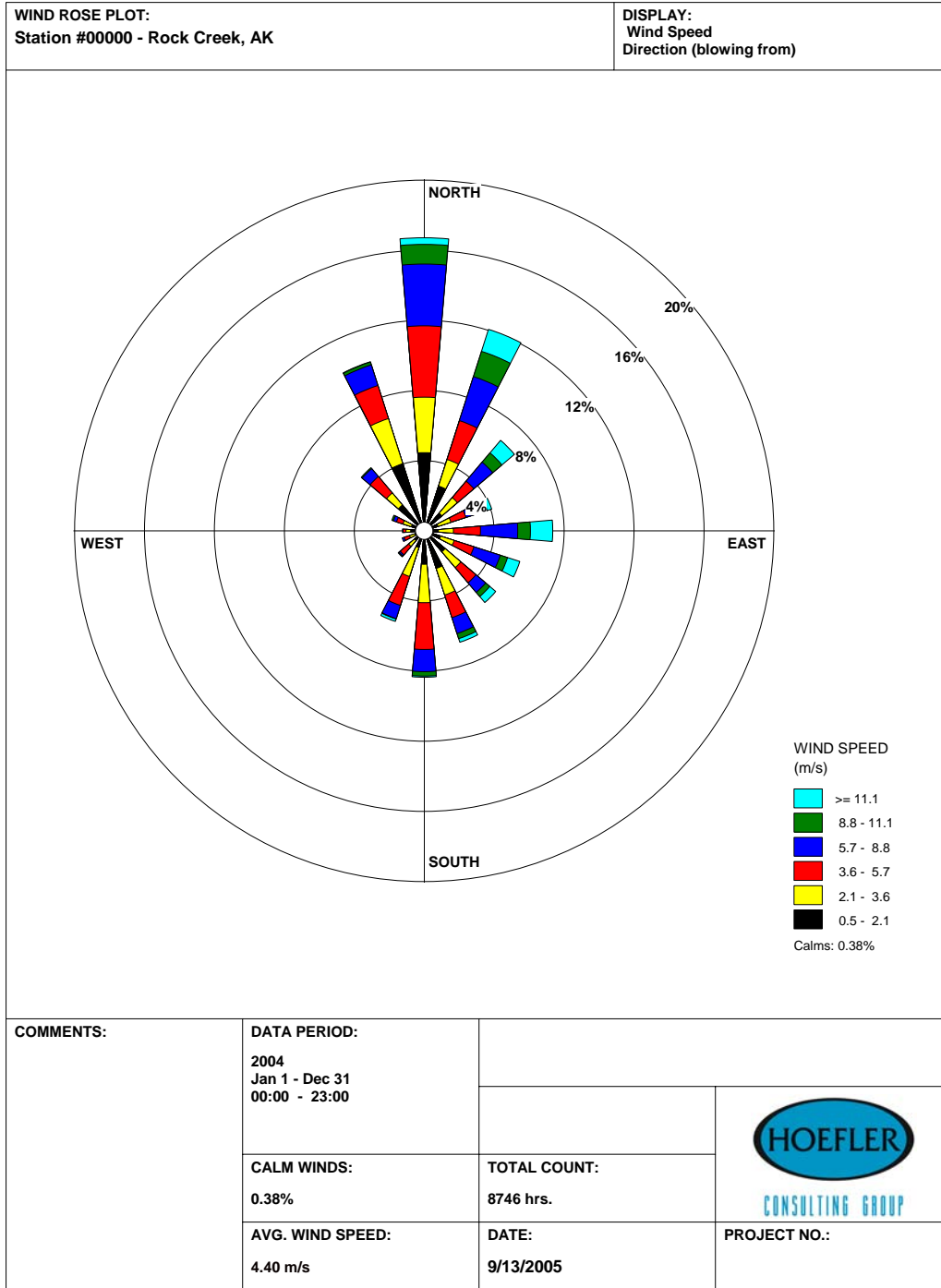
Wind Speed (WS) and Direction (WD) Climatology

On an annual basis, winds were predominately out of the north, north-northeast and north-northwest with minor components out of the south and east. During the first quarter of 2004, the winds were primarily from the north and north-northwest. The second quarter winds are dominated by a southern component along with a northern component. Winds in the third quarter were mostly from the north and north-northwest with some winds out of the south. Strong northerly winds were predominate during the fourth quarter with north-northwest, north-northeast and east winds. The annual average wind speed was 4.4 m/s. Table 3-1 provides a summary of the average wind speeds, maximum instantaneous wind speeds, and the maximum and minimum wind speeds for each quarter of data. Annual and quarterly windroses are presented in Figures 3-1 through 3-5. Wind frequency distribution information is provided in Tables 3-2 through 3-6. Figure 3-6 provides the annual windrose superimposed on the Rock Creek location map. The wind data are available in Appendix D.

Table 3-1. Average, Maximum and Minimum Wind Speeds for 2004

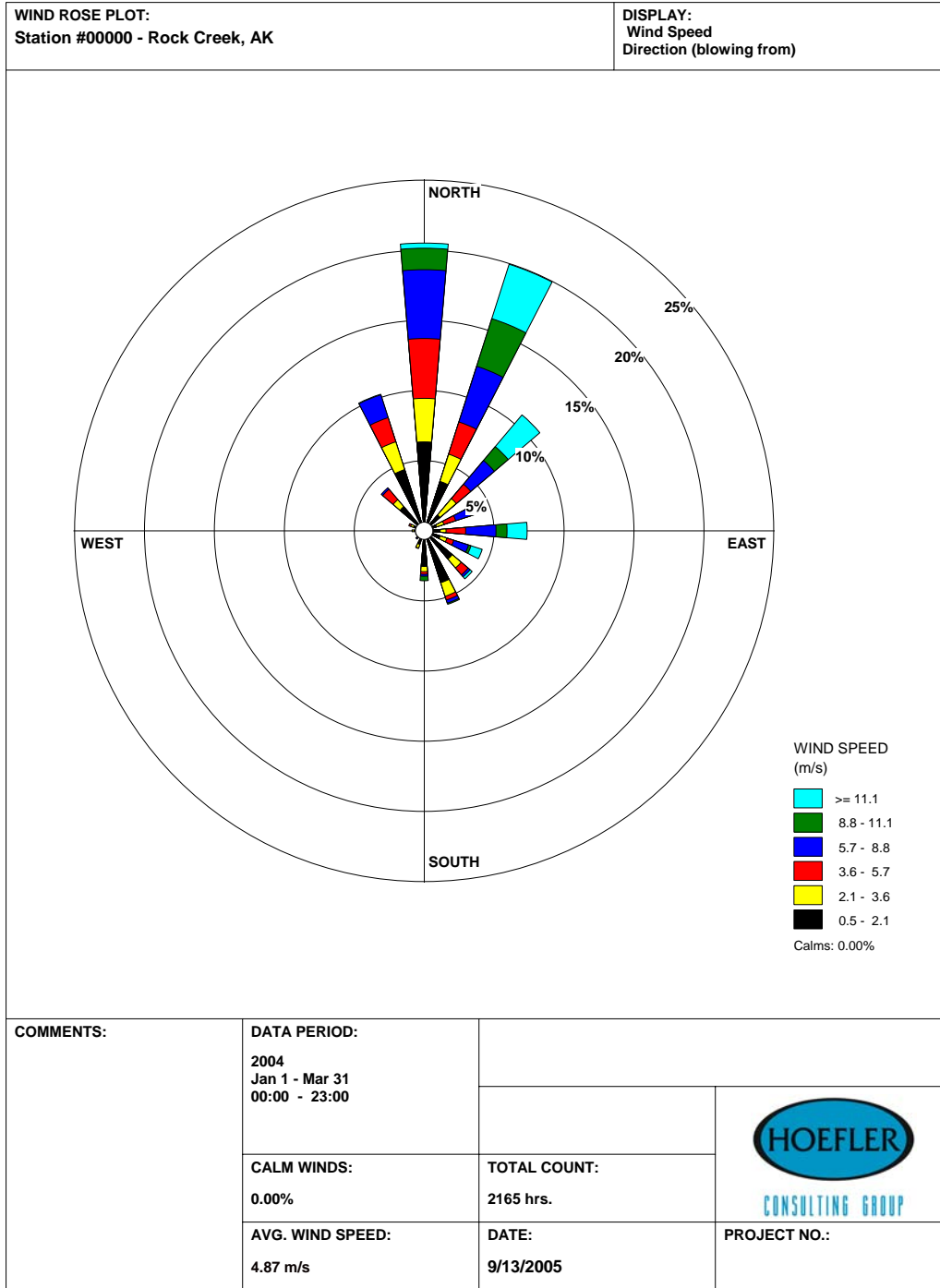
Quarter	Average Hourly Wind Speeds (m/s)	Maximum Hourly Instantaneous Wind Speeds (m/s)	Maximum Hourly Wind Speed (m/s)
First	4.86	32.55	24.59
Second	4.14	21.08	14.92
Third	3.12	17.32	9.84
Fourth	5.54	28.88	19.50
Annual	4.41	32.55	24.59

Figure 3-1. 2004 Annual Windrose



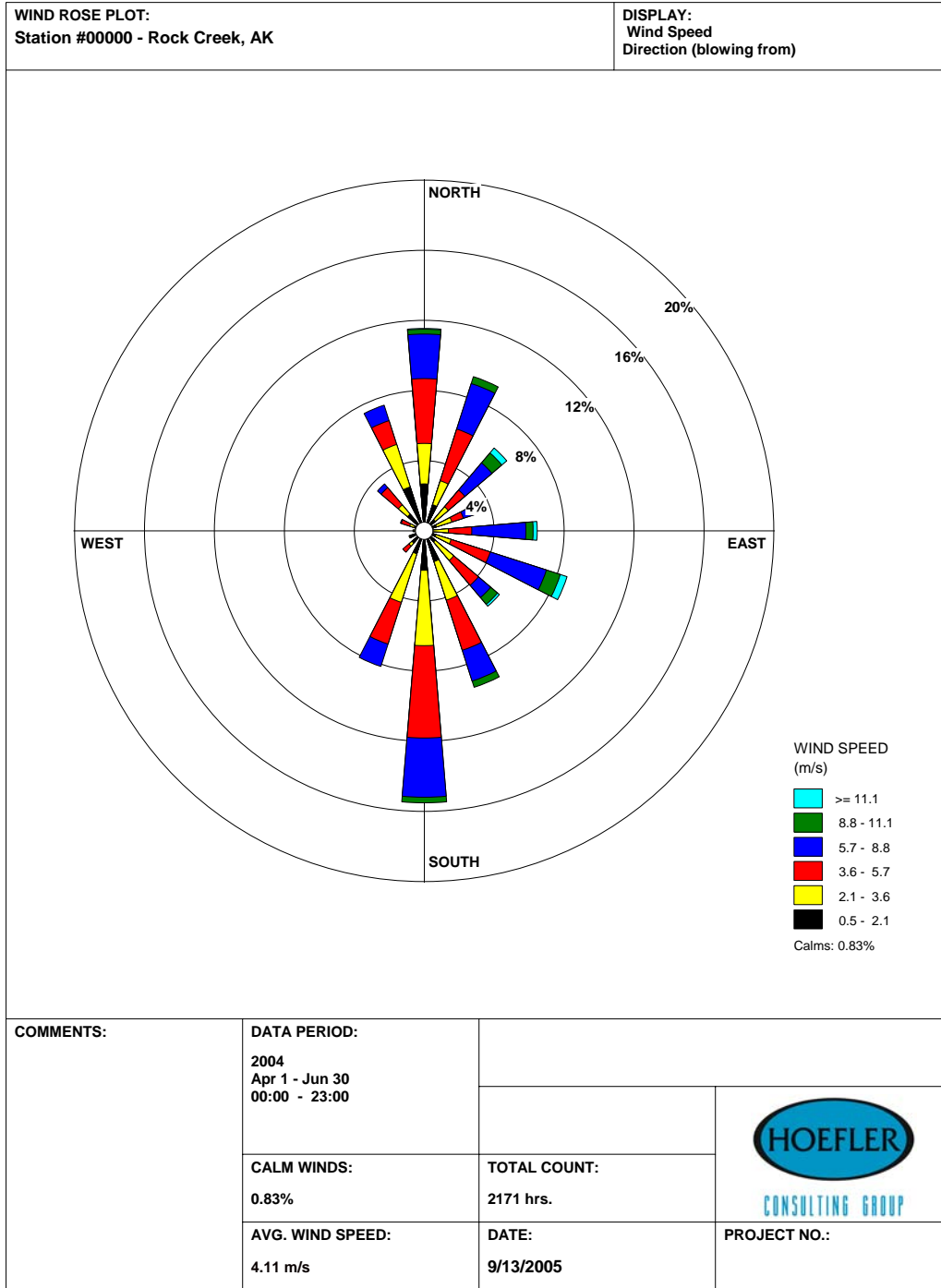
WRPLOT View - Lakes Environmental Software

Figure 3-2. First Quarter 2004 Windrose



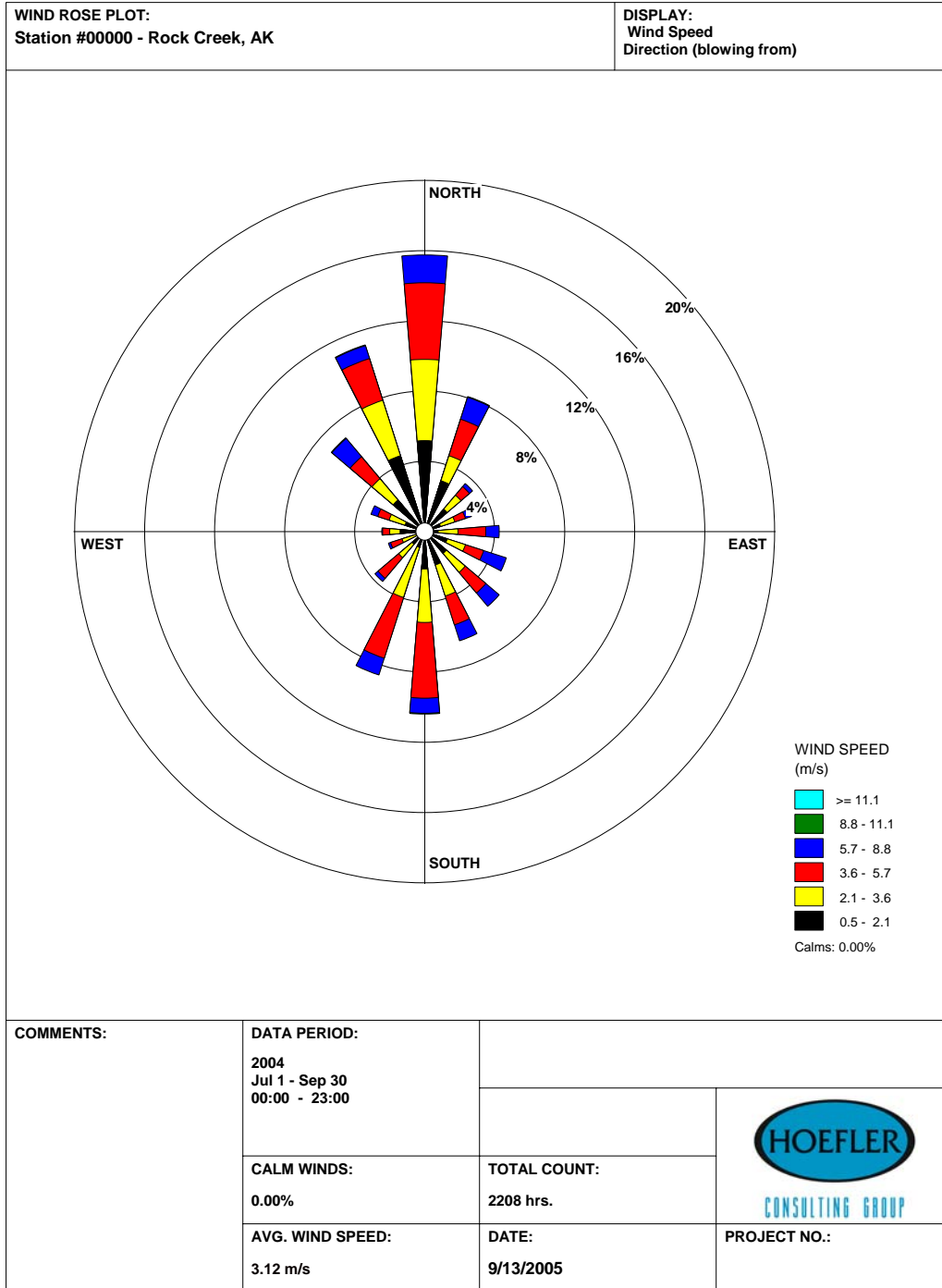
WRPLOT View - Lakes Environmental Software

Figure 3-3. Second Quarter 2004 Windrose



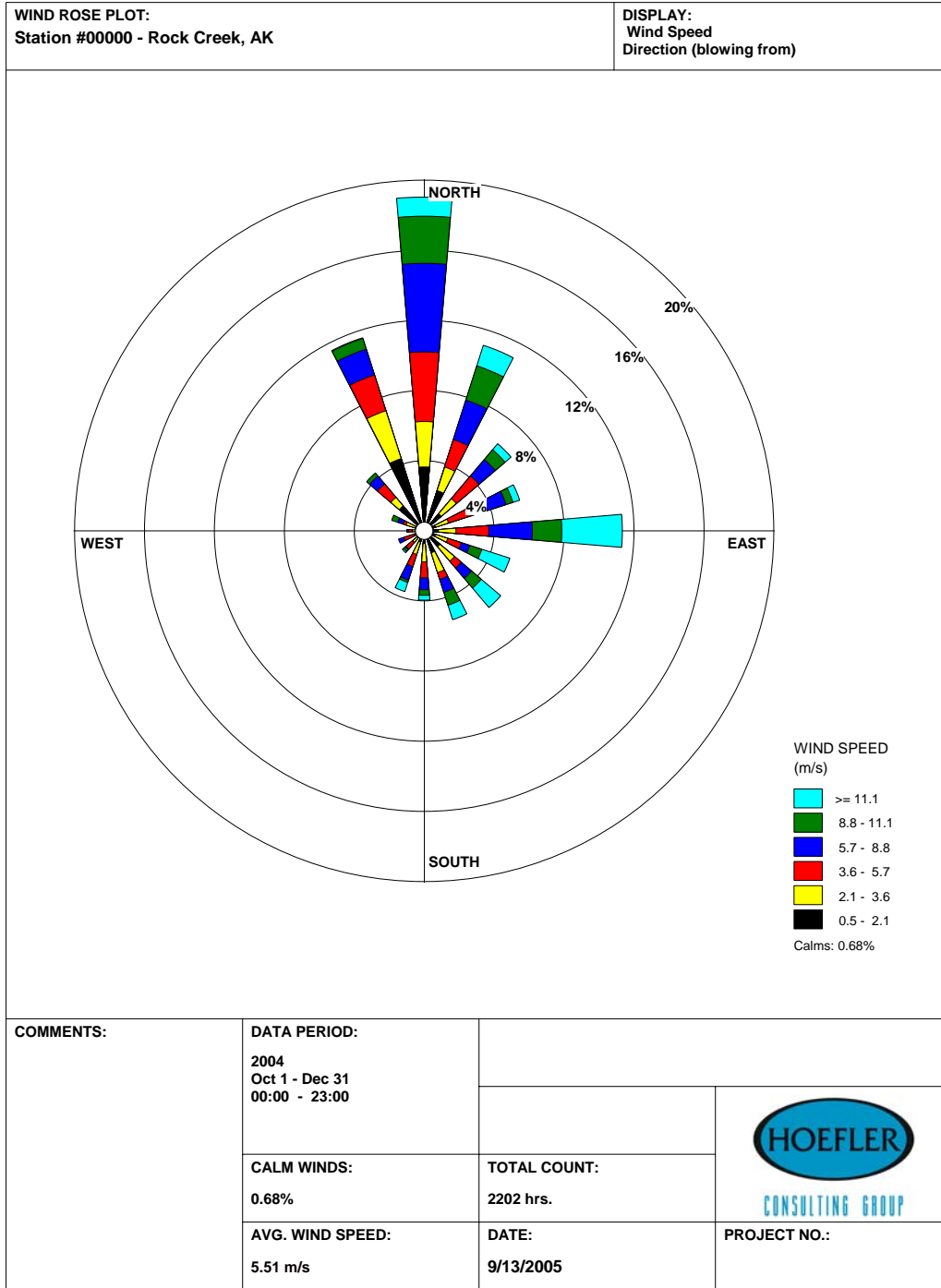
WRPLOT View - Lakes Environmental Software

Figure 3-4. Third Quarter 2004 Windrose



WRPLOT View - Lakes Environmental Software

Figure 3-5. Fourth Quarter 2004 Windrose



WRPLOT View - Lakes Environmental Software

Table 3-2. Annual Windrose Analysis Table

Station ID : Rock Creek
 Start Date: January 1, 2004

RUN ID: Annual 2004
 End Date: December 31, 2004

	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.51- 2.06	2.06- 3.60	3.60- 5.66	5.66- 8.75	8.75- 10.80	>10.80	
N	0.0445	0.0316	0.0406	0.0351	0.0112	0.0038	0.1667
NNE	0.0268	0.0159	0.0232	0.0263	0.0151	0.0131	0.1204
NE	0.0131	0.0117	0.0122	0.0142	0.0069	0.0094	0.0675
ENE	0.0082	0.0078	0.0090	0.0106	0.0021	0.0027	0.0405
E	0.0081	0.0086	0.0154	0.0213	0.0072	0.0128	0.0734
ESE	0.0098	0.0081	0.0119	0.0158	0.0043	0.0073	0.0573
SE	0.0157	0.0118	0.0113	0.0072	0.0031	0.0045	0.0535
SSE	0.0225	0.0159	0.0135	0.0095	0.0031	0.0022	0.0667
S	0.0191	0.0218	0.0266	0.0126	0.0025	0.0007	0.0834
SSW	0.0101	0.0173	0.0173	0.0079	0.0003	0.0014	0.0542
SW	0.0073	0.0043	0.0063	0.0009	0.0003	0.0002	0.0194
WSW	0.0056	0.0032	0.0033	0.0011	0.0000	0.0000	0.0133
W	0.0078	0.0026	0.0017	0.0003	0.0000	0.0000	0.0125
WNW	0.0078	0.0050	0.0038	0.0019	0.0009	0.0000	0.0194
NW	0.0193	0.0089	0.0122	0.0059	0.0007	0.0000	0.0471
NNW	0.0401	0.0270	0.0197	0.0123	0.0017	0.0002	0.1011
Total	0.2658	0.2015	0.2281	0.1831	0.0595	0.0583	0.9962

Avg. Wind Speed: m/s

Table 3-3. First Quarter Windrose Analysis Table

Station ID : Rock Creek
 Start Date: January 1, 2004

RUN ID: 1Q04
 End Date: March 31, 2004

	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.51- 2.06	2.06- 3.60	3.60- 5.66	5.66- 8.75	8.75- 10.80	>10.80	
N	0.0633	0.0309	0.0425	0.0490	0.0152	0.0037	0.2046
NNE	0.0370	0.0203	0.0240	0.0416	0.0356	0.0406	0.1991
NE	0.0148	0.0152	0.0134	0.0222	0.0129	0.0296	0.1081
ENE	0.0092	0.0055	0.0088	0.0115	0.0037	0.0069	0.0457
E	0.0115	0.0042	0.0139	0.0217	0.0079	0.0143	0.0734
ESE	0.0120	0.0051	0.0051	0.0111	0.0018	0.0083	0.0434
SE	0.0263	0.0083	0.0065	0.0018	0.0000	0.0018	0.0448
SSE	0.0388	0.0102	0.0028	0.0023	0.0009	0.0000	0.0550
S	0.0254	0.0037	0.0018	0.0014	0.0032	0.0000	0.0356
SSW	0.0102	0.0028	0.0005	0.0000	0.0000	0.0000	0.0134
SW	0.0051	0.0018	0.0000	0.0009	0.0000	0.0000	0.0079
WSW	0.0060	0.0005	0.0000	0.0000	0.0000	0.0000	0.0065
W	0.0074	0.0014	0.0000	0.0000	0.0000	0.0000	0.0088
WNW	0.0079	0.0023	0.0014	0.0000	0.0000	0.0000	0.0115
NW	0.0226	0.0065	0.0097	0.0014	0.0000	0.0000	0.0402
NNW	0.0457	0.0208	0.0180	0.0171	0.0000	0.0005	0.1021
Total	0.3432	0.1395	0.1483	0.1820	0.0813	0.1058	1.0000

Avg. Wind
 Speed: 5.5 m/s

Table 3-4. Second Quarter Windrose Analysis Table

Station ID : Rock Creek
 Start Date: April 1, 2004

RUN ID: 2Q04
 End Date: June 30, 2004

	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.51- 2.06	2.06- 3.60	3.60- 5.66	5.66- 8.75	8.75- 10.80	>10.80	
N	0.0267	0.0230	0.0368	0.0253	0.0028	0.0005	0.1152
NNE	0.0157	0.0143	0.0309	0.0272	0.0041	0.0000	0.0921
NE	0.0083	0.0097	0.0124	0.0203	0.0074	0.0037	0.0617
ENE	0.0074	0.0092	0.0069	0.0069	0.0005	0.0000	0.0309
E	0.0051	0.0088	0.0134	0.0309	0.0041	0.0023	0.0645
ESE	0.0069	0.0092	0.0235	0.0336	0.0083	0.0041	0.0857
SE	0.0083	0.0138	0.0184	0.0092	0.0051	0.0014	0.0562
SSE	0.0184	0.0230	0.0299	0.0184	0.0037	0.0000	0.0935
S	0.0226	0.0428	0.0525	0.0336	0.0032	0.0000	0.1548
SSW	0.0138	0.0290	0.0249	0.0134	0.0000	0.0000	0.0811
SW	0.0092	0.0023	0.0046	0.0000	0.0000	0.0000	0.0161
WSW	0.0088	0.0005	0.0000	0.0000	0.0000	0.0000	0.0092
W	0.0051	0.0009	0.0005	0.0000	0.0000	0.0000	0.0064
WNW	0.0060	0.0028	0.0051	0.0005	0.0000	0.0000	0.0143
NW	0.0124	0.0069	0.0129	0.0028	0.0000	0.0000	0.0350
NNW	0.0263	0.0253	0.0143	0.0092	0.0000	0.0000	0.0751
Total	0.2008	0.2216	0.2870	0.2312	0.0392	0.0120	0.9917

Avg. Wind
 Speed: 5.3 m/s

Table 3-5. Third Quarter Windrose Analysis Table

Station ID : Rock Creek
 Start Date: July 1, 2004

RUN ID: 3Q04
 End Date: September 30, 2004

	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.51- 2.06	2.06- 3.60	3.60- 5.66	5.66- 8.75	8.75- 10.80	>10.80	
N	0.0516	0.0462	0.0435	0.0159	0.0000	0.0000	0.1572
NNE	0.0303	0.0149	0.0217	0.0131	0.0005	0.0000	0.0806
NE	0.0168	0.0104	0.0063	0.0023	0.0000	0.0000	0.0358
ENE	0.0095	0.0086	0.0063	0.0036	0.0000	0.0000	0.0281
E	0.0077	0.0113	0.0159	0.0077	0.0000	0.0000	0.0426
ESE	0.0136	0.0109	0.0109	0.0136	0.0000	0.0000	0.0489
SE	0.0163	0.0140	0.0154	0.0100	0.0000	0.0000	0.0557
SSE	0.0199	0.0186	0.0172	0.0095	0.0000	0.0000	0.0652
S	0.0213	0.0303	0.0430	0.0086	0.0005	0.0000	0.1037
SSW	0.0095	0.0299	0.0362	0.0100	0.0000	0.0000	0.0856
SW	0.0095	0.0100	0.0154	0.0023	0.0000	0.0000	0.0371
WSW	0.0045	0.0091	0.0068	0.0014	0.0000	0.0000	0.0217
W	0.0140	0.0059	0.0041	0.0005	0.0000	0.0000	0.0245
WNW	0.0118	0.0095	0.0068	0.0041	0.0000	0.0000	0.0322
NW	0.0236	0.0159	0.0163	0.0136	0.0005	0.0000	0.0697
NNW	0.0453	0.0331	0.0249	0.0077	0.0005	0.0000	0.1114
Total	0.3053	0.2785	0.2908	0.1236	0.0018	0.0120	1.0000

Avg. Wind
 Speed: 3.4 m/s

3-6. Fourth Quarter Windrose Analysis Table

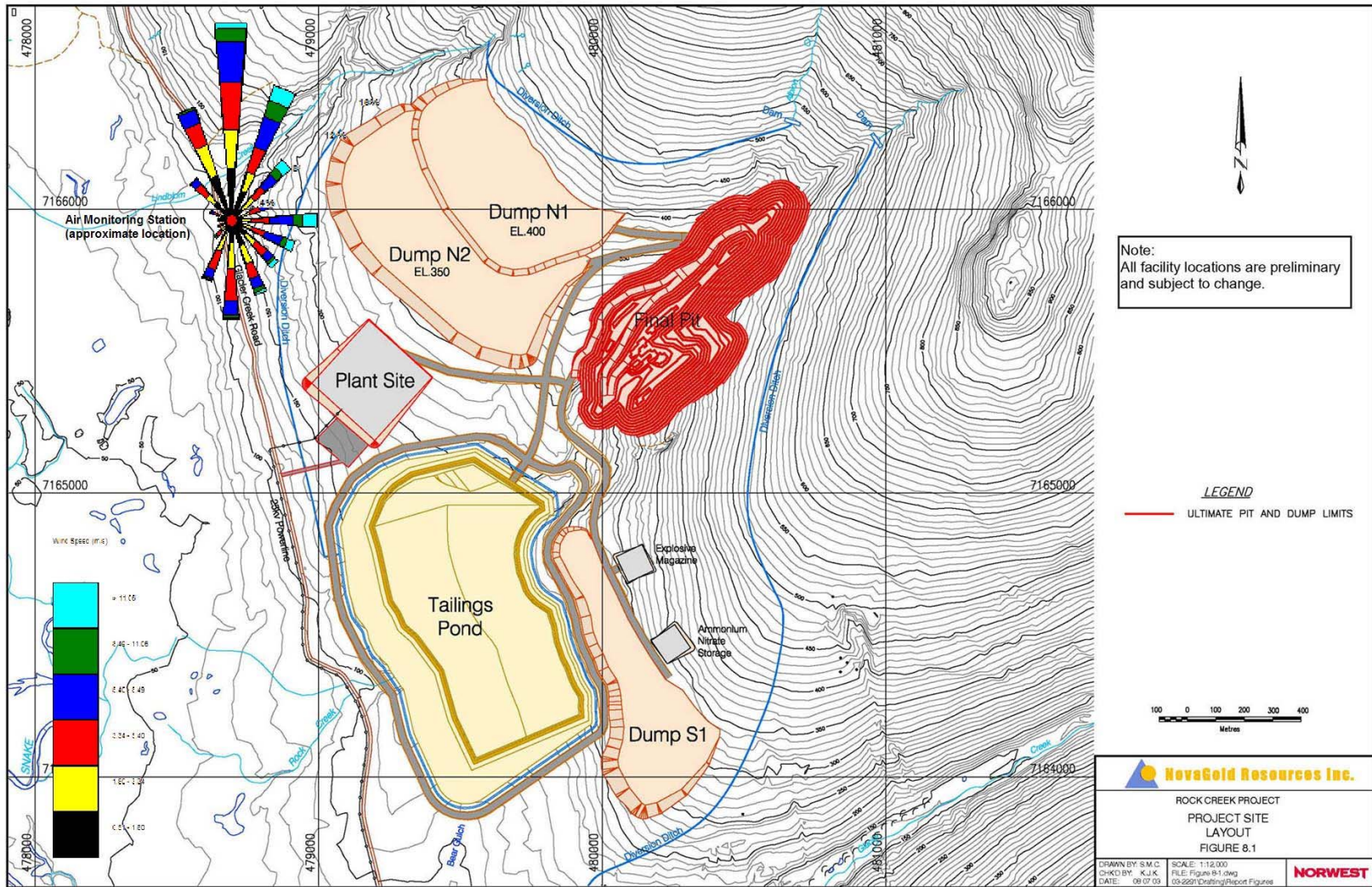
Station ID : Rock Creek
 Start Date: October 1, 2004

RUN ID: 4Q04
 End Date: December 31, 2004

	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.51- 2.06	2.06-3 .60	3.60- 5.66	5.66- 8.75	8.75- 10.80	>10.80	
N	0.0363	0.0259	0.0395	0.0504	0.0268	0.0109	0.1898
NNE	0.0241	0.0141	0.0163	0.0236	0.0204	0.0123	0.1108
NE	0.0127	0.0114	0.0168	0.0123	0.0073	0.0045	0.0649
ENE	0.0068	0.0077	0.0141	0.0204	0.0041	0.0041	0.0572
E	0.0082	0.0100	0.0186	0.0250	0.0168	0.0345	0.1131
ESE	0.0068	0.0073	0.0082	0.0050	0.0073	0.0168	0.0513
SE	0.0118	0.0109	0.0050	0.0077	0.0073	0.0145	0.0572
SSE	0.0132	0.0118	0.0041	0.0077	0.0077	0.0086	0.0531
S	0.0073	0.0104	0.0091	0.0068	0.0032	0.0027	0.0395
SSW	0.0068	0.0073	0.0073	0.0082	0.0014	0.0055	0.0363
SW	0.0055	0.0032	0.0050	0.0005	0.0014	0.0009	0.0163
WSW	0.0032	0.0027	0.0064	0.0032	0.0000	0.0000	0.0154
W	0.0045	0.0023	0.0023	0.0009	0.0000	0.0000	0.0100
WNW	0.0055	0.0055	0.0018	0.0032	0.0036	0.0000	0.0195
NW	0.0186	0.0064	0.0100	0.0059	0.0023	0.0000	0.0431
NNW	0.0431	0.0286	0.0213	0.0154	0.0064	0.0005	0.1154
Total	0.2144	0.1653	0.1857	0.1962	0.1158	0.1158	0.9932

Avg. Wind Speed: 6.1 m/s

Figure 3-6. 2004 Annual Windrose Superimposed on Location Map



Temperature Climatology

Daily average temperatures at Rock Creek ranged from 23.5°C to -10.3°C. The daily temperature range during the summer is very slight. Temperatures remain well below freezing from the middle of November through April. These temperatures are similar to the normal temperatures reported for Nome. Tables 3-7 and 3-8 present summaries of the 2-m temperature and 10-m temperature. Graphical analyses of the 2-m temperature, 10-m temperature, ΔT , and the backup temperature are provided in Figures 3-7 through 3-10, respectively. The temperature data are available in Appendix D.

Table 3-7. 2-m Temperature Summary

Period	Daily Mean Maximum Temperature (°C)	Daily Mean Minimum Temperature (°C)	Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
January	-3.3	-30.3	-14.1	-0.8	-33.3
February	0.8	-25.7	-12.7	2.7	-28.6
March	-1.1	-27.5	-11.9	-0.3	-28.9
First Quarter	0.8	-30.3	-12.9	2.7	-33.3
April	4.1	-20.4	-1.5	7.5	-23.8
May	10.9	0.4	5.1	17.0	-1.5
June	23.5	7.9	13.2	29.5	0.8
Second Quarter	23.5	-20.4	5.6	29.5	-23.8
July	18.3	9.3	14.4	24.3	14.4
August	20.4	8.3	13.8	27.9	-0.3
September	12.2	-2.8	4.7	17.8	-7.6
Third Quarter	20.4	-2.8	11.0	27.9	-7.6
October	6.1	-9.5	1.7	11.6	-14.0
November	-0.2	-11.3	-4.7	3.2	-15.9
December	-1.6	-27.2	-10.2	0.4	-29.3
Fourth Quarter	6.1	-27.2	-4.4	11.6	-29.3
Annual	23.5	-30.3	-0.13	29.5	-33.3

Table 3-8. 10-m Temperature Summary

Period	Daily Mean Maximum Temperature (°C)	Daily Mean Minimum Temperature (°C)	Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
January	-3.0	-28.8	-13.3	-0.8	-31.1
February	1.7	-25.4	-12.2	3.3	-27.4
March	-1.1	-27.5	-11.5	-0.3	-29.5
First Quarter	1.7	-28.8	-12.3	3.3	-31.1
April	4.4	-20.2	-1.3	7.2	-22.7
May	10.7	0.7	5.1	16.2	-1.7
June	23.2	6.7	12.5	27.8	1.1
Second Quarter	23.2	-20.2	5.4	27.8	-22.7
July	16.7	9.8	13.6	21.8	4.1
August	20.1	8.1	13.3	26.5	1.3
September	11.8	-2.8	4.4	15.9	-6.9
Third Quarter	20.1	-2.8	10.5	26.3	-6.9
October	6.0	-9.2	1.6	9.4	-13.2
November	0.6	-10.3	-4.6	3.8	-14.0
December	-1.5	-2.3	-10.0	0.4	-28.2
Fourth Quarter	6.0	-10.3	-4.3	9.35	-28.2
Annual	23.2	-28.8	-0.15	27.8	-31.1

Figure 3-7. Average Hourly 2-m Temperatures

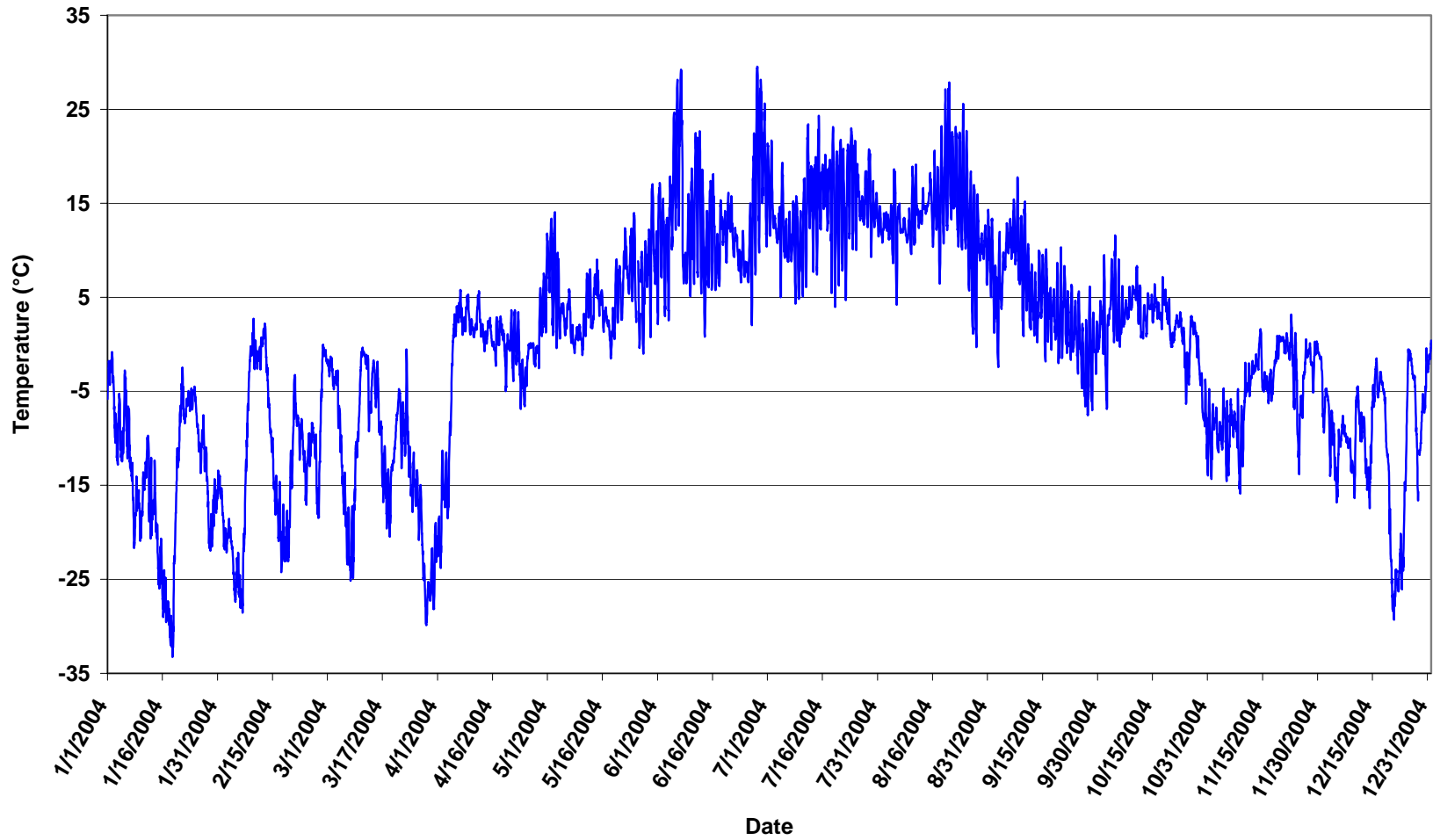


Figure 3-8. Average Hourly 10-m Temperatures

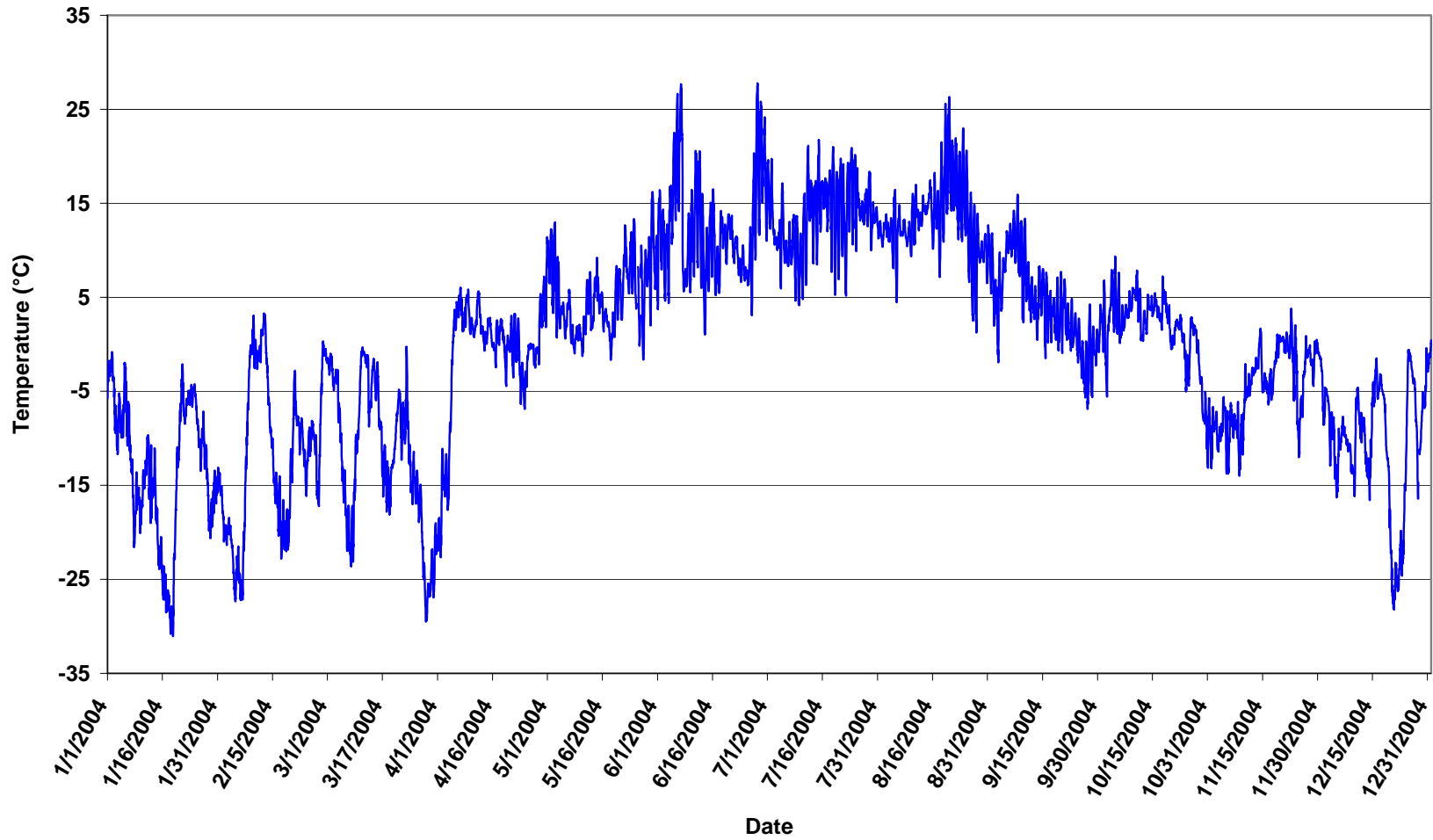


Figure 3-9. ΔT

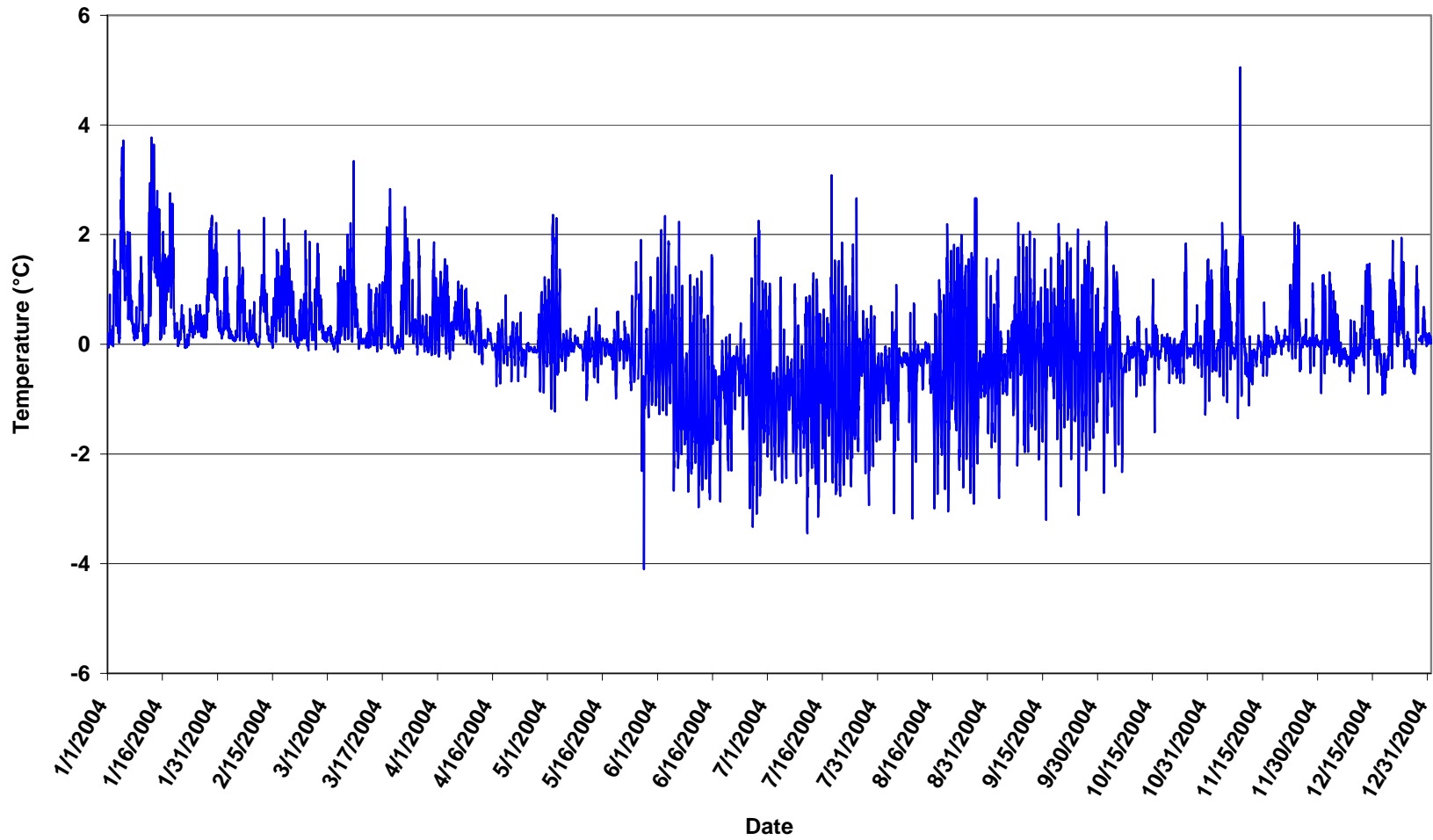
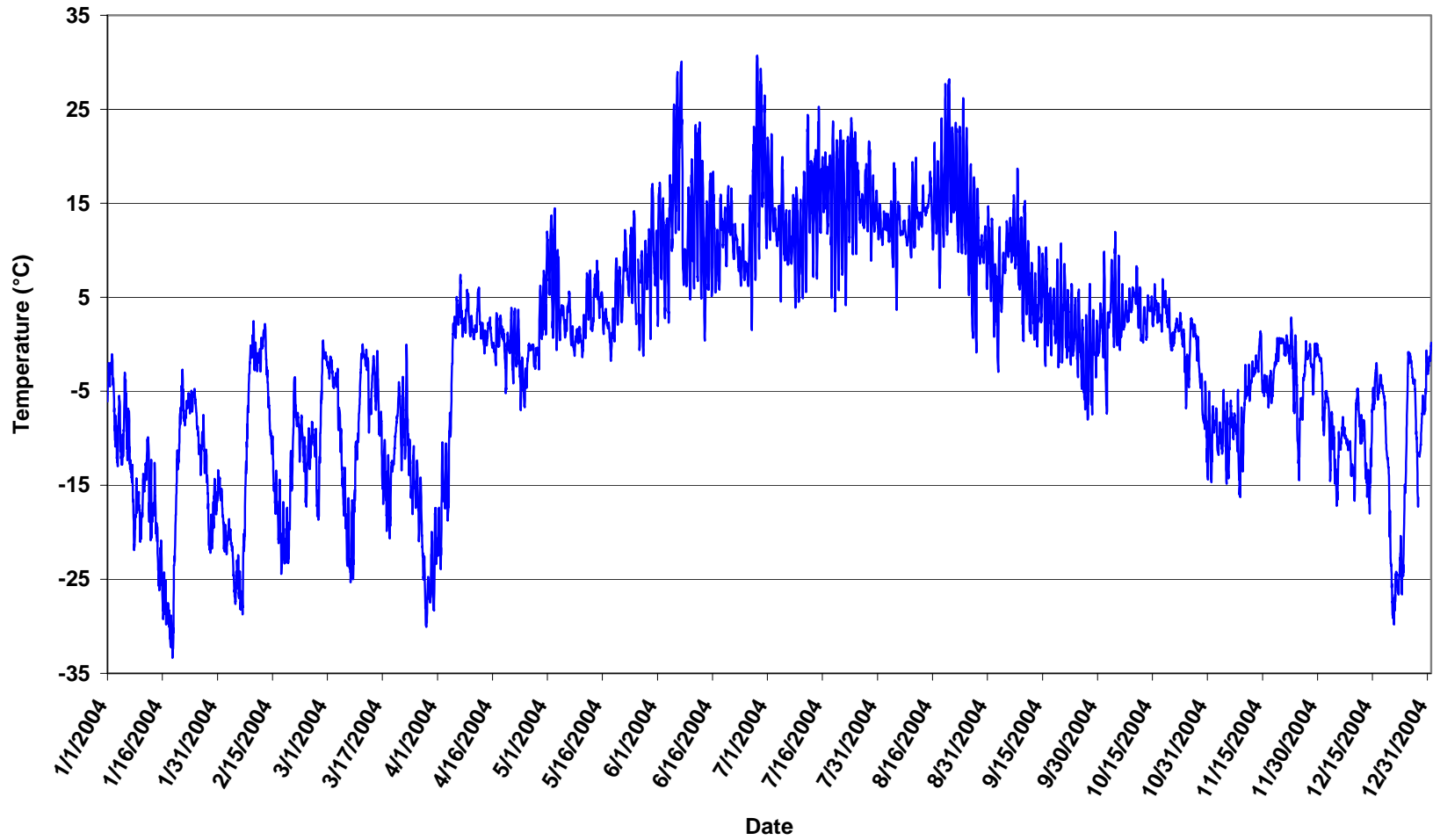


Figure 3-10. Average Hourly Backup Temperatures



Other Meteorological Parameters

Other meteorological parameters that were recorded at Rock Creek include relative humidity, barometric pressure, solar radiation, and precipitation.

Relative humidity ranged from a low of 18 percent to a high of 100 percent with an average annual relative humidity of 76 percent. The graphical representation of the annual hourly average relative humidity is provided in Figure 3-11.

The barometric pressure varied from 963 mb to 1041 mb during 2004. The annual average barometric pressure was 1004 mb. The annual hourly average barometric pressures are presented in Figure 3-12.

Figure 3-13 provides the solar radiation data. The maximum hourly solar radiation was 842 watts/m² with a mean of 100 watts/m².

Precipitation recorded at Rock Creek is presented in Figure 3-14. Precipitation was not recorded for the entire year because the precipitation gauge was installed in August 2004. For the four months of data, the majority of the precipitation fell during the late summer months.

The relative humidity, barometric pressure, solar radiation, and precipitation data are available in Appendix D.

Figure 3-11. Average Hourly Relative Humidity

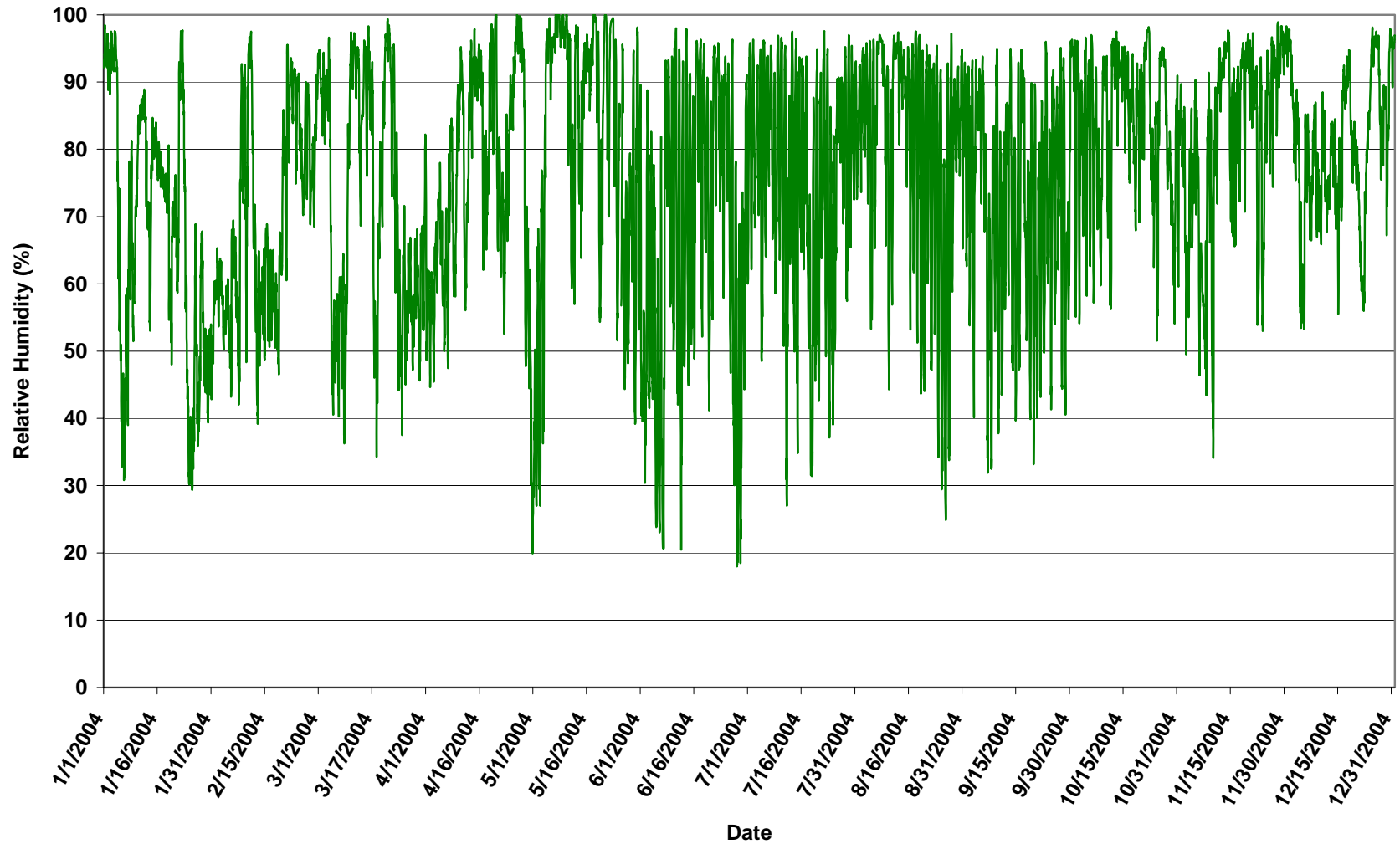


Figure 3-12. Average Hourly Barometric Pressure

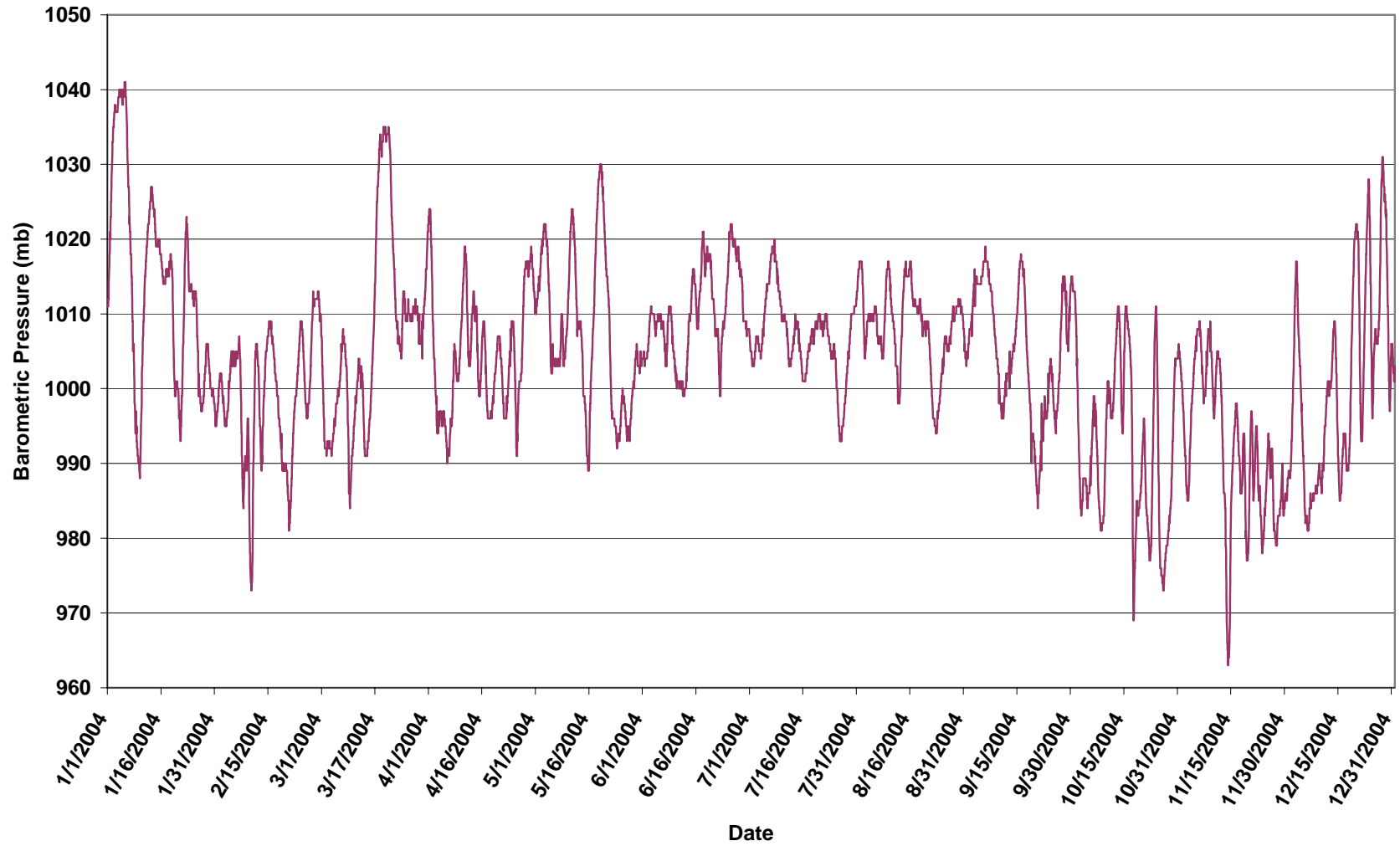


Figure 3-13. Average Hourly Solar Radiation

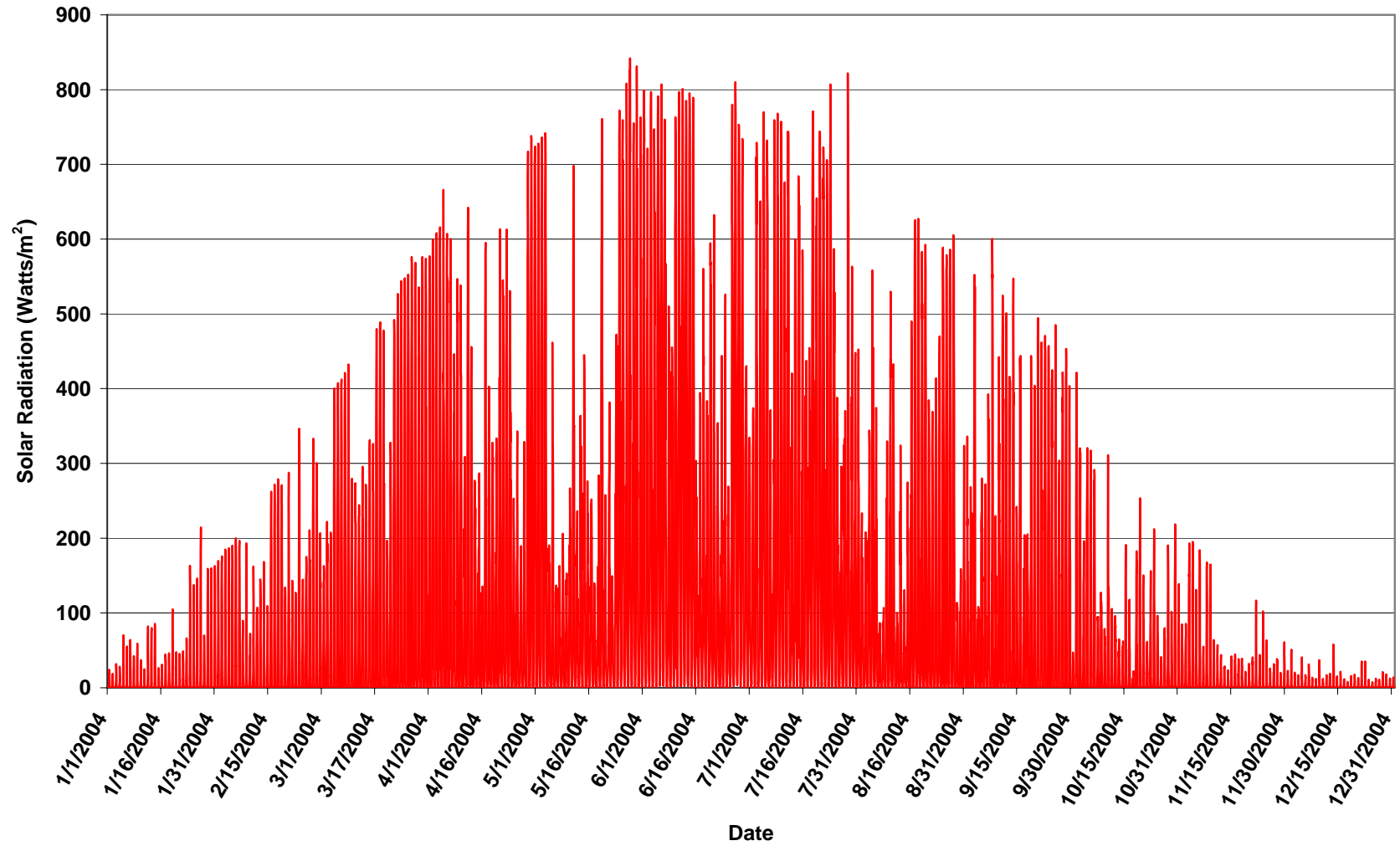
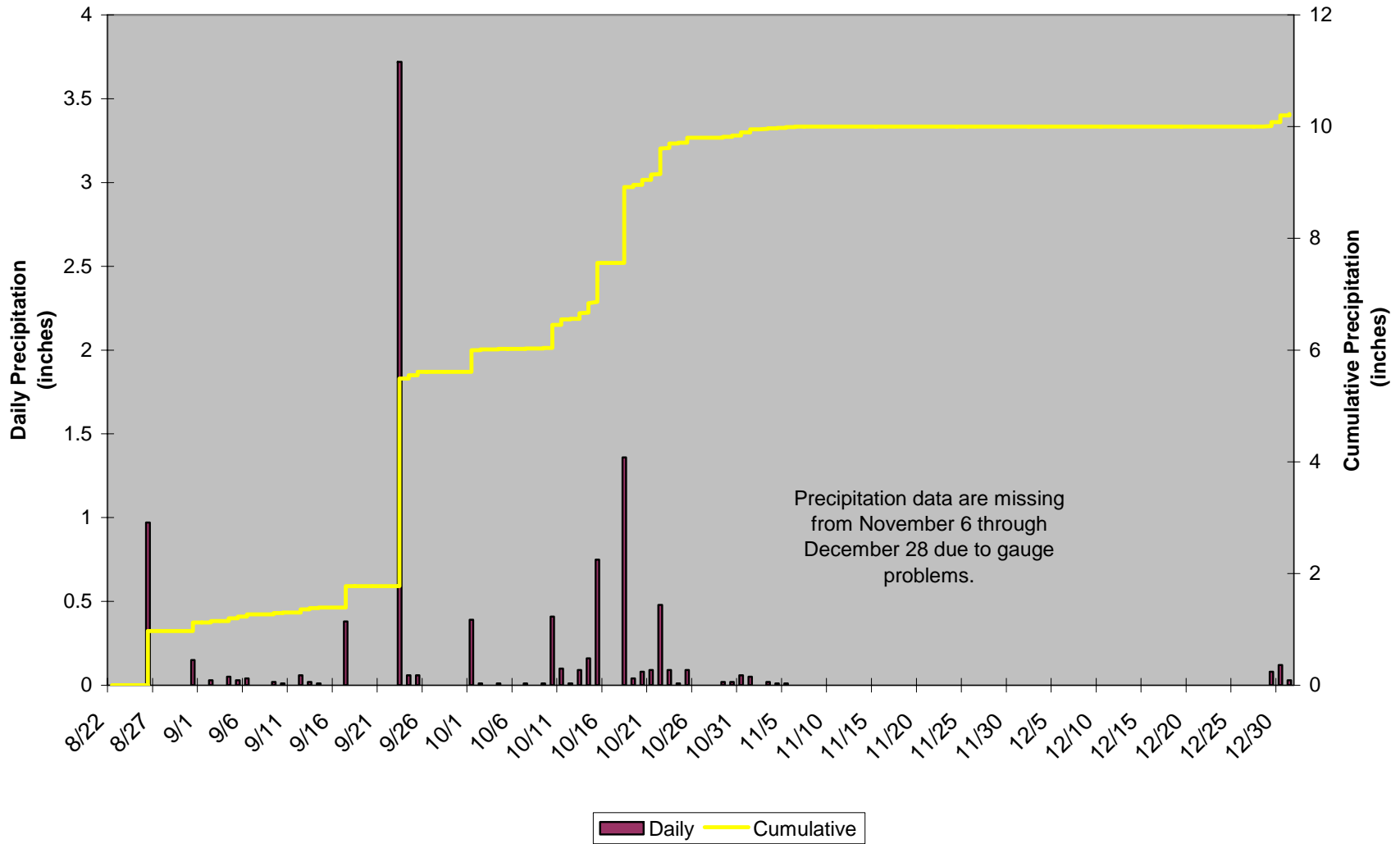


Figure 3-14. Daily and Cumulative Precipitation for 2004



4.0 REFERENCES

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Appendix A

Data Processing Specifications and Statistical Formulae

A-1. Data Recovery

Data completeness for meteorological monitoring methods was calculated assuming a minimum of 90 percent valid hourly average data to calculate quarterly average data completeness and a minimum of 90 percent quarterly data completeness for four consecutive quarters.

Quarterly data completeness (DC_q) was determined using the following equation:

$$DC_i = h_v/h_i \times 100$$

Where: h_v = number of hours of valid data

h_i = number of hours for the monitoring period

Table A-1 presents the percent data recovery for the Rock Creek project.

Table A-1. Station Performance Summary - Data Recovery 2004

Period	Meteorological								
	Temp 2m	Temp 10m	WS	WD	Sigma	RH	Solar	Precip	Barometric Pressure
January	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	100.0%	-	100.0%
February	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
March	100.0%	100.0%	98.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
1st Quarter	99.8%	99.8%	99.1%	99.8%	99.8%	99.8%	100.0%	-	100.0%
April	100.0%	100.0%	99.6%	100.0%	100.0%	100.0%	100.0%	-	100.0%
May	98.3%	98.3%	96.2%	98.3%	98.3%	98.3%	100.0%	-	100.0%
June	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
2nd Quarter	99.4%	99.4%	98.6%	99.4%	99.4%	99.4%	100.0%	-	100.0%
July	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	-	100.0%
August	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	27.7%	100.0%
September	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	100.0%
3rd Quarter	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	42.4%	100.0%
October	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%
November	100.0%	100.0%	97.9%	100.0%	100.0%	100.0%	100.0%	18.2%	100.0%
December	99.2%	99.2%	99.2%	99.2%	99.2%	99.2%	100.0%	10.5%	100.0%
4th Quarter	99.7%	99.7%	99.0%	99.7%	99.7%	99.7%	100.0%	42.8%	100.0%
YTD	99.7%	99.7%	99.2%	99.7%	99.7%	99.7%	100.0%	42.6%	100.0%

A-2 Data Bias Correction Using Calibration Information

Not applicable.

A-3 Estimation of Pasquill-Gifford Stability Categories

Not applicable.

Appendix B

Precision Data

Not applicable.

Appendix C

Accuracy Data

Quality Assurance Audit Report
Ambient Air and Meteorological Monitoring Station

Rock Creek Mine

Nome, Alaska

January 2004

Prepared for:

Alaska Gold Company
115 6th Avenue West
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APPENDICES

- Appendix A – Ambient Air Systems Audit
- Appendix B – Ambient Air Performance Audit
- Appendix C – Meteorological Monitoring Systems Audit
- Appendix D – Meteorological Monitoring Performance Audit
- Appendix E – Standard Project Forms
- Appendix F – Calibration Certificates

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Corp. Operator: Hoeffler Consulting Group Auditor: Eric Brudie Date: 2/10/04

1 Introduction

On January 8-9, 2004 Eric Brudie conducted systems audits and performance audits of the Rock Creek Mine ambient air and meteorological monitoring system. The audits were performed under contract to Hoeffler Consulting Group (HCG) who operates the monitoring system for the mine owners, Alaska Gold Company. The system is comprised of ambient air samplers and a tower instrumented with meteorological monitoring equipment and is being operated in order to facilitate future mine permitting and development. This station is located at approximately 150 foot of elevation near Lindblom Creek in the Snake River Valley, about 8.5 miles north of Nome, Alaska.

The Rock Creek ambient air sampling program consists of monitoring baseline ambient concentrations of particulate matter less than 10-microns in effective aerodynamic diameter (PM₁₀) for a period of one-year. This will be accomplished using two collocated low-volume BGI Inc PQ100 PM₁₀ air samplers, one for primary collection and the other for backup and quality assurance sampling. Average 24-hour samples will be collected every third day using the primary sampler and simultaneously every sixth day with the backup or collocated sampler. Thus the primary sampler will run during every sampling period and the collocated sampler will run every other sampling period. Local personnel will initiate sampling, document and retrieve samples and package samples for laboratory analysis.

The meteorological monitoring system consists of a 12-meter Rohn 25 tower equipped with Climatronics wind speed and wind direction sensors at the 12-meter level. At the 2-meter and 10-meter levels are Met-One motor aspirated shields that house Met-One temperature thermistors at both levels and a Vaisala relative humidity sensor at the 2-meter level. Mounted to the tower at the 4-meter level is a LiCor solar radiation pyranometer. Providing power for the system are four solar panels mounted to the south side of a nearby instrumentation building and a propane-fueled thermo-electric generator inside the building. The power supply is buffered and stored in four deep-cycle 12VDC storage batteries, two batteries for the ambient system and two for the meteorological system. A Campbell data acquisition system and a Campbell cellular phone/modem provide the brains and communications for this remote monitoring system.

Systems and performance audits constitute a comprehensive evaluation of a monitoring system. These audits assess the system from design, equipment selection and installation, to operations and maintenance, and finally to data retrieval, validation and archival. The auditing methods used in these audits are consistent with guidelines published by the United States Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC). Additional guidelines are established in project monitoring plan: Hoeffler Consulting Group *Quality Assurance Project Plan for the Rock Creek Ambient Air and Meteorological Monitoring Project, (November 2003)*.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska G&S, Inc. Operator: Ziegler Consulting Co. Auditor: E. J. Ziegler Date: 01/09/04

This report describes the systems and performance audit procedures and presents the audit results. Also included are complete audit reports in Appendix A (Ambient Air Systems Audits), Appendix B (Ambient Air Performance Audit), Appendix C (Meteorological Monitoring Systems Audit) and Appendix D (Meteorological Monitoring Performance Audit). Standard project forms and certification documentation for the audit equipment used during the tests are contained in Appendix E (Standard Project Forms), Appendix F (Calibration Certificates).

2 Ambient Air Systems Audit

2.1 Ambient Air Systems Audit Methodology

In the *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Part 1, Appendix 15*, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to assess compliance with established regulations governing the collection, analysis, validation, and reporting of ambient air quality data. A systems audit should be conducted at initial startup of the program and annually, thereafter.

The ambient air systems audit report provided in Appendix A is organized into six major sections:

- Monitoring Program Information
- Monitoring Program Staff
- General Site Information
- Data Processing
- Quality Assurance and Quality Control
- Laboratory Operations.

Each section consists of a question-answer format with additional comments to provide clarity. Flow charts are also used to accurately document the procedures for the program. All aspects of the monitoring program were compared to the guidelines provided by ADEC and EPA. A complete list of references used for the systems audit is given in Section 7 at the end of this report.

Standardized forms for the program were also reviewed and copies are included in Appendix E. Additionally, the *Rock Creek Ambient Air and Meteorological Monitoring Program Quality Assurance Project Plan* was reviewed to validate that sufficient procedures are in place that adhere to ADEC and EPA guidelines.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hazen Consulting Co. Auditor: Eric Byrnie Date: 1/10/04

2.2 Ambient Air Systems Audit Results

Blizzard conditions prohibited travel to the monitoring station on January 8, 2004; therefore the station operators were interviewed and observed on that day while preparing samples for shipment to the laboratory from the owner's Nome office. On the following day weather permitted travel to the station and the field portions of the audits were performed.

The Rock Creek station had just been christened before this initial audit and the station Manager, Steve Mackey of HCG was thus far ironing out some procedures with the local site technicians, Brian Booth and Robert O'Connor of Alaska Gold Company. As of the audit, two sampling practices were sometimes being performed incorrectly. Some of the early samples taken after initial startup in mid-December had incomplete sample forms. Also, the datalogger total sample flow and elapsed time counter was not reset between 24-hour sampling periods. Thus, some samples showed 48-hour and even 72-hour elapsed time for a filter that was changed after 24-hours of flow. All of the imperfect samples were invalidated. It was impressed upon the technicians that all procedures needed to be exactly adhered to and that all valid samples must be accompanied with complete documentation. Based upon subsequent discussions with Steve Mackey of HCG, the technicians have adhered to these standards since the audit. Those valid samples collected to date were ready for the initial shipment to the analysis laboratory and Mr. Mackey guided the site technicians through the chain of custody procedure. The technicians appeared to quickly master this procedure.

On January 9, 2004 the technicians were observed in the field retrieving completed sample filters, cleaning the inlet assembly, calibrating the samplers and setting up the next sampling run. In inclement weather this process was slow but was completed correctly and the sample data sheets and filter tags were completely filled out. It should be noted that the inlet assembly was found packed with snow upon disassembly for cleaning, probably due to blizzard conditions previous to this visit. As of this audit, the sampler inlet assembly was scheduled for monthly cleaning. This procedure should be modified so that the inlet assembly is inspected and if necessary cleaned on every visit following blowing snow conditions.

The results of the systems audit revealed that the HCG and Alaska Gold Company operators possessed the necessary organization, equipment, quality assurance, and quality control procedures and documents necessary to accurately collect and report the ambient air quality data for the rock Creek Monitoring Program. However, the training essential to implementing the program was incomplete at the time of this audit. Steps were taken during the audit trip and immediately thereafter to remedy this situation. Complete systems audit results are included in Appendix A.

3 Ambient Air Performance Audit

3.1 Ambient Air Performance Audit Methodology

The field performance audit consists of operating the air samplers while connected to a NIST traceable calibrated flow meter, a Brandt Inst – Bios DryCal DC-Lite DCL-MH. The station was also audited using a Streamline Pro Multi Cal System Orifice. The PQ100 sampler clock is tested against a GPS.

Upon arrival, the technicians remove, tag and bag the PQ100 filter paper from the preceding sampling period. A clean calibration/audit filter is installed in the PQ100 and the reference flow meter is attached to the device. The air sampler is run for approximately 10 minutes to warm up and then the station preset flow value of 16.7 l/min is compared with the audit instrument output. The percent difference between the station value and the audit reference meter is then compared to the EPA limit of $\pm 7\%$ accuracy. The PQ100 DAS clock is checked against the time reading from a GPS satellite check and compared to the EPA limit of ± 2 min.

3.2 Ambient Air Performance Audit Results

On January 9, 2004 the Rock Creek Primary and Collocated PM10 Samplers were audited for performance. Both instruments were found to be in good working order and both passed their audits. Summaries of the audit results are contained below in Table 3-1. Performance audit data sheets are contained in Appendix B and audit equipment calibration certificates are contained in Appendix F.

Table 3-1. Ambient Air Performance Audit Summary Results

Sampler	Parameter	EPA Limit	Units	Maximum Reading	Pass/Fail
Primary	Flow Rate Accuracy	$\leq \pm 7$	%	-1.9	Pass
Primary	Datalogger Time	$\leq \pm 02:00$	Min:Sec	-1:00	Pass
Collocated	Flow Rate Accuracy	$\leq \pm 7$	%	-1.2	Pass
Collocated	Datalogger Time	$\leq \pm 02:00$	Min:Sec	-1:00	Pass

4 Meteorological Monitoring Systems Audit

4.1 Meteorological Monitoring Systems Audit Methodology

A systems audit is a qualitative and quantitative review of a meteorological monitoring station design, installation and operation. This includes a review of the equipment selection, station siting, operational procedures, documentation, and overall quality assurance. This systems audit included a review of the HCG monitoring and QA plan. The meteorological sensors, data acquisition system programming and station configuration, as described in the plan, were evaluated for compliance with EPA's Prevention of Significant Deterioration (PSD) specifications. After an office review of the selected equipment and configuration, the installed system was evaluated in the field for conformance with the design. Installed equipment was inventoried and the sensor heights and exposures were measured. Also included in the systems audit is a critique of the operating personnel.

4.2 Meteorological Monitoring Systems Audit Results and Comments

On January 9, 2004, upon arrival at the 12-m Rock Creek station, the power supply, data acquisition system, communications system, and sensors all worked properly. The systems audit indicated that the 12-meter station is well planned, equipped with PSD quality equipment, outfitted with a robust power supply, and sited according to criteria recommended by the EPA. The operator provided adequate manuals for system maintenance and proper documentation to report operational and quality control activities. The operator was knowledgeable and competent with all of the meteorological equipment, communications equipment and the power supply. For the complete meteorological systems audit, see Appendix C.

5 Meteorological Monitoring Performance Audit

5.1 Meteorological Monitoring Performance Audit Methodology

In brief, the performance audit involves reading the data acquisition system output for each meteorological sensor and comparing the value with the input from an appropriate piece of audit equipment, or from calibrated instruments collocated with the sensor. For each reading, the difference between the station value and the predicted value is compared with established PSD limits to assess the instrument's accuracy. Table 5-1 summarizes the performance audit methods and limits used to audit each parameter monitored at the station. The following paragraphs describe in more detail the methods and equipment used to conduct the performance audits.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold, Co. Operator: Hoveler Consulting, Co. Auditor: Eric Brudie Date: 1/09/04

Table 5-1. Meteorological Performance Audit Methods and Acceptance Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock or GPS	$\leq \pm 5:00$ minutes from AST
Temperature Accuracy	Collocated NIST thermistor	$\leq \pm 0.5$ °C
Temperature Difference	Collocated NIST thermistors	$\leq \pm 0.1$ °C
Wind Spd. Accuracy	Synchronous rpm motor	$\leq \pm 0.2$ m/s + 5% of observed
Wind Spd. Torque	Torque watch	≤ 0.5 mps or 0.35g-cm
Wind Dir. Alignment	Compass and/or GPS	$\leq \pm 5^\circ$ from true az. per point
Wind Dir. Accuracy	Linearity tester	$\leq \pm 5^\circ$ per audit point
Wind Dir. Linearity	Linearity tester	$\leq 3^\circ$ mean absolute average
Wind Dir. Torque	Torque watch	≤ 0.5 mps or 7.5g-cm
Relative Humidity	Collocated NIST RH Probe	$\leq \pm 1.5$ °C of dew point
Pressure	Collocated NIST BP sensor	$\leq \pm 3$ mb (0.3kPa)
Solar Radiation	Collocated Solar Rad Sensor	$\leq \pm 5\%$ of observed

5.1.1 Data Acquisition System and Datalogger Time

The datalogger was audited simply by comparison of the scientific units output from the logger with the audit standards, as described below. No intermediate voltages were read or required for this audit. The datalogger time was checked against an instantaneous reading from the NOAA clock in Boulder, Colorado, via the site cell phone, or against a watch preset to that time, or against a GPS.

5.1.2 Temperature

The air temperature thermistors were audited to determine their accuracy with respect to a NIST traceable digital thermometer. For temperatures 0.0°C and above, the thermistors were removed from their aspirated shields and collocated with the audit thermistor inside of an insulated vacuum thermos bottle. The thermos was filled with an ice-water mixture and agitated to yield a 0°C-water bath. Water baths of approximately 20°C and 40°C were also mixed in the thermos and allowed to equilibrate. These three temperature baths were read while stirring the water with the audit, calibration and station thermistors taped together and completely immersed in the baths.

5.1.3 Temperature Difference

The temperature difference is audited by reading the simultaneous output values from the upper and lower station thermistors and the delta temperature channel while conducting the temperature audits described above. The temperature difference is not allowed to exceed 0.1°C.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Windward Co. Operator: Hoefle Consulting Co. Auditor: Eric Brudie Date: 01/09/04

5.1.4 Wind Speed

The wind speed sensor was audited to determine the accuracy with respect to known input speeds and the sensor threshold speed was audited by measuring the cup starting torque. With the anemometer removed from the tower, the sensor's cups were removed to allow attachment of a RM Young Model-18801/18810 synchronous motor. The sensor shaft was then rotated at a known rotational frequency (rpm) and the rpm was converted to meters per second (mps) using the manufacturer's calibration data. A range of rotational frequencies equivalent to speeds of approximately 0, 2, 5, 10, 25 and 50 mps were input and the resultant output for each was compared with the predicted speed.

The Climatronics wind speed sensor has a very low starting torque that was tested using a Watters torque watch with the cups removed. This involves rotating the sensor shaft at least 10° with the torque watch and reading the deflection on the torque dial. This process was repeated at the four quadrants of rotation in both a clockwise and counter-clockwise direction and the maximum reading was reported.

5.1.5 Wind Direction

The wind direction sensor was audited to determine alignment with respect to the true direction from which the wind was blowing (true azimuth alignment), the accuracy and linearity of readings with respect to the sensor mount and the sensor threshold speed, which was evidenced by the vane torque. The sensor's alignment to true azimuth was tested in-situ by one or all of the following methods: (1) using maps, or (2) using a precision compass, or (3) using a global positioning system (GPS) device. Method (1) involves aligning the tail of the wind direction vane with a distant identifiable terrain feature of known azimuth, as determined from USGS or other maps. The station output value was compared to the known azimuth. Method (2) involves aligning the tail of the vane with the auditor positioned at a distance from the tower while the auditor aligned a precision compass with the vane. The reading from the compass, corrected for the area's current magnetic declination, was compared with the station output value. Method (3) uses a GPS to ascertain azimuth directions near the tower or to locate distant landmarks. GPS directions near the tower were audited by programming a waypoint into the GPS at the sensor location. The auditor walked away from the tower and read the bearing back to the waypoint (wind direction sensor) from the GPS while the operator pointed the vane toward the auditor. The GPS bearing was then compared to the DAS reading. The GPS can also be used to ascertain bearings to distant landmarks. After the azimuth alignments were measured, the Climatronics crossarm was removed from the top of the tower and the sensor's accuracy and linearity was tested.

The Climatronics wind direction sensor accuracy and linearity was tested both on and off the crossarm. While mounted on the crossarm; the vane was aligned at the 0° and 360° points by sighting along the crossarm, and at the 90° and 270° points by sighting along a square held against the side of the crossarm. Readings were taken in a

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Work: 2004-01-09 Cold Co. Operator: Huffman, David, Log Log Auditor: Eric Brudie Date: 01/09/04

clockwise and then counterclockwise direction at 90° intervals starting at 180°. The sequence of eight readings was 180°, 270°, 360°/0°, 90°, 0°/360°, 270°, 180° and finally 90°. Next, the sensor was challenged using a Climatronics Model-101984 wind direction linearity test fixture. This apparatus operates by removing the vane from the sensor and replacing it with a dial calibrated in degrees and placing the sensor in a stand that was wired to the crossarm electrical plug. Readings were taken starting at 30° and then every 30° in a clockwise direction through 540°. This sequence allows the auditor to read values between 360° and 540° which uses the second potentiometer in the Climatronics F460 sensor, although the datalogger corrects these values to between 0° and 180° in most programs. In both cases, the datalogger output values were compared with the accuracy limit of $\pm 5^\circ$ per audit point and the mean absolute average error of each test set was compared with the linearity limit of 3°. The Climatronics wind direction starting torque was then measured using a torque watch in the same manner described for the Climatronics wind speed torque.

Finally, after all wind speed and direction tests were completed, the azimuth alignment was checked again after the anemometer was placed back on the tower.

5.1.6 Relative Humidity and Barometric Pressure

The relative humidity and barometric pressure sensors were audited simply by comparison of the DAS output value with a collocated calibrated sensor. In both cases the audit and station sensors were allowed to equilibrate together for at least 30 minutes prior to reading.

5.1.7 Solar Radiation

Solar radiation is normally audited using a collocated instrument, but very low solar input during January at this latitude prevented a reasonable audit.

5.2 Performance Audit Results and Comments

All instruments passed the performance audit at the Rock Creek 12-M meteorological station. Summaries of all performance audit results are contained in Table 5-2, and complete performance audit reports are included in Appendix D (Meteorological Monitoring Performance Audit) and audit equipment calibration certificates are contained in Appendix F.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Alaska Gold Corp. Location: Hoefler Consolidation, Auditor: Eric Brudie Date: 01/09/04

Table 5-2. Rock Creek Meteorological Performance Audit Summary Results

Parameter	EPA Limit	Units	Maximum Reading	Pass/Fail
Datalogger Time (AST)	$\leq \pm 5:00$	Min:Sec	-0:48	Pass
Temperature Accuracy (2-m)	$\leq \pm 0.5$	°C	0.10	Pass
Temperature Accuracy (10-m)	$\leq \pm 0.5$	°C	0.14	Pass
Temperature Difference (ΔT)	$\leq \pm 0.1$	°C	0.05	Pass
Low Wind Spd. Accuracy (≤ 5 mps)	$\leq \pm 0.2$	Mps	0.00	Pass
High Wind Spd. Accuracy (> 5 mps)	$\leq \pm 5$	% input	0.0	Pass
Wind Speed Torque	≤ 0.35	g-cm	< 0.1	Pass
Wind Direction Alignment	$\leq \pm 5$	degree	1.7	Pass
Wind Direction Accuracy	$\leq \pm 5$	degree	1.3	Pass
Wind Direction Linearity	≤ 3	degree	0.5	Pass
Wind Direction Torque	≤ 7.5	g-cm	6.5	Pass ¹
Relative Humidity (Dew Point)	$\leq \pm 1.5$	°C	0.2	Pass
Barometric Pressure	$\leq \pm 3$	mb	-1.7	Pass

Note 1: High wind direction torque for new instrument.

6 Summary and Recommendations

6.1 Ambient Air Monitoring System

The ambient air monitoring station is well designed and supplied by a very robust power supply at this remote location. The problems encountered in the initial audit were incomplete sample documentation and failure to reset the DAS airflow counter. These errors were addressed at the time of the audit and indications are that the problem has not recurred. It was also noted that the sampler needs to be inspected and cleaned any time there are blowing snow conditions.

6.2 Meteorological Monitoring System

The meteorological monitoring system is also well designed and outfitted with robust power and communications equipment. All instruments at the station were found to be operating within limits; no action is required at this station except to monitor the wind direction torque.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Division Operator: Hoeffler Consulting Co. Auditor: Eric Buddie Date: 9/1/03/04

7 References

Hoeffler Consulting Group *Quality Assurance Project Plan for the Rock Creek Ambient Air and Meteorological Monitoring Project, (November 2003)*

Alaska Department of Environmental Conservation, 1990. "State of Alaska Quality Assurance Manual for Ambient Air Quality Monitoring."

U.S. Environmental Protection Agency, 1995. "Quality Assurance Handbook for Air Pollution Measurement Systems: Vol. II – Ambient Air Specific Methods (Interim Addition)." U.S. EPA ORD. Research Triangle Park, NC. EPA-600/R-94/038b. April 1994.

U.S. Environmental Protection Agency, 2002. 40 CFR Part 50 Appendix J. "Reference Method for the Determination of Particulate Matter, as PM₁₀ in the Atmosphere (Low-Volume Method)." 2002.

U.S. Environmental Protection Agency, 2002. 40 CFR Part 58 Appendix A. "Quality Assurance Requirements for State and Local Air Monitoring Stations (SLAMS)." 2002.

U.S. Environmental Protection Agency, 2002. 40 CFR Part 58 Appendix B. "Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring." 2002.

U.S. Environmental Protection Agency, 2002. 40 CFR Part 58 Appendix E. "Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring." 2002.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Alaska Steel Co. Operator: Hoelter Consulting Gp. Auditor: Eric Brudie Date: 01/09/04

APPENDIX A AMBIENT AIR SYSTEMS AUDIT

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Consultant: Hoefler Consulting Co. Auditor: Eric Brudie Date: 01/02/04

Auditor: Eric Brudie
Affiliation: Contractor

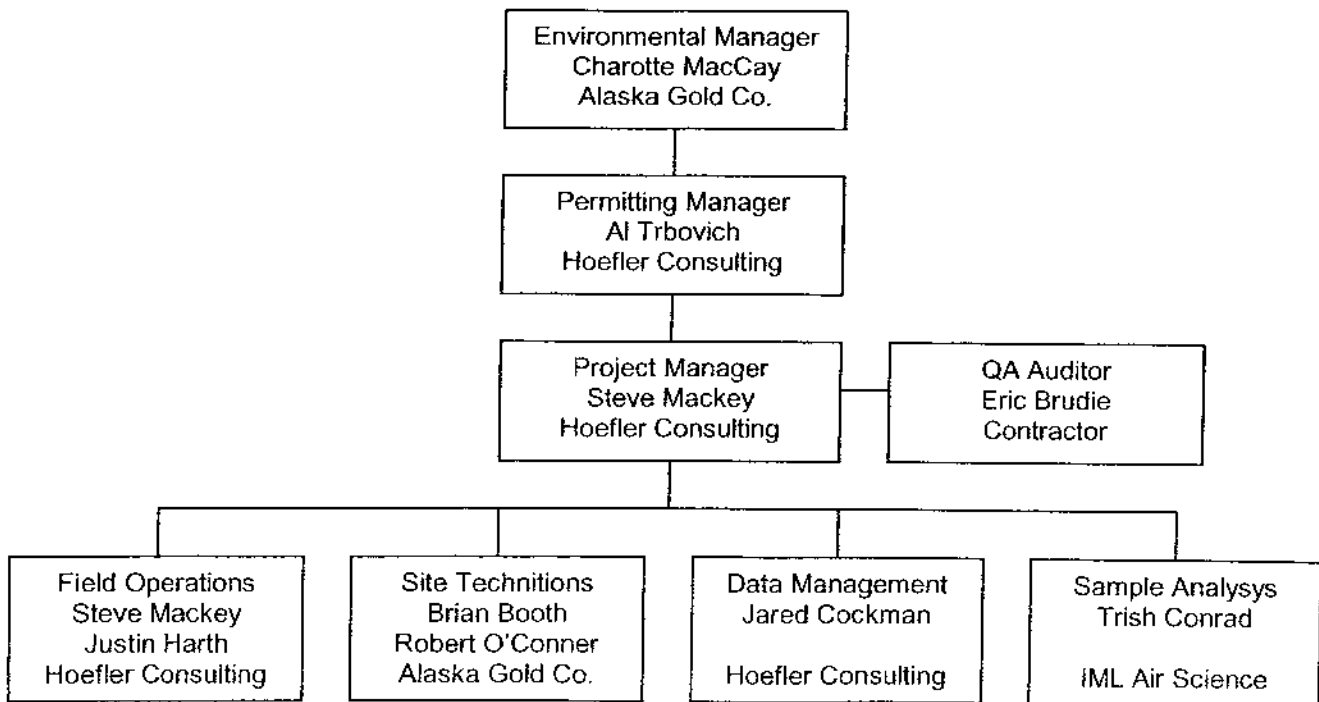
Interviewees:	Witnesses:
Brian Booth: Alaska Gold Co.	None
Robert O'Connor: Alaska Gold Co.	
Steve Mackey: HCG	
Jason Rogers & Trish Conrad, IML	

1.0 Monitoring Program Information

Monitoring Site Owner: Alaska Gold Co.
 Owner Mailing Address: Alaska Gold Co.
115 6th Avenue West
Nome, Alaska 99762

2.0 Monitoring Program Staff

2.1 Monitoring Program organizational Diagram



Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoefler Consulting Grp. Auditor: Eric Brudie Date: 01/19/04

2.2 Key Program Staff Training and Experience

Name/Affiliation: Charlotte MacCay, Bristol Environmental Services

Program Position: Environmental Director

Education: Huxley College-Western Washington University, B.S. Environmental Studies

Training/Experience: 15 years environmental monitoring and environmental program management

Name/Affiliation: Al Trbovich, Hoefler Consulting Group

Program Position: Permitting Manager

Education: University of Utah, M.S. in Meteorology

Training/Experience: 21 years of environmental permitting and regulatory compliance experience including; meteorological and ambient monitoring, compliance monitoring, source testing, risk assessments and air quality modeling.

Name/Affiliation: Steve Mackey, Hoefler Consulting Group

Program Position: Project Manager

Education: University Washington, B.S. Mechanical Engineering

Training/Experience: 22 years in air quality related work, 3 years experience ambient monitoring

Name/Affiliation: Eric Brudie, Contractor

Program Position: QA Auditor

Education: Colorado School of Mines, B.S. Geological Engineering

Training/Experience: 15 years experience with all facets of meteorological monitoring systems

Name/Affiliation: Jared Cockman, Hoefler Consulting Group

Program Position: Data Management

Education: East Carolina University, BA English Literature

Training/Experience: 5 yrs meteorological, ambient monitoring & data management experience

Name: Trish Conrad

Program Position: Lab & Office Manager

Program Responsibilities: Chain of Custody, Lab operations and sample handling and analysis

Education/Experience: Montana State University, B.S. Counseling/Political Science

Training/Experience: Over 50PM_{2.5} and PM₁₀ projects

Name/Affiliation: Robert O'Conner, Alaska Gold Co.

Program Position: Environmental Technician

Education: HS

Training/Experience: Extensive field experience but new to environmental monitoring with one-month training by HCG

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoefler Consulting Gr. Auditor: Fry, Crudie Date: 01/09/04

Name/Affiliation: Brian Booth, Alaska Gold Co.

Program Position: Environmental Technician

Education: HS

Training/Experience: 2-years experience with sample handling in hospital medical lab, new to environmental monitoring with one-month training by HCG

- Who is responsible for training field staff? Steve Mackey, Hoefler Consulting Group
- How is the field staff trained? Staff provided manuals, SOP documents, checklists and onsite training. Additional training to field staff provided by Project Manager as needed.

Does the operator have training manuals or other training related materials available for staff?

- Yes
 No

Comments: All project related documents, plans and manuals available in Nome and/or at the monitoring site.

3.0 General Site Information

3.1 Monitoring Site Description

Monitoring Site Location Description: Monitoring station is located in rolling hills approximately 8.5 miles north of Nome, Alaska. Ambient monitors located on a 2.5-foot high platform surrounded by tundra and low Willow shrubs.

Indicated by Operator	Determined by Auditor
N 64° 37'	N 64° 37.171'
W 165° 26'	W 165° 26.875'
Elevation not specified	~ 150 Foot Elevation

3.2 Monitoring Site Appearance and Safety

Does the site appear clean, organized and well maintained?

- Yes
 No

Comments: None.

Does the site appear to be safe and reasonably hazard free?

- Yes
 No

Comments: None.

Does the site have a shelter for operators?

- Yes
 No

Comments: Dataloggers, power supply, and shelter inside insulated building.

Does the site have emergency equipment such as a first aid kit available?

- Yes
 No

Comments: None.

Does the site have adequate measures to prevent human tampering?

- Yes
 No

Comments: Remote location with a locked enclosure.

Does the site have adequate measures to prevent damage from animals?

- Yes
 No

Comments: See above.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hooffer Consulting Co. Auditor: Eric Blaise Date: 01/09/04

3.3 Monitoring Site Surroundings

- Indicate the population density type for the monitoring site.

	Type	Description
✓	Remote	No nearby development with no nearby population center.
	Rural	Limited development with nearby sparse population.
	Low Suburban	Light industrial development in low population center.
	High Suburban	Light industrial development in high population center.
	Urban	Heavy industrial development in high population center.

- Indicate pollution sources within 10-km radius of the monitoring site.

	Type	Description	Direction	Distance
	Industrial Center			
	Power Generation			
	Refinery			
✓	Mine	Developed placer mines	North & South	<1 km
	Chemical Production			
✓	Roadway	Rural gravel road	West	~200 ft
	Airport			
	Railway			
	Agriculture			
	Other			

3.4 Ambient Monitoring Instrumentation Inventory

- List all ambient air monitoring instrumentation at the site.

Parameter	Make	Model	Serial No.
Ambient PM ₁₀ – Primary	BGI Inc.	PQ100 Low Volume Sampler	374
Ambient PM ₁₀ – Collocated	BGI Inc.	PQ100 Low Volume Sampler	373
Barometric Pressure	Vaisala	PTB101B	Y2130007
2-m Thermistor	Met-One	026 MP	C4537-ID1
10-m Thermistor	Met-One	026 MP	C4537-ID2

3.5 Monitoring Site Instrumentation Evaluation (40 CFR 50, Appendix B)

Is the flow rate transfer standard accurate to $\pm 2\%$? Yes No Comments: None.

Is the flow rate standard rated to operate within the 1.0 to 1.8 l/min range? Yes No Comments: None.

Is the temperature sensor accurate to $\pm 2^\circ\text{C}$ and has an operating range of -40°C to $+50^\circ\text{C}$? Yes No Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Nassau Gold Co. Operator: Insler Consulting Gp. Auditor: Eric Gaultie Date: 01/09/04

Does the barometer have a range of 500 to 800 mm Hg? Yes No Comments: None.

Is the accuracy of the time setting within ± 2 minutes? Yes No Comments: None.

3.6 Probe and Monitoring Siting Criteria (40 CFR 58, Appendix E)

Is the placement of the sampler inlet 2-7m above ground? Yes No Comments: 2.7m.

Is the distance between any obstacle and the sampler at least twice the height that the obstacle protrudes above the sampler? Yes No Comments: None.

Is there an unrestricted airflow in an arc of 270° inclusive of the predominant wind direction? Yes No Comments: Unrestricted for 360°.

Is the sampler at a distance >20 m from trees? Yes No Comments: Tundra and low Willows.

Is the sampler at a distance >20 m from a road? Yes No Comments: >50m.

Is the sampler located on a paved area or on ground with natural vegetative covering year round? Yes No Comments: Located on plywood deck surrounded by natural ground cover.

For particulate sampling, are co-located samplers present at monitoring site? Yes No Comments: None.

Are the collocated samplers 2-4 m apart from each other? Yes No Comments: 2.5m.

3.7 Support Instrumentation and Equipment Evaluation

- List all supporting data acquisition and communications equipment.

Equipment	Make	Model	Serial No.
Primary DAS	Campbell Scientific	CR10X	X36446-25371
Backup DAS	None	--	--
Backup Data Storage	Campbell Scientific	SM192	Unknown
Cellular Modem	Campbell Scientific	COM210	3106
Cellular Relay	Campbell Scientific	A21 Rel12	2754

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoefler Consulting Grp. Auditor: Eric Ziegler Date: 01/09/04

- List all supporting power supply equipment.

Equipment	Make	Model	Serial No.
Thermoelectric Generator	Global Thermoelectric	5060L-24-S1-S0	5060-5163-YOG
45-Watt Solar Panel	Kyocera	KC45	Unknown
45-Watt Solar Panel	Kyocera	KC45	Unknown
75-Watt Solar Panel	BP	BP275UL	Unknown
85-Watt Solar Panel	BP	BP585U	Unknown
2-Charge/Load Controllers	Zantrex	C40	Unknown
4-Deep cycle Batteries	Rolls	200 Amp-Hr	Unknown

Is the DAS well protected from the elements with adequate room for maintenance? Yes No Comments: PM₁₀ monitors have weatherproof DAS's. Met DAS located within 8'x8' enclosure.

Is the DAS rated for operation in the expected temperature range? Yes No Comments: None.

Are all sensor signal leads neatly and securely connected to the correct DAS channels? Yes No Comments: None.

Are all components of the DAS operational? Yes No Comments: None.

Is the communications equipment operating correctly? Yes No Comments: None.

Does the DAS system have a stable power supply? Yes No Comments: Thermoelectric generator and 4-solar panels buffered and stored by four industrial 200amp-hr batteries.

Is the DAS properly grounded? Yes No Comments: None.

Is the DAS system protected from lightning? Yes No Comments: Infrequent lightning occurs in the area.

3.8 Monitoring Site Quality Control Procedures

Are regular multipoint QC checks performed on the DAS? Yes No Comments: Semi-annual audits and weekly single-point calibrations.

Are regular multipoint QC checks performed on the monitoring instruments? Yes No Comments: Annual multi-point audits and calibrations.

Are data frequently reviewed for reasonableness and completeness? Yes No Comments: At the time of each sampling and at sample shipment.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Alaska Gold Company Operator: Hoefler Consulting Co. Auditor: Eric Brundage Date: 01/29/04

Are standard materials used for calibrations and QC checks that are traceable to NIST standards and meet USEPA requirements?

- Yes Comments: Standard SOP's and current calibration records for all test equipment.
 No

Are monitoring instruments within current calibration?

- Yes Comments: None.
 No

Does a preventative maintenance program exist for the monitoring program?

- Yes Comments: Included in SOP's.
 No

Identify those responsible parties for preventive maintenance at the site.

Name: Steve Mackey

Position: Project Manager

Affiliation: Hoefler Consulting Group

Name: Brian Booth & Robert O'Conner

Position: Project Site Technicians

Affiliation: Alaska Gold Company

Identify any deficiencies in the field operations and corrective actions taken for the deficiencies: PQ100 Intake originally scheduled for monthly inspection and cleaning. In winter conditions, intake now scheduled for inspection during every site visit to ensure that it is free of snow. Some incomplete sample forms were found during the audit and the mass airflow counter was sometimes not being reset. Both of these errors have been rectified.

3.9 Site Documentation

Is the Monitoring/QA plan comprehensive and reflective of the actual installation?

- Yes Comments: Quality Assurance Plan on file.
 No

Does the station have an activity log?

- Yes Comments: Binder of site logs, sample data sheets and calibration sheets on site.
 No

Does the station have a Site Visit Log and Checklist Form?

- Yes Comments: Checklist, site visit log and copies of sample data sheets.
 No

Does the station have an adequate Calibration Report Form and copies of previous calibrations?

- Yes Comments: None.
 No

Does the station have an adequate Operations Manual?

- Yes Comments: None.
 No

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoefler Consulting Gr. Auditor: Eric Dudge Date: 01/09/04

Identify the operation manuals present on site.

	Description		Description
✓	BGI PQ100	✓	Campbell Modem
✓	Campbell Data Logger	✓	Thermoelectric Generator

Does the station have established procedures for custody of data retrieved from the field?

- Yes Comments: SOP's for chain of custody procedures and standard forms.
 No

Are report forms and site logs properly completed and current?

- Yes Comments: Some Sample Data Sheets were incompletely filled out.
 No

Identify the site operation forms in use.

Form Name	Description
PM ₁₀ Sample Data Sheet	Data sheet for each sample collected
PM ₁₀ Sampler Multi-Point Cal. Data Sheet	Annual multi-point calibration form
PM ₁₀ Sampler Single-Point Cal. Data Sheet	Monthly single-point calibration form
Chain of Custody Record	Rock Creek to Inter Mountain Labs
Site Logbook	Logbook at the station and at Nome office
PM10 sampling instructions-Rock Creek.	SOP checklist for site visits and filter change

4.0 Data Processing

4.1 Data Collection

Is the sample run date recorded?

- Yes Comments: None.
 No

Is the sample start time and elapsed time recorded?

- Yes Comments: None.
 No

Is the average flow rate recorded?

- Yes Comments: 24-hour average.
 No

Is the monitoring station polled on a regular basis?

- Yes Comments: Typically, after each run or at the end of the week.
 No

Indicate how the polled data is handled for data processing after being downloaded. Data are retrieved from the DAS and copied to the field Sample Data Sheet. Carbonless copies of the Sample Data Sheet and Chain of Custody forms are sent to the HCG Anchorage office at the same time that Chain of Custody forms and samples are sent to the lab, approximately once/month.

Are procedures in place for backing up raw and fixed data?

- Yes Comments: Archived on CD's
 No

How long are backup raw data files retained? Indefinitely

How long are archived records retained? Indefinitely

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoefler Consulting Co. Auditor: Eco Brudie Date: 4/1/09/04

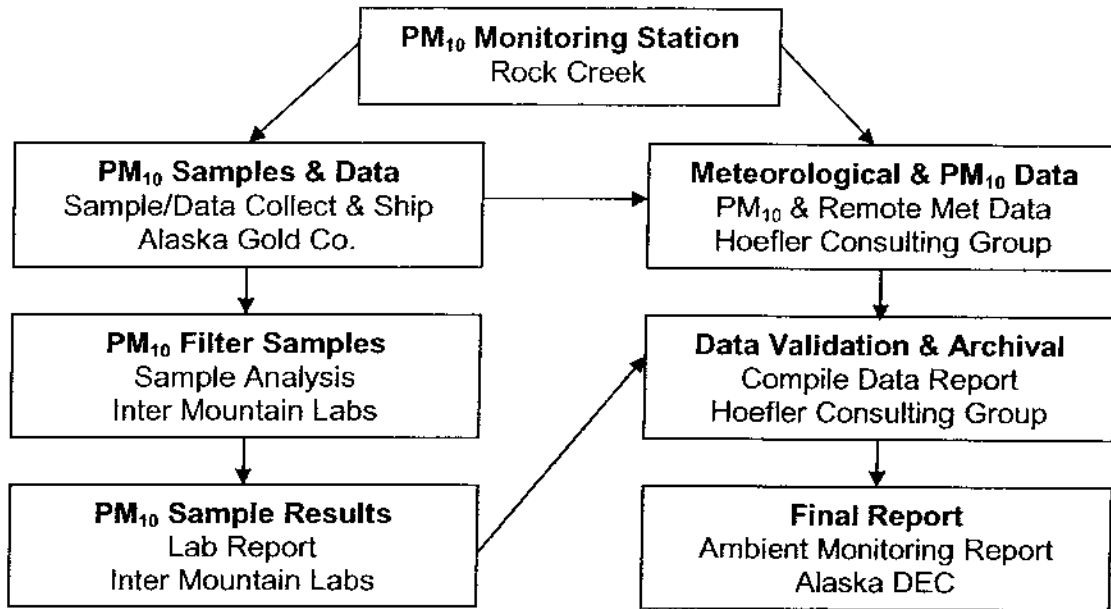
Are hard copies of data being kept in case of computer failure?

- Yes
 No

Comments: Off-computer digital backup.

4.2 Data and Sample Handling

Diagram the data flow from monitoring equipment to submission of final report.



Are written procedures for data handling available for the project?

- Yes
 No

Comments: None.

Are filters properly secured once removed to prevent contamination or tampering?

- Yes
 No

Comments: Filters are immediately placed in sealed envelopes for transport once removed from sampler.

Are copies of the Site Check Form being sent to the operator on a regular basis?

- Yes
 No

Comments: Carbonless copies sent at the same time as sample mailings.

Are Chain-of-Custody forms being used to transmit materials, samples, etc.?

- Yes
 No

Comments: Standard COC forms used with copies to Lab, file and HCG.

4.3 Data Validation

Are data validation procedures established and in use?

- Yes
 No

Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Corp. Operator: Hoefler Consulting Group Auditor: Eric Judle Date: 01/03/04

Describe data validation procedure. Data is processed through LABVIEW software where checks are made on the different recorded parameters. Data are reviewed according to the guidance provided in the Plan. The data is flagged, if necessary, and invalidated, if necessary, after a thorough review is made.

Identify any procedures for flagging data (outliers) and procedures used to determine validity of flagged data. LABVIEW software is used which checks for inconsistencies in the data, which are identified in the Plan.

Are the individuals responsible for data collection separate from those responsible with data validation? Yes No Comments: Brian Booth, Robert O'Conner, Jared Cockman

Name: Steve Mackey
Position: Project Manager
Affiliation: Hoefler Consulting Group

Name: Katie Baltus
Position: Data Manager
Affiliation: Hoefler Consulting Group

Identify how periods of missing or invalidated data are handled. An original *.RAW file is maintained and archived. If questionable data are found, values are corrected and/or validated if a definable and systematic error problem can be identified and the bounding timestamp for the error is known. Questionable or missing data which cannot be recovered are invalidated and replaced with an invalid code in the database.

4.4 Data Reporting

Are quarterly and annual data reports submitted for the site? Yes No Comments: None.

Is qualified staff making reviews of data reports prior to submittal? Yes No Comments: None.

Identify those person(s) responsible for review of data reports. Steve Mackey, Al Trbovich.

4.5 Corrective Actions

Are procedures established for initiating corrective actions within the data processing steps? Yes No Comments: None.

- Describe procedures for tracking and closing corrective actions. No official procedure is available that describes the tracking and closing of corrective actions. Problems are communicated between the site technicians and Steve Mackey as they become apparent. Quarterly reports and independent audits document system errors and corrective measures and the dates of those actions.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Basko Gold Co. Operator: Prober Consulting Inc. Auditor: Eric Brudie Date: 01/09/04

4.6 Data Capture

Identify the desired data capture rate for the monitoring data.

Air Monitoring Data Type	Capture Rate
Total Suspended Particulate	80%

Are the desired data capture rates being met for each data type? Yes No Comments: Unknown at the time of the initial station audit in the first quarter.

5.0 Quality Assurance and Quality Control

5.1 Quality Assurance Program (40 CFR 58, Appendix B)

Has a quality assurance plan been written that describes adequate quality assurance procedures? Yes No Comments: Rock Creek Monitoring Program QA Project Plan.

Is a copy of the plan available to field and data processing personnel? Yes No Comments: None.

Has the quality assurance plan been approved by the ADEC? Yes No Comments: None.

Identify those person(s) responsible for updating the plan and the procedure for updating the plan. Steve Mackey, HCG. Steve has amended SOP's and field data forms to remedy inadequacies found in the filed.

5.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan? Yes No Comments: None.

Does the plan adequately document the correct criteria for accuracy and precision? Yes No Comments: None.

Identify the person(s) responsible for conducting audits on the monitoring instrumentation. Eric Brudie, Contractor.

Flow Transfer Standard

Are independent flow transfer standards being used for the calibrations and audits? Yes No Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Cold Cr. Operator: Weather Consulting Co. Auditor: Eric Ruddle Date: 01/09/04

Particulate Filter

Is each filter checked for imperfections (e.g. backlighting) prior to use?

- Yes
- No

Comments: Filter checked in lab on a light table, prior to equilibration and by site technicians in the field.

Are filters equilibrated for at least 24 hours prior to use?

- Yes
- No

Comments: Filters equilibrated for at least 24-hrs prior to initial tare weighing.

Is filter equilibrated in conditioning environment maintained at 15-30°C and controlled to within ±3°C?

- Yes
- No

Comments: Equilibration temperature set to 20°C and controlled to ±3°C.

Is filter conditioning environment maintained at 20-45% RH and controlled to within ±5%?

- Yes
- No

Comments: Equilibration humidity set to 40% RH and controlled to ±5% RH.

Is each filter properly labeled for identification prior to use?

- Yes
- No

Comments: Re-usable filter cassette ID's are correlated with sample ID's and barcode using the PM₁₀ Data Management System (DMS).

6.0 Laboratory Operations

6.1 General Information

Identify the laboratory operations for the project's monitoring program.

Company: IML Air Science (Inter Mountain Laboratories, Inc.)

Address: 555 Absaraka

Sheridan, Wyoming 82801

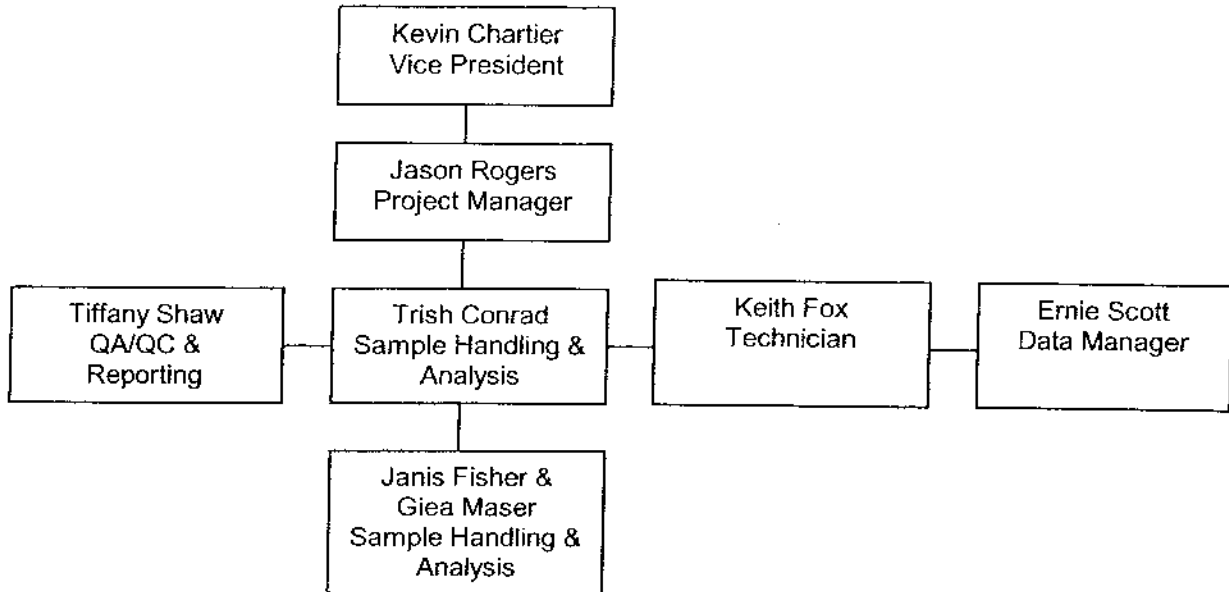
Phone: (307) 674-7506

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Fuel Co. Operator: North Consulting Co. Auditor: Ernie Brodie Date: 01/09/04

6.2 Laboratory Staff Organization

Draw diagram indicating the organizational structure of laboratory organizational structure. Include names and titles.



6.3 Key Laboratory Staff Training and Experience

Name: Kevin Chartier, Vice President

Program Position: Vice President

Program Responsibilities: Laboratory project oversight, contracts and budgets, staff loading, SOP and QAPP review.

Education/Experience: 16 years experience with air quality measurement, including 2 years with Wyoming DEQ. Experienced with PM₁₀ and PM_{2.5} measurement programs.

Name: Jason Rogers

Program Position: Project Manager

Program Responsibilities: Customer contact, project coordinator.

Education/Experience: 6 years ambient air quality monitoring experience. Thorough knowledge of the PM₁₀ Reference Method.

Name: Trish Conrad

Program Position: Lab & Office Manager

Program Responsibilities: Chain of Custody, Lab operations and sample handling and analysis.

Education/Experience: Montana State University, B.S. Counseling/Political Science. Over 50 PM_{2.5} and PM₁₀ projects

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Alaska Gold LLC Consultant: Weather Consulting Co. Auditor: Eric Brudie Date: 01/09/04

Name: Tiffany Shaw

Program Position: Air Quality Technician

Program Responsibilities: QA/QC and lab gravimetric data reporting.

Education/Experience: Eastern Wyoming College, A.S. Veterinary Technology

Extensive lab experience, MSHA certified, Over 50 PM_{2.5} and PM₁₀ projects

Name: Ernie Scott

Program Position: Air Quality Engineer

Program Responsibilities: Computer, datalogger & database programming, data report program

Education/Experience: University of Wyoming, BS & M.S., Electrical Engineering. 70 ambient and PM_{2.5} programs.

6.4 Analytical Methods

Indicate the specific pollutants tested for on the project and describe the analytical methods.

Pollutant	Analytical Method or Procedure
PM ₁₀	Before and after gravimetric analysis of a teflon coated glass fiber filter through which 24 hours of low volumetric airflow has passed.

Is the laboratory using USEPA approved analytical procedures? Yes
 No

Comments: 40 CFR 50 Appendix J.

Indicate the reference method (e.g. ASTM, EPA) or SOP used for testing the program's list of pollutants.

Parameter	Reference Publication or Laboratory SOP
PM ₁₀	EPA Reference Method for the Determination of Particulate Matter as PM ₁₀ in the Atmosphere.

Is the analytical method equipment calibrated based on NIST standards? Yes
 No

Comments: Gravimetric analyzer independently calibrated using NIST traceable standards semi-annually.

6.5 Quality Control

Are laboratory test instrument calibration procedures documented? Yes
 No

Comments: None.

Indicate the type of tests conducted on the laboratory system and the frequency of tests conducted. 10 % of all new and exposed filters are passed through the equilibration phase a second time and a new tare weight is compared with the original. Monthly independent NIST traceable calibrations of the lab/equilibration room are conducted for accuracy of temperature and relative humidity control. Daily QA/QC check of the gravimetric balance using 50mg, 100mg and 300mg mass standards. Gravimetric balance calibrated against NIST traceable standards semi-annually.

Are appropriate acceptance criteria documented for each type of analysis conducted? Yes
 No

Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alcoba Gold Co. Operator: Miller Co. Mining Co. Auditor: Eric Craig Date: 01/09/04

6.6 Preventive Maintenance

Is there a laboratory equipment Preventive Maintenance program in effect? Yes No Comments: See IML QAPP.

Identify those person(s) responsible for preventive maintenance and repairs. Independent audit of balance on a semi-annual schedule. Regular maintenance and repair is the responsibility of Tiffany Shaw.

Identify the laboratory instruments or equipment used in support of the project.

Parameter	Analytical Instrument(s) or Equipment
PM ₁₀	Sartorius MC5

Does a maintenance log exist for the laboratory instruments used in support of the project? Yes No Comments: Lab equipment verifications, calibrations and repairs are all noted in the lab QA/QC notebook.

6.7 Record Keeping

Is a log maintained by the laboratory of all the samples received? Yes No Comments: Indicated in the Quality Assurance Project Plan.

Are records maintained for the checks performed on the analytical equipment? Yes No Comments: See Above Comments.

Are Chain of Custody forms used during the analytical process? Yes No Comments: Chain of Custody forms accompany the samples from initial inspection to final analysis.

Are exposed samples archived? Yes No Comments: Minimum of 3 years by IML.

Are sample analysis data records archived? Yes No Comments: All documentation, lab results, QA/QC data, network reports and chain of custody documents are archived a minimum of 5 years by IML.

6.8 Data Processing and Handling

Identify the type of data acquisition utilized to analyze the project's pollutant samples. (e.g. computer interface, strip chart recorder, integrator)

Pollutant	Data Collection Method or Instrument
PM ₁₀	The lab PC is linked directly to the gravimetric balance and barcode reader to directly input sample ID and lab results into a database. IML uses the Laboratory Information Management System (LIMS) database designed specifically for gravimetric lab applications. The LIMS database also records temperature and humidity parameters with the sample results.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Projet Consulting Gp. Auditor: Eric B. Johnson Date: 1/15/04

Does the laboratory have a method for backing up analytical data?

- Yes
- No

Comments: Data are backed up to network server weekly and archived to electronic storage media yearly. Media stored in fireproof cabinet for a minimum of 5 years.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoefler Consulting Co. Auditor: Eric Brudie Date: 01/09/14

APPENDIX B AMBIENT AIR PERFORMANCE AUDIT

AMBIENT MONITORING STATION - INSTRUMENT PERFORMANCE AUDIT

Owner: Alaska Gold Co.
Auditor: Eric Brudie

Operator: Steve Mackey Alternate: Jared Cockman
Witness(s): Brian Booth, Robert O'Conner

Station Site: Rock Creek
Audit Date: 9-Jan-04

A) LOW -VOLUME PM₁₀ SAMPLER TESTS

				Separation: <u>2.5</u> Meters	Height above ground: <u>2.68</u> Meters
				Height above deck: <u>2.04</u> Meters	
Primary Sampler	Make: <u>BGI Inc.</u>	Model: <u>PQ100 PM₁₀</u>	S.N.#: <u>374</u>	Inlet # <u>6625</u>	Range: <u>1 to 25</u> L/min
Collocated Sampler	Make: <u>BGI Inc.</u>	Model: <u>PQ100 PM₁₀</u>	S.N.#: <u>373</u>	Inlet # <u>6626</u>	Range: <u>1 to 25</u> L/min
Transfer Standard 1	Make: <u>Chinook Engineering</u>	Model: <u>StreamlinePro FTS</u>	S.N.#'s <u>CU03013/M030713</u>		Range: <u>0.8 to 19</u> L/min
Transfer Standard 2	Make: <u>Brandt Inst - Bios</u>	Model: <u>DryCal DC-Lite DCL-MH</u>	S.N.# <u>6402</u>		Range: <u>0.2 to 20</u> L/min

PRIMARY DAS TIME TEST		
AST Time	Primary Time	Error Min:Sec
15:54:00	15:53:00	-01:00
COLLOCATED DAS TIME TEST		
AST Time	Co-Lo Time	Error Min:Sec
16:16:00	16:15:00	-01:00

FLOW/TRANSFER STANDARD TESTS										
Run	Test Information		Transfer Standard Input			DAS Output			System Error	
	Time Hour	Sampler Prim./Colc	Pressure kPa	Temp DegC	Flow L/min	Pressure kPa	Temp DegC	Flow L/min	Flow %	Pass/Fail?
1	1550	Primary	99.3	-14.9	16.75	N/A	N/A	16.70	-0.3%	PASS
2	1555	Primary	N/A	N/A	17.10	N/A	N/A	16.77	-1.9%	PASS
3	1615	Colloc.	99.3	-15.2	16.91	N/A	N/A	16.70	-1.2%	PASS
4	1620	Colloc.	N/A	N/A	16.91	N/A	N/A	16.70	-1.2%	PASS

Instrument Limits: Flow +/- 7% from FTS. Time AST +/- 2 min. Separation between Primary and Collocate >2M & <4M.?

Comments: Tests 1 & 3 using Streamline transfer Standard and tests 2 & 4 using Bios Standard.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Horley Consulting Co. Auditor: Eric Brudie Date: 01/09/04

APPENDIX C METEOROLOGICAL MONITORING SYSTEMS AUDIT

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Proffler Consulting Sp. Auditor: Eric Brudie Date: 01/09/04

1.0 GENERAL SITE INFORMATION

1.1 Site Description

Rolling hills covered in tundra and low Willows.

1.2 Site Location

1.2.1 Coordinates

Indicated by Operator	Determined by Auditor
Latitude: 64° 37' N	Latitude: 64° 37.171' N
Longitude: 165° 26' W	Longitude: 165° 26.875' W
Elevation: Not Specified	Elevation: ~150 Feet

1.2.2 Appearance and Safety

- Does the site appear clean, organized and well maintained? Yes No Comments: None.
- Does the site appear to be safe and reasonably hazard free? Yes No Comments: None.
- Does the site have a shelter for operators? Yes No Comments: None.
- Does the site have emergency equipment such as a first aid kit available? Yes No Comments: None.
- Does the site have adequate measures to prevent human tampering? Yes No Comments: None.
- Does the site have adequate measures to prevent damage from animals? Yes No Comments: None.

2.0 MONITORING PROGRAM STAFF ORGANIZATION

- Draw diagram indicating the organizational structure of the monitoring program. Include names and titles. See Ambient Monitoring Program Systems Audit.

3.0 METEOROLOGICAL MONITORING STATION EQUIPMENT

3.1 Inventory

Parameter	Make	Model	Serial No.
Primary DAS	Campbell Scientific	CR10X-XT	X36446-25371
Backup DAS	None	--	--
Backup Data Storage	Campbell Scientific	SM192	Unknown
Cellular Modem	Campbell Scientific	COM210	3106
Cellular Transceiver	Campbell Scientific	A21 Rel12	2754
Thermoelectric Generator	Global Thermoelectric	5060L-24-S1-S0	5060-5163-YOG
45-Watt Solar Panel	Kyocera	KC45	Unknown
45-Watt Solar Panel	Kyocera	KC45	Unknown
75-Watt Solar Panel	BP	BP275UL	Unknown

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hawler Consulting Co. Auditor: Eric Brudie Date: 01/09/04

Parameter	Make	Model	Serial No.
85-Watt Solar Panel	BP	BP585U	Unknown
2-Charge/Load Controllers	Zantrex	C40	Unknown
4-Deep cycle Batteries	Rolls	200 Amp-Hr	Unknown
Air Temperature 2-M	Met-One	026MP	C4537-ID1
Air Temperature 10-M	Met-One	026MP	C4537-ID2
Wind Speed	Climatronics	100075	4839
Wind Speed Cups	Climatronics	Aluminum	2000
Wind Direction	Climatronics	100076	4567
Wind Direction Vane	Climatronics	Aluminum	1398
Wind Sigma	Calculated	--	--
Relative Humidity	Vaisala	HMP-45C-L	Y3940088
Solar Radiation	LiCor	LI200X	PY46224
Barometric Pressure	Vaisala	PT101B	Y2130007

3.2 Equipment Evaluation

Do all sensors appear to be clean, intact, in good condition and well maintained? Yes No Comments: None.

Are all sensors operational, online and reporting data? Yes No Comments: None.

3.2.1 Data Acquisition System (DAS)

Is the DAS well protected from the elements with adequate room for maintenance? Yes No Comments: None.

Is the DAS rated for operation in the expected local temperature range? Yes No Comments: None.

Are all sensor signal leads neatly and securely connected to the correct DAS channels? Yes No Comments: None.

Are all components of the DAS operational? Yes No Comments: None.

Is the communications equipment operating correctly? Yes No Comments: None.

Does the DAS system have a stable power supply? Yes No Comments: None.

Is the DAS properly grounded? Yes No Comments: None.

Is the DAS system protected from lightning? Yes No Comments: Not a lightning prone area.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Client: Santa Fe Co. Operator: Essex Consulting Co. Auditor: Eric Brudie Date: 01/09/04

3.2.2 EPA Recommended Response Standards

Parameter	Equipment Specifications	EPA Standard	Meets Standard?
Wind Speed			
Accuracy:	±0.07 m/s	±0.2 m/s + 5% of observed	Yes
Range:	0.0 to 60 m/s	0.5 m/s to 50 m/s	Yes
Resolution:	Unknown	0.1 m/s	Unknown
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	4 m	≤5 m @ 1.2 kg/m ³	Yes
Wind Direction			
Accuracy:	±2°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
Resolution:	Unknown	1°	Unknown
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	1.0 m	≤5 m @ 1.2 kg/m ³	Yes
Damping Ratio:	>0.4 @ 10°	0.4 to 1.7	Yes
Air Temperature (2-M, 10-M & Delta-T)			
Accuracy:	±0.05 °C	±0.5 °C	Yes
Range:	-50°C to +50°C	-20°C to +30°C	Yes
Resolution (2-M,10-M):	Unknown	0.1°C	Unknown
Resolution (Delta-T):	Unknown	0.02°C	Unknown
Response Time:	10 seconds	≤1 minute	Yes
Barometric Pressure			
Accuracy:	±0.5 mbar	±3 mbar	Yes
Range:	600 to 1060 mbar	Not Specified	N/A
Resolution:	0.1 mbar	0.5 Mbar	Yes
Operating Temperatures:	-40°C to +60°C	Not Specified	N/A
Response Time:	300 msec	Not Specified	N/A
Relative Humidity			
Accuracy:	±2% RH	±1.5°C Dew Point *	Yes
Range:	0.8 to 100% RH	-30°C to +30°C Dew Point *	Yes
Resolution:	0.1% RH	1% RH	Yes
Response Time:	10 seconds	≤30 minutes	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to +30°C	Yes
* EPA standards in dew point temperature. Instrument RH values converted to DP are within limits			
Solar Radiation			
Accuracy:	±5% Observed	±5% Observed	Yes
Range:	0 to 3000 W/m ²	Unknown	Unknown
Resolution:	Unknown	10 W/m ²	Unknown
Time Constant:	10 μs	5 seconds	Yes
Operating Range:	-40°C to +65°C	-20°C to +40°C	Yes
Spectral Response:	400 nm to 1100 nm	285 nm to 2800 nm	Yes

3.3 Location

3.3.1 Tower

Do any obstructions exist below a 1:10 slope away from the tower base?

- Yes
 No

Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: deffla Consulting Gp. Auditor: Eric Smith Date: 01/09/04

Is the distance between the instruments and any obstruction at least ten times the height of the obstruction? Yes No Comments: None.

Is the height of the top of the tower 10 meters above the ground? Yes No Comments: None.

Is the tower stable and plumb? Yes No Comments: None.

Is the tower protected from lightning? Yes No Comments: Not a lightning prone area.

3.3.2 Wind Speed and Wind Direction Sensors

Is the horizontal distance between the instrument and any obstruction at least 10 times the height of the obstruction? Yes No Comments: None.

Is the instrument 1.5 times the height of the building above the roof or 10 meters above the ground? Yes No Comments: None.

Are the wind speed and wind direction sensors stable and plumb? Yes No Comments: None.

Is the distance of the sensor on the crossarm/mast at least twice the diameter of the tower? Yes No Comments: None.

3.3.3 Temperature and Relative Humidity Sensors

Are the sensors mounted over open level ground at least 9 meters in diameter and at least 2 meters above ground? Yes No Comments: None.

Are the two temperature difference probes located at a height of 2 meters and 10 meters above the ground? Yes No Comments: 2 and 12 meters.

Is the ground beneath the temperature sensor natural native material? Yes No Comments: None.

Is the site free of any man-made features exist that could create bias temperature data (e.g. asphalt, concrete, exhaust plumes, etc.)? Yes No Comments: None.

Is the site free of any natural made features that could create bias temperature data (e.g. open water, sloping ridge, etc.)? Yes No Comments: None.

Are the temperature sensors protected from the influence of solar radiation? Yes No Comments: Mounted in motor aspirated shields.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co.

Operator: Hoefler Consulting Co.

Auditor: Eric Riddle

Date: 2/09/04

Are the sensors located at least four times the distance from the height of the obstruction? Yes No Comments: None.

Are the sensors located at least 30 meters from large paved areas? Yes No Comments: None.

Are the temperature sensors used for differential measurements located in identical aspirated shields? Yes No Comments: None.

3.3.4 Solar Radiation

Is the instrument situated above the plane of any obstructions that could cast shadows on the instrument? Yes No Comments: None.

Is the sensor situated to the south of the tower in order to minimize obstruction from the tower? Yes No Comments: None.

4.0 STANDARD OPERATING PROCEDURES

4.1 General

Is the station visited on a preset schedule? Yes No Comments: Every three days for ambient monitoring & quarterly for audits/calibrations.

Have standard SOPs been developed, and are the station operators following them? Yes No Comments: None.

Does the operator follow a preventative maintenance schedule? Yes No Comments: None.

Are site visits and maintenance activities properly documented in the Station Activity Log? Yes No Comments: None.

Has the operator attended any formal training for operating meteorological monitoring stations? Yes No Comments: None.

Is the operator knowledgeable and competent regarding effective operation of the station? Yes No Comments: None.

Are copies of the NIST certifications for the calibration equipment made available? Yes No Comments: Included in Performance Audit Reports.

4.2 DAS and Meteorological Sensors

Are regular multipoint QC checks performed on the DAS? Yes No Comments: By virtue of the audits/calibrations.

Are regular multipoint QC checks performed on the meteorological sensors? Yes No Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Loefer Consulting Co. Auditor: Eric Brully Date: 01/29/04

- Are the sensors visually inspected for defects and problems? Yes No Comments: None.
- Are ambient conditions compared with sensor readings from the DAS? Yes No Comments: None.
- Are data frequently reviewed for reasonableness and completeness? Yes No Comments: None.
- Is a copy of the datalogger program made available for review? Yes No Comments: None.

5.0 DOCUMENTATION

5.1 System Reference and Maintenance Manuals

- Does the operator have all required DAS and instrument manuals? Yes No Comments: None.
- Does the operator have configuration and wiring schematics specific to the station? Yes No Comments: None.

5.2 Station Operations Manuals and Report Forms

- Is the Monitoring/QA plan comprehensive and reflective of the actual installation? Yes No Comments: None.
- Does the station have an activity log? Yes No Comments: None.
- Does the station have a Site Visit Log and Checklist Form? Yes No Comments: None.
- Does the station have an adequate Operations Manual? Yes No Comments: None.
- Does the station have an adequate Calibration Report Form and copies of previous calibrations? Yes No Comments: None.
- Does the station have established procedures for custody of data retrieved from the field? Yes No Comments: None.
- Are report forms and site logs properly completed and current? Yes No Comments: None.

6.0 DATA PROCESSING

6.1 Data Collection

- Is the monitoring station polled on a regular basis? Yes No Comments: Downloaded by modem daily.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Cold Co. Consultant: Hoefler Consulting Co. Auditor: Eric Brudie Date: 2/1/09/09

- Indicate how the polled data is handled for data processing after being downloaded: Data are downloaded daily and given a cursory screening on a weekly basis to ensure proper station operation. Data files are transferred to the site database.
- How often are backup raw data files created? The HCG server is backed up daily
- How long are backup records retained? 3-5 years

Are procedures in place for backing up raw data? Yes Comments: Maintained on HCG server and backup tapes.
 No

Are hard copies of data being kept in case of computer failure? Yes Comments: Off-computer digital media backup.
 No

Are written procedures for data handling available for the project? Yes Comments: None.
 No

6.2 Data Validation

Are data validation procedures established and in use? Yes Comments: None.
 No

- Describe data validation procedure. Cursory review performed of initial data (e.g. gross errors, blanks, zeros). Excel spreadsheet developed by HCG used to recognize outliers or invalid data based on EPA screening criteria. Outliers are investigated to determine validity based upon local knowledge and experience. Outlier data deemed valid are included in the database. Those data deemed invalid are removed from the database and replaced with a code indicating the reason for invalidation. Finally, graphs and wind roses of adjusted data are inspected for data coherence.
- Identify any procedures for flagging data (outliers) and procedures used to determine validity of flagged data. HCG Excel spreadsheet used as described above.

Identify those responsible with data validation.

Name: Steve Mackey & Jared Cockman

Position: Project Manager & Data analyst

Affiliation: HCG, Inc.

Identify how periods of missing or invalidated data are handled.

Missing or invalidated data are removed. Blank values or invalidation code will be present in adjusted data set. No data substitutions are made.

Are adjusted and unadjusted data sets maintained? Yes Comments: Maintained on HCG server (*.dat and *.xls file formats)
 No

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gokil, Inc. Operator: Hoefler Consulting, Inc. Auditor: E. G. Bredie Date: 01/09/04

6.3 Data Capture

Identify the desired data capture rate for the monitoring data.

Air Monitoring Data Type	Capture Rate
Meteorological	90%

Are the desired data capture rates being met for each data type? Yes No Comments: New station, no data history.

6.4 Corrective Actions

Are procedures established for initiating corrective actions within the data processing steps? Yes No Comments: See below.

Describe procedures for tracking and closing corrective actions. Project manager is alerted and problems are addressed on next site visit. Verbal confirmation is made once a problem is rectified.

6.5 Data Reporting

Are quarterly and annual data reports being submitted for the site? Yes No Comments: None.

Is qualified staff prior to submittal of data reports making reviews of the report? Yes No Comments: Data Manager makes formal review.

Is finalized data set submitted with report to DEC? Yes No Comments: None.

7.0 QUALITY ASSURANCE AND QUALITY CONTROL

7.1 Quality Assurance Program

Has a quality assurance plan been written that describes adequate quality assurance procedures? Yes No Comments: None.

Is a copy of the plan available to field and data processing personnel? Yes No Comments: None.

Has the quality assurance plan been approved by the ADEC? Yes No Comments: Preliminary version not approved at time of Systems audit

- Identify those person(s) responsible for updating the plan and the procedure for updating the plan.

Name: Steve Mackey

Position: HCG Project Manager

Affiliation: HCG, Inc.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Sinatra Cold Co. Owner: Boeffer Consulting Sp. Auditor: Eric Brudie Date: 01/09/03

7.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan? Yes Comments: None.
 No

Does the plan adequately document the correct criteria for audit accuracy and precision? Yes Comments: None.
 No

Have audits been conducted on the suggested schedule of every six months? Yes Comments: None.
 No

- Identify the person(s) responsible for conducting audits on the monitoring instrumentation.

Name: Eric Brudie

Position: Contract Auditor

Affiliation: Contractor

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Proffler Consulting Co. Auditor: Eric Brubaker Date: 01/09/04

APPENDIX D METEOROLOGICAL MONITORING PERFORMANCE AUDIT

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT

Owner: Alaska Gold Co.
Auditor: Eric Brudie

Operator: Steve Mackey Alternate: Jared Cockman
Witness(s): Brian Booth, Robert O'Conner

Station Site: Rock Creek
Audit Date: 9-Jan-04

A) DAS TIME AUDIT

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: None.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
14:27:00	14:26:12	-00:48	PASS

B) TEMPERATURE SENSOR AUDIT

Upper Height: 1.95 Meters Lower Height: 10.03 Meters

2-M Thermistor: Make: Met-One Model: 062 MP S.N.#: C4537-ID1 Range: -50 to +50 Deg C
 10-M Thermistor: Make: Met-One Model: 062 MP S.N.#: C4537-ID2 Range: -50 to +50 Deg C
 Audit Digital Thermometer: Make: Fischer Scientific Model: 15-077-8 S.N.#: 21164797 Range: -50 to +50 Deg C
 Audit Probe: Make: Fischer Scientific Model: 15-077-7 S.N.#: 221367383 Range: -50 to +50 Deg C

COLLOCATED THERMISTOR TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target Deg C	Input Deg C	DAS Deg C	Error Deg C	Pass/Fail?	DAS Deg C	Error Deg C	Pass/Fail?	Delta T Deg C	Pass/Fail?
Hot	35 - 45	37.88	37.98	0.10	PASS	38.02	0.14	PASS	0.04	PASS
Warm	15 - 25	22.99	22.91	-0.08	PASS	22.96	-0.03	PASS	0.05	PASS
Ice Bath	0	0.00	0.03	0.03	PASS	0.03	0.03	PASS	0.00	PASS
Max Abs. Error:				0.10	PASS	0.14	PASS	0.05	PASS	

Time: Begin: 1225
 End: 1300

PSD Limits: Max Absolute Error > 0.5 Deg C (accuracy); Max Absolute Error > 0.1 Deg C (Delta Temperature).
Comments: None.

C) HORIZONTAL WIND SPEED SENSOR AUDIT

Height: 12.04 Meters

Wind Spd Sensor: Make: Climatronics Model: 100075 S.N.#: 4839 Cup #: 2000 Range: 0-56 MPS
 Audit Equipment: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864
 Audit Equipment: High Spd: RM Young Model: 18801 S.N.#: CA01674

TORQUE TEST	
Torque:	<0.1 gm-cm
Bearing Status:	Pass
Bearings Replaced:	No
Torque:	N/A gm-cm

SYNCHRONOUS MOTOR TEST					
Input RPM	Input MPS	DAS MPS	Error MPS	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	PASS
100	2.57	2.57	0.00	N/A	PASS
200	4.92	4.92	0.00	N/A	PASS
400	9.62	9.62	N/A	0.0	PASS
1000	23.72	23.72	N/A	0.0	PASS
2000	47.22	47.21	N/A	0.0	PASS
Max Abs. Error:			0.00	0.0	PASS

Time: Begin: 1315 End: 1335

PSD Limits: Threshold Torque > 0.35 gm-cm (0.50 MPS). Max Absolute Error > 0.20 MPS @ WS <= 5 MPS or > 5% of input @ WS > 5 MPS.
 Conversions: Aluminum Cup Speeds: MPS = RPM / 42.55 + 0.22 & MPH = RPM / 19.022 + 0.50. WS torque = MPS * 2 * 1.4, Gm-Cm = 72 * Oz-in.
 Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT

Owner: Alaska Gold Co.
Auditor: Eric Bradie

Operator: Steve Mackey Alternate: Jared Cockman
Witness(s): Brian Booth, Robert O'Conner

Station Site: Rock Creek
Audit Date: 9-Jan-04

D) HORIZONTAL WIND DIRECTION SENSOR AUDIT

Height: 12.04 Meters

Wind Dir Sensor: Make: Climatronics Model: 100076 S.N.#: 4567 Vane #: 1398 Range: 0-360 Deg
Audit Equipment: Align: Climatronics Model: 101984 S.N.#: 145 Torque: Honeywell Mdl 366-0 S.N.#: 5042
Compass: Brunton Model: 5008 S.N.#: 5080896571 Magnetic Declin: 14.2 E of N
GPS: Garmin Model: GPS 12 CX S.N.#: 95903570

TORQUE TEST	
Torque:	<u>6.5</u> gm-cm
Bearing Status:	<u>Pass</u>
Bearings Replaced:	<u>No</u>
Torque:	<u>N/A</u> gm-cm

IN-SITU ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass setup SSE.	337.0	337.7	0.7	PASS
GPS setup SSE.	337.0	338.7	1.7	PASS
Compass setup SSW.	38.0	37.9	-0.1	PASS
Compass setup WNW.	127.5	128.6	1.1	PASS
Compass setup NE.	243.0	241.5	-1.5	PASS
			Max Abs. Error:	1.7 PASS
			Mean Abs. Error:	1.0 PASS

Time: Begin: 1100 End: 1130

VANE ACCURACY & LINEARITY TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0	180.2	0.2	PASS
West	270.0	269.9	-0.1	PASS
North	360.0	0.1	0.1	PASS
East	90.0	90.5	0.5	PASS
North	360.0	0.1	0.1	PASS
West	270.0	270.4	0.4	PASS
South	180.0	180.0	0.0	PASS
East	90.0	90.5	0.5	PASS
			Max Abs. Error:	0.5 PASS
			Mean Abs. Error:	0.2 PASS

Time: Begin: 1350 End: 1355

BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	28.7	-1.3	PASS	330.0	331.3	1.3	PASS
60.0	59.2	-0.8	PASS	360.0	0.1	0.1	PASS
90.0	89.7	-0.3	PASS	30.0	28.7	-1.3	PASS
120.0	120.2	0.2	PASS	60.0	59.2	-0.8	PASS
150.0	150.3	0.3	PASS	90.0	89.7	-0.3	PASS
180.0	179.8	-0.2	PASS	120.0	120.1	0.1	PASS
210.0	209.6	-0.4	PASS	150.0	150.3	0.3	PASS
240.0	239.3	-0.7	PASS	180.0	179.8	-0.2	PASS
270.0	269.8	-0.2	PASS	Max Abs. Error:			1.3 PASS
300.0	301.0	1.0	PASS	Mean Abs. Error:			0.5 PASS

Time: Begin: 1400 End: 1405

POST-AUDIT ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass setup SW.	40.5	41.8	1.3	PASS
			Max Abs. Error:	1.3 PASS
			Mean Abs. Error:	1.3 PASS

Time: Begin: 1500 End: 1515

PSD Limits: Threshold Torque >7.50 gm-cm (0.50 MPS). Max Absolute Error >5° or Mean Absolute Error > 3° from True Azimuth (alignment).

Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity).

Conversions: WD Torque = MPS²*30.0

Comments: Wind direction torque high for new instrument.

Too windy for multiple post-audit tests, only able to take downwind reading.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT

Owner: Alaska Gold Co.
Auditor: Eric Brudie

Operator: Steve Mackey Alternate: Jared Cockman
Witness(s): Brian Booth, Robert O'Conner

Station Site: Rock Creek
Audit Date: 9-Jan-04

E) RELATIVE HUMIDITY SENSOR AUDIT

Height: 1.95 Meters

RH Sensor Make: Vaisala Model: HMP45C-L S.N.#: Y3940088 Range: 0 to 100 % RH
 Audit Equipment: Make: Vaisala Model: HMI 41 S.N.#: X0650030 Range: 0 to 100 % RH
 Audit Equipment: Probe# HMI41 X07450015

Time:

Begin: 1030
End: 1200

COLLOCATED STANDARD TEST								
Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?	Time Hour
53.8	-14.0	-21.4	54.7	-14.0	-21.2	0.2	PASS	1035
53.5	-12.0	-19.5	53.7	-12.0	-19.5	0.0	PASS	1200
Max Abs. Error						0.2	PASS	

Instrument Limits: Max Absolute Error > 1.5°C Dew Point.

Conversions: $DP = (AT - (14.55 + 0.114 * AT) * (1 - (0.01 * RH))) - ((2.5 + 0.007 * AT) * (1 - (0.01 * RH)))^3 - (15.9 + 0.117 * AT) * (1 - (0.01 * RH))^{14}$

Comments: None.

F) BAROMETRIC PRESSURE SENSOR TEST

Height: N/A Meters

RH Sensor Make: Vaisala Model: PTB101B S.N.#: Y2130007 Range: 600-1060 hPa
 Audit Equipment: Make: Vaisala Model: HM141 S.N.#: X0650030 Range: 0 to 100 % RH

Time: Begin: 1520 End: 1525

COLLOCATED STANDARD TEST					
Input kPa	Input mb	DAS mb	Error mb	Pass/Fail?	Time Hour
99.3	993.0	991.3	-1.7	PASS	1525
Max Abs. Error			1.7	PASS	

Instrument Limits: Max Absolute Error > 3mb (0.3kPa).

Comments: None.

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gold Co. Operator: Hoehler Consulting Co. Auditor: Eric Studie Date: 01/09/04

APPENDIX E STANDARD PROJECT FORMS

PM10 SAMPLING INSTRUCTIONS – ROCK CREEK

Schedule for Station Service Visits

The Rock Creek PM10 monitoring program consists of one sampler which runs every 3rd day (the main sampler) and one sampler which runs every 6th day (the collocated sampler). The PM10 samplers run from 00:00 to 24:00 on a sampling day (24 hour test runs). The samplers must be serviced in between scheduled sample days, typically the "day after" or the "second day after" a test run has occurred.

The complete EPA Monitoring Schedule is listed in the Rock Creek Ambient Air Monitoring Plan, and also at EPA's air monitoring website located at <http://www.epa.gov/ttn/amtic>. The first few sample dates in the monitoring program are as follows:

PM10 Sampling Date	EPA Sample Designation	Samplers Running
Sunday, December 14, 2003	1/3 Sampling	Main
Wednesday, December 17, 2003	1/6 Sampling	Main & Collocated
Saturday, December 20, 2003	1/3 Sampling	Main
Tuesday, December 23, 2003	1/6 Sampling	Main & Collocated
Friday, December 26, 2003	1/3 Sampling	Main
Monday, December 29, 2003	1/6 Sampling	Main & Collocated
Thursday, January 1, 2004	1/3 Sampling	Main
Sunday, January 4, 2004	1/6 Sampling	Main & Collocated

Preparation for Station Service Visit

Before leaving for a station service visit, confirm you have the following items:

1. Filter sample bags (for the filters to be removed from the samplers)
2. New tared filters
3. Field data sheets (for samples to be recovered)
4. DeltaCal calibrator device
5. Extra batteries for DeltaCal
6. Keys to station shelter
7. Hand warmers (if cold temperatures are present)

Tasks Required for Full PM10 Sampler Service Visit

*(Full Service must be done at least weekly; may be done every service visit if desired)
(For simpler station visits at other times, steps 6 through 14 are not performed)*

1. Open up the DeltaCal case, and place the unit near the samplers. This will allow the DeltaCal to equilibrate to the ambient temperatures present during the station service visit.
2. Turn on the PQ100 sampler(s) to be serviced by pressing the power "On/Off" button. A few introductory and initializing displays will appear, and then either a flashing sample message or the main idle display will appear. If a flashing message such as "Flow Rate Error" or "Low Batteries" appears, note this message on the field data sheet, and press the "Enter" button to continue on to the main idle display. (The cause for any errors should also be corrected during the station visit if possible).
3. Once the PQ100 main idle display appears, record needed sample information off the PQ100 display screen. (Use a handwarmer if needed to read the LCD display in cold weather.) Record sample data onto both the filter bag label and the field data sheet for each test run. Refer to Figure 1 for specific details on how to fill out the filter bag label information.
*Note: ET refers to the Elapsed Time of the previous run in minutes.
TS is the Total Sample of the previous run in cubic meters.
Date shown is the current date
Q is the sampler flow rate in liters per minute (typically 16.7 Lpm)
T is the current clock time (using 24:00 clock time format)
Bty is the approximate battery charge level (% charge remaining)*
4. To obtain the average temperature and pressure for the sample run, use the weather station datalogger keyboard display (inside the sample shelter). Refer to Figure 2 for instructions on how to use the CR10KD keyboard display to obtain the temp/pressure from the previous day (parameters 14 & 15) or from the day before yesterday (parameters 16 & 17).
5. Remove the PM10 sampler head from each sampler, and open the filter holder to access the sample filter cassette(s) from each sampler. Handling only the outside of the filter cassette, remove the filter cassette and carefully place it into the original filter sample bag.
Note: Take care not to touch the sample filter, and handle only the filter cassette.
6. Place junk filter cassettes into each sampler filter holder to allow calibration checks. Tighten the filter holders securely (however, do not install the PM10 sample heads yet).
7. Press the "Setup" button three times until the "Set START DATE and TIME" display appears. Set the righthandmost enable option to "Off" to allow calibration checks.
8. Press the "Setup" button one more time and the "Set RUN TIME" display will appear. Set the righthandmost enable option to "Off" to allow calibration checks.
9. Press the "Setup" button one more time to return to the PQ100 main idle display. Then press the "Run/Stop" key to start the sample pump.
10. Turn on the DeltaCal unit and allow it to initialize itself while *not* installed on a sampler. Note that the DeltaCal will not display a flow rate until it senses a flow rate between 2 and 20 L/min.
11. After the DeltaCal has completed its initialization, place the DeltaCal on the filter inlet and allow the sampler flow rate to stabilize with the DeltaCal installed. Record the PQ100 indicated flow rate, the DeltaCal flow rate, temperature, and pressure on the "As Found" section of the "PM10 Sampler Single Point Calibration Data Sheet".

12. Determine whether adjustment of the sampler flow rate is required. If the DeltaCal indicated flow rate is between about 16.4 to 16.9 L/min, simply record the same "As Found" data on the "As Left" section of the "PM10 Sampler Single Point Calibration Data Sheet", and skip step 13.
13. If adjustment of the sampler flow rate is needed, do so following step 13 which follows.
 - (a) Turn off the sample pump by pressing the "Run/Stop" button.
 - (b) Press the "Setup" button several times until the "Select FLOW RATE" display appears. The display should also show "Target Q... 16.7 Lpm" (if an improper entry appears, enter 16.7 Lpm).
 - (c) Simultaneously press the "Reset" button and the "Run/Stop" button to calibrate the flow rate. The PQ100 display should read "CALIBRATE Target=16.7Lpm" at this point.
 - (d) Press the "Run/Stop" button to start the pump. The screen will display "Reference Q.." at this point, but you should ignore the actual numbers being displayed on the PQ100 during the calibration.
 - (e) Use the "+/-" buttons to move the flow rate up or down until the DeltaCal reads 16.7 L/min.
 - (f) After a stable reading near 16.7 Lpm is attained, press the "Enter" button to save the calibration setting to the PQ100 sampler. The sampler display should return to the main idle display at this point.
14. With the DeltaCal installed on the sampler, record the PQ100 indicated flow rate, the DeltaCal flow rate, temperature, and pressure on the "As Left" section of the "PM10 Sampler Single Point Calibration Data Sheet". Then remove the DeltaCal from the sampler, shut off the sample pump (by pressing the "Run/Stop" button), and remove the junk sample filter.
15. Install a new tared filter. Fill out the filter bag label with the scheduled sample run date and the sampler ID (for example, "Main Sampler s/n 374").
16. Clean the PM10 sampler head if needed (required monthly) using mineral spirits or rubbing alcohol and paper towels. Reinstall the PM10 sampler heads on the PM10 sampler units.
17. With the PQ100 display in its main idle display, press the "Reset" button to zero the sample time and sample volume in preparation for a new test run.
18. Press the "Setup" button once to show the "Select FLOW RATE" display. Confirm the target flow rate is set for 16.7 Lpm.
19. Press the "Setup" button once more to show the "Set DATE and TIME" display. Adjust the date/time to the current time if needed.
20. Press the "Setup" button once more to show the "Set START DATE and TIME" display appears. Set the sample date to the appropriate date with a 00:00 starting time. Set the righthandmost enable option to "On" to allow automatic sampling.
21. Press the "Setup" button one more time to show the "Set RUN TIME" display. The sample run time should be 24 hours 00 minutes. Set the righthandmost enable option to "On" to allow automatic sampling.
22. Pressing the "Setup" button one more time will bring up a display showing "To initiate a run, Press Run/Stop". Press the "Run/Stop" button as directed to initiate an automatic test run. The PQ100 unit will power itself off and sampling will commence at the programmed run time.

Figure 1. Instructions on Filling Out Filter Sample Bag Label

The PM10 filter bag labels appear as follows:

Facility:	_____ Rock Creek _____
Sampler ID:	_____
Sample Date:	_____
Valid Time:	_____ Volume: _____
Avg. Temp:	_____ Avg Press: _____
Filter ID:	_____ [bar code] _____

The sections of the label should be filled out as follows:

- Facility:** This should have already been filled out by the lab, as "Rock Creek". Write in "Rock Creek" if section has been left blank.
- Sampler ID:** Sample Identification filled out by the sample operator. Use the following format: (Main Sampler #373; Co-located Sampler #374; Field Blank)
- Sample Date:** Date of *sample* (not the date of sampler setup or filter collection).
- Valid Time:** Number of minutes of the sample run. Obtain this information from the PM10 sampler display as ET1440 (or similar value). A typical value for a 24-hr sample will be 1440 minutes.
- Volume:** Total sample volume (m^3) for the sample. Obtain this information from the PM10 sampler display as TS24.51 (or similar value). Typical values for a 24-hr sample will be near $24 m^3$.
- Avg. Temp:** Average temperature ($^{\circ}C$) for the sample date. Obtain this data from the met station datalogger (variables #14 and #15 are yesterday's average temp/pressure; variables #16 and #17 are the average temp/pressure from 2 days ago; other available from HCG). Label the temperature units as $^{\circ}C$.
- Avg. Press:** Average pressure (millibars) for the sample date. Obtain this data from the met station datalogger (variables #14 and #15 are yesterday's average temp/pressure; variables #16 and #17 are the average temp/pressure from 2 days ago; other available from HCG). Label the pressure units mb.
- Filter ID** This should have been filled out by the lab. (Note: the sampled filter must always be returned to its original filter bag).

Figure 2. Instructions on Using the Weather Station Keyboard Display

The weather station datalogger is programmed to record daily average temperature and daily average pressure. Additionally, the datalogger is set up so that a station operator may easily retrieve the most recent two days' pressure & temperature readings.

NOTE: Use caution when accessing data using the CR10KD keyboard display. The keyboard display is hooked up only temporarily to get data. The keyboard display must be returned to the "logging mode" after each use (by keying in) , and the keyboard display must be removed from the ribbon cable after placing it into the datalogging mode. If any unusual mode is inadvertently entered, key in to return to the datalogging mode.

To Enter the Data Review Mode:

Review Data Using the and keys to navigate through the input variables:

01: Weather Station Battery Voltage
02: Wind Speed (m/s)
03: Wind Direction (degrees)
04: Temperature at 2 meters (°C)
05: Temperature at 10 meters (°C)
06: Temperature Difference 2-meters to 10-meters (°C)
07: Backup Temperature from Vaisala temp/rh probe (°C)
08: Relative Humidity (%)
09: Solar Radiation (watts/m ²)
10: Barometric Pressure (mb)
11: PM10 Battery Voltage
12: Aspirator Battery Voltage
13: (blank)
14: Yesterday's Daily Average Temperature (°C)
15: Yesterday's Daily Average Pressure (mb)
16: Day Before Yesterday's Daily Average Temperature (°C)
17: Day Before Yesterday's Daily Average Pressure (mb)

To Exit the Data Review Mode (and return to the data logging mode):

The keyboard display will read LOG1", and should then be removed from the ribbon cable.



CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS		Remarks	
Sampler: (Signature) <i>[Signature]</i>		Chain of Custody Tape No.					
Sample No./ Identification	Date	Filter Number Lab Number	Matrix	No. of Containers			
12/14/03 Main	12/14	405, 267	PM10 Filters	1	X	Filter Weights	
12/14/03 Collocated	12/14	405, 261		1	X	Do Not Weigh	
12/17/03 Main	12/17	405, 267		1	X		
12/17/03 Collocated	12/17	405, 266		1	X		
12/20/03 Main	12/20	405, 268		1	X		
12/23/03 Main	12/23	405, 265		1	X		
12/26/03 Main	12/26	405, 269		1	X		
12/26/03 Collocated	12/26	405, 264		1	X		
12/30/03 Main	12/30	405, 270		1	X		
1/1/04 Collocated	1/1/04	405, 263		1	X		
1/4/04 Main	1/4/04	405, 179		1	X	(No Main Sampler on 1/1/04)	
Relinquished by: (Signature) <i>[Signature]</i>		Date	Time	Received by: (Signature)		Date	Time
Relinquished by: (Signature)		1/8/04	11:00AM	Received by: (Signature)		Date	Time
Relinquished by: (Signature)		Date	Time	Received by laboratory: (Signature)		Date	Time

555 Absaraka
 Sheridan, Wyoming 82801
 Telephone (307) 674-7506

1633 Terra Avenue
 Sheridan, Wyoming 82801
 Telephone (307) 672-8945

1701 Phillips Circle
 Gillette, Wyoming 82718
 Telephone (307) 682-8181

2506 West Main Street
 Farmington, NM 87401
 Telephone (505) 326-4737

11183 Slate Hwy, 30
 College Station, TX 77845
 Telephone (979) 776-8945

Inter-Mountain Laboratories, Inc.
 90453

Figure A4. PM₁₀ Sampler Single-Point Calibration Data Sheet

PM₁₀ Sampler Single-Point Calibration Data Sheet
Rock Creek Air Monitoring Project

Operator MS Date/Time 12/15/03 1520
 PM₁₀ Sampler: Make/Model BGI PQ100 S/N 374
 Type of sampler (circle one): (Primary) Co-located _____
 Flow Check Device Delta-Cal S/N 0330 Calibration Date _____

Sampler Calibration Check "As Found" (before adjustment):

Ambient Temp -14.0 °C Ambient Press 953 mb
 Transfer Standard QC Flow Rate 16.69 L/min
 Sampler Indicated Flow Rate 16.70 L/min
 Design Flow Rate 16.67 L/min
 % Difference of Sampler from Transfer Standard QC Flow Rate _____ %
 % Difference of Transfer Std QC Flow Rate from Design Flow Rate (16.7 L/min) _____ %

Sampler Calibration Check "As Left" (after adjustment):

Was the PM10 sampler calibration adjusted? Yes No
 Are ambient temperature & pressure same as above? Yes No (If no, list temp & pressure)
 Transfer Standard QC Flow Rate 16.69 L/min
 Sampler Indicated Flow Rate 16.70 L/min
 Design Flow Rate 16.67 L/min
 % Difference of Sampler from Transfer Standard QC Flow Rate _____ %
 % Difference of Transfer Std QC Flow Rate from Design Flow Rate (16.7 L/min) _____ %

Comments:

PM₁₀ Sample Data Sheet

Rock Creek Air Monitoring Project

Operator _____

Sample Collection Date _____

Type of sample (circle one): Primary

Co-located Field blank

Cassette ID # _____

Filter ID # _____

Start Date/Time _____

Stop Date/Time _____

Total Elapsed Time _____

Actual Sample Volume _____ m³

Was a flow rate calibration performed before this test run? Yes No (*required weekly*)

Was the PM₁₀ impactor head cleaned before this test run? Yes No (*required monthly*)

Operator Comments (Unusual conditions, weather, etc.)

Rock Creek Ambient Air & Meteorological Monitoring Program Audit

Owner: Alaska Gull Co. Operator: Hoefler Consulting Co. Auditor: Fred Grudie Date: 07/19/14

APPENDIX F CALIBRATION CERTIFICATES

Certificate of Accuracy

Transfer Standard Type: Streamline Pro™ External Temperature Probe

This Streamline Pro MultiCal™ System External Temperature Probe,

Model No. SLPRT203, SERIAL NUMBER: T030510

Was compared to:

NIST Traceable Hg-in-glass thermometers, serial numbers 2J3106, 2Y6027, 3L9452. Miller & Weber Hg-in-glass thermometer sn 2J3106 and 2Y6027 are traceable to NIST Test No. 209621, Test Method ASTM E-77. 2J3106 is traceable through Standard No. 1S1262. 2Y6027 is traceable through Standard No. 9C8072. Miller & Weber Hg-in-glass thermometer sn 3L9452 is traceable to NIST Thermometer 40350, through Transfer Standards 3C4465 & 1Y9716.

Date: 05/19/03 Lab temperature: 21.6 °C
Barometric Pressure: 671.6 mmHg

Reference Standard (°C)	Transfer Standard (°C)	Difference from Reference (°C)	Transfer Standard Correction* (°C)
-18.6	-18.6	0.0	0.0
0.0	0.0	0.0	0.0
40.0	40.0	0.0	0.0

Note:

If no sign is given on the correction, the true temperature is higher than the indicated temperature. If the sign is negative, the true temperature is lower than the indicated temperature.

Reviewed: *RJS*

Date: 5-21-03

Chinook Engineering

a division of Inter-Mountain Laboratories, Inc.

555 Absaraka

Sheridan, Wyoming 82801 USA

(307) 672-7790

chinook@warmwind.com

Certificate of Calibration

This Streamline Pro™ MultiCal™ System, serial number: **M030713**
 was calibrated against the following NIST-traceable Reference Standards:

Flow: Critical Flow Venturis: sn10961, sn10962, sn10963
 Barometric Pressure: Precision Barometer: sn913930-M1
 Temperature: NIST Traceable Hg-in-glass thermometers,
 sn 2J3106, 2Y6027, 3L9452.

on date: 10/24/03
 on date: 10/21/03
 on date: 10/22/03

Quality Assurance:

Flow:

Reference Std. Q _{ref} (l/min)	Streamline Pro Q _{SLPro} (l/min)	Absolute difference (l/min)	% Diff. F.S.
0.86	0.85	0.00	-0.02%
3.00	3.01	0.01	0.05%
6.51	6.51	-0.01	-0.04%
9.99	9.99	0.00	-0.01%
13.51	13.51	0.01	0.04%
16.71	16.70	0.00	-0.03%
19.01	19.01	0.00	0.01%

BP:

Reference Std. BP _{ref} (atm)	Streamline Pro BP _{SLPro} (atm)	Absolute difference (atm)	% Diff. F.S.
0.750	0.750	0.000	0.00%
0.900	0.900	0.000	0.00%
1.050	1.050	0.000	0.00%

Temp.:

Reference Std. T _{ref} (°C)	Streamline Pro T _{SLPro} (°C)	Absolute difference (°C)	% Diff. F.S.*
0.0	0.0	0.0	0.00%
21.1	21.1	0.0	0.01%
41.5	41.5	0.0	0.01%

* based on absolute temp. scale (K)

Lab temp: 24.5 °C

Lab pressure: 0.875 atm

Reviewed: *RJD*

Date: 10-24-03

Chinook Engineering
 555 Absaraka
 Sheridan, Wyoming USA 82801
 (307) 672-7790
 www.chinookengineering.net



Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification

Hoefler Consulting Group, 701 Sesame Street, Suite 200, Anchorage, AK 99503 U.S.A. (RMA:919567)

Model No. 15-077-8

S/N 21164797

Manufacturer: Control Company

Probe: 15-077-7

221367383

Table with 5 columns: Standards/Equipment Used, Model, Serial No., Recall Date, NIST Reference. Rows include THERMOMETRICS TEMP PROBE, HART SCIENTIFIC 2563 MODULE, and HART PRECISION BATH.

Certificate Information

As Found: Out of Tolerance

As Left: In Tolerance

Procedure: CAL-06

Cal Date: 2/24/2003

Due Date: 2/24/2004

Technician: 68

Test Conditions: 25.5°C 44.0 RH 30 in Hg

Calibration Data (As Left)

Table with 4 columns: Standard, Reading, Units, Condition. Rows show standards at 0.001, 24.998, 60.005, and 99.999.

Accuracy: ±0.05°C (0 to 100°C) otherwise 0.1°C
Expanded Measurement Uncertainty at k=2: ± 0.013°C

This Digital Thermometer was calibrated against National Institute of Standards and Technology Traceable Instrumentation. A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated...

Wallace Berry

Wallace Berry, Technical Manager

Maintaining Accuracy

In our opinion, once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained...

Recalibration

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 308 West Edgewood Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com

Control Company is an ISO 17025 Accredited Calibration Laboratory. (A2LA) American Association for Laboratory Accreditation Certificate No. 1750.01.
Control Company is an ISO 9001 Accredited Company. (DNV) Det Norske Veritas Certificate No. CERT-01805-AQ-B01-RAB



Certificate of Calibration and Testing

Test Unit:			
Model:	18811	Serial Number:	CA02136
Description:	Anemometer Drive - 20 to 990 Rpm - Comprised of Models 18820A Control Unit & 18831A Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0

Clockwise and Counterclockwise rotation verified

- (1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
- (2) 27106D produces 10 pulses per revolution of anemometer shaft
- (3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

No Calibration Adjustments Required As Found As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 21 November 2003

Tested By EK



Certificate of Calibration and Testing

Test Unit:			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 Rpm - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured at the optical encoder output
- (2) Frequency output produces 32 pulses per revolution of the motor shaft
- (3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

No Calibration Adjustments Required As Found As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 21 November 2003

Tested By EJC

Houston Precision, Inc.
8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company: Hoeffler Consulting Group	Doc.# 6902
Address: 701 Sesame Street, Suite 200 Anchorage, AK 99503	Date: 3/3/2003
Contact: Chris Lindsey	PO#: None
Department:	Page: 1
Gage: Torque Watch	Control: 4864
Mfg: Waters	Model: 366-3
Location: Calibration Lab	Serial#: 4864
Received Condition: In Tolerance	

The instrument listed below meet or exceed published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. We conform to ANSI/NCLS Z540-1-1994, and ISO/IEC Guide 25/17025.

oz/in range	Reading Received	Reading after Adjust	Final Reading
0.009	0.010	None	0.010
0.150	0.152	None	0.152
0.024	0.025	None	0.025
0.030	0.031	None	0.031

COMMENTS:

Reference HPI S/O# 9950

Standards Used MFG.	Model	Certification
Torque Tester	7095	822/2622

Gage Status: PASS

Next Calibration Due: 3/3/2004

Certified by: Denice V. Mills

Signature: Denice V. Mills

This certificate is not valid unless all pages are present.

Laboratory Environmental Conditions: Temperature: 20C +/- 2C, Relative Humidity: between 40% and 60%.

Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994, ISO10012-1, ISO/IEC 17025, the ISO 9000/QS9000 series of quality standards and Houston Precision's Quality Manual dated: 6/15/01, Rev. 1.

- * If additional information regarding this calibration is required, please contact this laboratory.
- * All calibrations have been performed under the supervision and authority of Jose L. Rivera, Lab Manager
- * This Report of Test may not be reproduced except in full without express written permission of Houston Precision, Inc.

CERTIFICATE OF ACCURACY

REPORT # TW5680 CUSTOMER BUTLER AND LAND SALES ORDER 2487485-001

is is to certify that Honeywell Torque Watch Gauge, SN 5042 has been inspected to +/- 5% of full scale reading and found accurate.

The weight standards used for this calibration are traceable to NIST Report #822/254480. Calibration procedures are in compliance with ANSI/NCSL Z540-1-1994.

Test Equipment # GW151 Accuracy of Standard + 1% Calibration Procedure 76519-1 Rev. A

TORQUE WATCH GAUGE CALIBRATION CHART
HONEYWELL DATA INSTRUMENTS
 100 DISCOVERY WAY
 ACTON MA 01720
 978-264-9550

MODEL 366-0 SERIAL NUMBER 5042 P.O. # 79383

CALIBRATED BY S.Z. DATE 11/5/2003 APPROVED Shirley Zink

TEMPERATURE 70 DEG F RELATIVE HUMIDITY % 35

CALIBRATION POINT IN Oz. In. **ACTUAL WATCH READING**
CW CCW

SEE ATTACHED DATA	CW	CCW

TORQUE WATCH GAUGE WARRANTY

Each Torque Watch Gauge is designed, manufactured and scientifically tested in accordance with the highest standards of good engineering practice and is warranted by the manufacturer to be free of original defects of design, material, and workmanship. It is further warranted that, at the time of manufacture and test, each Torque Watch Gauge was within a specified accuracy tolerance. The liability of the manufacturer is limited to repairing or replacing, at its option, any defective Torque Watch Gauge, or part thereof, that is returned to the manufacturer's plant, transportation charges prepaid, within a period of ninety days from the date of original shipment.

The manufacturer maintains an adequate service facility to handle normal repairs and recalibration of Torque Watch Gauges. Routine repair and recalibration service, subsequent to the expiration of the warranty period, is handled on a flat rate basis per Gauge for Gauges that have not been damaged or abused through negligence and/or altered or repaired outside the manufacturer's plant.

LOW RANGE TORQUE WATCH DIAL SETTINGS vs. OUTPUT OF LOW RANGE STANDARD

MODEL: 366-0

SERIAL NUMBER: 5042

Units = oz in

Accuracy = 5 % FS

Set Dial To	Low Limit	CW Rdg	CCW Rdg	High Limit
.00	-.003	0.000	0.000	.003
.06	.030	.053	.056	.090
.12	.090	.113	.116	.150
.18	.150	.174	.176	.210
.24	.210	.237	.255	.270
.30	.270	.298	.291	.330
.36	.330	.356	.342	.390
.42	.390	.415	.414	.450
.48	.450	.478	.462	.510
.54	.510	.535	.544	.570
.60	.570	.595	.621	.630

Max pos error (% FS) = 3.4 % at .600
 Max neg error (% FS) = -3.0 % at .480

Torque Watch is a: PASS



Certificate of Calibration

Report #: 071103-X0740015 RMA #: 95-36712

Model #: HMI 41/HMP 45

Instrument Range: 0 to 100%RH

Calibration Date: Jul-11-2003

Serial #: X0650080/X0740015

Calibration Procedure: 11603100

Recommended Calibration Due Date: Jul-11-2004

Customer: HOEFLER CONSULT CORP.
City, State: ANCORAGE, AK

This unit was calibrated by adjusting its reading at 0% against dry nitrogen and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize dry nitrogen and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are maintained at a temperature of 22 °C ± 1 °C with relative humidity level of 50%RH ± 5%RH. The calibration uncertainty is presented at 95% confidence level, k=2. The calibration uncertainty is ± 0.6%RH.

Calibration Data (As Found)			
Out of Tolerance: Yes			
Temperature Calibration, °C			
Reference	Unit Under Test	Error	± Tolerance, °C
21.96	22.10	0.14	0.20
Humidity Calibration, %RH			
Reference	Unit Under Test	Error	± Tolerance, %
0.10	-0.40	-0.50	2.00
11.30	10.50	-0.80	2.00
32.60	30.50	-2.10	2.00
75.50	70.10	-5.40	2.00
Calibration Data (As Left)			
Temperature Calibration, °C			
Reference	Unit Under Test	Error	± Tolerance, °C
22.10	22.20	0.10	0.20
Humidity Calibration, %RH			
Reference	Unit Under Test	Error	± Tolerance, %
0.10	0.10	0.00	2.00
11.30	11.30	0.00	2.00
32.60	32.80	0.20	2.00
75.50	75.50	0.00	2.00

The results of this calibration are traceable to the National Institute of Standards and Technology through NIST Test Report Number TN267908-03, dated Oct. 22, 2002. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. ISO 9002 certified.

Calibration Equipment Used: Workstation 6			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	3267489	Oct. 16, 2002	Oct. 16, 2004
Fluke 45	7517016	Jan. 23, 2003	Jan. 23, 2004
HMK13B	P3940001	May. 13, 2003	Nov. 13, 2003
HMP233	V4310009	Apr. 23, 2003	Jul. 23, 2003

Ambient Conditions	
Temperature:	22.00 °C
Humidity:	51.15 %RH

Copy Françoise
Approved By

Edwige Mehu
Technical Operator
Edwige Mehu

Mailing address:
Vaisala Inc.
100 Commerce Way
Woburn, MA 01801-1068

Tel. (781) 933-4500
Fax (781) 933-8029
<http://www.vaisala.com>

Second Quarter 2004 Audit Report

for the

**Rock Creek Ambient Air and Meteorological Monitoring
Project**

Nome, Alaska

August 2004

prepared for

Alaska Gold Company

prepared by

Hoefler Consulting Group
3401 Minnesota Drive, Suite 300
Anchorage, Alaska 99503
907-563-2137

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1.0 INTRODUCTION

Hoefler Consulting Group currently operates a meteorological and air monitoring station on behalf of Alaska Gold Company at the Rock Creek Mine Development Site, 7 miles north of Nome, Alaska at 64° 37' N latitude and 165° 26' W longitude. The location of the station is shown in Figure 1-1.

The station is made up of a 12-meter tower equipped with meteorological sensors and two particulate matter samplers. The meteorological monitoring tower meets the requirements of the Prevention of Significant Deterioration (PSD) program administered by the Alaska Department of Environmental Conservation (ADEC).

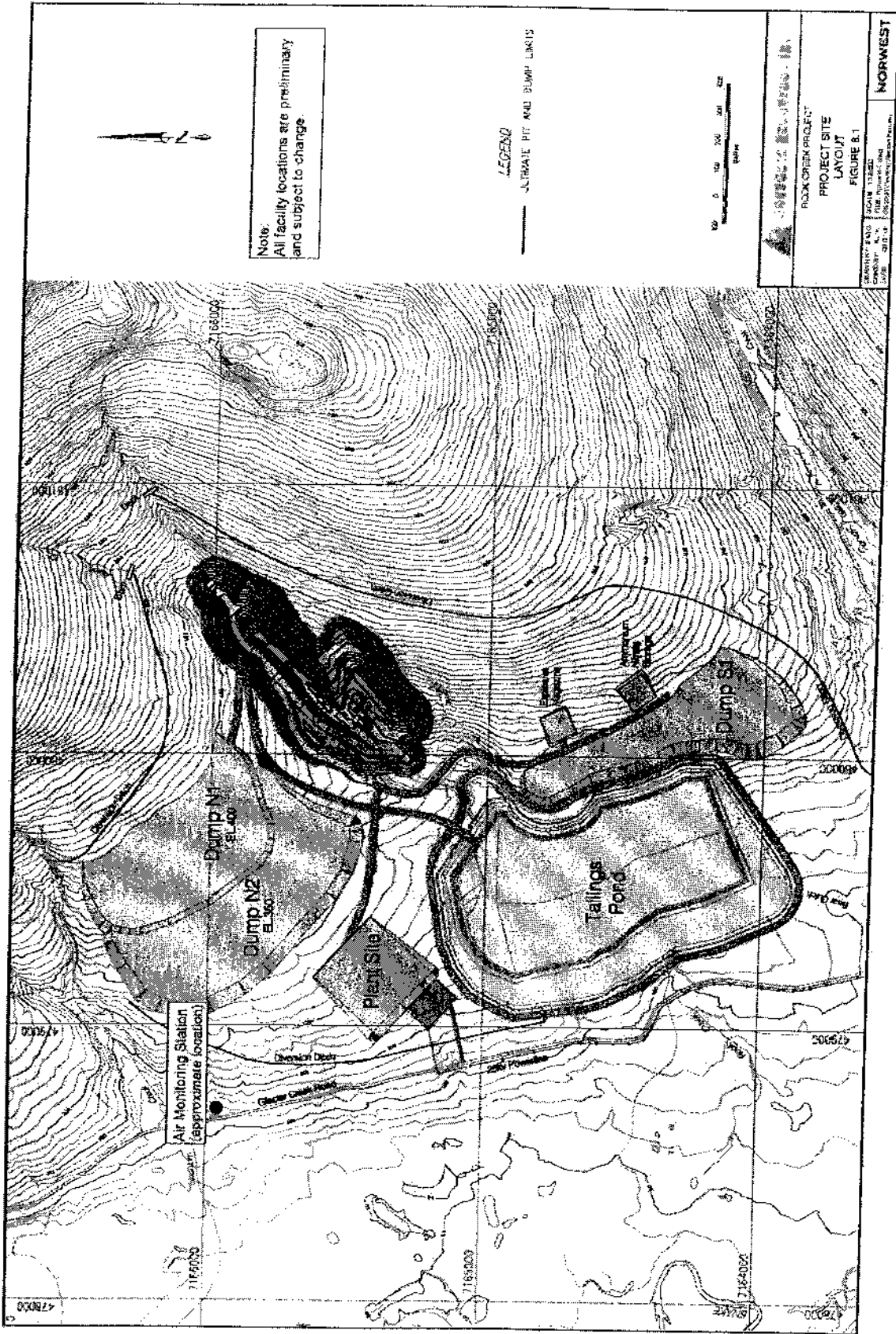
The two BGI PQ100 samplers measure the ambient concentration of aerosols with an effective aerodynamic diameter of 10 μm or less (PM_{10}). The meteorological sensors measure the following parameters:

- Wind Speed: Climatronics Model F460 3-cup anemometer with Lexan cups
- Wind Direction: Climatronics Model F460 wind vane
- Temperature and ΔT : Met One 062MP thermometers (at 2 and 10 meters)
- Relative Humidity: Vaisala HMP45AC Relative Humidity Probe
- Barometric Pressure: Vaisala PTB101B Barometer

The anemometer and wind vane are attached to the top of the tower on a crossarm, the thermistors are mounted at 2 meters inside of an RM Young motor-aspirated radiation shield. The collected data are stored onsite in a Campbell CR10X Data Acquisition System (DAS). The station is powered by solar panels and a thermal electric generator connected to deep cycle 12V lead acid batteries. The DAS is accessed for data retrieval and programming either in the field with a PC or through the cellular phone attached to the DAS.

This document reports the results of the audit of the station conducted on April 27 & 28, 2004. This report has been prepared for Alaska Gold as a step towards demonstrating that the meteorological data collected by the station meets the applicable PSD requirements as set forth by the U.S. Environmental Protection Agency (EPA).

Figure 1-1. Map of the Rock Creek Development and Surrounding Area



2.0 PERFORMANCE AUDIT

A performance audit was conducted on all required parameters measured by the station. Data sheets from the performance audit can be found in Appendix A.

2.1 Performance Audit Methodology

During the performance audit, the output of each meteorological sensor was read with a CR10X portable keyboard display. The results given by each meteorological sensor were compared to the results given by the calibrated audit instruments. The differences between the station and the audit instruments were compared with established PSD limits to determine the accuracy of each sensor. Threshold torques for wind speed and direction were manually measured and compared with established PSD limits. Table 2-1 summarizes the audit methods and limits used to verify each parameter.

Table 2-1. Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	PSD Limit
DAS Time	NOAA Clock	$\leq \pm 5$ minutes from AST
Wind Direction Alignment	GPS	$\leq \pm 5^\circ$ from true bearing per point
Wind Direction Accuracy	Linearity tester and cross-arm square	$\leq \pm 5^\circ$ per audit point
Wind Direction Linearity		$\leq 3^\circ$ mean absolute average
Wind Direction Torque	Torque watch	≤ 0.104 oz-in (11 g-cm)
Wind Speed Accuracy	Synchronous motor	$\leq \pm 0.2$ m/s $\pm 5\%$ observed
Wind Speed Torque	Torque watch	≤ 1.0 g-cm
Temperature Accuracy	NIST thermometer	$\leq 0.5^\circ\text{C}$
Temperature Difference (ΔT)	Co-location of 2- and 10-meter thermometers	$\leq 0.1^\circ\text{C}$
Humidity (as dew point)	NIST RH Probe	$\pm 1.5^\circ\text{C}$
Barometric Pressure	NIST Barometer	$\leq \pm 3$ mb

2.1.1 Data Acquisition System

An audit of the DAS was conducted by comparing of all DAS outputs to the audit standards, as described below. The DAS time was checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado via a global position system (GPS).

2.1.2 Temperature

The two air temperature thermometers (2-meter and 10-meter) were audited against a National Institute of Standards and Technology (NIST) traceable digital thermometer to determine system accuracy. The 2- and 10-meter thermometers' readings were compared to the NIST traceable digital thermometers and to each other in an ice/water bath and water baths of varying temperatures.

2.1.3 Wind Direction

The wind direction sensor was audited "as-found" to determine the accuracy of the alignment with respect to true north (true azimuth alignment) using a GPS handheld unit. A Garmin GPS 12 CX model was used to estimate the position of the auditor with respect to the tower. Initially, a waypoint is marked into the GPS at the tower's position. Next, using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. In reference to the aligned wind vane, the auditor's bearing on the GPS with respect to the waypoint marking the tower's position provides the true direction of the wind vane. The GPS-derived direction is then compared with the output from the DAS to calculate a percent difference.

After the completion of the "as-found" audit, the wind instruments were removed from the tower, and further tests were performed. Wind direction linearity and accuracy were determined by mounting the wind vane on a Climatronics linearity check wheel and comparing the DAS output with the actual orientation of the vane in 30° increments.

The wind direction threshold value was tested using a Waters torque watch to measure wind vane torque. The highest torque required to turn the wind vane was compared to the established limits.

The wind vane sensor was placed back on the tower after all necessary audits were completed. A final "as-left" audit was conducted on the alignment of the sensor, identical to the "as-found" audit carried out prior to removing the sensor from the tower.

2.1.4 Wind Speed

The anemometer was audited to determine relative accuracy for wind speed and sensor torque threshold. First, the spinning shaft of the anemometer was rotated at several different known rates by an attached variable-speed RM Young synchronous motor. Each rate of revolution is equivalent to a speed, the relationship being given by the manufacturer's anemometer

calibration formulas (Appendix B). The equivalent speed of the synchronous motor was compared with the instrument output.

Next, a Waters torque watch was attached to the spinning shaft of the anemometer. Several torque readings were made within different quadrants along the axis of rotation of the shaft. The maximum reading was recorded for the threshold of force required to turn the spinning shaft of the anemometer.

2.1.5 Humidity

The station humidity probe's temperature and relative humidity readings at ambient conditions were converted to a dew point and compared to dew point indicated by a NIST traceable humidity probe.

2.1.6 Barometric Pressure

The station barometer reading was compared at ambient conditions to the reading from a NIST traceable digital barometer.

2.1.7 PM₁₀ Sampler Flow Rate

The sampler flow rates were measured by a NIST traceable flow transfer standard (FTS).

2.2 Performance Audit Results

JR Wilcox conducted the audit on April 27 & 28, 2003. Each sensor was challenged with certified audit equipment, and the starting torques of the anemometer and wind vane were tested. The sensors were tested for compliance with the PSD performance accuracy requirements and starting torque threshold limits. A summary of the performance audit results is provided in Table 2-2 for the met tower and in table 2-3 for the PM samplers.

After the 10-meter temperature was re-installed on the tower, it was discovered that the audit temperature sensor and probe had been due for calibration on 2/24/04. This created uncertainty about the accuracy of the 2-meter and 10-meter tests, but not about the ΔT since this parameter does not involve the audit thermometer. The 2-meter thermometer was removed and retested using the site calibrator's temperature sensor and probe. The results confirmed the accuracy of the 2-meter thermometer. Since the difference in temperature readings between the two site thermometers was previously established to be negligible, this result establishes the accuracy of the 10-meter thermometer as well.

Complete audit reports are provided in Appendix A. Certification sheets of audit instruments are provided in Appendix B. Manufacturer data sheets for the meteorological equipment that display wind speed calibration formulas and starting torques for wind direction and wind speed are provided in Appendix C.

Table 2-2. Met Tower Audit Summary

Parameter	PSD Limit	Error ¹	Pass/Fail
DAS Time (Min:Sec)	≤±5:00	4 sec	Pass
Wind Direction Alignment (as found)	≤±5°	4°	Pass
Wind Direction Alignment (as left)	≤±5°	4°	Pass
Wind Direction Torque ²	≤0.104 oz-in	0.021	Pass
Wind Direction Accuracy	≤±5°	2.2°	Pass
Wind Direction Linearity	≤3°	0.8°	Pass
Wind Speed Accuracy	≤±0.2 m/s ±5%	0.00 m/s	Pass
Wind Speed Torque	≤0.0049 oz-in	< 0.003 oz-in	Pass
Temperature Accuracy (2-meter)	≤±0.5°C	0.09°C	Pass
Temperature Accuracy (10-meter)	≤±0.5°C	0.09°C	Pass
Temperature Difference (ΔT)	≤±0.1°C	0.00°C	Pass
Humidity (as dew point)	± 1.5°C	0.5°C	Pass
Barometric Pressure	≤± 3 mb	1.03 mb	Pass

In order to be within recommended accuracy, the sampler flow rate as measured by a NIST-traceable FTS should be within 7% of the flow rate indicated by the sampler and 10% of the sampler's design flow rate (16.67 L/min). The audits were conducted under ambient conditions of 3.9°C and 994 mb.

Table 2-3. PM Sampler Audit Summary

Sampler	% Difference		Pass/Fail
	FTS vs. Indicated Flow	FTS vs. Design Flow	
Primary	4.7%	4.7%	Pass
Co-located	3.6%	3.6%	Pass

¹ When several readings were taken, the maximum error is reported.

² Torque measurement after replacement of the wind direction sensor.

3.0 COMMENTS AND RECOMMENDATIONS

- All met station sensor & PM₁₀ sampler parameters passed their audits, with the exception of wind vane torque, which was marginally higher than the recommended value. The problem was traced to the wind vane potentiometer. A new wind direction sensor was shipped up from Anchorage the evening of the 27th and installed the morning of the 28th. An audit of the new sensor showed it to be well within tolerance for all parameters. The serial number of the original wind direction sensor was 4567, it was replaced with S/N 4007.

- On the 28th, Robbie O'Conner recovered the 5/27/2004 primary & collocated PM10 filter samples, cleaned the samplers, and set up the next sample runs. In conversations with Robbie he indicated that he was familiar and comfortable with the routing operation and maintenance of the samplers, and that things had been running smoothly for the last few months, after the initial startup difficulties.

4.0 REFERENCES

State of Alaska. Alaska Department of Environmental Conservation. State of Alaska Quality Assurance Manual for Ambient Air Quality Monitoring. Juneau, AK: ADEC, 1996.

United States. Environmental Protection Agency. Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD). EPA-450/4-87-007. Research Triangle Park, NC: OAQPS, 1987.

United States. Environmental Protection Agency. Meteorological Monitoring Guidance for Regulatory Modeling Applications. EPA-454-99-005. Research Triangle Park, NC: OAQPS, 2000.

United States. Environmental Protection Agency. Quality Assurance Handbook for Air Pollution Measurement Systems: Vol. IV -- Meteorological Measurements. EPA-600/4-90-003. Research Triangle Park, NC: ORD, 1995.

Yamartino, R.J. "A Comparison of Several "Single-Pass" Estimators of the Standard Deviation of Wind Direction." Journal of Climate Applied Meteorology 23 (1984): 1362-66.

Appendix A

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
 Auditor: JR Wilcox
 Date: 5/27/04

1. TIME CHECK

DAS Time: 11:30:56 AST
 Actual Alaska Standard Time: 11:31:00 AST (12:31:00 ADT)
 Difference Between Times: 4 seconds
 Recommended Accuracy: ± 5 minutes

2. WIND DIRECTION

Wind Direction Calibration Start/Completion Time (AST): 11:00-19:00 5/27, 7:00-9:30 5/28

Wind Direction Sensor:
 Make: Climatronics
 Model: F460 #100076
 S/N: 4567(vane #1398)

WD Calibration Instruments:
 Make: Climatronics WD Linearity Test Jig Make: Garmin
 Model: 101986 Model: GPS
 S/N: 145 S/N: _____

WIND VANE ALIGNMENT AS FOUND

	GPS Reading (°)	DAS Reading (°)	Difference (°)
Point 1 (tail)	324	326	+2
Point 2 (tail)	69	73	+4
Point 3 (tail)	116	120	+4
Point 4 (tail)	192	195	+3

Recommended Accuracy: $\pm 5^\circ$ from landmark (alignment)

WIND VANE ALIGNMENT AS LEFT

	GPS Reading (°)	Error	
		DAS (°)	Difference (°)
Point 1 (tail)	0	1.0	+1.0
Point 2 (tail)	42	41.2	-0.8
Point 3 (tail)	124	127.6	+3.6
Point 4 (tail)	253	254.0	+1.0

Recommended Accuracy: $\pm 5^\circ$ from landmark (alignment)

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK

Auditor: JR Wilcox

Date: 5/27/04

WIND DIRECTION TORQUE

Starting Torque: 0.12 oz-in

Just over recommended manufacturer tolerance, replaced wind direction sensor S/N 4567 with S/N 4007, (kept same vane) on 5/28/04.

Final Torque: 0.021 oz-in

Recommended Accuracy: Starting torque of 0.104 oz-in (Climatronics model F460)

WIND DIRECTION LINEARITY

Wind Vane Position (°)	DAS Output (°)	Error (°)	Wind Vane Position (°)	DAS Output (°)	Error (°)
30	29.5	0.5	210	210.2	0.2
60	59.9	0.1	240	240.3	0.3
90	90.3	0.3	270	270.6	0.6
120	120.9	0.9	300	301.7	1.7
150	151.3	1.3	330	332.2	2.2
180	181.0	1.0	360	0.1	0.1
Mean Absolute Error				$\frac{\sum x }{n}$	0.8

Recommended Accuracy: $\pm 5^\circ$ (accuracy) and $\leq 3^\circ$ Mean Absolute Error (linearity)

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
 Auditor: JR Wilcox
 Date: 5/27/04

3. WIND SPEED

Anemometer Calibration Start/Completion Time (AST): 15:15 AST

Anemometer:

Make: Climatronics
 Model: F460 #100075
 S/N: 4839 (cupset #2000)

Calibration Instruments:

Make: RM Young
 Model: Anemometer Drive
 S/N: _____

Make: RM Young
 Model: _____
 S/N: _____

WIND SPEED LINEARITY

Synchronous Motor (rpm)	Synchronous Motor (m/s)	DAS (m/s)	Difference (m/s)	Error
0 rpm	0.22	0.22	0.00	0%
100 rpm	2.57	2.57	0.00	0%
200 rpm	4.92	4.92	0.00	0%
400 rpm	9.62	9.62	0.00	0%
800 rpm	19.02	19.02	0.00	0%
Mean Absolute Error				0%

Recommended Accuracy: $\pm (0.2 \text{ m/s} + 5\% \text{ of observed speed})$, with a maximum error of 2.5 m/s

Transfer Function (rate of rotation to wind speed):

Climatronics F460 w/ HD-Alum cups $\text{m/s} = ((\text{rpm}/42.55) + 0.22)$

ANEMOMETER TORQUE

Starting Torque: <0.003 oz-in

Bearings Replaced? N/A

Final Torque: N/A

Recommended Accuracy: Starting torque of 0.0049 oz-in (Climatronics model F460)

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK

Auditor: JR Wilcox

Date: 5/27/04

4. 2-METER AND 10-METER TEMPERATURE AND ΔT :

Temperature Audit Start/Completion Time (AST): 10:50/11:19 AST

Thermometers:

2-Meter Temperature

Make: Met One

Model: 062MP

S/N: C4537 ID1

10-Meter Temperature

Make: Met One

Model: 062MP

S/N: C4537 ID2

Temperature Calibration Instrument (NIST Traceable):

Make: Fisher Scientific Thermometer

Model: _____

S/N: 21164797

Calibration Date: 2/24/03

Make: NIST Traceable Probe

Model: _____

S/N: 221367383

Calibration Date: 2/24/03

2-METER THERMOMETER ACCURACY

Temperature	NIST Temperature (°C)	DAS Temperature (°C)	Error (°C)
Ice Bath	0.03	0.09	+0.06
Warm Water	10.93	10.84	-0.09
Hot Water	21.28	21.25	-0.03

Recommended Accuracy: $\pm 0.5^\circ\text{C}$

10-METER THERMOMETER ACCURACY

Temperature	NIST Temperature (°C)	DAS Temperature (°C)	Error (°C)
Ice Bath	0.03	0.09	+0.06
Warm Water	10.93	10.84	-0.09
Hot Water	21.28	21.25	-0.03

Recommended Accuracy: $\pm 0.5^\circ\text{C}$

TEMPERATURE DIFFERENCE (ΔT) ACCURACY

Temperature Point	NIST ΔT (°C)	DAS ΔT (°C)	Error (°C)
Ice Bath	0.00	0.00	0.00
Warm Water	0.00	0.00	0.00
Hot Water	0.00	0.00	0.00

Recommended Accuracy: $\pm 0.1^\circ\text{C}$

Note: After the 10-meter temperature was re-installed on the tower, it was discovered that the audit temperature sensor and probe had been due for calibration on 2/24/04. This created uncertainty about the accuracy of the 2-meter and 10-meter tests, but not about the ΔT since this parameter does not involve the audit thermometer.

The 2-meter thermometer was removed and retested using the site calibrator's temperature sensor

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
 Auditor: JR Wilcox
 Date: 5/27/04

and probe. The results confirmed the accuracy of the 2-meter thermometer. Since the difference in temperature readings between the two site thermometers was previously established to be negligible, this result establishes the accuracy of the 10-meter thermometer as well.

Temperature Calibration Instrument (NIST Traceable):

Make: <u>Fisher Scientific Thermometer</u>	Make: <u>NIST Traceable Probe</u>
Model: _____	Model: _____
S/N: <u>285299</u>	S/N: <u>230006464</u>
Calibration Date: <u>2/9/05</u>	Calibration Date: <u>1/22/05</u>

2-METER TEMPERATURE SENSOR RE-CHECK

Temperature	NIST Temperature (°C)	DAS Temperature (°C)	Error (°C)
Ice bath	0.1	0.18	0.08
Cool water	6.3	6.32	0.02
Warm water	15.4	15.44	0.04
Hot water	32.7	32.66	0.04

Recommended Accuracy: $\pm 0.5^{\circ}\text{C}$

5. RELATIVE HUMIDITY

Relative Humidity Audit Start/Completion Time (AST): 12:00

Relative Humidity Sensor

Make: Vaisala
 Model: HMP45AC
 S/N: Y3940088

Relative Humidity Audit Instruments

Make: <u>Vaisala</u>	Make: <u>Vaisala</u>
Model: <u>HMI41</u>	Model: <u>HMP41</u>
S/N: <u>X0650080 (indicator)</u>	S/N: <u>X0740015 (probe)</u>
Calibration Due: <u>7/11/04</u>	Calibration Due: <u>7/11/04</u>

NIST Temp (°C)	NIST RH (%)	NIST Dew Point (°C)	DAS RH (%)	DAS Dew Point (°C)	Dew Point Error (°C)
6.9	67.3	1.3	65.3	0.8	0.5

Recommended Accuracy: $\pm 1.5^{\circ}\text{C}$ of dew point temperature

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
Auditor: JR Wilcox
Date: 5/27/04

6. BAROMETRIC PRESSURE

Barometric Pressure Sensor:

Make: Vaisala
Model: PTB101B
S/N: Y213007

Barometric Pressure Audit Instruments

Make: Prejel
Model: Alti Plus
S/N: 27806
Calibration Due: 4/17/04

Audit Probe (in Hg)	Audit Probe (mb)	DAS (mb)	Difference (mb)
29.34	993.57	994.60	1.03

Recommended Accuracy: ± 3 mb

Comments: _____

PM₁₀ Sampler Audit Data Sheet

Rock Creek Air Monitoring Project

Operator JR Wilcox Date/Time of Audit 5/28/04 9:30 ADT

PM₁₀ Sampler Make/Model BGLPQ100 S/N 374

Type of sampler (circle one) Primary Co-located

Flow Check Device Bios S/N 6402 Calibration Date 11/25/03

Ambient Temp 3.9 °C Ambient Press 29.34 inHg
~~mb~~

Flow Transfer Standard Flow Rate 17.40 L/min

Sampler Indicated Flow Rate 16.67 L/min

Sampler Design Flow Rate 16.67 L/min

% Difference of Sampler from Transfer Standard QC Flow Rate 4.7 %

% Difference of Transfer Standard Flow Rate from Design Flow Rate 4.7 %

Comments:

PM₁₀ Sampler Audit Data Sheet

Rock Creek Air Monitoring Project

Operator JR Wilcox Date/Time of Audit 5/28/04 9:50 ADT

PM₁₀ Sampler: Make/Model BGI PQ100 S/N 373

Type of sampler (circle one): Primary Co-located

Flow Check Device Bios S/N 6402 Calibration Date 11/25/03

Ambient Temp 3.9 °C Ambient Press 29.34 in Hg
mb

Flow Transfer Standard Flow Rate 17.27 L/min

Sampler Indicated Flow Rate 16.67 L/min

Sampler Design Flow Rate 16.67 L/min

% Difference of Sampler from Transfer Standard QC Flow Rate 3.6 %

% Difference of Transfer Standard Flow Rate from Design Flow Rate 3.6 %

Comments:

Appendix B



Calibration complies with
ISO 17025

Cert. No. 4001: 432778

Traceable® Certificate of Calibration for Temperature Probe

Instrument Identification

Model No.61220-604

S/N 230006463

Manufacturer:Control Company

Standards Used	Model	Serial No.	Recall Date	NIST Reference
Thermometrics Temp Probe	ES225	128	6/26/2004	A3617063
Hart Scientific 2563 Module	2563	A27129	7/22/2004	1000153920
Hart Precision Bath	7011	93139		

Certificate Information

As Found: In Tolerance

Cal Date: 1/23/2004

As Left: In Tolerance

Due Date: 1/22/2005

Procedure: CAL-03

Technician: 68

Test Conditions: 24.5°C 38.0 RH 30 in Hg

Calibration Data (As Left)

Standard	Reading	Units	Condition
25.001	25.0	°C	In Tolerance

Accuracy: ±0.1°C

Expanded Measurement Uncertainty at k=2: ± 0.059°C

This Temperature Probe was calibrated against National Institute of Standards and Technology Traceable Instrumentation.

A Test Uncertainty Ratio of at least 8.2:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full.

Wallace Berry, Technical Manager

Maintaining Accuracy

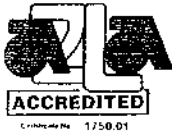
In our opinion, once calibrated your Temperature Probe should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Temperature Probes change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 308 West Edgewood Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com

Control Company is an ISO 9001 Accredited Company. (DNV) Det Norske Veritas Certificate No. CERT-01805-AQ-HOU-RAB.



Calibration complies with
ISO 17025

Audit 2

Cert. No. 4000: 295045



Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification

Hoeffler Consulting Group, 701 Sesame Street, Suite 200, Anchorage, AK 99503 U.S.A. (RMA:919567)

Model No.15-077-8

S/N 21164797

Manufacturer:Control Company

Probe: 15-077-7

221367383

Standards/Equipment Used	Model	Serial No.	Recall Date	NIST Reference
THERMOMETRICS TEMP PROBE	ES225	128	6/10/2003	A252127
HART SCIENTIFIC 2563 MODULE	2563	A27129	7/11/2003	A2711028
HART PRECISION BATH	7011	93139		

Certificate Information

As Found: Out of Tolerance

Cal Date: 2/24/2003

As Left: In Tolerance

Due Date: 2/24/2004

Procedure: CAL-06

Technician: 68

Test Conditions: 25.5°C 44.0 RH 30 in Hg

Calibration Data (As Left)

Standard	Reading	Units	Condition
0.001	0.001	°C	In Tolerance
24.998	25.000	°C	In Tolerance
60.005	60.001	°C	In Tolerance
99.999	99.994	°C	In Tolerance

Accuracy: $\pm 0.05^{\circ}\text{C}$ (0 to 100°C) otherwise 0.1°C

Expanded Measurement Uncertainty at $k=2$: $\pm 0.013^{\circ}\text{C}$

This Digital Thermometer was calibrated against National Institute of Standards and Technology Traceable Instrumentation.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor $k=2$ to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full.

Wallace Berry

Wallace Berry, Technical Manager

Maintaining Accuracy

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CONTROL COMPANY 308 West Edgewood Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com

Control Company is an ISO 17025 Accredited Calibration Laboratory. (A2LA) American Association for Laboratory Accreditation Certificate No. 1750.01.
Control Company is an ISO 9001 Accredited Company. (DNV) Det Norske Veritas Certificate No. CERT-01805-AQ-HOU-RA1.

LOW RANGE TORQUE WATCH DIAL SETTINGS vs. OUTPUT OF LOW RANGE STANDARD

MODEL: 366-0 SERIAL NUMBER: 5042 Units = oz in Accuracy = 5 % FS

Set Dial To	Low Limit	CW Rdg	CCW Rdg	High Limit
.00	-.003	0.000	0.000	.003
.06	.030	.053	.056	.090
.12	.090	.113	.116	.150
.18	.150	.174	.176	.210
.24	.210	.237	.255	.270
.30	.270	.298	.291	.330
.36	.330	.356	.342	.390
.42	.390	.415	.414	.450
.48	.450	.478	.462	.510
.54	.510	.535	.544	.570
.60	.570	.595	.621	.630

Max pos error (% FS) = 3.4 % at .600

Max neg error (% FS) = -3.0 % at .480

Torque Watch is a: PASS

CERTIFICATE OF ACCURACY

REPORT # TW5680 CUSTOMER BUTLER AND LAND SALES ORDER 2487485-001

This is to certify that Honeywell Torque Watch Gauge, SN 5042 has been inspected to +/- 5% of full scale reading and found accurate.

The weight standards used for this calibration are traceable to NIST Report #822/254480. Calibration procedures are in compliance with ANSI/NCSL Z540-1-1994.

Test Equipment # GW151 Accuracy of Standard + 1% Calibration Procedure 76519-1 Rev. A

TORQUE WATCH GAUGE CALIBRATION CHART
HONEYWELL DATA INSTRUMENTS
 100 DISCOVERY WAY
 ACTON MA 01720
 978-264-9550

MODEL 366-0 SERIAL NUMBER 5042 P.O. # 79383

RATED BY S.Z. DATE 11/5/2003 APPROVED Shirley Zink

TEMPERATURE 70 DEG F RELATIVE HUMIDITY % 35

CALIBRATION POINT IN **ACTUAL WATCH READING**
 Oz. In. CW CCW

SEE ATTACHED DATA		

TORQUE WATCH GAUGE WARRANTY

Each Torque Watch Gauge is designed, manufactured and scientifically tested in accordance with the highest standards of good engineering practice and is warranted by the manufacturer to be free of original defects of design, material, and workmanship. It is further warranted that, at the time of manufacture and test, each Torque Watch Gauge was within a specified accuracy tolerance. The liability of the manufacturer is limited to repairing or replacing, at its option, any defective Torque Watch Gauge, or part thereof, that is returned to the manufacturer's plant, transportation charges prepaid, within a period of ninety days from the date of original shipment.

The manufacturer maintains an adequate service facility to handle normal repairs and recalibration of Torque Watch Gauges. Routine repair and recalibration service, subsequent to the expiration of the warranty period, is handled on a flat rate basis per Gauge for Gauges that have not been damaged or abused through negligence and/or altered or repaired outside the manufacturer's plant.



Calibration complies with
ISO 17025

Cert. No. 4000: 438066

Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification

Model No. 61220-601

S/N 285299

Manufacturer: Control Company

Standards Used	Model	Serial No.	Recall Date	NIST Reference
Thermistor Simulation Standard	CC001	98179306	10/8/2004	1000158493

Certificate Information

As Found: In Tolerance

Cal Date: 2/10/2004

As Left: In Tolerance

Due Date: 2/9/2005

Procedure: CAL-4000A

Technician: 76

Test Conditions: 23.0°C 52.0 RH 30 in Hg

Calibration Data (As Left)

Standard	Reading	Units	Condition
5	4.9	°C	In Tolerance
25	24.9	°C	In Tolerance
45	45.1	°C	In Tolerance
100	100.1	°C	In Tolerance

Accuracy: ±0.2°C

Expanded Measurement Uncertainty at k=2: ± 0.059°C

This Digital Thermometer was calibrated against National Institute of Standards and Technology Traceable Instrumentation.

A Test Uncertainty Ratio of at least 3.4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full.

Wallace Berry

Wallace Berry, Technical Manager

Maintaining Accuracy

In our opinion, once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 308 West Edgewood Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com

Control Company is an ISO 9001 Accredited Company. (DNV) Det Norske Veritas Certificate No. CERT-01805-AQ-HOU-RAB.



calibration certificate

Report No. 22001
 Product DCL-MH
 Serial No. 6402
 Mfg. Date November 24, 2003

DryCal DC1, DC2 and DC Lite Flow Calibrators are all calibrated using the same methodology. Each device is dynamically tested by comparing it to a Laboratory Standard primary piston prover of much higher accuracy, ($\pm 0.25\%$) but of similar operating principles. Flow generators of $\pm 0.003\%$ stability (included in prover accuracy) are used for the comparison. Use of provers of similar construction to the devices under test assures the validity of the flow generator as a transfer standard.

The primary Laboratory Standards are qualified by direct measurement of their dimensions (diameter, length of measured path, time base) against NIST-traceable gauges and instruments. A rigorous analysis of their accuracy in accordance with the International Guide to Uncertainty in Measurements has been performed assuring their traceable accuracy. Test procedures assure temperature matching of the Laboratory Standards and the devices under test.

Calibration Standards Used

Asset Number	Description	Cal Date	Due Date
ML-500-10 1064	ML-500 Low Flow Cell	11/14/2003	11/14/2004
ML-500-24 1086	ML-500 Medium Flow Cell	11/14/2003	11/14/2004
ML-500-44 1070	ML-500 High Flow Cell	11/14/2003	11/14/2004

All units calibrated in accordance with Bios International Corporation test number PR01-10 Rev B.

Expanded uncertainty $\pm 0.25\%$ at two times coverage.

Shipped Test Data:

Laboratory Environment:

Temperature Ambient: 21.98°C Pressure Ambient: 754.2 mmHg Humidity Ambient: 34 %

Instrument Reading ml/min	Lab Standard Reading ml/min	Lab Standard Unit #	Deviation Percentage	Allowable Deviation	Condition Shipped
201.6	200	1064	0.80	1.00%	in tolerance
504.2	500.4	1086	0.76	1.00%	in tolerance
2017	2002	1070	0.75	1.00%	in tolerance
5049	5002.5	1070	0.93	1.00%	in tolerance
17140	17025	1070	0.68	1.00%	in tolerance

Calibration Notes 0

By: Sonia Otero
 Sonia Otero
 Calibration Technician

Calibration Date: 11/25/03

This report shall not be reproduced except in full, without the written approval of Bios International Corporation. Results relate to the items calibrated.

All calibrations performed in accordance with ISO 17025.

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Transfer standard model: Pretel AltiPlus A2

Serial number: 27806

submitted by/owner: Hoefler Consulting Group

Was compared to Precision Absolute Reference Barometer:

Model number: 355-AI0900

Serial number: 913930-M1

Certified accuracy of ± 0.007 "Hg

NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 4/17/2004

Lab temperature

71.5

°F

Lab pressure

652.30

mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*
24.00	24.06	0.06	-0.06
25.68	25.74	0.06	-0.06
26.00	26.06	0.06	-0.06
28.00	28.06	0.06	-0.06
30.00	30.06	0.06	-0.06

Note:

If no sign is given on the correction, the true pressure is higher than the indicated pressure. If the sign is negative, the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES NO

Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*

Reviewed: RLL

Date: 4-17-04

Chinook Engineering

a division of Inter-Mountain Laboratories, Inc.

555 Absaraka Street

Sheridan, Wyoming 82801 USA

(307) 672-7790

chinook@imlinc.com



Certificate of Calibration

Report #: 071103-X0740015 RMA #: 95-36712
 Model #: HMI 41/HMP 45
 Instrument Range: 0 to 100%RH

Calibration Date: Jul-11-2003
 Serial #: X0650080/X0740015

Calibration Procedure: 11603100
 Recommended Calibration Due Date: Jul-11-2004

Customer: HOEFLER CONSULT CORP.
 City, State: ANCORAGE, AK

This unit was calibrated by adjusting its reading at 0% against dry nitrogen and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize dry nitrogen and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are maintained at a temperature of 22 °C ± 1 °C with relative humidity level of 50%RH ± 5%RH. The calibration uncertainty is presented at 95% confidence level, k=2. The calibration uncertainty is ± 0.6%RH.

Calibration Data (As Found)			
Out of Tolerance: Yes			
Temperature Calibration, °C			
Reference	Unit Under Test	Error	± Tolerance, °C
21.96	22.10	0.14	0.20
Humidity Calibration, %RH			
Reference	Unit Under Test	Error	± Tolerance, %
0.10	-0.40	-0.50	2.00
11.30	10.50	-0.80	2.00
32.60	30.50	-2.10	2.00
75.50	70.10	-5.40	2.00
Calibration Data (As Left)			
Temperature Calibration, °C			
Reference	Unit Under Test	Error	± Tolerance, °C
22.10	22.20	0.10	0.20
Humidity Calibration, %RH			
Reference	Unit Under Test	Error	± Tolerance, %
0.10	0.10	0.00	2.00
11.30	11.30	0.00	2.00
32.60	32.80	0.20	2.00
75.50	75.50	0.00	2.00

The results of this calibration are traceable to the National Institute of Standards and Technology through NIST Test Report Number TN267908-03, dated Oct. 22, 2002. Vaisala's calibration system has been established to meet the requirements of ANSI/NC SL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. ISO 9002 certified.

Calibration Equipment Used: Workstation 6			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	3267489	Oct. 16, 2002	Oct. 16, 2004
Fluke 45	7517016	Jan. 23, 2003	Jan. 23, 2004
HMK13B	P3940001	May. 13, 2003	Nov. 13, 2003
HMP233	V4310009	Apr. 23, 2003	Jul. 23, 2003

Ambient Conditions	
Temperature:	22.00 °C
Humidity:	51.15 %RH

Cary Francis
 Approved By

Edwige Méhu
 Technical Operator
 Edwige Méhu

Mailing address:
 Vaisala Inc. Tel. (781) 933-4500
 100 Commerce Way Fax (781) 933-8029
 Woburn, MA 01801-1068 <http://www.vaisala.com>

Houston Precision, Inc.
8729 Gulf Freeway
Houston, TX 77017-6504

Calibration Report

Company:	Hoeffler Consulting Group	Doc.#	6902
Address:	701 Sesame Street, Suite 200 Anchorage, AK 99503	Date:	3/3/2003
Contact:	Chris Lindsey	PO#:	None
Department:		Page:	1
Gage:	Torque Watch	Control:	4864
Mfg:	Waters	Model:	366-3
Location:	Calibration Lab	Serial#:	4864
Received Condition:	In Tolerance		

The instrument listed below meet or exceed published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. We conform to ANSI/NCLZ 2540-1-1994, and ISO/IEC Guide 25/17025.

oz/in range	Reading Received	Reading after Adjust	Final Reading
0.009	0.010	None	0.010
0.150	0.152	None	0.152
0.024	0.025	None	0.025
0.030	0.031	None	0.031

COMMENTS:

Reference HPI S/O# 9950

Standards Used MFG.	Model	Certification
Torque Tester	7095	822/2622

Gage Status: PASS

Next Calibration Due: 3/3/2004

Certified by: Denice V. Mills

Signature: Denice V. Mills

This certificate is not valid unless all pages are present.

Laboratory Environmental Conditions: Temperature: 20C +/- 2C, Relative Humidity: between 40% and 60%.

Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCCL 2540-1-1994, ISO10012-1, ISO/IEC 17025, the ISO 9000/QS9000 series of quality standards and Houston Precision's Quality Manual dated: 8/15/01, Rev. 1.

- * If additional information regarding this calibration is required, please contact this laboratory.
- * All calibrations have been performed under the supervision and authority of Jose L. Rivera, Lab Manager
- * This Report of Test may not be reproduced except in full without express written permission of Houston Precision, Inc.



Certificate of Calibration and Testing

Test Unit:			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 Rpm - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900

Clockwise and Counterclockwise rotation verified

- (1) Measured at the optical encoder output
- (2) Frequency output produces 32 pulses per revolution of the motor shaft
- (3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

No Calibration Adjustments Required As Found As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 21 November 2003

Tested By EJC

Appendix C



F460 WIND SENSORS

FEATURES

- High Survivability
- Excellent Dynamic Response
- Low Threshold
- Low Power CMOS Design
- Optional External Heaters

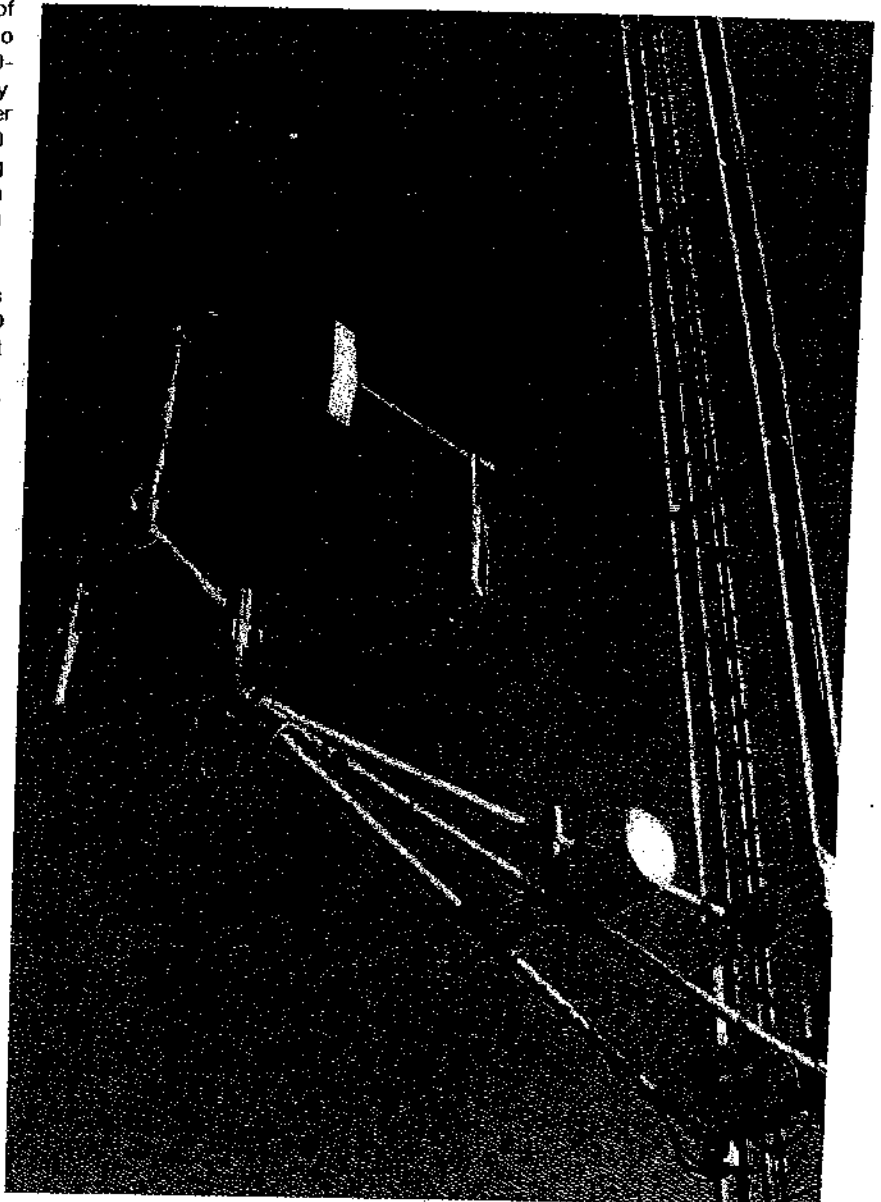
Climatronics' F460 Wind Sensors are capable of operation in virtually all weather conditions. Designed to meet the requirements of Specification No. F460-SP001 for the National Weather Service, the durability of these sensors makes them ideal for multi-level tower installations. Although moderately priced, the F460 wind sensors offer the combination of low starting threshold, quick response, and high accuracy with excellent reliability over a wide range of operating conditions.

The F460 Wind Speed Sensor P/N 100075 monitors the wind speed with a three-cup anemometer. An LED photo chopper device provides a frequency output directly proportional to the wind speed. NIST traceability is optionally available for each anemometer cup assembly by comparison testing against a NIST transfer standard in our wind tunnel test facility.

The F460 Wind Direction Sensor, P/N 100076, consists of a counter-balanced, lightweight vane and a precision, low torque, highly reliable potentiometer that yields a voltage output proportional to the wind direction. Once properly oriented on the keyed cross-arm, the wind direction sensor may be removed or replaced without requiring reorientation.

Installation is a simple matter of fastening each sensor to the crossarm, P/N 101994, which fits a 3/4, 1, or 1 1/4 inch IPS pipe. Optional, thermostatically controlled external heaters are also available. Our single-board signal conditioner, the Universal Interface Module (UIM), can be used with the F460 sensors. Please consult the Universal Interface Module (UIM) data sheet for more details. The sensors can also be directly interfaced to Climatronics' IMP-800 series of data loggers or other commonly available data acquisition units.

The Component Anemometer, P/N 102236, can be used in conjunction with the F460 System to measure the vertical component of the wind. Consult the Vertical Component Anemometer data sheet for additional details.



SPECIFICATIONS

PERFORMANCE

Accuracy

F460 Wind Speed
P/N 100075

0.15 mph (± 0.07 m/s) or $\pm 1.0\%$ of true air speed (whichever is greater)

F460 Wind Direction
P/N 100076

± 2 degrees

Threshold

0.5 mph (0.22 m/s)

0.5 mph (0.22 m/s)

Distance Constant

102104 LEXAN <1.5m (4.9 ft.)

101907 Standard <1.0m (3.0 ft.)

101287 HD Aluminum <4.0m (13.1 ft.)

101288 Heavy Duty <2.5m (8.2 ft)

100057 Stainless Steel <2.4m (7.9 ft.)

Damping Ratio

N/A

>0.4 at 10° initial angle of attack

Operating Range

0-125 mph (0-60 m/s)

0 to 360 degrees - mechanical

ELECTRICAL SPECIFICATIONS

Signal Output

Nominal 2.0 Vpp into 2.0 Kohm, frequency proportional to wind speed, amplitude dependant on supply voltage

Variable DC voltage, magnitude proportional to wind direction

Power Requirements

5-15 Vdc @ 1 mA nominal

Max. 1 mA through 10 Kohms

PHYSICAL SPECIFICATIONS

Size

2.25 in (5.7cm) max. diameter

2.25 in (5.7cm) max. diameter

Weight

11.5 in (29.2cm) high

11.5 in (29.2cm) high

Turning Radius

Less than 2 lbs. (0.9 kg.)

Less than 2 lbs. (0.9 kg.)

Operating Temperature

3.75 inch (9.5 cm)

16.5 inch (41.9 cm)

-40° to +140° F

-40° to +140° F

(-40° to +60° C)

(-40° to +60° C)

CROSSARM SPECIFICATIONS

Length

45 inches (114.3 cm)

Weight

7 lbs. (3.2 kg.)

Mounting

1.66 inch (4.2 cm) - O.D. 1-1/4" IPS pipe (3/4" & 1.0" IPS also available)

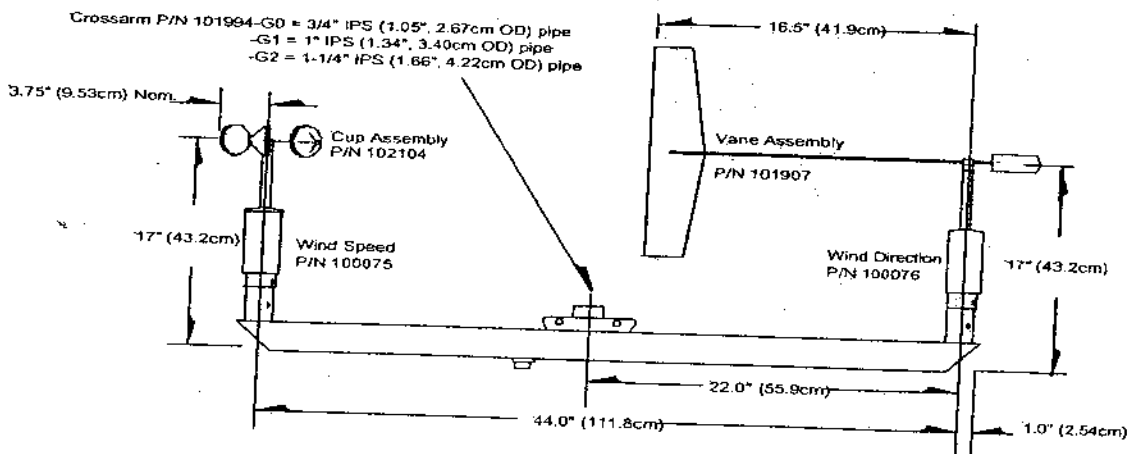
SENSOR HEATER SPECIFICATIONS

Internal (P/N 101263)

12 Vdc, 2 Watts per sensor

External (P/N 101235)

115 Vac/60Hz 20 Watts per sensor, thermostatically controlled



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140 Wilbur Place
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Rev. 2/13/01

Use of Synchronous Motors with Climatronics P/N 100075 F460 Wind Speed Sensors

Purpose:

A synchronous motor is used to spin a wind speed sensor at a known rate to check system linearity.

Technique:

The motor should be connected to the sensor with a "hard" coupling. A piece of tubing may accelerate sensors at higher speeds. Do not use this. Climatronics motors are provided with the correct "hard" coupling for this application.

Conversions:

Meters per Second = MPH X 0.44074

Knots = MPH X 0.86897

Kilometers per Hour = MPH X 1.6094

Calculations:

Cup Type	Cupset P/N	Output Frequency	Velocity in MPH	Velocity in M/S
Lexan	102104	RPM/2	= ((Frequency / 9.511) + 0.3) = ((RPM / 19.022) + 0.3)	= ((Frequency / 21.28) + 0.13) = ((RPM / 42.55) + 0.18)
Heavy Duty Aluminum	101287	RPM/2	= ((Frequency / 9.511) + 0.5) = ((RPM / 19.022) + 0.5)	= ((Frequency / 21.28) + 0.22) = ((RPM / 42.55) + 0.22)
Stainless Steel	100057	RPM/2	= ((Frequency / 10.425) + 0.5) = ((RPM / 19.022) + 0.5)	= ((Frequency / 23.31) + 0.22) = ((RPM / 46.64) + 0.22)
Vinyl	100083	RPM/2	= ((Frequency / 9.511) + 0.5) = ((RPM / 19.022) + 0.5)	= ((Frequency / 21.28) + 0.22) = ((RPM / 42.55) + 0.22)



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**Rock Creek Ambient Air
and Meteorological
Monitoring Station
Systems Audit –
Fourth Quarter 2004**

for the

Rock Creek Project

Nome, Alaska

prepared for

Alaska Gold Company

May 2005

Fourth Quarter 2004 Systems Audit Report

for the

**Rock Creek Ambient Air and Meteorological Monitoring
Project**

Nome, Alaska

May 2005

prepared for

Alaska Gold Company

prepared by

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1.0 INTRODUCTION

Hoefler Consulting Group currently operates a meteorological and air monitoring station on behalf of Alaska Gold Company at the Rock Creek Mine Development Site, 7 miles north of Nome, Alaska at 64° 37' N latitude and 165° 26' W longitude. The location of the station is shown in Figure 1-1.

The station is made up of a 12-meter tower equipped with meteorological sensors, a precipitation gauge and two particulate matter samplers. The meteorological monitoring tower meets the requirements of the Prevention of Significant Deterioration (PSD) program administered by the Alaska Department of Environmental Conservation (ADEC).

The two BGI PQ100 samplers measure the ambient concentration of aerosols with an effective aerodynamic diameter of 10 μm or less (PM_{10}). The meteorological parameters are measured by the following sensors:

- Wind Speed: Climatronics Model F460 3-cup anemometer with Lexan cups
- Wind Direction: Climatronics Model F460 wind vane
- Temperature and ΔT : Met One 062MP thermometers (at 2 and 10 meters)
- Relative Humidity: Vaisala HMP45AC Relative Humidity Probe
- Barometric Pressure: Vaisala PTB101B Barometer
- Precipitation: Texas Electronics TE25WS Rain Gauge (seasonally equipped with a snowfall adaptor)

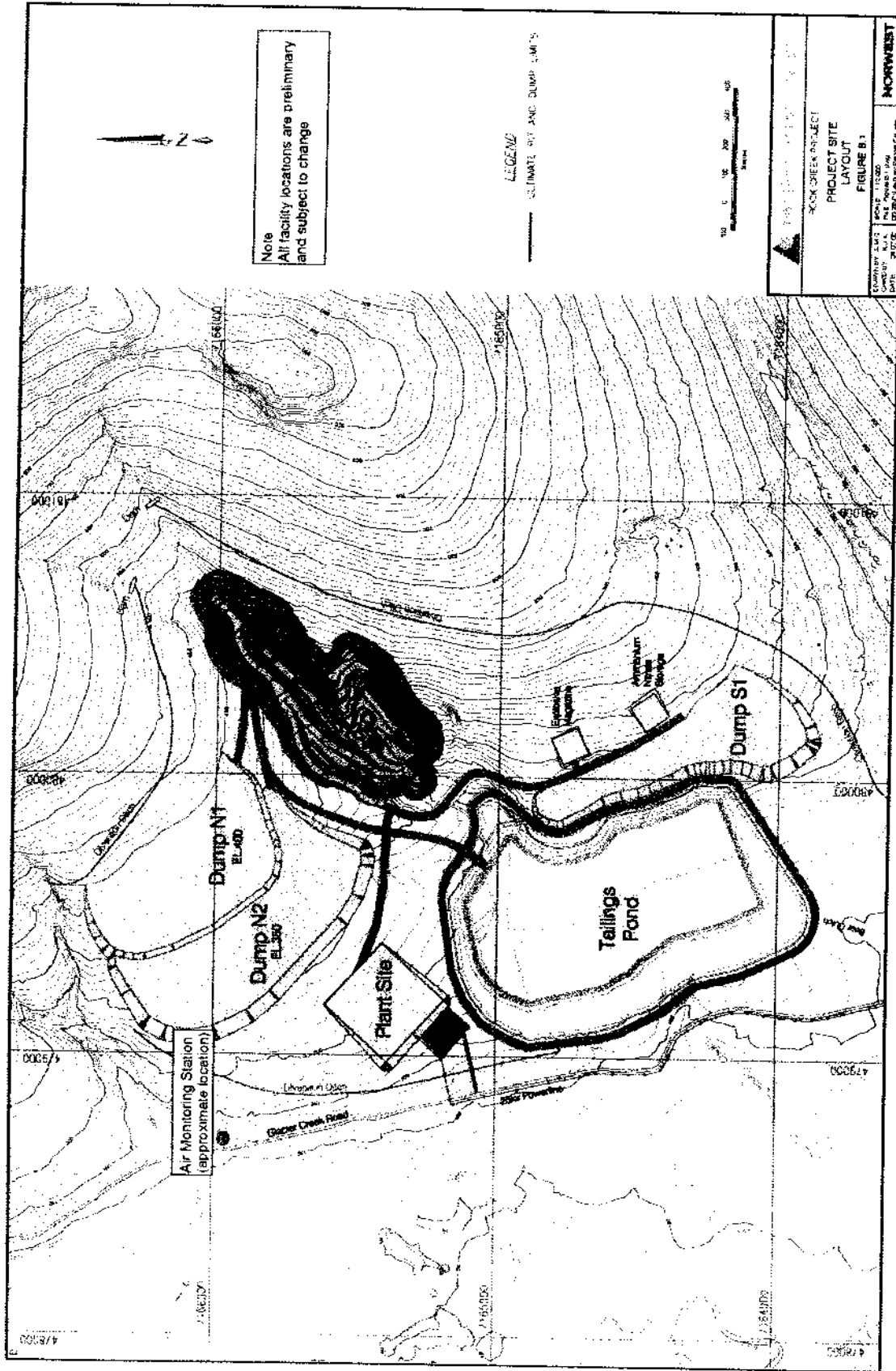
The anemometer and wind vane are attached to the top of the tower on a crossarm, the thermistors are mounted at 2 meters inside of an RM Young motor-aspirated radiation shield. The collected data are stored onsite in a Campbell CR10X Data Acquisition System (DAS). The station is powered by solar panels and a thermal electric generator connected to deep cycle 12V lead acid batteries. The DAS is accessed for data retrieval and programming either in the field with a PC or through the cellular phone attached to the DAS.

This document reports the results of the audit of the station conducted on December 28, 2004. This report has been prepared for Alaska Gold as a step towards demonstrating that the meteorological data collected by the station meets the applicable PSD requirements as set forth by the U.S. Environmental Protection Agency (EPA).

In the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Part 1, Appendix 15, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to assess compliance with established regulations governing the collection, analysis, validation, and reporting of ambient air quality data. A systems audit should be conducted at initial startup of the program and annually, thereafter.

The initial systems audit was conducted on January 8-9, 2004 by Eric Brudie. This audit was a comprehensive and detailed review of the project plan, station design, data processing procedures, laboratory operations, data sheet design, and project documentation. Since most aspects of this project have remained essentially unchanged, this report is intended to build upon the previous systems audit by reviewing current condition of the site, rather than re-examining the project fundamentals already covered so thoroughly by Mr. Brudie. My observations are contained in Section 3.

Figure 1-1. Map of the Rock Creek Development and Surrounding Area



2.0 PERFORMANCE AUDIT

A performance audit was conducted on all required parameters measured by the station. Data sheets from the performance audit can be found in Appendix A.

2.1 Performance Audit Methodology

During the performance audit, the output of each meteorological sensor was read with a CR10X portable keyboard display. The results given by each meteorological sensor were compared to the results given by the calibrated audit instruments. The differences between the station and the audit instruments were compared with established PSD limits to determine the accuracy of each sensor. Threshold torques for wind speed and direction were manually measured and compared with established PSD limits. Table 2-1 summarizes the audit methods and limits used to verify each parameter.

Table 2-1. Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	PSD Limit
DAS Time	NOAA Clock	$\leq \pm 5$ minutes from AST
Wind Direction Alignment	GPS	$\leq \pm 5^\circ$ from true bearing per point
Wind Direction Accuracy	Linearity tester and cross-arm square	$\leq \pm 5^\circ$ per audit point
Wind Direction Linearity		$\leq 3^\circ$ mean absolute average
Wind Direction Torque	Torque watch	≤ 0.104 oz-in (11 g-cm)
Wind Speed Accuracy	Synchronous motor	$\leq \pm 0.2$ m/s $\pm 5\%$ observed
Wind Speed Torque	Torque watch	≤ 1.0 g-cm
Temperature Accuracy	NIST thermometer	$\leq \pm 0.5^\circ\text{C}$
Temperature Difference (ΔT)	Co-location of 2- and 10-meter thermometers	$\leq \pm 0.1^\circ\text{C}$
Humidity (as dew point)	NIST RH Probe	$\pm 1.5^\circ\text{C}$
Barometric Pressure	NIST Barometer	$\leq \pm 3$ mb

2.1.1 Data Acquisition System

An audit of the DAS was conducted by comparing of all DAS outputs to the audit standards, as described below. The DAS time was checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado via a global position system (GPS).

2.1.2 Temperature

The two air temperature thermometers (2-meter and 10-meter) were audited against a National Institute of Standards and Technology (NIST) traceable digital thermometer to determine system accuracy. The 2- and 10-meter thermometers' readings were compared to the NIST traceable digital thermometers and to each other in an ice/water bath and water baths of varying temperatures.

2.1.3 Wind Direction

The wind direction sensor was audited "as-found" to determine the accuracy of the alignment with respect to true north (true azimuth alignment) using a hand-held GPS. A Garmin GPS 12 CX model was used to estimate the position of the auditor with respect to the tower. After a waypoint is marked into the GPS at the tower's position, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. In reference to the aligned wind vane, the auditor's bearing on the GPS with respect to the waypoint marking the tower's position provides the true direction of the wind vane. The GPS-derived direction is then compared with the output from the DAS to calculate a percent difference.

After the completion of the "as-found" audit, the wind instruments were removed from the tower, and further tests were performed. Wind direction linearity and accuracy were determined by mounting the wind vane on a Climatronics linearity check wheel and comparing the DAS output with the actual orientation of the vane in 30° increments.

The wind direction threshold value was tested using a Waters torque watch to measure wind vane torque. The highest torque required to turn the wind vane was compared to the established limits.

The wind vane sensor was placed back on the tower after all necessary audits were completed. A final "as-left" audit was conducted on the alignment of the sensor, identical to the "as-found" audit carried out prior to removing the sensor from the tower.

2.1.4 Wind Speed

The anemometer was audited to determine relative accuracy for wind speed and sensor torque threshold. First, the spinning shaft of the anemometer was rotated at several different known rates by an attached variable-speed RM Young synchronous motor. Each rate of revolution is equivalent to a speed, the relationship being given by the manufacturer's anemometer calibration formulas (Appendix B). The equivalent speed of the synchronous motor was

compared with the instrument output.

Next, a Waters torque watch was attached to the spinning shaft of the anemometer. Several torque readings were made within different quadrants along the axis of rotation of the shaft. The maximum reading was recorded for the threshold of force required to turn the spinning shaft of the anemometer.

2.1.5 Humidity

The station humidity probe's temperature and relative humidity readings at ambient conditions were converted to a dew point and compared to dew point indicated by a NIST traceable humidity probe.

2.1.6 Barometric Pressure

The station barometer reading was compared at ambient conditions to the reading from a NIST traceable digital barometer.

2.1.7 PM₁₀ Sampler Flow Rate

The sampler flow rates were measured by a NIST traceable flow transfer standard (FTS).

2.2 Performance Audit Results

JR Wilcox conducted the audit on December 28, 2004. Each sensor was challenged with certified audit equipment, and the starting torques of the anemometer and wind vane were tested. The sensors were tested for compliance with the PSD performance accuracy requirements and starting torque threshold limits. A summary of the performance audit results is provided in Table 2-2 for the met tower and in table 2-3 for the PM samplers.

Complete audit reports are provided in Appendix A. Certification sheets of audit instruments are provided in Appendix B. Manufacturer data sheets for the meteorological equipment that display wind speed calibration formulas and starting torques for wind direction and wind speed are provided in Appendix C.

Table 2-2. Met Audit Summary

Parameter	PSD Limit	Error ¹	Pass/Fail
DAS Time (Min:Sec)	≤ ±5:00	-2:52	Pass
Wind Direction Alignment (as found)	≤ ±5°	+5°	Pass
Wind Direction Alignment (as left)	≤ ±5°	-3°	Pass
Wind Direction Torque ²	≤ 0.104 oz-in	0.06 oz-in	Pass
Wind Direction Accuracy	≤ ±5°	-2.805°	Pass
Wind Direction Linearity	≤ 3°	1.44°	Pass
Wind Speed Accuracy	≤ ±0.2 m/s ±5%	0.00 m/s	Pass
Wind Speed Torque	≤ 0.0049 oz-in	< 0.003 oz-in	Pass
Temperature Accuracy (2-meter)	≤ ±0.5°C	0.09°C	Pass
Temperature Accuracy (10-meter)	≤ ±0.5°C	0.32°C	Pass
Temperature Difference (ΔT)	≤± 0.1°C	0.05°C	Pass ³
Humidity (as dew point)	± 1.5°C	+1.5°C	Pass
Barometric Pressure	≤ ± 3 mb	0.8 mb	Pass
Precipitation	≤ ± 10%	inoperative	Fail

In order to be within recommended accuracy, the sampler flow rate as measured by a NIST-traceable FTS should be within 7% of the flow rate indicated by the sampler and 10% of the sampler's design flow rate (16.67 L/min). The audits were conducted under ambient conditions of -13.2 °C and 1030 mb.

Table 2-3. PM Sampler Audit Summary

Sampler	% Difference		Pass/Fail
	FTS vs. Indicated Flow	FTS vs. Design Flow	
Primary	1.2%	0.7%	Pass
Co-located	1.2%	1.3%	Pass

¹ When several readings were taken, the maximum error is reported.

² Torque measurement after replacement of the wind direction sensor.

³ See note in Section 3.0.

3.0 SYSTEM AUDIT OBSERVATIONS

- **All met station sensor & PM₁₀ sampler parameters passed their audits, with the exception of precipitation.**
 - I observed that the **precipitation gauge had become inoperative** due to ice buildup inside of the snowfall adaptor. All precipitation data gathered since the installation of the snowfall adapter is therefore suspect. It has been agreed that the site technician will make routine inspections in the future for ice build up and remove it when it occurs. Data will also be inspected in Anchorage to check the consistency of Rock Creek's precipitation data with the Nome Airport's.
 - After the ice buildup had been removed, the site calibrator tested the precipitation gauge and found it to read 7.3% low, which is within the 10% tolerance range recommended by EPA.
 - ΔT was higher than the recommended value at 0 °C, but this was due to trouble getting temperature within the ice bath to homogenize to within 0.1 °C. This was suspected, and was confirmed by my subsequent 5/23/05 audit, which showed the probes to be within 0.1 °C of each other. No intervening repair or replacement of the probes occurred.
- While still functional, the **motor on the collocated PM10 sampler** is definitely showing signs of wear. The pump motor sounds very loud and took 20 minutes to reach the design flow rate (16.67 L/min). Initial flow rate was 8.6 L/min. Robbie O'Connor, the main site technician, reported that this pump has particular difficulty in the cold. However, it should be noted that the total volume over a 24-hour sampling period should not be significantly reduced by the first 20 minutes being slow. If this did significantly impact the total volume of air sampled, this would be noted on the sample collection forms. The site technician has brought the co-located unit indoors to thaw, and will inspect the inside of the unit for ice/snow build up, removing any snow, ice, or water found. If pump performance continues to deteriorate it will be noted during the routine site calibrations and a pump rebuild kit will be delivered to the station.
- **Alterations to the equipment** since the last site audit:
 - After wind vane S/N 4567 failed its torque audit, it was replaced by wind vane S/N 4007 on May 28, 2004.

Hoefler Consulting Group

- A precipitation gauge was installed on August 23rd, 2004. At the time of the systems audit, this gauge had been raised to about 2½ feet (at the base) above the platform to which it is mounted to prevent interference from snowpack buildup.
 - A snowfall adapter was added to the precipitation gauge on September 23rd, 2004. The gauge was raised to its current height at this time.
 - On December 2, 2004 a new precipitation gauge mounting system was installed and the windscreen was raised. These modifications were made to reduce the possibility of precipitation gauge movement during storms.
-
- All the original equipment appears to remain in conformance with the HCG monitoring and QA plan and therefore the EPA's Prevention of Significant Deterioration (PSD) specifications, with the exception of the precipitation gauge, as discussed below.
 - While the **power system** design is fairly robust, the TEG pilot light has been repeatedly snuffed by high winds. This problem has not impacted station performance to date, but the installation of a wind-proof Breidert cap on the TEG's exhaust duct is recommended to prevent recurrence.
 - The primary **operating personnel** were unchanged in 2004. Charlotte MacCay remains the Environmental Manager, Steve Mackey continues to be the site operator, and Robbie O'Conner remains the primary site technician. Several other site technicians have assisted Mr. O'Conner since the commencement of the monitoring project, but at present he is the only technician.
 - **Robbie O'Conner** is the site technician responsible for the operation and routine maintenance of the PM10 samplers. Conversations with and observations of Robbie indicate that he was familiar and comfortable with the routine operation and maintenance of the samplers, including programming sampler runs, sampler cleaning, and filter handling. Robbie indicated that things have been running smoothly for the last few months.
 - **IML Air Science** continued to be responsible for the gravimetric analysis the exposed filters. IML has continued to supply field operations with filters and to analyze filters and provide results in a satisfactory manner.

4.0 REFERENCES

State of Alaska. Alaska Department of Environmental Conservation. State of Alaska Quality Assurance Manual for Ambient Air Quality Monitoring. Juneau, AK: ADEC, 1996.

United States. Environmental Protection Agency. Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD). EPA-450/4-87-007. Research Triangle Park, NC: OAQPS, 1987.

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Yamartino, R.J. "A Comparison of Several "Single-Pass" Estimators of the Standard Deviation of Wind Direction." Journal of Climate Applied Meteorology 23 (1984): 1362-66.

Appendix A

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
Auditor: JR Wilcox
Date: 12/28/04

1. TIME CHECK

DAS Time: 10:03:08 AST
 Actual Alaska Standard Time: 10:06:00 AST
 Difference Between Times: 2:52
Recommended Accuracy: ± 5 minutes

2. WIND DIRECTION

Wind Direction Audit Start/Completion Time (AST): 13:30-14:44 AST

Wind Direction Sensor:
 Make: Climatronics
 Model: F460 #100076
 S/N: 4007 (vane #1398)

WD Audit Instruments:
 Make: Climatronics WD Linearity Test Jig Make: Garmin
 Model: 101986 Model: GPS
 S/N: 86 S/N: 2886510520

WIND VANE ALIGNMENT AS FOUND

	GPS Reading (°)	DAS Reading (°)	Difference (°)
Point 1 (tail)	20	20	0
Point 2 (tail)	137	132	5
Point 3 (tail)	224	224	0
Point 4 (tail)	291	289	3

Recommended Accuracy: $\pm 5^\circ$ from landmark (alignment)

WIND VANE ALIGNMENT AS LEFT

	GPS Reading (°)	Error	
		DAS (°)	Difference (°)
Point 1 (tail)	91	89	2
Point 2 (tail)	319	322	3
Point 3 (tail)			
Point 4 (tail)			

Recommended Accuracy: $\pm 5^\circ$ from landmark (alignment)

Auditor's Note: Waning daylight prompted an abbreviated as-left audit. Since the wind sensor audit was performed without removing tower crossarm, the risk of positioning the wind vane was very low. Two readings adequately verify that the arm was still positioned correctly.

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK

Auditor: JR Wilcox

Date: 12/28/04

WIND DIRECTION TORQUE

Torque Watches:

Make: Waters (0.06-0.60 oz-in)

Model: 366-0

S/N: 5042

Make: Waters (0.003-0.03 oz-in)

Model: 366-3

S/N: 4864

Starting Torque: 0.06 oz-in

Final Torque: 0.06 oz-in

Recommended Accuracy: Starting torque of 0.104 oz-in (Climatronics model F460)

WIND DIRECTION LINEARITY

Wind Vane Position (°)	DAS Output (°)	Error (°)	Wind Vane Position (°)	DAS Output (°)	Error (°)
30	28.718	-1.282	210	210.92	0.92
60	57.195	-2.805	240	240.97	0.97
90	87.844	-2.156	270	271.99	1.99
120	118.86	-1.14	300	302.63	2.63
150	149.62	-0.38	330	332.08	2.08
180	179.19	-0.81	360	0.12	0.12
Mean Absolute Error $\frac{\sum x }{n}$					1.44

Recommended Accuracy: $\pm 5^\circ$ (accuracy) and $\leq 3^\circ$ Mean Absolute Error (linearity)

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
 Auditor: JR Wilcox
 Date: 12/28/04

3. WIND SPEED

Anemometer Audit Start/Completion Time (AST): 14:46-15:03 AST

Anemometer:
 Make: Climatronics
 Model: F460 #100075
 S/N: 4839 (cupset #2000)

Wind Speed Audit Instruments:
 Make: RM Young
 Model: 18801 Calibration Unit
 S/N: CA 016746
 Calibration Due: 10/29/05

Make: RM Young
 Model: Anemometer Drive 18820/18831
 S/N: CA 01676
 Calibration Due: 10/29/05

WIND SPEED ACCURACY AND LINEARITY

Synchronous Motor (rpm)	Synchronous Motor (m/s)	DAS (m/s)	Difference (m/s)	Error
0 rpm	0.22	0.22	0.0	0.0%
100 rpm	2.57	2.57	0.0	0.0%
200 rpm	4.92	4.92	0.0	0.0%
400 rpm	9.62	9.62	0.0	0.0%
600 rpm	14.32	14.32	0.0	0.0%
Mean Absolute Error				0.0%

Recommended Accuracy: $\pm (0.2 \text{ m/s} + 5\% \text{ of observed speed})$, with a maximum error of 2.5 m/s

Transfer Function (rate of rotation to wind speed):

Climatronics F460 w/ HD-Alum cups $\text{m/s} = ((\text{rpm}/42.55) + 0.22)$

ANEMOMETER TORQUE

Torque Watches:

Make: Waters (0.06-0.60 oz-in)
 Model: 366-0
 S/N: 5042

Make: Waters (0.003-0.03 oz-in)
 Model: 366-3
 S/N: 4864

Starting Torque: <0.003 oz-in
 Bearings Replaced? no
 Final Torque: <0.003 oz-in

Recommended Accuracy: Starting torque of 0.0049 oz-in (Climatronics model F460)

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK

Auditor: JR Wilcox

Date: 12/28/04

4. 2-METER AND 10-METER TEMPERATURE AND ΔT :

Temperature Audit Start/Completion Time (AST): 15:15-15:40 AST

Station Thermometers:

2-Meter Temperature

Make: Met One

Model: 062MP

S/N: C4537 ID1

10-Meter Temperature

Make: Met One

Model: 062MP

S/N: C4537 ID2

Temperature Audit Instrument (NIST Traceable):

Make: Traceable (control unit)

S/N: 21164797

Calibration Due: 8/11/05

Make: Traceable (probe)

S/N: 22136783

Calibration Due: 8/11/05

2-METER THERMOMETER ACCURACY

Temperature	NIST Temperature (°C)	DAS Temperature (°C)	Error (°C)
Ice Bath	0.01	-0.08	-0.09
Warm Water	11.49	11.53	+0.04
Hot Water	20.61	20.59	-0.02

Recommended Accuracy: $\pm 0.5^\circ\text{C}$

10-METER THERMOMETER ACCURACY

Temperature	NIST Temperature (°C)	DAS Temperature (°C)	Error (°C)
Ice Bath	0.01	-0.31	-0.32
Warm Water	11.49	11.48	-0.01
Hot Water	20.61	20.59	-0.02

Recommended Accuracy: $\pm 0.5^\circ\text{C}$

TEMPERATURE DIFFERENCE (ΔT) ACCURACY

Temperature Point	NIST ΔT (°C)	DAS ΔT (°C)	Error (°C)
Ice Bath	0.00	-0.23	-0.23
Warm Water	0.00	-0.05	-0.05
Hot Water	0.00	0.00	0.00

Recommended Accuracy: $\pm 0.1^\circ\text{C}$

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK
Auditor: JR Wilcox
Date: 12/28/04

5. RELATIVE HUMIDITY

Relative Humidity Audit Start/Completion Time (AST): 12:55 AST

Relative Humidity Sensor

Make: Vaisala
 Model: HMP45AC
 S/N: Y3940088

Relative Humidity Audit Instruments

Make: Vaisala
 Model: HMI41
 S/N: X0650080 (indicator)
 Calibration Due: _____

Make: Vaisala
 Model: HMP41
 S/N: X0740015 (probe)
 Calibration Due: 10/20/05

NIST Temp (°C)	NIST RH (%)	NIST Dew Point (°C)	DAS RH (%)	DAS Dew Point (°C)	Dew Point Error (°C)
-16.4	86.5	-18.1	90.8	-17.6	+1.5

Recommended Accuracy: ± 1.5 °C of dew point temperature

6. BAROMETRIC PRESSURE

Barometric Pressure Audit Start/Completion Time (AST): 16:00 AST

Barometric Pressure Sensor:

Make: Vaisala
 Model: PTB101B
 S/N: Y213007

Barometric Pressure Audit Instruments

Make: PreTel
 Model: Alti Plus
 S/N: 27806
 Calibration Due: 4/17/05

Audit Probe (in Hg)	Audit Probe (mb)	DAS (mb)	Difference (mb)
30.44	1030.8	1030.0	0.8

Recommended Accuracy: ± 3 mb

7. PRECIPITATION

The precipitation gauge was inspected upon arrival at the station and was found to be inoperative due to ice buildup at the base of the snowfall adaptor, thus failing its audit. Steve Mackey, the site calibrator and Robbie O'Connor, the Alaska Gold representative, subsequently performed repairs to the system and validated that it was operating correctly.

Rock Creek Monitoring Program Station Audit

Site: Rock Creek Met Station Nome, AK

Auditor: JR Wilcox

Date: 12/28/04

Comments

All parameters passed, with the exception of precipitation.

The relative humidity sensor was found to be within suggested tolerance, but appears close to drifting out of tolerance.

Appendix B



Certificate of Calibration and Testing

Test Unit:			
Model:	18801	Serial Number:	CA01676
Description:	Anemometer Drive - 10 to 10,000 Rpm - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900

Clockwise and Counterclockwise rotation verified

- (1) Measured at the optical encoder output
- (2) Frequency output produces 32 pulses per revolution of the motor shaft
- (3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

No Calibration Adjustments Required As Found As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 29 October 2004

Tested By EJC



Calibration complies with ISO 17025

Cert. No. 4000: 521722



Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification

Hooffer Consulting Group, 3401 Minnesota Dr., Suite 300, Attn. Chris Lindsey, Anchorage, AK 99503 U.S.A. (RMA:925590)

Model No. 15-077-8

S/N 21164797

Manufacturer: Control Company

Probe: 15-077-7

22136783

Standards/Equipment Used	Model	Serial No.	Recall Date	NIST Reference
THERMOMETRICS TEMP PROBE	ES225	149	7/20/2005	A4715024 NVLAP
Hart Scientific 2563 Module	2563	A27129	6/24/2005	1000171514
Hart Precision Bath	7011	93139		

Certificate Information

As Found: Out of Tolerance

Cal Date: 8/11/2004

As Left: In Tolerance

Due Date: 8/11/2005

Procedure: CAL-06

Technician: 68

Test Conditions: 24.0°C 47.0 RH 29.88 in Hg

Calibration Data (As Left)

Standard	Reading	Units	Condition
0.001	-0.002	°C	In Tolerance
25.001	25.002	°C	In Tolerance
60.001	59.999	°C	In Tolerance
99.999	100.002	°C	In Tolerance

Accuracy: $\pm 0.05^{\circ}\text{C}$ (0 to 100°C)

Expanded Measurement Uncertainty at $k=2$: $\pm 0.013^{\circ}\text{C}$

This Digital Thermometer was calibrated against National Institute of Standards and Technology Traceable Instrumentation. A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor $k=2$ to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full.

Wallace Berry, Technical Manager

Maintaining Accuracy

In our opinion, once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com

Control Company is an ISO 17025 Accredited Calibration Laboratory. (A2LA) American Association for Laboratory Accreditation Certificate No. 1750.01.
Control Company is an ISO 9001 Accredited Company. (DNV) Det Norske Veritas Certificate No. CERT-01805-AQ-HOU-RAB.



Certificate of Calibration

Report #: 102004-X0740015 RMA #: 95-43907
 Model #: HMI 41/HMP 45
 Instrument Range: 0 to 100%RH

Calibration Date: Oct-20-2004
 Serial #: X0650080/X0740015

Calibration Procedure: 11603100
 Recommended Calibration Due Date: Oct-20-2005

Customer: HOEFLER
 City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0% against dry nitrogen and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize dry nitrogen and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The calibration uncertainty is $\pm 0.6\%RH$.

Calibration Data (As Found)			
Out of Tolerance: No			
Temperature Calibration, °C			
Reference	Unit Under Test	Error	\pm Tolerance, °C
21.72	21.87	0.15	0.20
Humidity Calibration, %RH			
Reference	Unit Under Test	Error	\pm Tolerance, %
0.10	-0.20	-0.30	2.00
10.83	11.80	0.97	2.00
32.64	34.10	1.46	2.00
74.59	75.20	0.61	2.00
Calibration Data (As Left)			
Temperature Calibration, °C			
Reference	Unit Under Test	Error	\pm Tolerance, °C
22.03	22.20	0.17	0.20
Humidity Calibration, %RH			
Reference	Unit Under Test	Error	\pm Tolerance, %
0.10	-0.30	-0.40	2.00
11.08	11.50	0.42	2.00
32.79	32.80	0.01	2.00
74.50	74.50	0.00	2.00

Action Taken: The Unit was Calibrated

The results of this calibration are traceable to the National Institute of Standards and Technology through NIST Test Report Number TN269440, dated Oct. 28, 2003. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. ISO 9001:2000 certified.

Vaisala considers any data that falls outside of the product specification to be significantly out of tolerance.

Calibration Equipment Used: Workstation 4B			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	3267489	Oct. 18, 2004	Oct. 18, 2006
Fluke 45	7517016	Jan. 16, 2004	Jan. 16, 2005
HMK13B	P3940001	May. 13, 2003	Nov. 13, 2004
HMP233	V4310009	Sep. 21, 2004	Dec. 21, 2004

Ambient Conditions	
Temperature:	22.10 °C
Humidity:	49.80 %RH

Approved By

Technical Operator
 Edwige Méhu

Certificate of Calibration

Customer Identification

Customer: Houston Precision

P.O.#:6632

Product Identification

Product Type: Torque Watch
Serial Number: 4864

Model Number: 366-3
Part Number: 060-SQF41199-01
Order Code: TQ3663

Product Specifications

Full Scale Range: 0.003-0.03 OZ IN
Calibrated At: 0.003-0.03 OZ IN

Supply: N/A
Output: Display

Calibration Results

See data on page 2 of this report.

Equipment Information

Test Equipment #: GW150

Accuracy of Standard: +/- 1% FS

Certificate Information

Type of Calibration: Standard
Calibration Date: 09/02/04

Certificate Number: 086-6000-01
Calibration Procedure: 072-LC75-29

This report certifies that the product identified above has been inspected to +/- 5% of full scale reading and found to be accurate.

Instruments used in the calibration of this product have been calibrated to standards traceable to the National Institute of Standards and Technology (NIST), Report #822/254480. Calibration procedures are in compliance with ANSI/NCSL Z540-1-1994.

This is a quality record.

Approved and Certified By: Michael A. Stanley
Factory Supervisor

LOW RANGE TORQUE WATCH DIAL SETTINGS vs. OUTPUT OF LOW RANGE STANDARD

MODEL: 366-3 SERIAL NUMBER: 4864 Units = oz in Accuracy = 10 % FS

Set Dial To	Low Limit	CW Rdg	CCW Rdg	High Limit
.000	-.0002	.0000	.0000	.0002
.003	-.0000	.0036	.0031	.0060
.006	.0030	.0058	.0062	.0090
.009	.0060	.0086	.0092	.0120
.012	.0090	.0128	.0127	.0150
.015	.0120	.0162	.0161	.0180
.018	.0150	.0195	.0197	.0210
.021	.0180	.0225	.0219	.0240
.024	.0210	.0257	.0246	.0270
.027	.0240	.0296	.0288	.0300
.030	.0270	.0320	.0322	.0330

Max pos error (% FS) = 8.7 % at .027
 Max neg error (% FS) = -1.2 % at .009

Torque Watch is a: PASS

Certificate of Calibration

Customer Identification

Customer: Houston Precision

P.O.#:6743

Product Identification

Product Type: Torque Watch
Serial Number: 5042

Model Number: 366-0
Part Number: 060-SQF41201-01
Order Code: TQ3660

Product Specifications

Full Scale Range: 0.06-0.6 IN OZ
Calibrated At: 0.06-0.6 IN OZ

Supply: N/A
Output: Display

Calibration Results

See data on page 2 of this report.

Equipment Information

Test Equipment #: GW151

Accuracy of Standard: +/- 1% FS

Certificate Information

Type of Calibration: Standard
Calibration Date: 12/01/04

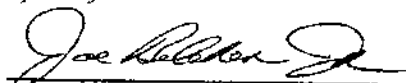
Certificate Number: 086-6000-01
Calibration Procedure: 072-LC75-29

This report certifies that the product identified above has been inspected to +/- 5% of full scale reading and found to be accurate.

Instruments used in the calibration of this product have been calibrated to standards traceable to the National Institute of Standards and Technology (NIST), Report #822/254480. Calibration procedures are in compliance with ANSI/NCSS Z540-1-1994.

This is a quality record.

Approved and Certified By:


Joe Belcher Jr., Quality Manager

LOW RANGE TORQUE WATCH DIAL SETTINGS vs. OUTPUT OF LOW RANGE STANDARD

MODEL: 366-0 SERIAL NUMBER: 5042 Units = oz in Accuracy = 5 % FS

Set Dial To	Low Limit	CW Rdg	CCW Rdg	High Limit
.00	-.003	0.000	0.000	.003
.06	.030	.056	.060	.090
.12	.090	.121	.121	.150
.18	.150	.168	.180	.210
.24	.210	.223	.255	.270
.30	.270	.299	.319	.330
.36	.330	.359	.373	.390
.42	.390	.407	.424	.450
.48	.450	.481	.494	.510
.54	.510	.531	.537	.570
.60	.570	.592	.610	.630

Max pos error (% FS) = 3.1 % at .300
 Max neg error (% FS) = -2.9 % at .240

Torque Watch is a: PASS

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Transfer standard model: Pretel AltiPlus A2

Serial number: 27806

submitted by/owner: Hoefler Consulting Group

Was compared to Precision Absolute Reference Barometer:

Model number: 355-AI0900

Serial number: 913930-M1

Certified accuracy of ± 0.007 "Hg

NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 4/17/2004

Lab temperature

71.5

°F

Lab pressure

652.30

mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*
24.00	24.06	0.06	-0.06
25.68	25.74	0.06	-0.06
26.00	26.06	0.06	-0.06
28.00	28.06	0.06	-0.06
30.00	30.06	0.06	-0.06

Note:

If no sign is given on the correction, the true pressure is higher than the indicated pressure. If the sign is negative, the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES NO

Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*

Reviewed:

RJS

Date:

4-17-04

Chinook Engineering

a division of Inter-Mountain Laboratories, Inc.

555 Absaraka Street

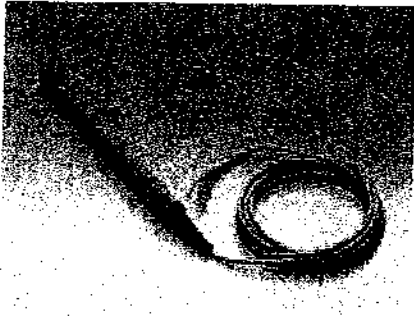
Sheridan, Wyoming 82801 USA

(307) 672-7790

chinook@imlinc.com

Appendix C

HMP45A & HMP45D Relative Humidity and Temperature Probes; Solar Radiation Shield



The HMP45A and HMP45D humidity and temperature probes are excellent for measuring humidity in weather stations.

Versatile probes

The Vaisala HUMICAP® Humidity and Temperature Probes HMP45A and HMP45D are designed for a wide range of instrumentation (e.g. recorders, data loggers, laboratory equipment and weather stations.)

The probes interface easily, are simple to service, operate from a wide range of supply voltages and consume little power.

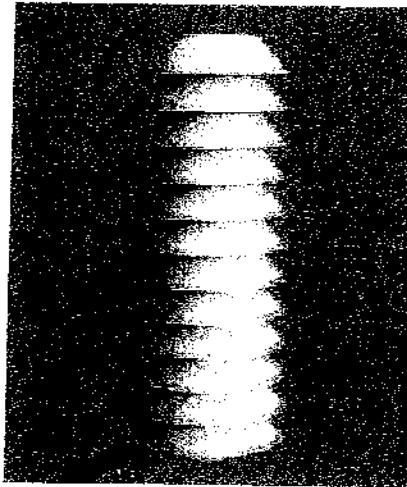
The HMP45A/D is an excellent solution for measuring humidity in weather stations. However, the Vaisala HUMICAP® Humidity and Temperature Transmitter HMP337, with warmed sensor head, is a better solution if condensation continuously disturbs measurement.

Vaisala HUMICAP® Sensor

The combined performance of the Vaisala HUMICAP® Sensor and IP65 (NEMA 4) protected probe provides accurate and repeatable humidity and temperature measurements in high humidity.

Easy field maintenance

Field calibration is easy. The probe head containing the sensor and electronics can be quickly removed from the probe body, a replacement installed and the measurements continued while the other sensor head is calibrated in a laboratory.



The DTR503A shield provides protection from both scattered and direct solar radiation, and precipitation.

On-site, one-point calibration

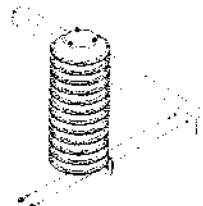
One-point calibration of relative humidity and temperature can be done in the field using Vaisala HUMICAP® Humidity Indicator HM141.

Shield protects sensor

Vaisala Radiation Shield DTR503A is a naturally ventilated, maintenance-free, 12 plate plastic shield that protects the humidity and temperature sensors from both scattered and direct solar radiation, and precipitation. The plastic material in the plates offers excellent thermal characteristics and UV stabilized construction. The white outer surface reflects radiation, while the black inside absorbs accumulated heat.

The shield is easy to install and is suitable for a wide range of applications. It can be installed on a vertical pole, horizontal beam, or flat surface.

DTR503A horizontal beam installation.



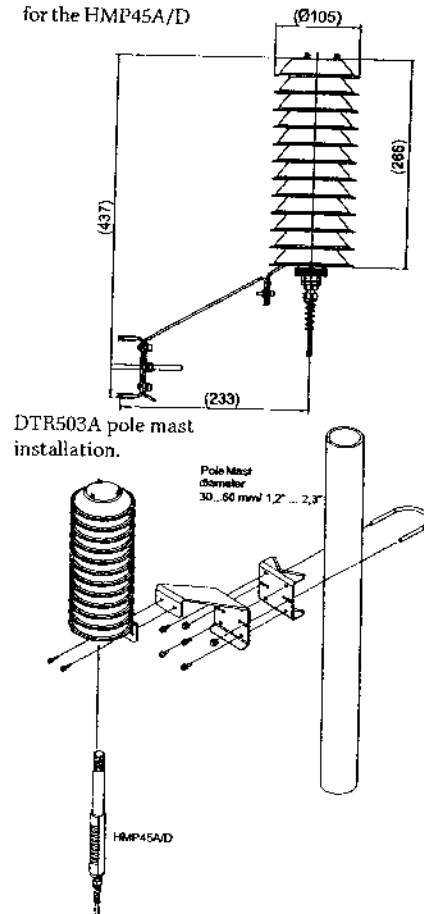
Features/Benefits

- Vaisala HUMICAP® Humidity and Temperature Probes HMP45A/D provide up to 100 %RH with high accuracy
- Vaisala HUMICAP® Sensor for excellent accuracy, negligible hysteresis and long-term stability in high humidities, and is resistance to dust and most chemicals.
- Easy field calibration
- Vaisala Solar Radiation Shield DTR503A
- IP65 (NEMA 4) housing protects against dust, water spray, and electromagnetic interference.
- NIST traceable (certificate included)

Dimensions

Dimensions in mm.

DTR503A
for the HMP45A/D



Technical Data

General

Operating temperature range	-40...+60 °C (-40...+140 °F)
Storage temperature range	-40...+80 °C (-40...+176 °F)
Supply voltage	7...35 VDC
Settling time	500 ms
Power consumption	<4 mA
Output load	>10kohm (to ground)
Weight	350 g (incl. package)
Cable length	3.5 m
Housing material	ABS plastic
Housing classification (electronics)	IP65
Sensor protection:	
standard: membrane filter	part no.2787HM
optional: grid	part no. 6597

Relative humidity

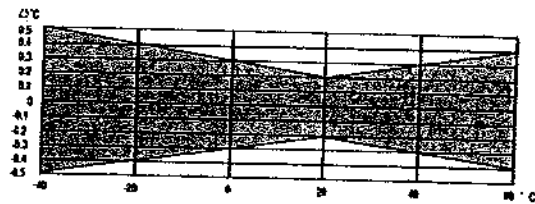
HMP45A & HMP45D	
Measuring range:	0.8 to 100 %RH
Output scale	0...100 %RH equals 0...1 VDC
Accuracy at +20 °C (+68 °F) (incl. nonlinearity and hysteresis)	
against factory references	±1 %RH
field calibration against references	±2 %RH (0...90 %RH)
Typical long-term stability	±3 %RH (90...100 %RH)
Temperature dependence	< 1% RH / year
Response time (90% at +20 °C)	±0.05 %RH/ °C (±0.03%RH/°F)
	10 s with membrane filter
Humidity sensor	HUMICAP® 180

Temperature

HMP45A

Measurement range	-39.2...+60 °C (-39.2...+140 °F)
Output scale	-40...+60 °C (-40...+140 °F) equals 0...1 VDC
Accuracy at +68 °F (+20 °C)	±0.2 °C (±0.36 °F)

Accuracy over measurement range.



Temperature sensor

Pt 1000 IEC 751

HMP45D

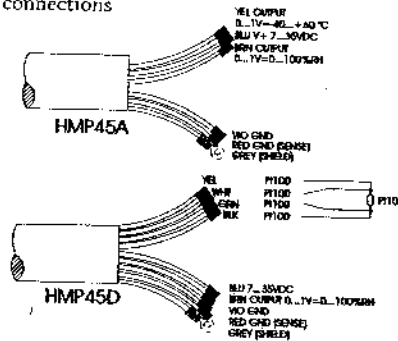
Measurement range	-40...+60 °C (-40...+140 °F)
Output signal	resistive four wire connection
Temperature sensor	Pt 100 IEC 751 1/3 Class B

Complies with EMC standard EN61326-1:1997 + Am 1:1998 + Am2:2001: Generic Environment.

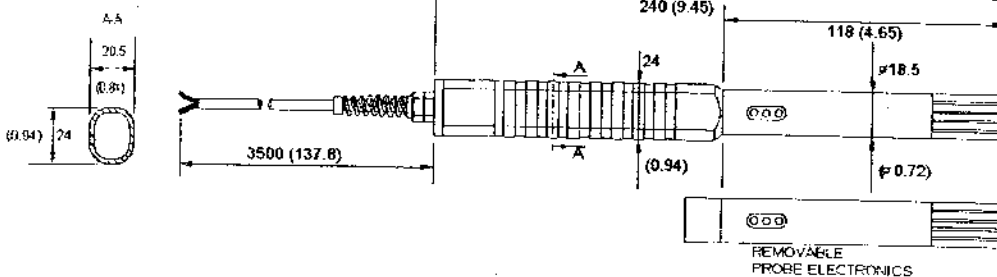
Dimensions

Dimensions in mm.

HMP45A/D connections



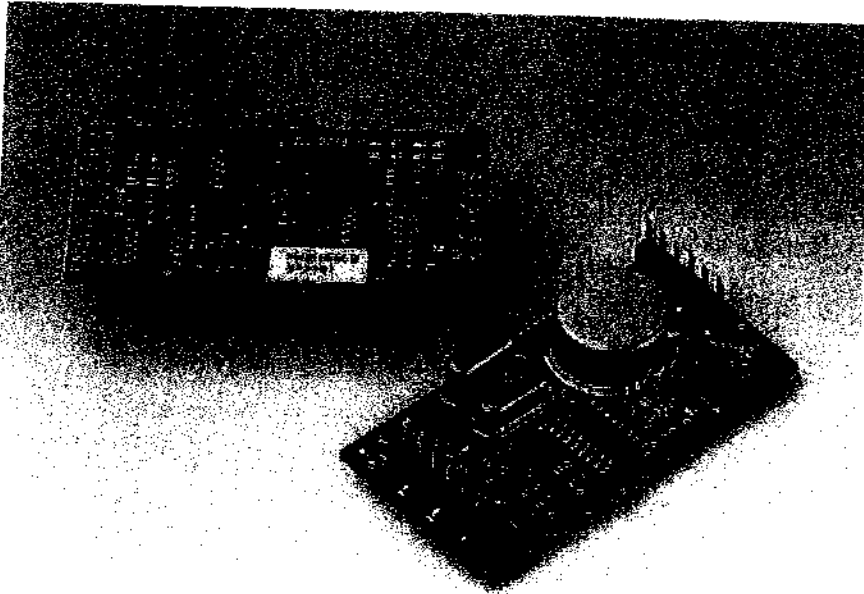
HMP45A/D probe



HUMICAP® is a registered trademark of Vaisala.
Specifications subject to change without prior notice.
©Vaisala Oyj



PMB100 Barometer Module for OEM Applications



Features/Benefits

- 800...1100 hPa pressure range
- -5...+45 °C (+23...+113 °F) operating temperature range
- Pressure dependent voltage output: 0...2.5 VDC
- Accuracy:
 - ±0.5 hPa total accuracy over the entire operating range
 - ±0.3 hPa at room temperature
- Compact size: 2.5 cm x 5 cm
- BAROCAP® silicon absolute pressure sensor
- Pressure connector for 1/16 in. tube

The Vaisala BAROCAP® Barometer Module PMB100 offers reliable barometric pressure measurement in a compact size.

The Vaisala BAROCAP® Barometer Module PMB100 is a compact barometric pressure transducer. The module can be used in a variety of applications, such as simple weather stations, laser interferometers and barometric data buoys.

A compact OEM module

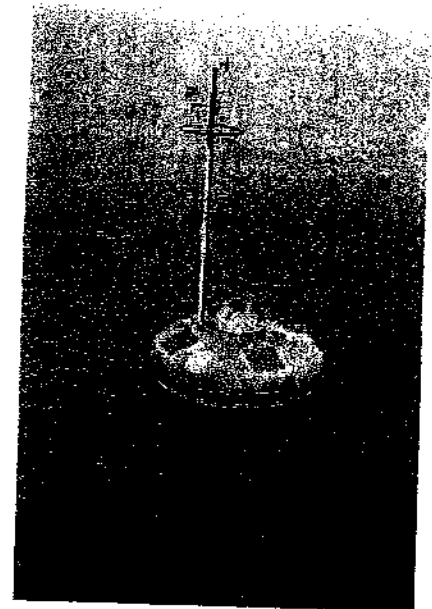
The PMB100 module for OEM applications is a circuit board mountable barometric pressure transducer that is designed to interface with an AD converter and a microprocessor. All compensations are performed by the software of the host system. The PMB100 module can be incorporated into the customer's instrumentation.

Individual pressure calculation coefficients are delivered with each PMB100 module and stored in an EEPROM that uses the I2C interface.

All the user needs to do is to measure the temperature of the module and the two voltage outputs and calculate the compensated pressure reading with the help of coefficients. A final offset correction against a high-class pressure standard is recommended.

Vaisala BAROCAP® Sensor

The PMB100 module uses the Vaisala BAROCAP® Sensor, a silicon capacitive absolute pressure sensor developed by Vaisala for professional meteorological measurements. This sensor has excellent hysteresis and repeatability characteristics and outstanding temperature and long-term stability.



The PMB100 modules can be incorporated into data buoys to report barometric pressure at sea.

Technical Data

Operating range (1hPa=1mbar)

Pressure range	800...1100 hPa
Temperature range	-5...+45 °C (+23...+113 °F)
Humidity range	<80% RH

Accuracy

After OFFSET correction performed by the customer
+20 °C (+68 °F) 1000 hPa:

Linearity	±0.25 hPa
Hysteresis	±0.05 hPa
Repeatability	±0.05 hPa
Accuracy at +20 °C (+68 °F)	±0.3 hPa
Temperature hysteresis	±0.3 hPa
Total accuracy -5...+45 °C (+23...+113 °F)	±0.5 hPa

Without the OFFSET correction performed by the customer:

Total accuracy -5...+45 °C (+23...+113 °F) ±1.00 hPa

Long term stability	±0.20 hPa (typical)
Effect of thermal or mechanical shocks	<0.20 hPa

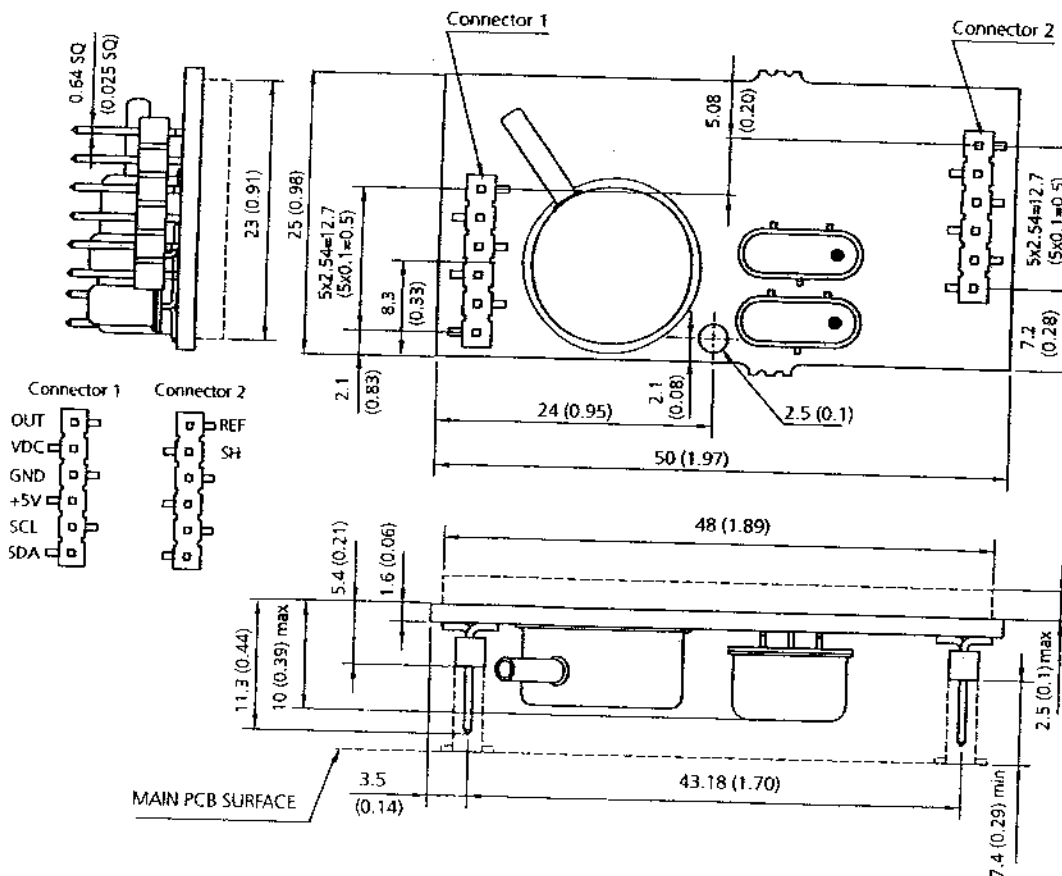
An error of 1° C in temperature measurement causes an error of 0.14 hPa in pressure.

Dimensions in mm (inches)

General

Supply voltage	9...16 VDC
Shut down control	with TTL level trigger
	<0.7 V ON
	>2.0 V OFF
Supply voltage sensitivity	less than 0.1 hPa
Current consumption	
operation mode	2 mA (typical)
shutdown mode	150µA (typical)
Output voltage	
output	0...2.5 V
reference	2.5 V
Resolution	0.1 hPa
Load resistance	10 kohm minimum
Load capacitance	100 nF maximum
Settling time at power-up	200 ms
Response time	100 ms
Warm-up shift	less than 0.05 hPa
Pressure hose	1/16", vinyl hose, 300 mm
Maximum pressure limit	2000 hPa
Electrical connectors	two 6-pin headers, 2.54 mm grid
Weight	70 g

BAROCAP* is a registered trademark of Vaisala.
Specifications subject to change without prior notice.
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Air Temperature Sensors

060
062
064

Met One Instruments' Temperature Sensors are precision, extended range thermistor devices that are used for the accurate measurement of ambient air temperature. They are particularly well suited for field applications, as they exhibit a very high resistance sensitivity. Problems associated with line lead length, noisy environments, and poor connections are virtually eliminated. Sensors may be interchanged without requiring system recalibration. Difference among these sensors are associated with packaging and accuracy, allowing for the precise solution to sensor selection.

Features

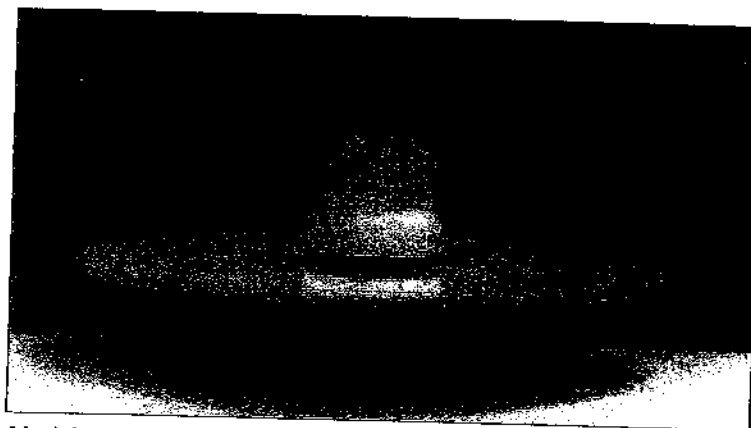
- Rapid response time
- Calibration traceable to NIST
- Interchangeable without recalibration
- High resistance values to minimize signal line resistance
- 'Free air' suspension of thermistor bead
- Several ranges available

Operation

The solid state multi-element thermistor produces a relatively large resistance change per degree of temperature change,



Model 060A, Model 062



Model 060A, Model 062

allowing the use of normal signal voltages without self-heating of the sensor. When used with signal conditioning modules, the resultant output is a precise analog voltage.

Construction

The thermistor has a speed of response of 10 seconds in still

air. In order to insure this response time, the thermistor bead is supported in free air and protected by the sensor body. In addition to providing minimum response time, this mounting configuration prohibits the sensor from measuring the strain that may be caused by potting compounds.



Met One Instruments, Inc.

Corporate Sales & Service: 1600 Washington Blvd., Grants Pass, OR 97526, Phone (541) 471-7111, Fax (541) 471-7116
Distribution & Service: 3206 Main Street, Suite 106, Rowlett, TX 75088, Phone (972) 412-4747, Fax (972) 412-4716
<http://www.metone.com> • metone@metone.com

Specifications

Common Specifications

Sensing Element: Multi-stage solid state thermistor, highly linearized
Time Constant: Less than 10 seconds in still air
Self-Heating: None

Model 060A

The Model 060A-2 is designed for general purpose measurements of ambient air temperature.

Housing: 3/8 in (9.5 mm) OD x 6 in (152.4 mm)
Range: -50°C to +50°C (Other ranges available to meet special requirements)
Accuracy: ±0.1°C throughout range, PSD compliant
Cable: 1 ft pigtails (for use with 076 or 077 Radiation Shield)
Additional length may be supplied, specify length

Model 062

The Model 062 is a highly accurate version of the Model 060A-2. It is used in pairs for the measurement of differential temperature (ΔT), or singly for highly critical ambient temperature measurement.

Housing: 3/8 in (9.5 mm) OD x 6 in (152.4 mm)
Range: -50°C to +50°C
Accuracy: ±0.05°C, PSD Compliant
Linearity Deviation: For a system
range of: Max. error per degree
of differential temperature: Max. error
over range:

-5°F to +5°F	.02°F	.05°F
-5°C to +5°C	.02°C	.05°C
-5°F to +10°F	.02°F	.1°F
-5°C to +10°C	.02°C	.1°C
-10°F to +20°F	.02°F	.2°F

Cable: 1 ft pigtails (for use with 076 or 077 Radiation Shield)
Additional length may be supplied, specify length

Model 064

The Model 064 utilizes the same sensing network as the Model 060, but is configured to mount directly to the Model 073B or 075B Radiation Shield. The sensor is supplied with a screw-type connector which allows the direct connection of the signal cable. Thermistor bead is protected by a stainless steel bumper.

Housing: Mounting plate, white epoxy finished aluminum, 4" diameter, with
screw connector for sensor cable. Thermistor bead is protected by
a stainless steel bumper.

Range: 064-1 -30°C to +50°C
064-2 -50°C to +50°C
Other ranges available to meet special requirements

Accuracy: 064-1 ±0.15°C
064-2 ±0.1°C, PSD compliant

Cable: PN 1958-xx (xx=length in ft)

F460 WIND SENSORS

FEATURES

- High Survivability
- Excellent Dynamic Response
- Low Threshold
- Low Power CMOS Design
- Optional External Heaters

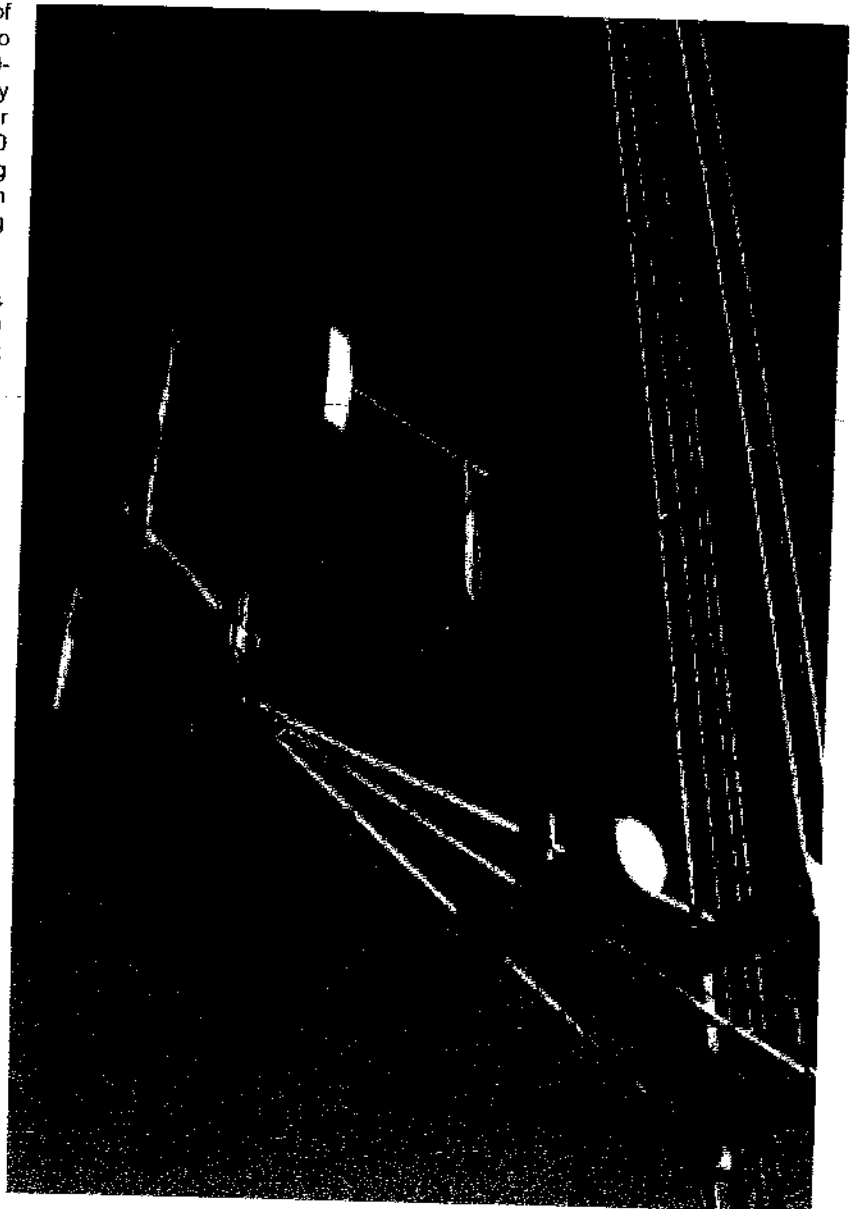
Climatronics' F460 Wind Sensors are capable of operation in virtually all weather conditions. Designed to meet the requirements of Specification No. F460-SP001 for the National Weather Service, the durability of these sensors makes them ideal for multi-level tower installations. Although moderately priced, the F460 wind sensors offer the combination of low starting threshold, quick response, and high accuracy with excellent reliability over a wide range of operating conditions.

The F460 Wind Speed Sensor P/N 100075 monitors the wind speed with a three-cup anemometer. An LED photo chopper device provides a frequency output directly proportional to the wind speed. NIST traceability is optionally available for each anemometer cup assembly by comparison testing against a NIST transfer standard in our wind tunnel test facility.

The F460 Wind Direction Sensor, P/N 100076, consists of a counter-balanced, lightweight vane and a precision, low torque, highly reliable potentiometer that yields a voltage output proportional to the wind direction. Once properly oriented on the keyed cross-arm, the wind direction sensor may be removed or replaced without requiring reorientation.

Installation is a simple matter of fastening each sensor to the crossarm, P/N 101994, which fits a $\frac{3}{4}$, 1, or 1- $\frac{1}{4}$ inch IPS pipe. Optional, thermostatically controlled external heaters are also available. Our single-board signal conditioner, the Universal Interface Module (UIM), can be used with the F460 sensors. Please consult the Universal Interface Module (UIM) data sheet for more details. The sensors can also be directly interfaced to Climatronics' IMP-800 series of data loggers or other commonly available data acquisition units.

The Component Anemometer, P/N 102236, can be used in conjunction with the F460 System to measure the vertical component of the wind. Consult the Vertical Component Anemometer data sheet for additional details.



SPECIFICATIONS

PERFORMANCE

Accuracy
 Threshold
 Distance Constant

Damping Ratio
 Operating Range

F460 Wind Speed P/N 100075

0.15 mph (± 0.07 m/s) or $\pm 1.0\%$ of true air speed (whichever is greater)
 0.5 mph (0.22 m/s)
 102104 LEXAN <1.5 m (4.9 ft)
 101287 HD Aluminum <4.0 m (13.1 ft)
 100057 Stainless Steel <2.4 m (7.9 ft)
 N/A
 0 to 125 mph (0 to 60 m/s)

F460 Wind Direction P/N 100076

± 2 degrees
 0.5 mph (0.22 m/s)
 101907 Standard <1.0 m (3.0 ft)
 101288 Heavy Duty <2.5m (8.2 ft)
 >0.4 at 10° initial angle of attack
 0 to 360 degrees - mechanical

ELECTRICAL SPECIFICATIONS

Signal Output

Power Requirements

Nominal 2.0 Vpp into 2.0 Kohm, frequency proportional to wind speed, amplitude dependant on supply voltage
 5 to 15 VDC @ 1 mA nominal

Variable DC voltage, magnitude proportional to wind direction

Max 1 mA through 10 Kohms

PHYSICAL SPECIFICATIONS

Size

Weight
 Turning Radius
 Operating Temperature

2.25 in (5.7 cm) max diameter
 11.5 in (29.2 cm) high
 Less than 2 lbs (0.9 kg)
 3.75 in (9.5 cm)
 -40° to 140° F
 (-40° to 60° C)

2.25 in (5.7 cm) max diameter
 11.5 in (29.2 cm) high
 Less than 2 lbs (0.9 kg)
 16.5 in (41.9 cm)
 -40° to 140° F
 (-40° to 60° C)

CROSSARM SPECIFICATIONS

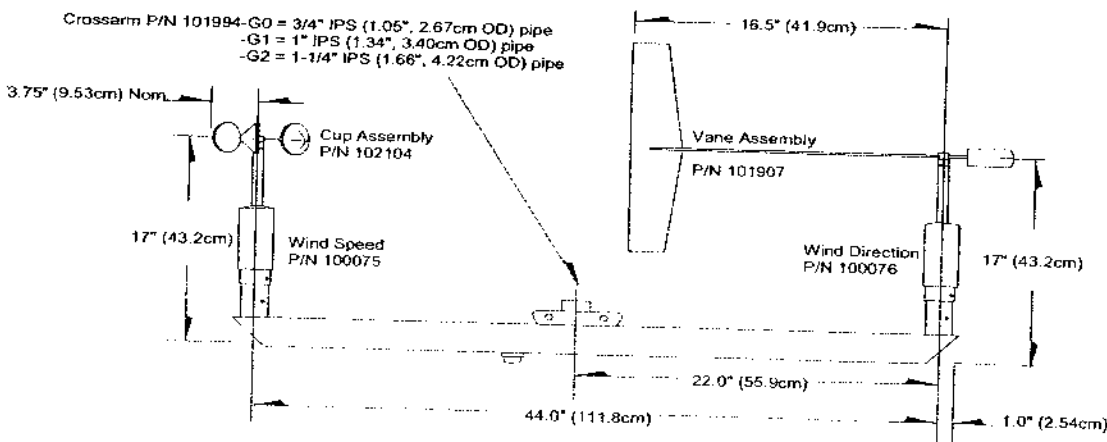
Length
 Weight
 Mounting

45 in (114.3 cm)
 7 lbs (3.2 kg)
 1.66 in (4.2 cm) - O.D. 1-1/4 in IPS pipe (3/4 in & 1.0 in IPS also available)

SENSOR HEATER SPECIFICATIONS

Internal (P/N 101263)
 External (P/N 101235)

12 VDC, 2 Watts per sensor
 115 VAC/60Hz 20 Watts per sensor, thermostatically controlled



Climatronics Corporation
 140 Wilbur Place
 Bohemia, NY 11716-2404

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 E-Mail: sales@climatronics.com

Rev. 2/13/01

Use of Synchronous Motors with Climatronics P/N 100075 F460 Wind Speed Sensors

Purpose:

A synchronous motor is used to spin a wind speed sensor at a known rate to check system linearity.

Technique:

The motor should be connected to the sensor with a "hard" coupling. A piece of tubing may accelerate sensors at higher speeds. Do not use this. Climatronics motors are provided with the correct "hard" coupling for this application.

Conversions:

Meters per Second = MPH X 0.44704

Knots = MPH X 0.86897

Kilometers per Hour = MPH X 1.6094

Calculations:

Cup Type	Cupset P/N	Output Frequency	Velocity in MPH	Velocity in M/S
Lexan	102104	RPM/2	$= ((\text{Frequency} / 9.511) + 0.3)$ $= ((\text{RPM} / 19.022) + 0.3)$	$= ((\text{Frequency} / 21.28) + 0.13)$ $= ((\text{RPM} / 42.55) + 0.13)$
Heavy Duty Aluminum	101287	RPM/2	$= ((\text{Frequency} / 9.511) + 0.5)$ $= ((\text{RPM} / 19.022) + 0.5)$	$= ((\text{Frequency} / 21.28) + 0.22)$ $= ((\text{RPM} / 42.55) + 0.22)$
Stainless Steel	100057	RPM/2	$= ((\text{Frequency} / 10.425) + 0.5)$ $= ((\text{RPM} / 19.022) + 0.5)$	$= ((\text{Frequency} / 23.31) + 0.22)$ $= ((\text{RPM} / 46.64) + 0.22)$
Vinyl	100083	RPM/2	$= ((\text{Frequency} / 9.511) + 0.5)$ $= ((\text{RPM} / 19.022) + 0.5)$	$= ((\text{Frequency} / 21.28) + 0.22)$ $= ((\text{RPM} / 42.55) + 0.22)$



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3 month:

- Measure bearing torque to determine if bearings need replacement (unless bearings are being replaced on a periodic schedule). For a 1 mph starting threshold, bearing torque should not exceed 0.28 g-cm for the anemometer, and 6.0 g-cm for the vane.

If bearing torque is measured, starting threshold can be computed using the following equation:

$$u = (T/K)^{1/2}$$

where:

- u = wind speed (m/sec)
- T = torque (g-cm)
- K is a constant for the aerodynamic shape (g)
- K = 1.4 for the anemometer
- K = 30.0 for the vane

or 0.5 m/s
- PA threshold,
this solves
0
i = 7.5 g-cm
(0.184 oz-in)
- WD wind
i = 0.35 g-cm
(0.0049 oz-in)
- WS

12 month:

- Replace anemometer bearings.
- Check vane linearity.

24 month:

- Replace vane bearings.

Bearing replacement based on torque measurements has advantages in that: 1) the bearings are only replaced when necessary, 2) a history of bearing life is established, and 3) the starting threshold of the sensor can be determined. Torque watches for measuring bearing torque are available from the manufacturer (Climatronics 516/567-7300), for approximately \$1100 (2 required).

7. TROUBLESHOOTING

7.1 WIND DIRECTION

-99999 or random negative numbers displayed in input location

- Make sure the battery voltage is between 9.6 and 16 VDC.
- Verify the sensor is wired to the Single-Ended input channel specified by parameter 3 of Instruction 4 (Single-Ended channels are numbered sequentially starting at 1H, i.e., 1L is Single-Ended channel 2).
- Make sure parameter 2 of Instruction 4 is 5.

0.0000 or slightly negative numbers displayed in input location

- Make sure the execution interval has been entered in the program table.
- Verify the sensor is wired to the excitation channel specified by parameter 4 of Instruction 4. Parameter 6 should be 2500 for the CR10, 5000 for the 21X/CR7.

7.2 WIND SPEED

Unreasonable results displayed in input location:

- Inspect the sensor for damage or contamination
- Check that the multiplier and offset in Instruction 3 are correct for the desired engineering units.

Offset only displayed in input location:

- Make sure the sensor is properly wired to the 5V and G terminals on the CR10, or to the CAO port and ground on the 21X or CR7 dataloggers. When using the CAO port, Instructions 30 and 21 should precede the sensor measurement instructions, and executed each time through the program table. Verify 5V is present on the 5V terminal or CAO port using a voltmeter.

Appendix D

Validated Continuous/Hourly/Daily/Monthly Data Summaries

Rock Creek - 2-m Temperature (deg. C)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-5.9	-5.0	-4.4	-4.2	-4.0	-3.9	-3.9	-2.6	-1.9	-1.8	-1.9	-2.5	-3.0	-3.3	-3.7	-4.3	-3.9	-3.7	-3.0	-2.9	-3.0	-2.7	-1.7	-2.0	-1.7	-5.9	-3.3
2	-2.2	-2.4	-2.0	-1.5	-1.4	-0.9	-0.8	-1.1	-1.2	-1.6	-2.1	-3.3	-4.1	-3.8	-3.5	-3.4	-3.9	-4.2	-4.9	-5.7	-6.9	-6.6	-7.3	-8.9	-0.8	-8.9	-3.5
3	-8.6	-9.9	-10.0	-10.5	-9.5	-7.3	-8.4	-8.2	-8.4	-8.4	-8.5	-9.5	-10.2	-10.7	-12.1	-11.7	-12.3	-12.3	-12.7	-12.7	-12.8	-11.3	-9.9	-8.7	-7.3	-12.8	-10.2
4	-8.2	-7.6	-7.1	-7.0	-6.5	-6.1	-5.2	-5.7	-5.7	-5.8	-6.4	-7.9	-9.4	-10.2	-11.0	-11.2	-10.6	-10.7	-12.0	-11.8	-11.6	-12.4	-11.2	-10.9	-5.2	-12.4	-8.8
5	-11.2	-12.5	-11.4	-11.6	-10.2	-9.2	-9.5	-11.3	-11.6	-11.1	-9.6	-9.1	-8.8	-9.2	-9.0	-6.6	-5.3	-3.3	-3.0	-2.8	-3.1	-4.6	-4.0	-3.6	-2.8	-12.5	-8.0
6	-4.0	-5.9	-7.6	-4.9	-6.6	-7.2	-7.8	-8.8	-10.4	-10.8	-9.4	-10.0	-12.2	-11.3	-12.0	-8.2	-7.8	-7.3	-6.6	-7.0	-8.7	-8.9	-8.0	-6.9	-4.0	-12.2	-8.3
7	-7.9	-9.7	-11.3	-10.8	-12.5	-12.3	-13.1	-12.0	-13.0	-12.8	-12.9	-12.9	-13.4	-13.0	-13.3	-14.0	-14.0	-13.9	-14.5	-14.3	-13.0	-12.6	-13.8	-15.3	-7.9	-15.3	-12.8
8	-15.9	-16.5	-16.3	-17.0	-17.5	-18.2	-18.7	-20.0	-21.5	-21.7	-21.1	-21.4	-20.9	-20.3	-19.7	-19.5	-18.0	-18.3	-18.2	-18.2	-18.1	-17.5	-16.4	-15.4	-15.4	-21.7	-18.6
9	-14.4	-14.1	-16.0	-17.0	-17.8	-16.8	-16.5	-15.5	-15.7	-15.8	-17.0					-16.2	-15.5	-17.0	-17.4	-16.9	-17.3	-17.4	-17.4	-19.6	-14.1	-19.6	-16.6
10	-19.8	-20.0	-20.9	-19.1	-20.0	-20.0	-20.6	-19.7	-19.2	-19.5	-18.0	-18.2	-17.8	-17.9	-18.0	-17.8	-18.2	-16.8	-15.5	-14.3	-13.9	-13.6	-13.8	-14.1	-13.6	-20.9	-17.8
11	-14.6	-15.0	-15.4	-15.4	-15.3	-15.5	-15.2	-14.8	-14.7	-14.2	-13.5	-13.4	-12.5	-12.7	-12.7	-12.8	-12.9	-13.9	-14.2	-13.2	-12.3	-12.0	-11.7	-11.1	-11.1	-15.5	-13.7
12	-10.2	-9.9	-10.2	-10.1	-10.2	-9.7	-9.9	-10.1	-10.6	-11.5	-13.9	-15.6	-15.9	-18.9	-16.9	-18.5	-18.5	-16.5	-18.3	-16.6	-18.7	-18.8	-18.6	-20.7	-9.7	-20.7	-14.5
13	-14.1	-12.1	-13.7	-19.3	-20.4	-17.8	-17.3	-17.4	-17.0	-18.0	-18.6	-18.7	-17.5	-17.2	-17.9	-17.7	-17.8	-16.6	-17.0	-17.2	-18.1	-17.6	-16.8	-16.7	-12.1	-20.4	-17.2
14	-14.9	-12.4	-13.6	-14.4	-15.9	-15.9	-16.7	-17.9	-18.6	-19.9	-19.6	-19.0	-20.0	-19.1	-20.1	-20.5	-20.5	-20.6	-20.8	-19.2	-21.2	-22.1	-22.4	-23.2	-12.4	-23.2	-18.7
15	-23.9	-23.7	-25.6	-24.7	-25.1	-24.3	-26.0	-25.9	-25.2	-25.1	-25.9	-25.2	-24.5	-22.0	-21.6	-21.9	-22.1	-21.5	-21.8	-20.7	-21.1	-21.5	-22.6	-23.1	-20.7	-26.0	-23.5
16	-24.0	-24.9	-25.5	-25.0	-26.5	-27.2	-27.0	-27.8	-28.1	-27.5	-29.0	-28.4	-27.7	-26.4	-25.5	-24.0	-24.0	-25.3	-26.6	-27.1	-28.4	-28.4	-28.3	-26.6	-24.0	-29.0	-26.6
17	-25.7	-24.8	-25.0	-26.4	-29.6	-29.3	-28.5	-28.4	-29.0	-29.3	-29.1	-29.0	-29.4	-29.2	-29.2	-28.7	-27.8	-27.3	-29.4	-28.3	-27.5	-28.1	-28.9	-28.6	-24.8	-29.6	-28.2
18	-28.1	-29.1	-29.9	-29.7	-29.0	-30.8	-31.1	-30.1	-31.0	-31.5	-32.0	-30.5	-31.1	-30.9	-28.9	-29.2	-29.7	-29.8	-32.2	-30.5	-30.5	-30.9	-30.4	-31.4	-28.1	-32.2	-30.3
19	-33.3	-30.0	-30.9	-32.3	-31.0	-30.0	-30.5	-27.2	-25.7	-23.2	-23.4	-23.1	-22.6	-22.5	-23.1	-22.8	-21.9	-21.1	-19.2	-19.1	-18.4	-17.9	-17.9	-17.6	-17.6	-33.3	-24.4
20	-15.9	-15.6	-14.7	-14.5	-12.0	-12.4	-12.5	-11.1	-11.3	-12.2	-13.1	-12.9	-12.6	-12.4	-12.6	-12.2	-12.4	-12.3	-11.5	-11.0	-10.5	-10.2	-8.9	-8.7	-8.7	-15.9	-12.2
21	-7.8	-7.5	-7.1	-8.3	-8.3	-7.8	-6.5	-7.0	-7.7	-6.2	-5.8	-4.5	-4.2	-4.6	-4.8	-3.8	-2.5	-2.9	-4.3	-2.7	-3.7	-5.0	-4.5	-5.1	-2.5	-8.3	-5.5
22	-6.9	-6.9	-6.8	-7.6	-8.0	-7.6	-7.5	-7.9	-8.3	-8.4	-8.4	-8.0	-7.9	-7.8	-7.8	-7.5	-7.7	-7.3	-6.8	-6.5	-5.9	-5.8	-6.0	-6.0	-5.8	-8.4	-7.3
23	-6.0	-6.1	-6.6	-6.2	-6.0	-6.0	-6.0	-5.6	-5.4	-5.1	-5.0	-5.6	-5.9	-5.8	-5.6	-6.3	-6.0	-5.9	-6.4	-7.1	-5.8	-5.3	-5.2	-6.0	-5.0	-7.1	-5.9
24	-5.4	-6.0	-6.0	-5.2	-4.9	-4.7	-5.0	-4.9	-5.5	-6.1	-6.3	-6.9	-6.6	-5.9	-5.7	-5.5	-5.0	-5.2	-5.2	-4.9	-5.1	-5.3	-5.2	-5.2	-4.7	-6.9	-5.5
25	-4.8	-4.5	-4.5	-4.8	-5.2	-5.5	-5.7	-5.6	-6.0	-5.9	-6.1	-6.4	-7.0	-7.2	-7.3	-7.5	-7.7	-8.0	-8.8	-8.8	-8.8	-8.6	-8.5	-8.6	-4.5	-8.8	-6.7
26	-8.8	-9.5	-9.2	-9.1	-9.7	-10.8	-11.3	-11.4	-11.3	-10.4	-10.9	-11.1	-11.4	-10.9	-10.8	-11.1	-11.3	-12.4	-13.7	-13.6	-13.3	-13.1	-12.2	-11.6	-8.8	-13.7	-11.2
27	-10.6	-10.5	-11.0	-9.3	-9.2	-9.1	-9.7	-10.3	-9.8	-10.3	-10.6	-9.7	-8.4	-7.5	-8.1	-8.6	-10.1	-10.8	-11.1	-11.1	-12.5	-13.5	-12.9	-12.7	-7.5	-13.5	-10.3
28	-12.2	-13.1	-12.0	-11.7	-11.6	-11.4	-11.3	-11.0	-11.4	-11.6	-13.7	-14.6	-14.2	-14.1	-14.1	-14.5	-15.9	-15.6	-16.0	-17.3	-16.7	-17.1	-18.6	-18.6	-11.0	-18.6	-14.1
29	-19.6	-20.0	-21.2	-19.7	-20.5	-21.7	-21.2	-20.9	-21.4	-20.9	-21.4	-22.0	-21.7	-21.6	-19.6	-19.0	-18.0	-19.4	-21.1	-20.4	-18.6	-21.5	-19.3	-20.6	-18.0	-22.0	-20.5
30	-20.7	-20.0	-19.6	-18.8	-18.9	-18.4	-16.5	-18.4	-18.2	-19.4	-17.6	-16.1	-16.4	-15.2	-14.3	-14.3	-15.3	-14.7	-15.6	-16.1	-16.0	-16.4	-15.7	-15.7	-14.3	-20.7	-17.0
31	-17.0	-17.9	-17.8	-15.5	-17.5	-16.3	-15.5	-16.6	-16.2	-16.1	-16.4	-16.4	-15.3	-14.1	-13.4	-13.9	-13.8	-14.9	-13.9	-14.7	-15.5	-15.0	-14.2	-14.0	-13.4	-17.9	-15.5
Max.	-2.2	-2.4	-2.0	-1.5	-1.4	-0.9	-0.8	-1.1	-1.2	-1.6	-1.9	-2.5	-3.0	-3.3	-3.5	-3.4	-2.5	-2.9	-3.0	-2.7	-3.0	-2.7	-1.7	-2.0	-0.8		
Min.	-33.3	-30.0	-30.9	-32.3	-31.0	-30.8	-31.1	-30.1	-31.0	-31.5	-32.0	-30.5	-31.1	-30.9	-29.2	-29.2	-29.7	-29.8	-32.2	-30.5	-30.5	-30.9	-30.4	-31.4		-33.3	
Avg.	-13.6	-13.6	-14.0	-13.9	-14.2	-14.0	-14.1	-14.0	-14.2	-14.3	-14.4	-14.4	-14.4	-14.2	-14.1	-14.0	-13.9	-13.8	-14.3	-14.0	-14.1	-14.2	-13.9	-14.1			-14.1

Total Hours in Month

744

Hours Data Available

740

Data Recovery

99.5%

Rock Creek - 2-m Temperature (deg. C)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-14.1	-14.0	-14.1	-15.9	-16.0	-16.2	-16.2	-16.0	-16.2	-16.4	-16.3	-16.0	-15.3	-15.5	-15.7	-15.9	-16.2	-16.9	-17.3	-17.3	-18.2	-18.1	-18.0	-18.4	-14.0	-18.4	-16.2
2	-18.8	-18.9	-18.7	-20.2	-21.5	-21.6	-21.1	-21.2	-21.2	-21.7	-21.9	-21.5	-21.1	-19.8	-19.6	-19.7	-19.9	-20.4	-20.8	-21.3	-21.0	-21.2	-21.8	-22.2	-18.7	-22.2	-20.7
3	-22.0	-21.3	-21.2	-20.2	-20.4	-20.7	-20.4	-20.6	-20.1	-19.7	-19.6	-19.9	-19.5	-19.3	-18.7	-18.6	-18.8	-19.6	-20.2	-20.6	-20.1	-19.9	-19.7	-19.6	-18.6	-22.0	-20.0
4	-19.5	-20.0	-20.8	-21.1	-20.9	-20.9	-21.0	-21.2	-21.4	-21.4	-21.8	-21.6	-21.6	-21.6	-21.8	-22.3	-22.4	-22.8	-23.7	-24.2	-24.5	-24.3	-24.5	-24.7	-19.5	-24.7	-22.1
5	-25.7	-26.1	-26.2	-25.9	-26.7	-26.7	-26.7	-27.1	-27.4	-27.1	-27.2	-26.4	-26.4	-25.4	-25.3	-24.2	-24.8	-25.1	-24.2	-23.8	-22.7	-23.5	-23.6	-24.5	-22.7	-27.4	-25.5
6	-23.8	-25.8	-24.9	-22.2	-22.3	-23.8	-25.8	-26.7	-26.3	-26.8	-26.2	-26.9	-26.2	-25.9	-24.8	-24.5	-25.0	-26.3	-28.1	-27.3	-28.0	-27.1	-26.1	-26.8	-22.2	-28.1	-25.7
7	-27.2	-26.8	-27.2	-26.8	-26.5	-26.8	-26.2	-26.9	-28.6	-27.7	-27.8	-26.7	-23.0	-22.8	-21.6	-22.1	-20.1	-20.4	-21.7	-21.2	-20.8	-20.5	-19.6	-20.2	-19.6	-28.6	-24.1
8	-19.0	-17.0	-15.5	-15.0	-14.8	-14.7	-13.2	-12.3	-13.5	-12.5	-13.1	-12.0	-10.2	-10.9	-9.8	-8.4	-9.9	-8.6	-6.8	-6.6	-6.4	-6.8	-7.1	-5.8	-5.8	-19.0	-11.2
9	-5.3	-4.5	-4.1	-3.4	-3.0	-2.9	-2.9	-2.6	-1.8	-1.7	-1.8	-1.4	-0.9	-0.4	-0.2	-0.4	-0.3	-0.2	-0.5	-0.6	-1.1	-1.2	-0.9	-0.8	-0.2	-5.3	-1.8
10	-0.4	-0.7	-0.6	0.6	1.2	0.7	0.7	1.4	0.9	2.7	2.2	1.7	-1.4	-2.2	-2.5	-2.6	-2.7	-1.5	-0.7	-1.0	0.2	0.3	0.4	0.4	2.7	-2.7	-0.1
11	0.0	-0.6	-0.8	-0.8	-0.7	-1.0	-1.1	-1.8	-2.2	-2.6	-2.6	-2.4	-1.7	-1.2	-0.9	-1.2	-1.2	-1.5	-1.8	-1.5	-0.7	-0.7	-1.1	-1.4	0.0	-2.6	-1.3
12	-1.0	-1.1	-0.5	-0.3	-0.8	-1.6	-1.4	-2.0	-2.7	-2.6	-1.0	0.3	0.7	0.3	0.1	0.1	0.1	0.1	0.3	0.2	-0.2	0.2	0.1	-0.1	0.7	-2.7	-0.5
13	0.1	0.6	0.9	1.4	1.7	0.9	0.6	1.6	1.4	1.5	1.8	2.0	2.2	2.2	1.4	1.9	1.6	1.4	0.5	-0.3	-0.9	-1.4	-1.3	-1.6	2.2	-1.6	0.8
14	-3.0	-2.2	-2.4	-2.9	-3.3	-2.5	-3.9	-3.8	-3.9	-4.3	-5.2	-6.0	-6.7	-6.3	-5.7	-6.5	-6.4	-6.4	-6.6	-6.7	-7.8	-8.5	-8.8	-8.9	-2.2	-8.9	-5.4
15	-9.1	-9.5	-9.4	-9.0	-9.3	-9.2	-9.9	-10.0	-10.3	-11.1	-11.5	-11.0	-10.8	-10.2	-10.0	-9.9	-10.2	-10.2	-11.0	-11.9	-12.3	-13.3	-14.2	-15.2	-9.0	-15.2	-10.8
16	-15.4	-15.4	-14.7	-14.6	-15.2	-15.5	-15.8	-16.8	-16.4	-17.1	-17.9	-18.1	-17.2	-15.8	-14.2	-14.0	-14.0	-14.2	-15.5	-17.2	-16.5	-17.4	-17.9	-17.3	-14.0	-18.1	-16.0
17	-17.8	-17.8	-17.5	-17.8	-18.7	-19.4	-20.6	-20.5	-20.9	-19.4	-19.6	-18.5	-16.5	-15.0	-14.6	-14.8	-15.1	-15.9	-18.2	-19.8	-20.4	-19.9	-20.7	-20.4	-14.6	-20.9	-18.3
18	-20.8	-22.9	-24.3	-23.5	-22.9	-21.7	-22.6	-21.6	-22.2	-22.8	-22.6	-22.1	-19.4	-18.0	-17.0	-17.0	-17.2	-18.4	-20.1	-19.4	-22.0	-22.6	-21.9	-23.1	-17.0	-24.3	-21.1
19	-21.2	-21.4	-21.2	-22.0	-21.8	-21.9	-21.9	-20.5	-22.8	-23.1	-23.0	-21.4	-19.5	-19.4	-19.0	-18.2	-17.7	-18.9	-20.3	-22.0	-21.7	-23.1	-22.3	-23.1	-17.7	-23.1	-21.1
20	-22.8	-22.3	-22.1	-22.6	-21.2	-19.7	-19.0	-18.8	-19.0	-19.5	-19.5	-17.3	-16.5	-14.2	-13.1	-12.2	-11.7	-11.3	-11.6	-11.9	-12.7	-14.2	-14.8	-15.4	-11.3	-22.8	-16.8
21	-15.1	-15.2	-14.0	-13.0	-12.0	-11.7	-10.9	-9.7	-9.2	-8.9	-8.6	-7.1	-8.0	-5.6	-4.9	-4.3	-3.7	-3.6	-3.7	-3.4	-3.3	-3.5	-4.5	-6.1	-3.3	-15.2	-7.9
22	-6.3	-6.3	-7.0	-7.1	-7.5	-7.6	-7.9	-8.1	-8.3	-8.5	-8.7	-8.3	-8.3	-7.8	-7.8	-7.6	-7.9	-7.8	-8.4	-8.5	-8.6	-8.3	-8.5	-8.5	-6.3	-8.7	-7.9
23	-8.7	-9.3	-10.3	-11.6	-12.3	-11.1	-10.1	-9.7	-9.6	-9.8	-10.0	-9.7	-9.6	-9.2	-8.5	-8.4	-7.9	-8.2	-8.3	-8.8	-9.1	-9.3	-9.6	-10.1	-7.9	-12.3	-9.5
24	-10.3	-10.8	-11.1	-11.7	-11.6	-11.9	-12.3	-12.3	-12.8	-13.4	-13.5	-12.2	-11.3	-11.9	-12.0	-12.6	-12.8	-13.0	-14.7	-16.7	-16.1	-16.8	-16.7	-17.1	-10.3	-17.1	-13.2
25	-16.3	-15.7	-15.0	-14.3	-13.6	-12.8	-12.6	-12.4	-12.4	-12.4	-12.0	-11.4	-11.1	-10.4	-9.8	-9.7	-9.5	-9.5	-9.5	-9.8	-9.5	-10.7	-13.0	-13.0	-9.5	-16.3	-11.9
26	-12.8	-12.6	-11.0	-11.2	-11.9	-10.9	-9.6	-10.5	-10.5	-10.2	-9.6	-9.3	-8.4	-8.4	-8.7	-8.8	-8.4	-8.5	-9.0	-8.8	-9.3	-9.8	-9.4	-9.8	-8.4	-12.8	-9.9
27	-9.7	-9.8	-9.9	-10.3	-10.6	-10.6	-10.3	-10.1	-10.4	-11.4	-12.0	-12.2	-10.9	-10.7	-10.0	-9.6	-10.1	-11.9	-13.7	-15.3	-16.1	-16.8	-16.8	-17.0	-9.6	-17.0	-11.9
28	-16.9	-18.0	-18.0	-17.1	-15.3	-16.2	-17.0	-18.1	-18.5	-18.2	-18.4	-17.2	-15.3	-13.8	-13.0	-12.7	-12.6	-12.4	-12.6	-10.8	-9.2	-9.2	-9.0	-8.3	-8.3	-18.5	-14.5
29	-7.7	-5.8	-6.0	-5.4	-4.7	-5.7	-4.0	-3.2	-2.9	-2.6	-1.7	-1.3	-0.9	-0.4	-0.1	0.0	-0.5	-0.4	-0.4	-0.5	-0.6	-0.8	-1.3	-1.2	0.0	-7.7	-2.4
Max.	0.1	0.6	0.9	1.4	1.7	0.9	0.7	1.6	1.4	2.7	2.2	2.0	2.2	2.2	1.4	1.9	1.6	1.4	0.5	0.2	0.2	0.3	0.4	0.4	2.7		
Min.	-27.2	-26.8	-27.2	-26.8	-26.7	-26.8	-26.7	-27.1	-28.6	-27.7	-27.8	-26.9	-26.4	-25.9	-25.3	-24.5	-25.0	-26.3	-28.1	-27.3	-28.0	-27.1	-26.1	-26.8		-28.6	
Avg.	-13.5	-13.5	-13.4	-13.2	-13.2	-13.2	-13.2	-13.2	-13.4	-13.4	-13.4	-12.9	-12.2	-11.7	-11.3	-11.2	-11.2	-11.5	-12.0	-12.3	-12.4	-12.7	-12.8	-13.1			-12.7

Total Hours in Month 696 **Hours Data Available** 696 **Data Recovery** 100%

Rock Creek - 2 -m Temperature (deg. C)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.0	-0.9	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-0.6	-1.0	-1.3	-1.4	-1.8	-1.7	-1.9	-1.9	-2.0	-2.0	-2.1	-2.1	-1.9	-1.8	-1.6	-1.9	-0.6	-2.1	-1.4
2	-2.1	-2.3	-2.2	-2.1	-2.5	-2.7	-2.9	-3.2	-3.4	-3.2	-2.7	-2.4	-2.0	-1.7	-1.5	-1.5	-1.5	-1.3	-1.6	-1.6	-1.8	-1.6	-1.8	-1.7	-1.3	-3.4	-2.1
3	-1.4	-2.1	-2.9	-2.7	-2.6	-2.7	-3.3	-3.4	-4.0	-4.4	-4.3	-4.3	-4.4	-4.7	-4.8	-4.4	-3.9	-3.8	-3.5	-3.8	-3.8	-3.9	-3.9	-3.8	-1.4	-4.8	-3.6
4	-3.9	-3.6	-3.5	-3.3	-2.8	-3.8	-4.1	-4.1	-4.3	-4.3	-3.9	-4.0	-3.9	-3.8	-3.3	-2.8	-2.8	-3.5	-4.8	-6.4	-8.8	-8.9	-7.0	-6.5	-2.8	-8.9	-4.5
5	-6.6	-6.6	-6.8	-6.8	-7.0	-6.9	-7.4	-7.8	-9.1	-11.2	-11.5	-10.6	-10.1	-9.9	-9.8	-9.7	-10.0	-10.8	-12.2	-13.1	-12.9	-13.0	-14.7	-14.9	-6.6	-14.9	-10.0
6	-14.1	-14.1	-15.0	-15.0	-15.8	-16.4	-16.8	-17.0	-17.7	-18.1	-17.0	-15.1	-14.9	-14.2	-13.6	-13.8	-14.9	-15.5	-16.7	-17.6	-18.5	-19.4	-18.4	-18.0	-13.6	-19.4	-16.1
7	-17.9	-18.3	-19.7	-20.1	-21.9	-22.7	-23.2	-23.0	-23.5	-23.0	-23.0	-22.4	-20.4	-18.8	-18.2	-17.5	-17.4	-17.5	-18.3	-20.0	-21.2	-22.6	-23.6	-23.3	-17.4	-23.6	-20.7
8	-22.7	-23.4	-23.7	-23.6	-24.1	-23.8	-25.2	-24.4	-24.8	-23.9	-23.8	-23.0	-20.9	-19.0	-18.3	-17.5	-17.2	-17.4	-19.2	-20.5	-21.8	-23.7	-24.9	-24.1	-17.2	-25.2	-22.1
9	-22.7	-23.1	-21.9	-18.3	-17.0	-17.1	-17.7	-16.7	-15.8	-15.4	-16.7	-15.3	-14.1	-12.5	-11.6	-11.1	-10.7	-11.2	-10.4	-10.6	-11.2	-12.0	-11.5	-11.2	-10.4	-23.1	-14.8
10	-12.0	-12.0	-10.1	-10.0	-10.0	-10.1	-10.1	-9.3	-10.1	-10.3	-9.5	-8.5	-8.2	-7.9	-7.7	-7.0	-6.5	-6.4	-5.8	-5.3	-4.3	-3.6	-3.3	-2.8	-2.8	-12.0	-7.9
11	-2.8	-2.4	-2.5	-1.8	-1.1	-1.3	-0.8	-0.9	-1.1	-1.3	-1.2	-0.7	-0.5	-0.3	-0.7	-0.8	-0.9	-0.9	-1.0	-1.0	-0.8	-0.8	-0.9	-0.9	-0.3	-2.8	-1.1
12	-1.1	-1.2	-1.1	-1.1	-1.3	-1.4	-1.5	-1.6	-2.1	-1.8	-1.6	-1.5	-1.2	-1.3	-1.1	-1.3	-1.5	-2.1	-2.6	-2.5	-2.4	-1.6	-1.3	-1.3	-1.1	-2.6	-1.6
13	-1.2	-1.4	-1.6	-5.5	-6.6	-7.4	-7.4	-9.3	-9.1	-8.4	-7.4	-7.0	-7.3	-7.1	-6.7	-6.5	-6.2	-6.1	-6.7	-7.3	-6.9	-7.2	-6.6	-5.9	-1.2	-9.3	-6.4
14	-5.1	-4.5	-4.4	-3.9	-3.5	-3.1	-3.0	-2.9	-2.7	-2.5	-2.4	-2.1	-1.8	-1.7	-1.7	-1.9	-2.0	-2.2	-2.5	-2.6	-2.8	-2.9	-3.2	-4.0	-1.7	-5.1	-2.9
15	-5.3	-5.2	-5.8	-5.7	-6.6	-6.7	-6.4	-5.5	-5.6	-5.0	-4.5	-3.9	-3.3	-2.7	-2.1	-2.0	-1.8	-2.8	-3.5	-3.6	-4.0	-4.8	-5.6	-6.4	-1.8	-6.7	-4.5
16	-7.0	-8.9	-9.4	-8.8	-8.9	-9.1	-8.7	-9.2	-9.6	-9.4	-9.1	-8.5	-8.9	-9.0	-8.7	-8.2	-9.0	-8.7	-8.7	-9.1	-10.7	-11.4	-11.9	-13.6	-7.0	-13.6	-9.4
17	-14.6	-15.1	-15.2	-13.9	-14.3	-15.1	-16.8	-15.4	-12.9	-12.2	-12.4	-11.7	-11.8	-11.8	-11.2	-11.0	-10.8	-11.2	-11.3	-12.8	-13.6	-14.8	-15.2	-16.1	-10.8	-16.8	-13.4
18	-16.4	-15.6	-16.2	-18.1	-18.0	-19.6	-19.3	-18.7	-15.6	-14.4	-13.7	-15.1	-15.3	-14.4	-13.4	-13.3	-13.9	-14.3	-15.1	-16.9	-18.4	-18.4	-18.4	-20.0	-13.3	-20.0	-16.4
19	-18.9	-20.5	-19.0	-18.1	-19.0	-19.1	-17.9	-16.2	-14.6	-14.2	-13.9	-13.6	-13.3	-13.0	-13.1	-12.9	-13.0	-12.8	-13.3	-13.4	-13.3	-13.0	-12.7	-12.4	-12.4	-20.5	-15.1
20	-12.4	-12.4	-12.5	-12.6	-12.6	-11.9	-11.6	-11.4	-11.1	-11.0	-11.2	-11.0	-10.6	-10.3	-10.2	-10.1	-9.9	-9.4	-9.2	-8.7	-8.5	-8.1	-8.0	-8.1	-8.0	-12.6	-10.5
21	-7.5	-7.7	-7.4	-7.5	-7.4	-7.3	-7.0	-6.9	-6.5	-6.3	-6.0	-5.7	-5.4	-5.0	-4.8	-4.9	-5.1	-5.0	-5.1	-5.2	-5.2	-5.2	-5.5	-5.8	-4.8	-7.7	-6.1
22	-6.6	-7.2	-8.6	-10.4	-10.4	-10.8	-11.5	-13.2	-13.0	-12.3	-11.1	-10.0	-8.9	-7.8	-7.3	-6.8	-6.2	-6.2	-6.3	-7.4	-8.4	-9.3	-9.5	-9.7	-6.2	-13.2	-9.1
23	-8.2	-8.1	-9.5	-10.6	-10.5	-11.4	-11.8	-11.9	-11.7	-11.6	-9.9	-9.4	-7.4	-7.1	-6.2	-4.0	-0.5	-0.7	-2.1	-2.7	-4.8	-7.0	-7.9	-8.5	-0.5	-11.9	-7.6
24	-7.6	-10.6	-10.4	-9.3	-9.9	-10.5	-11.7	-12.5	-13.0	-14.1	-12.8	-12.3	-11.2	-10.9	-11.5	-12.0	-12.9	-13.1	-12.6	-13.2	-13.7	-15.0	-16.1	-15.4	-7.6	-16.1	-12.2
25	-15.1	-15.1	-15.0	-15.3	-15.3	-15.3	-17.1	-17.8	-17.9	-17.8	-17.2	-16.3	-15.0	-13.0	-12.6	-12.4	-11.5	-12.2	-13.4	-14.1	-14.6	-14.7	-15.0	-15.0	-11.5	-17.9	-15.0
26	-14.4	-15.1	-15.1	-15.1	-15.5	-17.2	-17.2	-16.8	-17.1	-17.2	-16.1	-15.3	-14.5	-13.8	-13.4	-13.6	-13.8	-14.3	-15.2	-15.8	-16.7	-17.1	-17.4	-17.5	-13.4	-17.5	-15.6
27	-16.6	-18.3	-20.0	-20.8	-19.9	-19.4	-19.3	-18.2	-17.6	-17.5	-16.7	-15.9	-15.1	-15.0	-15.0	-15.1	-15.7	-16.0	-16.6	-17.4	-18.4	-19.0	-20.2	-20.1	-15.0	-20.8	-17.7
28	-20.8	-21.4	-21.3	-22.4	-22.0	-22.9	-23.6	-23.9	-24.9	-24.8	-25.1	-24.8	-23.4	-23.3	-23.4	-23.6	-24.3	-25.0	-25.5	-26.4	-27.5	-27.9	-28.0	-28.5	-20.8	-28.5	-24.4
29	-29.6	-29.7	-29.8	-29.9	-29.9	-29.5	-29.6	-29.4	-29.0	-28.7	-27.8	-27.0	-26.5	-26.2	-25.9	-25.6	-25.4	-25.3	-25.4	-25.7	-25.8	-26.1	-26.2	-26.5	-25.3	-29.9	-27.5
30	-26.8	-27.0	-26.8	-27.0	-27.3	-27.0	-26.8	-26.7	-26.5	-25.8	-25.4	-24.8	-24.3	-23.7	-23.3	-22.6	-21.8	-21.7	-21.7	-22.6	-23.6	-24.7	-26.2	-26.7	-21.7	-27.3	-25.0
31	-26.8	-27.9	-27.6	-27.5	-28.2	-27.6	-28.0	-28.2	-27.4	-26.8	-24.6	-22.4	-21.1	-20.2	-20.0	-19.5	-19.2	-19.0	-19.0	-20.0	-21.6	-23.2	-23.1	-22.9	-19.0	-28.2	-23.8
Max.	-1.0	-0.9	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-0.6	-1.0	-1.2	-0.7	-0.5	-0.3	-0.7	-0.8	-0.5	-0.7	-1.0	-1.0	-0.8	-0.8	-0.9	-0.9	-0.3		
Min.	-29.6	-29.7	-29.8	-29.9	-29.9	-29.5	-29.6	-29.4	-29.0	-28.7	-27.8	-27.0	-26.5	-26.2	-25.9	-25.6	-25.4	-25.3	-25.5	-26.4	-27.5	-27.9	-28.0	-28.5		-29.9	
Avg.	-11.9	-12.3	-12.4	-12.5	-12.7	-12.9	-13.2	-13.1	-13.0	-12.8	-12.4	-11.8	-11.2	-10.7	-10.4	-10.2	-10.1	-10.3	-10.7	-11.3	-11.9	-12.3	-12.6	-12.7			-11.9

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - 10-m Temperature (deg. C)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-5.8	-4.9	-4.3	-4.0	-3.8	-3.7	-3.9	-2.6	-2.0	-1.8	-1.9	-2.3	-2.9	-3.2	-3.4	-3.4	-3.2	-3.4	-2.9	-2.9	-3.0	-2.7	-1.7	-1.9	-1.7	-5.8	-3.1
2	-1.9	-2.3	-2.0	-1.5	-1.4	-0.8	-0.8	-0.9	-1.0	-1.5	-1.9	-2.9	-3.9	-3.8	-3.5	-3.5	-3.7	-3.6	-3.6	-4.5	-5.6	-4.7	-6.2	-7.4	-0.8	-7.4	-3.0
3	-7.1	-9.2	-8.7	-9.4	-8.0	-6.5	-7.1	-7.4	-7.6	-7.9	-8.1	-8.2	-9.1	-9.8	-10.9	-10.8	-11.2	-11.1	-11.4	-11.7	-11.5	-10.7	-9.7	-8.3	-6.5	-11.7	-9.2
4	-7.9	-7.4	-6.5	-6.9	-6.4	-6.1	-5.2	-5.6	-5.6	-5.7	-6.2	-7.3	-8.5	-8.9	-9.4	-9.2	-9.1	-8.6	-9.4	-9.5	-8.6	-10.0	-8.8	-7.7	-5.2	-10.0	-7.7
5	-7.6	-9.3	-8.1	-8.4	-7.4	-7.3	-7.0	-9.9	-9.7	-7.4	-6.9	-6.8	-6.4	-7.1	-7.3	-4.5	-3.7	-2.0	-2.2	-1.9	-2.3	-3.8	-3.1	-2.4	-1.9	-9.9	-5.9
6	-2.9	-4.8	-6.3	-4.0	-5.4	-6.3	-6.8	-7.6	-9.3	-9.7	-7.6	-8.5	-10.8	-10.0	-9.9	-7.2	-7.0	-6.7	-6.1	-6.4	-7.1	-7.9	-6.9	-6.4	-2.9	-10.8	-7.2
7	-7.3	-8.9	-10.1	-9.8	-11.3	-10.3	-11.4	-10.8	-12.2	-12.2	-12.3	-12.2	-12.5	-12.5	-12.8	-13.6	-13.6	-13.3	-13.7	-13.8	-12.5	-12.2	-13.4	-14.9	-7.3	-14.9	-12.0
8	-15.7	-16.3	-16.1	-16.8	-17.3	-18.0	-18.4	-19.6	-21.3	-21.6	-20.9	-21.4	-20.8	-20.2	-19.6	-19.3	-17.8	-18.1	-17.8	-17.9	-17.8	-17.2	-15.9	-14.8	-14.8	-21.6	-18.4
9	-13.7	-13.6	-15.8	-16.8	-17.6	-16.7	-16.4	-15.4	-15.5	-15.6	-16.7					-16.0	-15.2	-16.7	-17.1	-16.4	-16.5	-16.3	-16.4	-18.7	-13.6	-18.7	-16.2
10	-18.8	-18.8	-20.1	-18.5	-19.2	-19.0	-19.1	-18.1	-18.1	-18.4	-17.2	-16.9	-17.0	-16.6	-17.4	-17.0	-17.3	-16.4	-15.2	-14.0	-13.6	-13.4	-13.7	-14.1	-13.4	-20.1	-17.0
11	-14.7	-15.0	-15.1	-15.1	-15.1	-15.4	-15.1	-14.8	-14.6	-14.1	-13.4	-13.2	-12.4	-12.7	-12.7	-12.7	-12.7	-13.5	-13.9	-13.1	-12.2	-12.0	-11.5	-10.9	-10.9	-15.4	-13.6
12	-10.1	-9.8	-10.1	-9.9	-10.1	-9.7	-9.8	-9.8	-10.2	-10.6	-12.4	-13.7	-14.5	-16.5	-15.3	-16.4	-16.2	-13.9	-15.4	-14.1	-16.6	-18.3	-17.7	-19.0	-9.7	-19.0	-13.3
13	-12.3	-10.7	-12.2	-15.5	-18.5	-16.2	-15.6	-15.5	-15.0	-15.9	-16.1	-16.4	-14.6	-14.3	-16.2	-16.0	-16.0	-14.2	-15.4	-14.7	-14.5	-15.0	-14.3	-14.4	-10.7	-18.5	-15.0
14	-12.7	-11.1	-11.3	-12.8	-13.4	-14.2	-14.9	-16.4	-16.9	-18.6	-18.2	-17.3	-18.8	-17.4	-18.5	-19.1	-19.1	-18.4	-18.0	-17.5	-19.6	-20.5	-21.3	-21.5	-11.1	-21.5	-17.0
15	-21.8	-22.0	-23.2	-23.1	-23.5	-22.7	-23.5	-23.9	-23.5	-23.2	-23.7	-23.5	-23.3	-21.7	-21.5	-21.7	-21.9	-21.4	-21.6	-20.5	-21.0	-21.3	-22.4	-22.9	-20.5	-23.9	-22.4
16	-23.6	-24.0	-24.3	-23.5	-25.0	-25.5	-25.7	-26.7	-26.6	-26.3	-27.0	-27.2	-26.5	-25.8	-24.7	-23.6	-23.8	-24.4	-25.7	-25.8	-26.8	-27.2	-26.9	-25.9	-23.5	-27.2	-25.5
17	-25.1	-24.5	-24.5	-25.8	-28.5	-27.7	-27.3	-27.2	-28.0	-28.5	-27.8	-27.8	-27.8	-27.9	-28.2	-27.7	-26.5	-26.2	-28.0	-27.2	-26.5	-26.5	-27.4	-27.5	-24.5	-28.5	-27.1
18	-26.7	-27.8	-28.4	-28.4	-28.0	-28.9	-29.1	-28.4	-28.3	-29.4	-30.8	-29.1	-28.9	-29.5	-28.0	-28.5	-28.6	-27.9	-30.6	-29.2	-29.3	-29.3	-29.2	-29.3	-26.7	-30.8	-28.8
19	-30.7	-28.9	-29.6	-31.1	-29.6	-28.3	-28.9	-25.9	-25.0	-22.7	-22.8	-22.6	-22.3	-22.2	-22.9	-22.7	-21.8	-20.9	-19.0	-18.7	-18.1	-17.6	-17.7	-17.3	-17.3	-31.1	-23.6
20	-15.7	-15.4	-14.5	-14.2	-11.6	-12.1	-12.2	-10.9	-11.1	-11.9	-13.1	-13.0	-12.6	-12.4	-12.6	-12.2	-12.4	-12.2	-11.5	-11.0	-10.5	-10.1	-8.7	-8.5	-8.5	-15.7	-12.1
21	-7.6	-7.3	-6.9	-8.2	-8.2	-7.7	-6.3	-6.7	-7.2	-5.9	-5.4	-4.0	-3.7	-3.9	-4.6	-3.4	-2.1	-2.6	-4.0	-2.4	-3.2	-4.5	-4.1	-4.7	-2.1	-8.2	-5.2
22	-6.4	-6.3	-6.6	-7.3	-7.6	-7.3	-7.3	-7.8	-8.3	-8.5	-8.4	-8.0	-8.0	-7.9	-7.8	-7.6	-7.6	-7.3	-6.8	-6.5	-5.9	-5.8	-6.0	-6.1	-5.8	-8.5	-7.2
23	-6.0	-5.9	-6.4	-6.1	-5.9	-5.8	-5.9	-5.6	-5.4	-5.1	-4.9	-5.6	-5.9	-5.7	-5.5	-6.2	-5.7	-5.7	-6.0	-6.5	-5.4	-4.9	-4.9	-5.8	-4.9	-6.5	-5.7
24	-5.1	-5.5	-5.8	-4.8	-4.5	-4.3	-4.6	-4.6	-5.2	-5.7	-6.0	-6.7	-6.4	-5.7	-5.4	-5.3	-4.9	-5.0	-4.9	-4.6	-4.9	-5.0	-4.9	-4.9	-4.3	-6.7	-5.2
25	-4.7	-4.3	-4.2	-4.6	-5.0	-5.2	-5.3	-5.3	-5.5	-5.3	-5.5	-5.9	-6.4	-6.9	-6.6	-6.8	-7.4	-7.7	-8.4	-8.5	-8.4	-8.3	-8.0	-8.3	-4.2	-8.5	-6.4
26	-8.5	-9.1	-8.7	-8.7	-9.3	-10.2	-10.8	-11.0	-10.9	-10.1	-10.3	-10.5	-10.7	-10.3	-10.1	-10.5	-10.8	-11.8	-13.5	-13.2	-12.9	-12.5	-11.9	-11.5	-8.5	-13.5	-10.7
27	-10.2	-10.1	-10.5	-9.1	-9.0	-9.0	-9.5	-10.0	-9.5	-9.9	-10.2	-9.2	-7.9	-7.1	-8.0	-8.4	-9.9	-10.5	-10.9	-10.5	-12.1	-13.3	-12.7	-12.4	-7.1	-13.3	-10.0
28	-12.0	-13.0	-11.7	-11.5	-11.4	-11.3	-11.1	-10.7	-10.9	-11.3	-13.2	-14.3	-13.5	-13.3	-13.7	-13.7	-15.0	-14.7	-15.0	-16.1	-16.1	-16.0	-17.5	-17.5	-10.7	-17.5	-13.5
29	-18.8	-18.7	-19.8	-18.3	-18.4	-19.8	-19.6	-18.8	-19.8	-19.4	-19.5	-20.6	-19.6	-20.2	-18.2	-18.1	-16.9	-17.5	-19.5	-18.0	-16.5	-19.2	-18.0	-19.2	-16.5	-20.6	-18.8
30	-19.4	-18.8	-18.1	-17.7	-17.5	-16.7	-15.6	-17.3	-17.1	-18.0	-15.9	-14.8	-15.1	-14.3	-13.5	-13.4	-14.3	-13.6	-14.0	-14.4	-14.2	-14.8	-14.2	-14.5	-13.4	-19.4	-15.7
31	-16.2	-16.9	-15.6	-14.1	-16.1	-15.5	-14.4	-15.0	-15.2	-15.2	-15.8	-15.7	-14.8	-13.7	-13.1	-13.6	-13.4	-14.5	-13.6	-14.3	-15.0	-14.6	-14.0	-13.7	-13.1	-16.9	-14.7
Max.	-1.9	-2.3	-2.0	-1.5	-1.4	-0.8	-0.8	-0.9	-1.0	-1.5	-1.9	-2.3	-2.9	-3.2	-3.4	-3.4	-2.1	-2.0	-2.2	-1.9	-2.3	-2.7	-1.7	-1.9	-0.8		
Min.	-30.7	-28.9	-29.6	-31.1	-29.6	-28.9	-29.1	-28.4	-28.3	-29.4	-30.8	-29.1	-28.9	-29.5	-28.2	-28.5	-28.6	-27.9	-30.6	-29.2	-29.3	-29.3	-29.2	-29.3		-31.1	
Avg.	-12.8	-12.9	-13.1	-13.1	-13.4	-13.2	-13.2	-13.2	-13.4	-13.5	-13.6	-13.5	-13.5	-13.4	-13.4	-13.3	-13.2	-13.0	-13.4	-13.1	-13.2	-13.4	-13.2	-13.3			-13.3

Total Hours in Month 744

Hours Data Available 740

Data Recovery 99.5%

Rock Creek - 10-m Temperature (deg. C)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-13.8	-13.7	-13.8	-15.5	-15.7	-15.7	-15.6	-15.6	-15.9	-16.1	-16.1	-15.8	-15.1	-15.3	-15.5	-15.7	-16.0	-16.8	-17.1	-17.1	-18.0	-17.8	-17.8	-18.2	-13.7	-18.2	-16.0
2	-18.5	-18.7	-18.3	-19.7	-21.0	-21.0	-20.5	-20.2	-20.0	-20.7	-20.6	-20.8	-20.6	-19.2	-19.3	-19.4	-19.4	-19.4	-19.6	-20.4	-20.0	-19.9	-20.4	-21.2	-18.3	-21.2	-19.9
3	-21.4	-20.7	-20.0	-19.4	-19.4	-19.9	-20.0	-20.2	-19.8	-19.4	-19.0	-19.4	-19.1	-19.0	-18.5	-18.4	-18.6	-19.3	-19.9	-20.3	-19.9	-19.8	-19.6	-19.5	-18.4	-21.4	-19.6
4	-19.3	-19.9	-20.6	-20.8	-20.7	-20.7	-20.9	-21.1	-21.2	-21.2	-21.6	-21.4	-21.4	-21.4	-21.7	-22.2	-22.4	-22.7	-23.6	-24.1	-24.4	-24.2	-24.4	-24.6	-19.3	-24.6	-21.9
5	-25.6	-26.1	-26.1	-25.8	-26.6	-26.6	-26.7	-27.1	-27.4	-27.0	-27.1	-26.2	-26.1	-25.1	-25.0	-24.0	-24.6	-24.9	-23.9	-23.6	-22.5	-23.4	-23.5	-23.8	-22.5	-27.4	-25.4
6	-23.0	-24.8	-23.9	-21.7	-21.5	-22.9	-25.0	-25.2	-24.2	-25.4	-24.5	-25.2	-25.4	-25.2	-24.4	-24.5	-24.7	-25.9	-27.1	-26.6	-27.2	-26.4	-25.3	-26.2	-21.5	-27.2	-24.8
7	-26.2	-25.6	-26.3	-25.8	-25.5	-25.6	-25.2	-25.8	-27.2	-26.4	-26.7	-25.4	-22.5	-22.5	-21.4	-22.0	-19.9	-20.2	-21.3	-20.7	-20.3	-19.9	-19.0	-19.4	-19.0	-27.2	-23.4
8	-18.5	-16.7	-15.2	-14.7	-14.6	-14.4	-12.9	-12.0	-13.3	-12.2	-12.7	-11.6	-9.9	-10.8	-9.6	-8.3	-9.7	-8.5	-6.6	-6.5	-6.3	-6.7	-7.0	-5.7	-5.7	-18.5	-11.0
9	-5.2	-4.5	-3.9	-3.3	-2.8	-2.6	-2.5	-2.2	-1.4	-1.3	-1.4	-0.7	-0.6	-0.2	-0.1	-0.4	-0.2	-0.1	-0.3	-0.4	-0.9	-1.1	-0.8	-0.7	-0.1	-5.2	-1.6
10	-0.2	-0.5	-0.4	0.9	1.6	1.2	1.1	1.7	1.3	3.1	2.6	2.2	-0.7	-1.4	-2.1	-2.4	-2.6	-1.4	-0.5	-0.9	0.3	0.4	0.5	0.4	3.1	-2.6	0.2
11	0.1	-0.4	-0.7	-0.7	-0.7	-0.9	-1.1	-1.8	-2.2	-2.6	-2.6	-2.4	-1.7	-1.2	-1.0	-1.2	-1.3	-1.5	-1.8	-1.5	-0.7	-0.7	-1.1	-1.4	0.1	-2.6	-1.3
12	-0.9	-0.9	-0.3	-0.1	-0.5	-1.0	-0.8	-1.3	-1.8	-1.9	-0.1	1.0	1.6	1.3	1.2	1.2	1.4	1.2	1.2	1.3	0.9	1.2	1.2	1.0	1.6	-1.9	0.2
13	1.1	1.7	2.0	2.1	2.2	2.3	2.9	3.3	2.6	2.8	2.4	2.6	3.0	3.1	2.3	2.5	2.1	1.8	0.9	0.1	-0.5	-1.0	-0.9	-1.1	3.3	-1.1	1.7
14	-2.1	-1.5	-1.8	-2.3	-3.0	-2.3	-3.5	-3.5	-3.6	-4.0	-4.9	-5.8	-6.4	-6.2	-5.7	-6.4	-6.3	-6.3	-6.5	-6.6	-7.7	-8.4	-8.7	-8.8	-1.5	-8.8	-5.1
15	-9.0	-9.4	-9.3	-8.8	-9.3	-9.1	-9.8	-9.9	-10.1	-10.6	-11.0	-10.8	-10.7	-10.2	-10.1	-10.0	-10.2	-10.3	-10.8	-11.7	-12.0	-12.9	-13.6	-14.4	-8.8	-14.4	-10.6
16	-14.7	-14.8	-14.3	-14.3	-14.8	-14.9	-15.2	-16.1	-15.7	-16.0	-16.8	-16.9	-16.5	-15.3	-14.1	-13.6	-13.7	-13.9	-14.7	-16.0	-14.7	-15.9	-16.6	-16.3	-13.6	-16.9	-15.2
17	-17.3	-17.0	-16.9	-16.7	-17.1	-18.7	-19.9	-19.6	-20.4	-18.8	-19.0	-17.3	-15.8	-14.6	-14.0	-14.5	-14.9	-15.6	-17.2	-18.7	-19.8	-18.9	-20.3	-19.5	-14.0	-20.4	-17.6
18	-19.9	-21.5	-22.8	-22.1	-21.6	-20.7	-21.2	-20.4	-21.2	-21.5	-21.2	-21.2	-19.0	-17.5	-16.5	-16.9	-16.9	-18.2	-19.4	-18.9	-21.1	-20.3	-20.9	-21.9	-16.5	-22.8	-20.1
19	-20.1	-20.5	-20.4	-21.3	-20.7	-20.8	-20.8	-18.8	-21.3	-21.9	-22.0	-20.1	-19.1	-18.9	-18.6	-18.0	-17.5	-18.4	-19.3	-20.5	-20.4	-21.9	-20.8	-21.5	-17.5	-22.0	-20.1
20	-20.9	-20.9	-20.6	-21.1	-20.1	-18.7	-18.3	-17.9	-17.6	-18.4	-18.5	-16.7	-16.4	-14.1	-13.0	-12.1	-11.5	-11.1	-11.3	-11.5	-11.9	-13.2	-13.8	-14.2	-11.1	-21.1	-16.0
21	-14.3	-14.7	-13.4	-12.7	-11.8	-11.5	-10.6	-9.4	-8.6	-7.9	-8.0	-6.7	-7.5	-5.5	-4.8	-4.2	-3.5	-3.5	-3.5	-3.1	-2.8	-3.1	-4.2	-6.0	-2.8	-14.7	-7.5
22	-6.3	-6.1	-6.6	-7.0	-7.4	-7.5	-7.8	-8.0	-8.2	-8.4	-8.6	-8.3	-8.3	-7.8	-7.9	-7.6	-7.9	-7.7	-8.3	-8.5	-8.6	-8.3	-8.5	-8.5	-6.1	-8.6	-7.8
23	-8.4	-9.0	-9.8	-11.0	-11.7	-11.0	-10.0	-9.6	-9.4	-9.1	-9.2	-9.1	-9.1	-8.9	-8.3	-8.0	-7.9	-8.1	-8.2	-8.4	-8.6	-9.0	-9.3	-9.9	-7.9	-11.7	-9.2
24	-10.1	-10.3	-10.7	-11.2	-11.2	-11.2	-11.6	-11.7	-11.9	-12.5	-13.0	-12.0	-11.2	-11.3	-11.6	-12.2	-12.4	-12.8	-13.8	-14.6	-15.0	-15.2	-15.8	-16.2	-10.1	-16.2	-12.5
25	-15.8	-15.1	-14.4	-14.0	-13.4	-12.9	-12.6	-12.4	-12.3	-12.4	-12.0	-11.4	-11.2	-10.6	-9.8	-9.5	-9.3	-9.2	-9.2	-9.2	-8.9	-8.8	-11.7	-11.8	-8.8	-15.8	-11.6
26	-11.6	-11.9	-10.4	-10.7	-11.4	-10.3	-9.1	-10.2	-9.7	-9.8	-9.3	-9.1	-8.1	-8.3	-8.5	-8.7	-8.2	-8.4	-8.7	-8.5	-9.0	-9.7	-9.2	-9.5	-8.1	-11.9	-9.5
27	-9.4	-9.5	-9.5	-10.0	-10.2	-10.3	-10.2	-10.0	-10.1	-10.4	-11.1	-11.7	-10.7	-10.5	-10.1	-9.7	-9.9	-10.9	-12.6	-14.2	-15.3	-15.6	-15.6	-16.1	-9.4	-16.1	-11.4
28	-15.8	-16.5	-16.2	-16.2	-14.6	-15.3	-15.9	-16.9	-16.8	-16.9	-17.2	-16.7	-15.0	-13.3	-12.7	-12.2	-11.7	-11.9	-11.9	-10.0	-8.5	-8.5	-8.1	-7.5	-7.5	-17.2	-13.6
29	-7.3	-5.4	-5.2	-4.7	-4.1	-5.3	-3.6	-2.9	-2.7	-2.4	-1.5	-1.1	-0.8	-0.1	0.3	0.3	-0.2	-0.2	-0.1	-0.3	-0.5	-0.7	-1.2	-1.0	0.3	-7.3	-2.1
Max.	1.1	1.7	2.0	2.1	2.2	2.3	2.9	3.3	2.6	3.1	2.6	2.6	3.0	3.1	2.3	2.5	2.1	1.8	1.2	1.3	0.9	1.2	1.2	1.0	3.3		
Min.	-26.2	-26.1	-26.3	-25.8	-26.6	-26.6	-26.7	-27.1	-27.4	-27.0	-27.1	-26.2	-26.1	-25.2	-25.0	-24.5	-24.7	-25.9	-27.1	-26.6	-27.2	-26.4	-25.3	-26.2		-27.4	
Avg.	-12.9	-12.9	-12.8	-12.7	-12.7	-12.7	-12.7	-12.6	-12.8	-12.7	-12.8	-12.4	-11.9	-11.4	-11.1	-11.0	-11.0	-11.2	-11.6	-11.8	-11.9	-12.1	-12.3	-12.5			-12.2

Total Hours in Month 696 **Hours Data Available** 696 **Data Recovery** 100%

Rock Creek - 10-m Temperature (deg. C)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.9	-0.8	-0.8	-0.8	-0.6	-0.7	-0.7	-0.7	-0.5	-0.7	-1.1	-1.3	-1.6	-1.6	-1.8	-1.9	-1.9	-1.9	-1.9	-2.0	-1.7	-1.6	-1.4	-1.7	-0.5	-2.0	-1.3
2	-1.8	-2.1	-1.9	-1.9	-2.3	-2.5	-2.6	-3.0	-3.3	-3.0	-2.5	-2.2	-1.8	-1.5	-1.2	-1.3	-1.3	-1.0	-1.4	-1.6	-1.6	-1.5	-1.7	-1.5	-1.0	-3.3	-1.9
3	-1.3	-1.9	-2.8	-2.6	-2.6	-2.6	-3.2	-3.4	-4.0	-4.4	-4.3	-4.3	-4.5	-4.7	-4.9	-4.4	-4.0	-3.9	-3.6	-3.8	-3.8	-3.8	-3.8	-3.8	-1.3	-4.9	-3.6
4	-3.8	-3.6	-3.4	-3.2	-2.7	-3.6	-4.0	-4.0	-4.2	-4.1	-3.9	-4.0	-4.0	-3.8	-3.5	-2.8	-2.7	-3.1	-4.0	-5.3	-7.8	-8.3	-6.7	-6.2	-2.7	-8.3	-4.3
5	-6.4	-6.3	-6.7	-6.7	-6.9	-6.9	-7.3	-7.6	-8.9	-9.8	-10.4	-10.1	-9.7	-9.6	-9.7	-9.5	-9.7	-10.5	-11.7	-12.4	-12.4	-12.5	-14.2	-14.6	-6.3	-14.6	-9.6
6	-13.7	-13.1	-13.9	-14.1	-14.7	-15.4	-15.6	-16.3	-16.8	-16.7	-16.5	-14.8	-14.8	-13.8	-13.4	-13.7	-14.8	-15.4	-16.3	-17.1	-17.7	-18.2	-17.8	-17.7	-13.1	-18.2	-15.5
7	-17.5	-17.9	-18.8	-19.2	-20.8	-21.7	-22.0	-22.0	-21.4	-21.0	-21.4	-21.7	-20.3	-18.5	-17.9	-17.3	-17.2	-17.4	-18.1	-19.3	-20.3	-20.9	-22.1	-21.5	-17.2	-22.1	-19.8
8	-21.2	-21.9	-22.2	-22.4	-22.4	-22.1	-23.0	-23.3	-23.6	-22.6	-22.5	-22.5	-20.5	-18.8	-18.1	-17.5	-17.2	-17.2	-18.8	-19.6	-21.2	-22.6	-23.1	-22.4	-17.2	-23.6	-21.1
9	-21.3	-21.4	-18.6	-16.7	-15.7	-16.0	-16.6	-16.1	-15.3	-14.3	-15.8	-15.0	-13.7	-12.2	-10.9	-10.3	-9.8	-10.5	-9.6	-10.1	-10.9	-11.7	-11.1	-10.7	-9.6	-21.4	-13.9
10	-11.4	-11.5	-9.7	-9.7	-9.6	-9.8	-9.9	-9.2	-9.9	-10.1	-9.4	-8.5	-8.3	-7.9	-7.7	-7.0	-6.5	-6.4	-5.6	-5.2	-4.2	-3.6	-3.0	-2.6	-2.6	-11.5	-7.8
11	-2.6	-2.3	-2.4	-1.7	-1.1	-1.3	-0.7	-0.8	-1.1	-1.3	-1.2	-0.7	-0.5	-0.3	-0.6	-0.7	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.3	-2.6	-1.1
12	-1.0	-1.1	-1.0	-1.1	-1.3	-1.4	-1.4	-1.6	-2.0	-1.7	-1.5	-1.5	-1.2	-1.3	-1.1	-1.3	-1.4	-2.0	-2.5	-2.3	-2.2	-1.4	-1.2	-1.3	-1.0	-2.5	-1.5
13	-1.2	-1.3	-1.5	-5.5	-6.7	-7.3	-7.2	-8.2	-8.8	-8.2	-7.3	-6.9	-7.2	-7.0	-6.6	-6.5	-6.3	-6.1	-6.1	-6.3	-6.4	-6.7	-6.0	-5.3	-1.2	-8.8	-6.1
14	-4.7	-4.1	-4.1	-3.7	-3.3	-2.9	-2.7	-2.7	-2.6	-2.4	-2.4	-2.1	-1.7	-1.6	-1.5	-1.8	-1.9	-2.1	-2.4	-2.6	-2.8	-2.9	-3.0	-3.5	-1.5	-4.7	-2.7
15	-4.5	-4.6	-5.0	-5.0	-5.7	-6.0	-5.8	-4.4	-5.1	-4.7	-4.2	-3.9	-3.2	-2.8	-2.3	-2.1	-1.9	-2.8	-3.5	-3.4	-3.7	-4.5	-5.5	-6.1	-1.9	-6.1	-4.2
16	-6.6	-8.0	-8.8	-7.9	-8.1	-8.4	-8.3	-8.1	-9.1	-8.9	-8.9	-8.4	-8.4	-8.6	-8.5	-8.3	-8.8	-8.8	-8.8	-9.1	-10.3	-11.1	-11.8	-13.1	-6.6	-13.1	-9.0
17	-14.0	-14.0	-14.0	-13.4	-14.1	-14.6	-16.2	-14.6	-12.6	-11.9	-12.1	-11.5	-11.6	-11.5	-10.9	-10.8	-10.7	-10.9	-10.9	-11.6	-12.6	-13.5	-13.9	-14.8	-10.7	-16.2	-12.8
18	-14.9	-14.5	-14.4	-16.8	-16.6	-17.8	-17.1	-17.3	-14.4	-12.6	-12.4	-14.3	-14.7	-14.1	-13.5	-13.1	-13.6	-13.8	-14.4	-15.9	-16.7	-17.4	-17.1	-18.2	-12.4	-18.2	-15.2
19	-17.3	-18.0	-17.1	-16.8	-16.2	-17.3	-16.4	-15.6	-13.9	-13.9	-13.8	-13.6	-13.2	-13.0	-13.2	-12.9	-13.0	-12.8	-13.0	-13.1	-13.2	-13.0	-12.7	-12.4	-12.4	-18.0	-14.4
20	-12.4	-12.4	-12.6	-12.7	-12.6	-11.9	-11.7	-11.5	-11.2	-11.1	-11.2	-11.0	-10.7	-10.5	-10.4	-10.3	-10.1	-9.6	-9.3	-8.8	-8.6	-8.2	-8.0	-8.1	-8.0	-12.7	-10.6
21	-7.5	-7.7	-7.3	-7.4	-7.3	-7.3	-6.9	-6.8	-6.4	-6.3	-5.9	-5.7	-5.4	-5.0	-4.8	-5.0	-5.3	-5.1	-5.2	-5.3	-5.3	-5.2	-5.6	-5.8	-4.8	-7.7	-6.1
22	-6.6	-7.1	-8.5	-9.9	-9.9	-10.0	-10.9	-12.3	-12.0	-11.4	-10.3	-9.9	-9.0	-7.8	-7.3	-6.9	-6.3	-6.2	-6.2	-6.8	-7.3	-8.1	-8.1	-8.2	-6.2	-12.3	-8.6
23	-7.0	-6.8	-8.9	-9.2	-9.1	-10.2	-9.3	-10.6	-9.9	-9.3	-8.4	-8.7	-5.9	-6.5	-6.0	-3.8	-0.3	-0.4	-1.7	-2.1	-3.4	-5.8	-6.3	-6.5	-0.3	-10.6	-6.5
24	-6.1	-9.0	-8.9	-8.2	-8.3	-9.0	-10.0	-10.8	-11.9	-12.7	-12.0	-11.7	-11.1	-10.7	-11.2	-11.7	-12.7	-13.0	-12.4	-13.1	-13.4	-14.8	-15.8	-15.1	-6.1	-15.8	-11.4
25	-14.7	-14.8	-14.7	-14.9	-14.9	-14.8	-16.2	-17.0	-16.7	-16.6	-16.6	-16.1	-14.8	-12.7	-12.6	-12.4	-11.4	-12.2	-13.3	-13.9	-14.2	-14.4	-14.7	-14.7	-11.4	-17.0	-14.6
26	-14.2	-14.8	-14.7	-14.7	-15.2	-16.8	-17.0	-16.5	-16.8	-17.0	-15.9	-15.2	-14.4	-13.8	-13.4	-13.7	-14.0	-14.4	-15.1	-15.6	-16.4	-16.6	-16.5	-17.0	-13.4	-17.0	-15.4
27	-15.8	-16.8	-18.6	-18.9	-18.5	-17.8	-18.0	-17.4	-17.0	-17.0	-16.4	-15.9	-15.1	-14.9	-14.9	-15.1	-15.7	-16.0	-16.5	-17.4	-18.3	-18.9	-20.0	-20.0	-14.9	-20.0	-17.1
28	-20.6	-21.0	-21.0	-21.8	-21.5	-22.5	-23.3	-23.7	-24.8	-24.7	-25.0	-24.7	-23.2	-23.3	-23.4	-23.7	-24.3	-25.0	-25.6	-26.4	-27.4	-27.8	-27.8	-28.1	-20.6	-28.1	-24.2
29	-29.4	-29.5	-29.5	-29.4	-29.4	-29.3	-29.4	-29.2	-28.8	-28.6	-27.9	-27.1	-26.6	-26.3	-26.0	-25.8	-25.5	-25.4	-25.5	-25.8	-25.9	-26.1	-26.2	-26.4	-25.4	-29.5	-27.5
30	-26.6	-26.9	-26.6	-26.7	-26.8	-26.6	-26.3	-26.3	-26.1	-25.5	-25.2	-24.8	-24.4	-23.8	-23.5	-22.7	-22.0	-21.9	-21.8	-22.5	-23.2	-24.0	-25.3	-25.4	-21.8	-26.9	-24.8
31	-25.5	-26.6	-26.1	-26.4	-27.0	-26.6	-26.3	-26.3	-25.6	-25.6	-24.2	-22.3	-21.1	-20.4	-20.2	-19.7	-19.3	-19.1	-19.0	-19.9	-20.3	-22.4	-22.3	-22.3	-19.0	-27.0	-23.1
Max.	-0.9	-0.8	-0.8	-0.8	-0.6	-0.7	-0.7	-0.7	-0.5	-0.7	-1.1	-0.7	-0.5	-0.3	-0.6	-0.7	-0.3	-0.4	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.3		
Min.	-29.4	-29.5	-29.5	-29.4	-29.4	-29.3	-29.4	-29.2	-28.8	-28.6	-27.9	-27.1	-26.6	-26.3	-26.0	-25.8	-25.5	-25.4	-25.6	-26.4	-27.4	-27.8	-27.8	-28.1		-29.5	
Avg.	-11.4	-11.7	-11.8	-11.9	-12.0	-12.3	-12.4	-12.5	-12.4	-12.2	-12.0	-11.6	-11.1	-10.6	-10.4	-10.1	-10.0	-10.2	-10.5	-10.9	-11.4	-11.9	-12.1	-12.1			-11.5

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Delta T (deg. C)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0.1	0.2	0.2	0.2	0.2	0.1	0.0	0.0	-0.1	0.0	0.0	0.1	0.0	0.1	0.3	0.9	0.7	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.9	-0.1	0.2	
2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.3	0.2	0.0	0.0	0.0	0.2	0.6	1.4	1.3	1.3	1.9	1.0	1.5	1.9	0.0	0.4	
3	1.5	0.8	1.3	1.1	1.5	0.9	1.3	0.8	0.8	0.6	0.3	1.3	1.1	0.9	1.2	0.9	1.1	1.2	1.3	1.0	1.3	0.6	0.2	0.3	1.5	0.2	1.0	
4	0.2	0.3	0.6	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.6	1.0	1.3	1.6	2.1	1.5	2.1	2.6	2.3	3.0	2.4	2.5	3.2	3.2	0.0	1.2	
5	3.6	3.2	3.3	3.2	2.9	1.9	2.5	1.4	1.9	3.7	2.7	2.2	2.4	2.1	1.8	2.0	1.7	1.3	0.8	0.8	0.9	0.8	0.9	1.1	3.7	0.8	2.0	
6	1.1	1.1	1.2	0.9	1.2	0.9	0.9	1.2	1.2	1.1	1.8	1.6	1.4	1.3	2.1	1.0	0.8	0.6	0.5	0.6	1.6	1.1	1.1	0.5	2.1	0.5	1.1	
7	0.7	0.7	1.2	1.0	1.2	2.0	1.7	1.3	0.8	0.6	0.6	0.8	0.9	0.5	0.4	0.4	0.4	0.7	0.8	0.6	0.4	0.4	0.4	0.4	2.0	0.4	0.8	
8	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.1	0.2
9	0.7	0.5	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3					0.2	0.3	0.3	0.4	0.5	0.8	1.1	1.0	0.9	1.1	0.1	0.4	
10	1.0	1.2	0.8	0.6	0.8	1.0	1.5	1.6	1.1	1.2	0.8	1.3	0.8	1.3	0.6	0.7	0.9	0.4	0.2	0.3	0.4	0.2	0.1	0.0	1.6	0.0	0.8	
11	0.0	0.0	0.3	0.3	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.4	0.3	0.1	0.1	0.0	0.1	0.2	0.4	0.0	0.1	
12	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.4	0.9	1.5	1.9	1.5	2.4	1.6	2.1	2.3	2.5	2.9	2.5	2.1	0.5	0.9	1.7	2.9	0.0	1.2	
13	1.8	1.4	1.5	3.8	1.8	1.5	1.7	1.9	2.0	2.1	2.5	2.3	2.8	2.9	1.8	1.7	1.7	2.3	1.6	2.5	3.6	2.7	2.5	2.3	3.8	1.4	2.2	
14	2.3	1.3	2.3	1.6	2.5	1.7	1.8	1.5	1.7	1.3	1.4	1.8	1.2	1.8	1.6	1.4	1.4	2.2	2.8	1.7	1.6	1.6	1.1	1.7	2.8	1.1	1.7	
15	2.1	1.7	2.4	1.7	1.6	1.6	2.5	2.0	1.7	2.0	2.2	1.7	1.2	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	2.5	0.1	1.1	
16	0.4	0.9	1.2	1.5	1.5	1.7	1.3	1.2	1.5	1.2	2.1	1.2	1.2	0.6	0.7	0.4	0.2	1.0	0.9	1.4	1.6	1.2	1.4	0.7	2.1	0.2	1.1	
17	0.6	0.3	0.6	0.6	1.0	1.6	1.2	1.2	1.0	0.8	1.3	1.2	1.5	1.3	1.0	1.1	1.3	1.2	1.4	1.1	1.0	1.6	1.5	1.1	1.6	0.3	1.1	
18	1.4	1.3	1.5	1.3	1.1	2.0	2.0	1.7	2.8	2.1	1.2	1.3	2.2	1.4	0.8	0.7	1.1	1.9	1.6	1.4	1.2	1.6	1.2	2.1	2.8	0.7	1.5	
19	2.6	1.1	1.2	1.2	1.4	1.8	1.7	1.3	0.7	0.5	0.6	0.5	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.3	0.4	0.3	0.3	2.6	0.1	0.7	
20	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.0	0.1	
21	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.5	0.3	0.3	0.5	0.5	0.7	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.7	0.1	0.3	
22	0.5	0.5	0.2	0.3	0.3	0.2	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.5	-0.1	0.1
23	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.4	0.6	0.4	0.4	0.3	0.2	0.6	0.0	0.2	
24	0.3	0.5	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.5	0.1	0.3	
25	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.3	0.5	0.5	0.5	0.6	0.6	0.3	0.7	0.7	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.3	0.7	0.2	0.4	
26	0.2	0.3	0.5	0.4	0.4	0.6	0.5	0.4	0.3	0.4	0.6	0.6	0.6	0.6	0.7	0.6	0.5	0.6	0.2	0.4	0.4	0.5	0.3	0.1	0.7	0.1	0.5	
27	0.4	0.4	0.4	0.3	0.2	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.1	0.2	0.2	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.5	0.1	0.3	
28	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.4	0.4	0.5	0.3	0.7	0.9	0.4	0.8	1.0	0.9	1.0	1.2	0.6	1.1	1.1	1.1	1.2	0.1	0.6	
29	0.8	1.3	1.4	1.4	2.1	1.9	1.6	2.1	1.6	1.5	1.9	1.3	2.1	1.4	1.4	0.9	1.1	1.9	1.6	2.3	2.2	2.3	1.3	1.5	2.3	0.8	1.6	
30	1.3	1.2	1.5	1.1	1.4	1.7	0.9	1.0	1.1	1.4	1.7	1.3	1.3	0.9	0.9	0.9	0.9	1.2	1.6	1.7	1.8	1.7	1.5	1.2	1.8	0.9	1.3	
31	0.8	1.0	2.2	1.4	1.4	0.8	1.2	1.7	1.1	0.9	0.5	0.6	0.4	0.4	0.3	0.3	0.4	0.5	0.3	0.4	0.5	0.4	0.2	0.3	2.2	0.2	0.7	
Max.	3.6	3.2	3.3	3.8	2.9	2.0	2.5	2.1	2.8	3.7	2.7	2.3	2.8	2.9	2.1	2.1	2.3	2.5	2.9	2.5	3.6	2.7	2.5	3.2	3.8			
Min.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1		-0.1		
Avg.	0.8	0.7	0.9	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.7	0.8		0.8	

Total Hours in Month 744

Hours Data Available 740

Data Recovery 99.5%

Rock Creek - Delta T (deg. C)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.3	0.3	0.3	0.4	0.3	0.5	0.6	0.5	0.3	0.3	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	0.6	0.1	0.3
2	0.3	0.2	0.4	0.5	0.6	0.6	0.7	1.0	1.1	1.0	1.2	0.7	0.5	0.6	0.3	0.3	0.5	1.0	1.2	0.9	1.1	1.4	1.4	1.0	1.4	0.2	0.8
3	0.6	0.6	1.2	0.8	1.0	0.8	0.4	0.4	0.3	0.2	0.6	0.5	0.4	0.4	0.2	0.1	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.2	1.2	0.1	0.4
4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	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	0.2	0.1	0.1
5	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	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.7	0.7	0.1	0.2
6	0.8	1.1	1.1	0.5	0.8	0.9	0.8	1.4	2.1	1.4	1.7	1.6	0.8	0.6	0.4	0.1	0.3	0.4	1.0	0.7	0.8	0.8	0.7	0.6	2.1	0.1	0.9
7	1.0	1.2	0.9	1.0	1.0	1.3	1.0	1.2	1.4	1.2	1.1	1.3	0.5	0.3	0.2	0.1	0.2	0.2	0.4	0.5	0.5	0.7	0.5	0.8	1.4	0.1	0.8
8	0.6	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.6	0.1	0.2
9	0.1	0.0	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.6	0.0	0.2
10	0.2	0.1	0.2	0.3	0.4	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.7	0.8	0.4	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.8	0.0	0.3
11	0.2	0.2	0.1	0.1	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	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
12	0.1	0.1	0.1	0.1	0.3	0.6	0.6	0.7	0.9	0.6	0.9	0.7	0.8	1.0	1.1	1.1	1.3	1.1	0.9	1.1	1.2	1.0	1.1	1.0	1.3	0.1	0.8
13	1.0	1.0	1.1	0.8	0.6	1.4	2.3	1.6	1.3	1.3	0.7	0.7	0.8	1.0	0.8	0.6	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	2.3	0.4	0.9
14	0.9	0.7	0.6	0.6	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.9	0.1	0.3
15	0.2	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.4	0.2	0.0	0.0	0.0	-0.1	0.0	0.0	0.2	0.2	0.3	0.4	0.7	0.8	0.8	-0.1	0.2
16	0.7	0.6	0.4	0.3	0.4	0.6	0.6	0.7	0.7	1.1	1.1	1.2	0.7	0.5	0.0	0.4	0.3	0.3	0.9	1.2	1.7	1.5	1.3	1.0	1.7	0.0	0.8
17	0.5	0.9	0.6	1.1	1.7	0.7	0.7	0.9	0.6	0.5	0.6	1.2	0.7	0.4	0.6	0.2	0.3	0.3	1.0	1.1	0.6	1.1	0.5	0.9	1.7	0.2	0.7
18	0.9	1.4	1.4	1.3	1.3	0.9	1.4	1.3	1.1	1.3	1.4	0.9	0.4	0.6	0.5	0.1	0.3	0.3	0.7	0.6	0.8	2.3	1.0	1.2	2.3	0.1	1.0
19	1.1	0.9	0.7	0.8	1.1	1.1	1.1	1.7	1.5	1.2	1.0	1.3	0.4	0.6	0.4	0.1	0.1	0.5	1.0	1.5	1.3	1.2	1.4	1.6	1.7	0.1	1.0
20	1.8	1.4	1.5	1.5	1.1	1.0	0.7	0.9	1.4	1.0	1.0	0.6	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.4	0.8	0.9	1.0	1.1	1.8	0.0	0.8
21	0.8	0.4	0.5	0.3	0.2	0.2	0.3	0.3	0.6	1.0	0.6	0.4	0.4	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.4	0.3	0.0	1.0	0.0	0.4
22	0.0	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.4	-0.1	0.1
23	0.2	0.3	0.6	0.6	0.6	0.1	0.2	0.1	0.2	0.7	0.8	0.5	0.5	0.3	0.1	0.4	0.1	0.1	0.1	0.4	0.4	0.3	0.3	0.2	0.8	0.1	0.3
24	0.1	0.5	0.5	0.5	0.5	0.7	0.8	0.6	0.9	0.9	0.6	0.1	0.1	0.6	0.4	0.4	0.4	0.2	1.0	2.1	1.1	1.5	1.0	0.9	2.1	0.1	0.7
25	0.5	0.6	0.7	0.2	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.2	0.3	0.4	0.6	0.6	1.9	1.3	1.1	1.9	-0.1	0.3
26	1.2	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.8	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.3	1.2	0.1	0.4
27	0.3	0.3	0.4	0.3	0.4	0.4	0.1	0.1	0.4	1.0	0.9	0.4	0.2	0.1	-0.1	-0.1	0.2	1.0	1.1	1.1	0.8	1.2	1.2	0.9	1.2	-0.1	0.5
28	1.1	1.6	1.8	0.9	0.7	0.9	1.1	1.2	1.7	1.3	1.2	0.5	0.3	0.5	0.3	0.5	0.8	0.5	0.6	0.8	0.7	0.7	0.9	0.8	1.8	0.3	0.9
29	0.4	0.3	0.8	0.7	0.6	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.8	0.1	0.3
Max.	1.8	1.6	1.8	1.5	1.7	1.4	2.3	1.7	2.1	1.4	1.7	1.6	0.8	1.0	1.1	1.1	1.3	1.1	1.2	2.1	1.7	2.3	1.4	1.6	2.3		
Min.	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-0.1	
Avg.	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.6	0.6	0.6			0.5

Total Hours in Month 696

Hours Data Available 696

Data Recovery 100%

Rock Creek - Delta T (deg. C)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.0	0.1	
2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.2	
3	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.2	-0.1	0.0	
4	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.0	-0.1	-0.1	0.0	0.0	0.4	0.8	1.1	1.0	0.6	0.3	0.3	1.1	-0.1	0.2	
5	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.2	1.4	1.0	0.5	0.4	0.3	0.2	0.2	0.3	0.4	0.5	0.7	0.4	0.5	0.5	0.3	1.4	0.0	0.4	
6	0.4	1.0	1.1	0.9	1.2	1.1	1.2	0.7	0.8	1.4	0.5	0.3	0.1	0.4	0.2	0.2	0.1	0.1	0.3	0.5	0.8	1.2	0.6	0.3	1.4	0.1	0.6	
7	0.3	0.4	0.9	0.8	1.1	1.0	1.2	1.0	2.0	2.0	1.5	0.7	0.1	0.3	0.3	0.2	0.2	0.1	0.3	0.7	0.9	1.7	1.5	1.7	2.0	0.1	0.9	
8	1.5	1.5	1.5	1.2	1.7	1.7	2.2	1.1	1.2	1.4	1.3	0.5	0.4	0.2	0.2	0.0	0.0	0.2	0.3	0.9	0.6	1.1	1.7	1.8	2.2	0.0	1.0	
9	1.5	1.7	3.3	1.6	1.3	1.1	1.0	0.6	0.5	1.0	0.9	0.3	0.4	0.3	0.6	0.8	0.9	0.8	0.7	0.5	0.3	0.3	0.4	0.5	3.3	0.3	0.9	
10	0.6	0.4	0.4	0.3	0.4	0.3	0.2	0.1	0.2	0.2	0.1	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.3	0.1	0.6	-0.1	0.2	
11	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.0	0.1	
12	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.2	0.2	0.1	0.0	0.2	-0.1	0.1	
13	0.0	0.0	0.1	-0.1	-0.1	0.1	0.2	1.1	0.4	0.3	0.0	0.1	0.1	0.1	0.1	0.0	-0.1	0.0	0.6	1.0	0.5	0.4	0.6	0.6	1.1	-0.1	0.3	
14	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.5	0.5	0.0	0.2	
15	0.8	0.5	0.8	0.7	0.9	0.7	0.7	1.0	0.5	0.3	0.3	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.2	0.3	0.3	0.2	0.2	1.0	-0.1	0.3	
16	0.4	0.9	0.6	0.9	0.9	0.7	0.4	1.1	0.6	0.5	0.3	0.2	0.5	0.4	0.2	-0.1	0.2	-0.1	-0.1	0.0	0.4	0.3	0.1	0.5	1.1	-0.1	0.4	
17	0.5	1.1	1.1	0.5	0.2	0.5	0.6	0.8	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.4	1.2	0.9	1.3	1.3	1.3	1.3	0.1	0.6	
18	1.5	1.2	1.8	1.2	1.4	1.8	2.1	1.4	1.2	1.8	1.3	0.8	0.6	0.3	0.0	0.2	0.3	0.5	0.7	1.0	1.7	1.1	1.3	1.9	2.1	0.0	1.1	
19	1.6	2.5	2.0	1.4	2.8	1.8	1.5	0.6	0.7	0.4	0.1	0.0	0.1	0.0	-0.1	0.0	0.1	0.0	0.2	0.3	0.1	0.0	0.0	0.0	2.8	-0.1	0.7	
20	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	0.0	-0.2	-0.1	
21	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.2	-0.2	0.0	
22	0.0	0.1	0.1	0.5	0.6	0.8	0.5	0.9	1.1	0.9	0.8	0.2	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.6	1.1	1.2	1.4	1.5	1.5	-0.1	0.5	
23	1.2	1.2	0.6	1.4	1.4	1.2	2.5	1.3	1.8	2.3	1.5	0.7	1.5	0.6	0.2	0.2	0.3	0.3	0.4	0.6	1.3	1.2	1.5	1.9	2.5	0.2	1.1	
24	1.5	1.6	1.5	1.1	1.7	1.5	1.7	1.7	1.1	1.4	0.7	0.6	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.3	1.7	0.1	0.8	
25	0.4	0.3	0.3	0.4	0.4	0.5	0.9	0.8	1.2	1.2	0.6	0.2	0.2	0.3	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.3	1.2	0.0	0.4	
26	0.3	0.3	0.5	0.3	0.3	0.4	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.0	-0.1	0.0	-0.2	-0.1	0.0	0.2	0.3	0.5	0.9	0.5	0.9	-0.2	0.2	
27	0.8	1.5	1.4	1.9	1.4	1.6	1.2	0.8	0.6	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	1.9	0.0	0.5	
28	0.2	0.3	0.3	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	-0.1	0.2	
29	0.2	0.2	0.2	0.5	0.5	0.2	0.2	0.2	0.2	0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.5	-0.1	0.1	
30	0.1	0.1	0.2	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.2	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	0.1	0.4	0.7	0.9	1.2	1.2	-0.2	0.2	
31	1.4	1.3	1.5	1.1	1.2	1.0	1.7	1.9	1.7	1.2	0.4	0.1	0.0	-0.2	-0.1	-0.2	-0.1	-0.1	0.0	0.1	1.2	0.8	0.7	0.6	1.9	-0.2	0.7	
Max.	1.6	2.5	3.3	1.9	2.8	1.8	2.5	1.9	2.0	2.3	1.5	0.8	1.5	0.6	0.6	0.8	0.9	0.8	0.8	1.2	1.7	1.7	1.7	1.9	3.3			
Min.	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1		-0.2	
Avg.	0.5	0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.4	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.6			0.4

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Backup Temperature (deg. C)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-6.1	-5.3	-4.7	-4.4	-4.2	-4.1	-4.1	-2.8	-2.2	-2.0	-2.1	-2.7	-3.2	-3.5	-3.8	-4.5	-4.1	-3.8	-3.2	-3.1	-3.2	-2.9	-2.0	-2.2	-2.0	-6.1	-3.5
2	-2.4	-2.6	-2.3	-1.7	-1.6	-1.1	-1.0	-1.3	-1.4	-1.8	-2.2	-3.4	-4.3	-4.0	-3.6	-3.6	-4.1	-4.4	-5.1	-5.9	-7.2	-6.8	-7.6	-9.2	-1.0	-9.2	-3.7
3	-8.7	-10.2	-10.2	-10.9	-9.8	-7.6	-8.6	-8.5	-8.7	-8.7	-8.7	-9.7	-10.4	-10.7	-12.2	-11.9	-12.5	-12.5	-12.9	-13.0	-13.0	-11.5	-10.2	-8.9	-7.6	-13.0	-10.4
4	-8.4	-7.9	-7.3	-7.3	-6.7	-6.4	-5.5	-5.9	-6.0	-6.0	-6.6	-8.1	-9.6	-10.3	-11.1	-11.4	-10.8	-10.9	-12.2	-12.1	-11.9	-12.8	-11.7	-11.3	-5.5	-12.8	-9.1
5	-11.4	-12.8	-11.6	-11.8	-10.5	-9.6	-9.5	-11.6	-11.9	-11.3	-10.0	-9.2	-9.1	-9.3	-9.1	-6.7	-5.7	-3.5	-3.2	-3.0	-3.3	-4.8	-4.3	-3.8	-3.0	-12.8	-8.2
6	-4.2	-6.1	-7.8	-5.2	-6.8	-7.5	-8.0	-9.1	-10.5	-11.1	-9.6	-10.2	-12.4	-11.4	-12.1	-8.4	-8.0	-7.6	-6.8	-7.2	-8.9	-9.1	-8.3	-7.1	-4.2	-12.4	-8.5
7	-8.1	-9.9	-11.5	-11.0	-12.8	-12.5	-13.3	-12.3	-13.2	-13.0	-13.1	-13.2	-13.6	-13.1	-13.3	-14.1	-14.2	-14.1	-14.7	-14.6	-13.2	-12.8	-14.0	-15.5	-8.1	-15.5	-13.0
8	-16.1	-16.7	-16.5	-17.2	-17.7	-18.4	-18.9	-20.2	-21.7	-21.9	-21.3	-21.6	-21.1	-20.5	-19.9	-19.6	-18.2	-18.4	-18.3	-18.4	-18.2	-17.7	-16.6	-15.6	-15.6	-21.9	-18.8
9	-14.6	-14.3	-16.2	-17.1	-18.0	-17.0	-16.7	-15.7	-15.9	-16.0	-17.2					-16.4	-15.7	-17.2	-17.7	-17.1	-17.5	-17.6	-17.6	-19.8	-14.3	-19.8	-16.8
10	-20.0	-20.2	-21.0	-19.4	-20.2	-20.3	-20.7	-19.9	-19.5	-19.7	-18.2	-18.4	-18.0	-17.9	-17.9	-17.9	-18.4	-17.0	-15.7	-14.5	-14.1	-13.8	-13.9	-14.3	-13.8	-21.0	-18.0
11	-14.8	-15.2	-15.6	-15.6	-15.6	-15.7	-15.4	-15.0	-14.9	-14.4	-13.7	-13.6	-12.7	-12.9	-12.8	-12.9	-13.0	-14.0	-14.4	-13.4	-12.5	-12.2	-11.8	-11.3	-11.3	-15.7	-13.9
12	-10.4	-10.1	-10.3	-10.3	-10.3	-9.9	-10.1	-10.3	-10.8	-11.6	-14.1	-15.8	-16.1	-18.9	-16.8	-18.6	-18.6	-16.7	-18.5	-16.8	-18.9	-18.9	-18.8	-20.9	-9.9	-20.9	-14.7
13	-14.6	-12.3	-13.9	-19.3	-20.6	-18.0	-17.7	-17.6	-17.2	-18.3	-18.9	-18.9	-17.7	-17.2	-17.9	-17.7	-18.0	-16.9	-17.3	-17.5	-18.2	-18.0	-17.0	-17.1	-12.3	-20.6	-17.4
14	-15.3	-12.6	-13.8	-14.6	-16.2	-16.1	-16.9	-18.1	-18.9	-20.2	-19.9	-19.2	-20.2	-19.0	-20.1	-20.4	-20.7	-20.9	-21.0	-19.4	-21.4	-22.2	-22.7	-23.4	-12.6	-23.4	-18.9
15	-24.0	-24.0	-25.7	-24.9	-25.3	-24.6	-26.2	-26.1	-25.4	-25.3	-26.1	-25.4	-24.7	-22.1	-21.7	-22.0	-22.3	-21.6	-22.0	-20.9	-21.3	-21.7	-22.8	-23.2	-20.9	-26.2	-23.7
16	-24.1	-25.1	-25.6	-25.2	-26.7	-27.4	-27.4	-28.0	-28.3	-27.7	-29.2	-28.6	-28.0	-26.6	-25.6	-24.3	-24.3	-25.6	-26.8	-27.4	-28.7	-28.7	-28.6	-26.9	-24.1	-29.2	-26.9
17	-26.0	-25.1	-25.3	-26.7	-29.8	-29.5	-28.7	-28.6	-29.2	-29.4	-29.3	-29.2	-29.6	-29.4	-29.4	-28.8	-28.0	-27.5	-29.7	-28.4	-27.7	-28.3	-29.1	-28.8	-25.1	-29.8	-28.4
18	-28.3	-29.3	-30.1	-29.9	-29.3	-31.0	-31.3	-30.3	-31.1	-31.6	-32.2	-30.6	-31.2	-30.8	-28.9	-29.1	-29.8	-29.9	-32.3	-30.7	-30.7	-31.1	-30.6	-31.5	-28.3	-32.3	-30.5
19	-33.4	-30.3	-31.0	-32.4	-31.2	-30.2	-30.7	-27.5	-25.9	-23.5	-23.6	-23.3	-22.7	-22.5	-23.1	-22.9	-22.0	-21.4	-19.5	-19.3	-18.6	-18.1	-18.1	-17.8	-17.8	-33.4	-24.5
20	-16.1	-15.8	-14.9	-14.7	-12.2	-12.6	-12.7	-11.3	-11.5	-12.3	-13.3	-13.1	-12.7	-12.5	-12.7	-12.3	-12.5	-12.5	-11.7	-11.2	-10.7	-10.4	-9.1	-8.9	-8.9	-16.1	-12.4
21	-8.1	-7.8	-7.3	-8.5	-8.5	-8.0	-6.7	-7.2	-7.9	-6.4	-6.0	-4.7	-4.4	-4.7	-5.0	-4.0	-2.7	-3.1	-4.6	-3.0	-3.9	-5.2	-4.8	-5.3	-2.7	-8.5	-5.7
22	-7.1	-7.1	-7.0	-7.8	-8.2	-7.8	-7.7	-8.1	-8.6	-8.7	-8.6	-8.2	-8.0	-7.9	-7.9	-7.7	-7.9	-7.6	-7.1	-6.7	-6.1	-6.0	-6.2	-6.2	-6.0	-8.7	-7.5
23	-6.2	-6.3	-6.8	-6.4	-6.3	-6.1	-6.3	-5.8	-5.7	-5.4	-5.2	-5.7	-6.0	-5.9	-5.7	-6.4	-6.1	-6.1	-6.6	-7.4	-6.0	-5.5	-5.4	-6.2	-5.2	-7.4	-6.1
24	-5.7	-6.2	-6.3	-5.4	-5.2	-4.9	-5.2	-5.1	-5.8	-6.3	-6.6	-7.2	-6.8	-5.9	-5.7	-5.6	-5.3	-5.5	-5.4	-5.1	-5.4	-5.5	-5.4	-5.5	-4.9	-7.2	-5.7
25	-5.1	-4.8	-4.7	-5.0	-5.5	-5.7	-6.0	-5.9	-6.3	-6.1	-6.3	-6.7	-7.1	-7.3	-7.3	-7.5	-7.8	-8.2	-9.0	-9.1	-9.1	-8.9	-8.7	-8.9	-4.7	-9.1	-6.9
26	-9.0	-9.7	-9.5	-9.3	-10.0	-11.0	-11.5	-11.7	-11.5	-10.7	-11.1	-11.3	-11.4	-10.9	-10.9	-11.2	-11.4	-12.6	-13.9	-13.8	-13.5	-13.3	-12.4	-11.9	-9.0	-13.9	-11.4
27	-10.8	-10.7	-11.2	-9.6	-9.4	-9.3	-9.9	-10.5	-10.0	-10.5	-10.8	-9.9	-8.5	-7.5	-8.0	-8.5	-10.2	-11.0	-11.4	-11.3	-12.7	-13.7	-13.2	-12.9	-7.5	-13.7	-10.5
28	-12.4	-13.3	-12.2	-12.0	-11.8	-11.7	-11.5	-11.2	-11.6	-11.8	-13.9	-14.7	-14.3	-14.1	-13.9	-14.5	-15.9	-15.9	-16.1	-17.5	-16.9	-17.2	-18.8	-18.8	-11.2	-18.8	-14.3
29	-19.8	-20.2	-21.4	-20.1	-20.7	-21.9	-21.4	-21.2	-21.6	-21.2	-21.6	-22.2	-21.6	-21.5	-19.4	-18.8	-18.1	-19.4	-21.3	-20.5	-18.8	-21.8	-19.6	-20.8	-18.1	-22.2	-20.6
30	-21.0	-20.2	-19.8	-19.1	-19.2	-18.7	-16.8	-18.5	-18.4	-19.5	-17.9	-16.2	-16.5	-15.3	-14.3	-14.3	-15.3	-15.0	-15.8	-16.3	-16.2	-16.7	-15.9	-16.0	-14.3	-21.0	-17.2
31	-17.2	-18.1	-18.1	-15.8	-17.7	-16.5	-15.8	-16.8	-16.4	-16.3	-16.6	-16.5	-15.4	-14.1	-13.4	-13.9	-13.8	-15.2	-14.2	-14.9	-15.7	-15.2	-14.5	-14.2	-13.4	-18.1	-15.7
Max.	-2.4	-2.6	-2.3	-1.7	-1.6	-1.1	-1.0	-1.3	-1.4	-1.8	-2.1	-2.7	-3.2	-3.5	-3.6	-3.6	-2.7	-3.1	-3.2	-3.0	-3.2	-2.9	-2.0	-2.2	-1.0		
Min.	-33.4	-30.3	-31.0	-32.4	-31.2	-31.0	-31.3	-30.3	-31.1	-31.6	-32.2	-30.6	-31.2	-30.8	-29.4	-29.1	-29.8	-29.9	-32.3	-30.7	-30.7	-31.1	-30.6	-31.5		-33.4	
Avg.	-13.8	-13.9	-14.2	-14.1	-14.4	-14.2	-14.3	-14.3	-14.5	-14.5	-14.6	-14.6	-14.6	-14.3	-14.1	-14.1	-14.0	-14.1	-14.5	-14.2	-14.3	-14.5	-14.2	-14.3			-14.3

Total Hours in Month 744

Hours Data Available 740

Data Recovery 99.5%

Rock Creek - Backup Temperature (deg. C)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-14.3	-14.2	-14.3	-16.1	-16.2	-16.4	-16.5	-16.3	-16.4	-16.6	-16.5	-16.2	-15.4	-15.5	-15.6	-15.8	-16.2	-17.1	-17.5	-17.5	-18.4	-18.3	-18.2	-18.6	-14.2	-18.6	-16.4
2	-19.0	-19.1	-18.9	-20.4	-21.7	-21.8	-21.3	-21.4	-21.4	-21.9	-22.1	-21.6	-21.0	-19.8	-19.2	-19.4	-19.9	-20.5	-21.0	-21.5	-21.3	-21.4	-21.9	-22.4	-18.9	-22.4	-20.8
3	-22.2	-21.5	-21.4	-20.4	-20.6	-20.9	-20.7	-20.8	-20.3	-19.9	-19.8	-20.1	-19.5	-19.3	-18.6	-18.6	-18.8	-19.7	-20.4	-20.8	-20.3	-20.1	-19.9	-19.9	-18.6	-22.2	-20.2
4	-19.7	-20.2	-21.0	-21.3	-21.1	-21.1	-21.2	-21.4	-21.6	-21.6	-21.9	-21.7	-21.6	-21.5	-21.7	-22.3	-22.5	-22.9	-23.8	-24.4	-24.7	-24.5	-24.7	-24.9	-19.7	-24.9	-22.2
5	-25.8	-26.3	-26.4	-26.1	-26.8	-26.9	-26.9	-27.3	-27.6	-27.3	-27.4	-26.5	-26.4	-25.4	-25.2	-24.2	-24.8	-25.2	-24.3	-24.0	-23.0	-23.7	-23.8	-24.8	-23.0	-27.6	-25.7
6	-24.0	-26.0	-25.2	-22.4	-22.5	-23.9	-26.0	-27.0	-26.4	-27.0	-26.4	-26.9	-26.1	-25.6	-24.4	-24.1	-24.8	-26.4	-28.2	-27.5	-28.2	-27.4	-26.3	-27.0	-22.4	-28.2	-25.8
7	-27.4	-27.0	-27.4	-27.0	-26.7	-27.1	-26.3	-27.1	-28.8	-27.9	-28.0	-26.9	-23.0	-22.7	-21.5	-22.0	-20.2	-20.5	-21.9	-21.4	-21.0	-20.8	-19.7	-20.4	-19.7	-28.8	-24.3
8	-19.3	-17.2	-15.7	-15.2	-15.0	-14.9	-13.5	-12.5	-13.8	-12.7	-13.3	-12.2	-10.4	-11.0	-9.8	-8.5	-10.0	-8.8	-7.0	-6.9	-6.5	-7.0	-7.3	-6.0	-6.0	-19.3	-11.4
9	-5.5	-4.7	-4.3	-3.7	-3.2	-3.1	-3.1	-2.8	-2.0	-1.9	-2.1	-1.6	-1.1	-0.2	-0.1	-0.5	-0.4	-0.4	-0.8	-0.9	-1.3	-1.5	-1.1	-1.0	-0.1	-5.5	-2.0
10	-0.6	-0.9	-0.9	0.3	1.0	0.4	0.5	1.1	0.6	2.5	2.0	1.6	-1.5	-2.4	-2.6	-2.7	-2.8	-1.8	-0.9	-1.2	-0.1	0.1	0.2	0.1	2.5	-2.8	-0.3
11	-0.3	-0.8	-1.1	-1.0	-1.0	-1.2	-1.4	-2.0	-2.5	-2.9	-2.8	-2.6	-1.9	-1.3	-0.9	-1.3	-1.4	-1.7	-2.0	-1.7	-0.9	-1.0	-1.4	-1.6	-0.3	-2.9	-1.5
12	-1.3	-1.3	-0.7	-0.5	-1.0	-1.9	-1.6	-2.2	-2.9	-2.8	-1.3	0.1	0.7	0.3	0.1	0.0	0.1	-0.1	0.1	0.0	-0.5	0.0	-0.2	-0.3	0.7	-2.9	-0.7
13	-0.1	0.4	0.6	1.1	1.4	0.8	1.0	1.5	0.9	1.1	1.4	1.8	2.2	2.2	1.5	1.9	1.5	1.2	0.3	-0.6	-1.2	-1.6	-1.6	-1.8	2.2	-1.8	0.7
14	-3.2	-2.5	-2.6	-3.1	-3.5	-2.7	-4.1	-4.1	-4.1	-4.5	-5.4	-6.1	-6.7	-6.2	-5.6	-6.5	-6.5	-6.6	-6.8	-6.9	-8.0	-8.7	-9.0	-9.2	-2.5	-9.2	-5.5
15	-9.3	-9.7	-9.6	-9.2	-9.5	-9.5	-10.0	-10.2	-10.4	-11.3	-11.6	-11.1	-10.8	-10.1	-9.9	-9.8	-10.1	-10.3	-11.1	-12.1	-12.5	-13.5	-14.4	-15.4	-9.2	-15.4	-10.9
16	-15.6	-15.6	-14.9	-14.8	-15.3	-15.7	-16.0	-16.9	-16.6	-17.3	-18.0	-18.1	-16.9	-15.4	-13.5	-13.4	-13.6	-14.1	-15.7	-17.4	-16.7	-17.6	-18.0	-17.5	-13.4	-18.1	-16.0
17	-18.0	-18.1	-17.7	-18.0	-18.9	-19.6	-20.8	-20.7	-21.2	-19.6	-19.7	-18.6	-16.5	-14.8	-14.4	-14.5	-14.8	-15.8	-18.3	-20.0	-20.6	-20.1	-21.0	-20.6	-14.4	-21.2	-18.4
18	-21.0	-23.1	-24.4	-23.7	-23.2	-21.9	-22.9	-21.9	-22.4	-23.0	-22.8	-21.9	-19.1	-17.8	-16.8	-16.9	-17.0	-18.4	-20.2	-19.6	-22.2	-22.7	-22.2	-23.3	-16.8	-24.4	-21.2
19	-21.4	-21.6	-21.4	-22.2	-21.9	-22.2	-22.1	-20.7	-23.0	-23.2	-23.2	-21.3	-19.3	-19.3	-18.7	-17.6	-17.4	-18.7	-20.4	-22.2	-21.9	-23.3	-22.5	-23.3	-17.4	-23.3	-21.2
20	-23.0	-22.5	-22.3	-22.8	-21.5	-20.0	-19.2	-19.0	-19.2	-19.7	-19.6	-17.3	-16.3	-14.1	-12.9	-11.9	-11.6	-11.3	-11.8	-12.1	-12.8	-14.3	-15.0	-15.6	-11.3	-23.0	-16.9
21	-15.4	-15.4	-14.2	-13.2	-12.2	-12.0	-11.1	-9.9	-9.4	-9.1	-8.7	-7.1	-7.8	-5.4	-4.7	-4.1	-3.6	-3.7	-3.9	-3.7	-3.5	-3.7	-4.7	-6.3	-3.5	-15.4	-8.0
22	-6.6	-6.5	-7.2	-7.3	-7.7	-7.8	-8.1	-8.3	-8.5	-8.7	-8.7	-8.1	-8.1	-7.5	-7.7	-7.3	-7.8	-7.7	-8.6	-8.7	-8.8	-8.5	-8.7	-8.7	-6.5	-8.8	-8.0
23	-8.8	-9.5	-10.6	-11.9	-12.5	-11.3	-10.4	-9.9	-9.8	-10.1	-10.1	-9.3	-9.1	-8.4	-7.8	-7.8	-7.6	-8.1	-8.4	-9.0	-9.3	-9.5	-9.8	-10.3	-7.6	-12.5	-9.5
24	-10.5	-11.0	-11.3	-11.9	-11.9	-12.1	-12.6	-12.5	-13.1	-13.5	-13.4	-11.4	-9.9	-11.2	-10.8	-11.5	-11.8	-12.8	-14.7	-16.8	-16.3	-17.0	-17.0	-17.3	-9.9	-17.3	-13.0
25	-16.5	-15.9	-15.2	-14.5	-13.8	-13.0	-12.8	-12.6	-12.6	-12.6	-12.0	-11.2	-10.6	-9.8	-9.2	-8.9	-9.1	-9.3	-9.7	-10.0	-9.8	-10.8	-13.3	-13.3	-8.9	-16.5	-11.9
26	-12.9	-12.9	-11.2	-11.5	-12.1	-11.1	-9.9	-10.7	-10.6	-10.5	-9.7	-9.3	-8.3	-8.3	-8.5	-8.7	-8.3	-8.5	-9.1	-9.1	-9.5	-10.0	-9.6	-10.0	-8.3	-12.9	-10.0
27	-9.9	-10.0	-10.0	-10.5	-10.8	-10.8	-10.5	-10.3	-10.6	-11.6	-12.0	-11.9	-10.0	-9.7	-9.3	-9.0	-9.5	-11.5	-13.7	-15.4	-16.4	-17.0	-17.1	-17.3	-9.0	-17.3	-11.9
28	-17.0	-18.3	-18.2	-17.3	-15.5	-16.4	-17.2	-18.3	-18.7	-18.4	-18.3	-16.9	-14.7	-12.9	-12.1	-12.0	-12.0	-12.0	-12.6	-11.1	-9.5	-9.5	-9.3	-8.5	-8.5	-18.7	-14.4
29	-7.9	-6.0	-6.2	-5.6	-5.0	-5.9	-4.3	-3.4	-3.1	-2.8	-1.8	-1.3	-0.8	-0.1	0.2	0.4	-0.3	-0.5	-0.5	-0.7	-0.9	-1.0	-1.5	-1.4	0.4	-7.9	-2.5
Max.	-0.1	0.4	0.6	1.1	1.4	0.8	1.0	1.5	0.9	2.5	2.0	1.8	2.2	2.2	1.5	1.9	1.5	1.2	0.3	0.0	-0.1	0.1	0.2	0.1	2.5		
Min.	-27.4	-27.0	-27.4	-27.0	-26.8	-27.1	-26.9	-27.3	-28.8	-27.9	-28.0	-26.9	-26.4	-25.6	-25.2	-24.2	-24.8	-26.4	-28.2	-27.5	-28.2	-27.4	-26.3	-27.0		-28.8	
Avg.	-13.7	-13.7	-13.6	-13.5	-13.4	-13.4	-13.4	-13.4	-13.6	-13.6	-13.6	-12.9	-12.1	-11.5	-11.0	-10.9	-11.1	-11.5	-12.2	-12.5	-12.6	-12.9	-13.1	-13.3			-12.8

Total Hours in Month

696

Hours Data Available

696

Data Recovery

100%

Rock Creek - Backup Temperature (deg. C)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.2	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0	-0.8	-1.2	-1.3	-1.2	-1.7	-1.4	-1.8	-1.8	-2.0	-2.0	-2.2	-2.3	-2.1	-2.0	-1.9	-2.2	-0.8	-2.3	-1.5
2	-2.3	-2.6	-2.5	-2.4	-2.8	-3.0	-3.2	-3.4	-3.7	-3.4	-2.8	-2.3	-1.9	-1.5	-1.3	-1.3	-1.5	-1.3	-1.7	-1.8	-2.0	-1.8	-2.0	-1.9	-1.3	-3.7	-2.3
3	-1.7	-2.3	-3.1	-2.9	-2.8	-2.9	-3.5	-3.7	-4.2	-4.5	-4.4	-4.2	-4.2	-4.5	-4.7	-4.2	-3.6	-3.7	-3.5	-4.0	-4.1	-4.1	-4.1	-4.0	-1.7	-4.7	-3.7
4	-4.1	-3.9	-3.7	-3.5	-3.1	-3.9	-4.3	-4.3	-4.5	-4.4	-3.8	-3.6	-3.6	-3.1	-2.7	-2.7	-2.6	-3.3	-4.9	-6.6	-9.0	-9.2	-7.3	-6.7	-2.6	-9.2	-4.5
5	-6.8	-6.8	-7.0	-7.0	-7.2	-7.1	-7.6	-7.9	-9.3	-11.3	-11.5	-10.4	-9.8	-9.4	-9.1	-9.0	-9.6	-10.6	-12.2	-13.3	-13.0	-13.2	-15.0	-15.1	-6.8	-15.1	-10.0
6	-14.4	-14.3	-15.2	-15.2	-16.0	-16.6	-17.0	-17.3	-17.8	-18.2	-16.8	-14.8	-14.4	-13.7	-13.1	-13.3	-14.5	-15.3	-16.6	-17.7	-18.7	-19.6	-18.6	-18.2	-13.1	-19.6	-16.1
7	-18.1	-18.5	-19.8	-20.4	-22.0	-22.9	-23.3	-23.3	-23.6	-23.0	-22.7	-21.6	-19.5	-18.3	-17.3	-16.4	-16.4	-17.1	-18.0	-20.2	-21.4	-22.8	-23.8	-23.5	-16.4	-23.8	-20.6
8	-22.9	-23.5	-24.0	-23.8	-24.3	-24.1	-25.3	-24.7	-25.0	-24.0	-23.4	-22.2	-19.6	-17.9	-17.6	-16.6	-16.6	-16.8	-18.9	-20.7	-21.9	-23.9	-25.0	-24.4	-16.6	-25.3	-22.0
9	-23.0	-23.4	-22.2	-18.6	-17.3	-17.3	-17.9	-16.9	-16.0	-15.5	-16.6	-15.0	-13.6	-12.0	-10.9	-10.7	-10.4	-11.0	-10.4	-10.8	-11.4	-12.2	-11.7	-11.4	-10.4	-23.4	-14.8
10	-12.3	-12.2	-10.4	-10.2	-10.2	-10.3	-10.3	-9.5	-10.3	-10.4	-9.6	-8.4	-7.9	-7.4	-7.3	-6.7	-6.5	-6.4	-5.9	-5.5	-4.5	-3.9	-3.5	-3.0	-3.0	-12.3	-8.0
11	-3.0	-2.7	-2.7	-2.1	-1.3	-1.5	-1.0	-1.1	-1.3	-1.5	-1.3	-0.6	-0.4	0.0	-0.4	-0.5	-0.7	-0.8	-1.1	-1.2	-1.1	-1.1	-1.1	-1.1	0.0	-3.0	-1.2
12	-1.3	-1.4	-1.3	-1.4	-1.6	-1.6	-1.7	-1.9	-2.3	-2.0	-1.7	-1.4	-0.9	-0.7	-0.6	-1.0	-1.4	-2.0	-2.7	-2.7	-2.7	-1.8	-1.6	-1.5	-0.6	-2.7	-1.6
13	-1.5	-1.6	-1.8	-5.7	-6.8	-7.5	-7.6	-9.4	-9.4	-8.5	-7.4	-6.8	-6.9	-6.7	-6.3	-6.2	-5.9	-6.0	-6.7	-7.5	-7.2	-7.4	-6.8	-6.1	-1.5	-9.4	-6.4
14	-5.3	-4.7	-4.6	-4.2	-3.8	-3.3	-3.2	-3.1	-2.9	-2.6	-2.3	-1.7	-1.3	-1.3	-1.4	-1.7	-1.8	-2.1	-2.5	-2.8	-3.0	-3.2	-3.5	-4.2	-1.3	-5.3	-2.9
15	-5.6	-5.4	-6.0	-6.0	-6.9	-7.0	-6.7	-5.7	-5.8	-5.0	-4.1	-3.2	-2.3	-1.3	-1.2	-0.7	-1.3	-2.5	-3.5	-3.7	-4.2	-5.0	-5.8	-6.6	-0.7	-7.0	-4.4
16	-7.2	-9.2	-9.6	-9.1	-9.2	-9.3	-8.9	-9.4	-9.8	-9.4	-8.6	-7.6	-8.3	-8.0	-7.6	-7.2	-8.2	-8.1	-8.5	-9.1	-10.8	-11.6	-12.1	-13.8	-7.2	-13.8	-9.2
17	-14.7	-15.3	-15.4	-14.0	-14.5	-15.4	-17.0	-15.5	-12.6	-12.2	-12.2	-11.3	-11.3	-11.2	-10.5	-10.3	-10.2	-10.6	-11.0	-12.8	-13.8	-15.0	-15.5	-16.4	-10.2	-17.0	-13.3
18	-16.6	-15.9	-16.4	-18.3	-18.1	-19.9	-19.5	-19.1	-15.9	-14.4	-13.6	-14.6	-14.5	-13.1	-11.8	-11.9	-12.8	-13.5	-14.8	-16.9	-18.5	-18.7	-18.7	-20.2	-11.8	-20.2	-16.2
19	-19.2	-20.7	-19.4	-18.4	-19.1	-19.3	-18.1	-16.5	-14.8	-14.3	-13.6	-13.0	-12.9	-12.5	-12.6	-12.4	-12.8	-12.5	-13.2	-13.5	-13.5	-13.1	-12.9	-12.6	-12.4	-20.7	-15.0
20	-12.6	-12.6	-12.7	-12.8	-12.8	-12.1	-11.8	-11.6	-11.3	-11.0	-11.2	-10.8	-10.0	-9.7	-9.9	-9.5	-9.5	-9.4	-9.3	-8.9	-8.7	-8.4	-8.2	-8.3	-8.2	-12.8	-10.5
21	-7.7	-7.9	-7.6	-7.7	-7.6	-7.5	-7.3	-7.1	-6.7	-6.5	-5.7	-5.4	-4.7	-4.0	-4.0	-4.7	-4.9	-4.6	-5.2	-5.4	-5.6	-5.5	-5.9	-6.1	-4.0	-7.9	-6.0
22	-6.9	-7.5	-8.9	-10.7	-10.7	-11.0	-11.7	-13.4	-13.2	-12.3	-10.9	-9.7	-8.5	-7.1	-6.6	-5.0	-3.5	-3.8	-4.9	-7.0	-8.4	-9.4	-9.7	-9.9	-3.5	-13.4	-8.8
23	-8.2	-8.0	-9.7	-10.7	-10.7	-11.7	-12.0	-12.2	-11.9	-11.3	-9.4	-7.9	-5.6	-5.7	-4.9	-3.2	0.0	-0.4	-1.9	-2.8	-4.9	-7.2	-8.2	-8.7	0.0	-12.2	-7.4
24	-7.9	-10.7	-10.7	-9.5	-10.1	-10.7	-11.8	-12.7	-13.1	-14.0	-12.2	-11.4	-10.7	-10.1	-10.8	-11.2	-12.3	-12.7	-12.3	-13.2	-13.9	-15.2	-16.3	-15.6	-7.9	-16.3	-12.1
25	-15.3	-15.3	-15.2	-15.5	-15.6	-15.5	-17.3	-18.0	-18.1	-17.7	-17.0	-15.5	-14.4	-12.4	-11.9	-11.8	-10.8	-11.7	-13.2	-14.1	-14.8	-14.9	-15.2	-15.2	-10.8	-18.1	-14.8
26	-14.6	-15.3	-15.3	-15.3	-15.7	-17.4	-17.4	-17.1	-17.2	-17.1	-15.8	-14.8	-13.5	-12.9	-12.4	-12.7	-12.9	-13.8	-14.8	-15.7	-16.8	-17.3	-17.6	-17.7	-12.4	-17.7	-15.5
27	-16.9	-18.4	-20.3	-21.0	-20.2	-19.7	-19.6	-18.4	-17.7	-17.2	-16.3	-15.4	-14.4	-14.2	-14.2	-14.4	-15.1	-15.5	-16.3	-17.4	-18.6	-19.2	-20.3	-20.3	-14.2	-21.0	-17.5
28	-20.9	-21.6	-21.5	-22.6	-22.2	-23.1	-23.8	-24.1	-25.1	-24.7	-24.8	-24.4	-22.7	-22.6	-22.5	-22.7	-23.6	-24.5	-25.2	-26.3	-27.7	-28.1	-28.2	-28.7	-20.9	-28.7	-24.2
29	-29.8	-29.9	-29.9	-30.1	-30.1	-29.7	-29.7	-29.6	-29.1	-28.6	-27.5	-26.6	-25.8	-25.6	-25.0	-24.9	-24.7	-24.9	-25.2	-25.7	-25.9	-26.3	-26.4	-26.7	-24.7	-30.1	-27.4
30	-27.0	-27.2	-26.9	-27.2	-27.5	-27.2	-27.0	-26.9	-26.5	-25.6	-25.1	-23.6	-22.4	-22.3	-21.9	-21.2	-20.0	-20.5	-21.0	-22.0	-23.7	-24.9	-26.5	-26.9	-20.0	-27.5	-24.6
31	-27.0	-28.1	-27.7	-27.8	-28.2	-28.0	-28.1	-28.3	-27.4	-26.3	-23.7	-21.3	-19.0	-18.0	-18.3	-17.4	-18.3	-17.4	-17.9	-19.6	-21.7	-23.4	-23.2	-23.1	-17.4	-28.3	-23.3
Max.	-1.2	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0	-0.8	-1.2	-1.3	-0.6	-0.4	0.0	-0.4	-0.5	0.0	-0.4	-1.1	-1.2	-1.1	-1.1	-1.1	-1.1	0.0		
Min.	-29.8	-29.9	-29.9	-30.1	-30.1	-29.7	-29.7	-29.6	-29.1	-28.6	-27.5	-26.6	-25.8	-25.6	-25.0	-24.9	-24.7	-24.9	-25.2	-26.3	-27.7	-28.1	-28.2	-28.7		-30.1	
Avg.	-12.1	-12.5	-12.7	-12.7	-12.9	-13.1	-13.4	-13.3	-13.1	-12.8	-12.2	-11.3	-10.5	-10.0	-9.7	-9.5	-9.5	-9.8	-10.5	-11.3	-12.1	-12.6	-12.8	-12.9			-11.8

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Wind Speed (m/s)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	14.8	15.5	15.4	15.0	13.8	12.9	7.5	4.7	2.9	2.7	2.6	2.6	2.2	3.2	3.4	3.7	3.8	2.7	3.0	3.6	4.4	3.3	6.2	7.5	15.5	2.2	6.2
2	6.6	5.7	5.1	3.4	4.2	4.8	2.5	2.0	2.4	3.5	3.5	3.3	1.8	2.1	2.3	2.5	2.4	3.1	3.4	2.5	1.2	2.2	1.0	1.3	5.7	1.0	2.9
3	2.3	1.2	0.9	0.9	0.8	1.2	1.1	1.5	1.1	0.7	0.6	0.9	1.8	1.5	0.8	0.8	0.9	0.6	1.0	0.5	0.9	1.0	0.6	1.1	1.8	0.5	1.0
4	0.6	1.0	0.9	0.8	1.4	2.4	2.4	1.2	1.1	1.0	1.4	1.0	1.0	0.6	0.7	0.5	0.7	0.7	0.7	0.6	0.8	1.4	0.6	1.0	2.4	0.5	1.0
5	0.7	0.9	0.8	0.7	0.8	0.8	1.7	1.8	1.2	1.0	0.9	0.8	1.1	1.5	2.5	6.0	7.1	8.6	7.3	9.9	9.8	8.5	7.8	11.7	11.7	0.7	4.1
6	10.1	6.1	6.4	8.6	7.9	8.3	1.5	2.5	1.8	3.0	4.6	1.8	1.6	1.2	1.8	7.8	8.0	5.9	6.6	4.7	2.3	2.5	4.5	10.8	10.8	1.2	4.8
7	3.9	1.6	1.5	5.5	2.6	4.0	2.8	4.1	11.8	10.1	11.1	10.4	9.3	9.9	14.9	13.4	12.0	6.1	6.2	4.4	6.2	8.9	11.5	11.0	14.9	1.5	7.8
8	9.1	8.7	7.3	11.3	15.1	11.8	15.7	20.7	17.0	17.6	14.9	12.3	13.8	11.9	11.2	12.1	14.8	16.3	19.1	19.1	18.1	18.8	21.0	24.6	24.6	7.3	15.4
9	23.7	16.2	6.6	9.4	15.0	16.2	11.2	10.7	8.9	7.7	5.4				9.7	8.5	7.4	4.0	4.8	6.4	7.0	3.1	1.8	16.2	1.8	8.4	
10	1.3	3.6	1.5	2.7	2.0	1.9	1.1	1.3	1.4	1.2	0.7	1.0	0.6	0.6	0.6	1.2	0.8	0.9	0.9	2.8	6.0	5.2	4.1	3.4	6.0	0.6	2.0
11	3.6	3.0	2.2	2.1	1.5	1.4	1.4	0.7	0.9	2.2	2.0	1.7	4.2	4.5	2.0	2.0	1.8	1.3	1.8	3.3	4.1	5.1	4.4	4.0	5.1	0.7	2.5
12	3.5	3.4	2.4	1.8	2.2	2.6	2.6	2.6	1.4	2.9	2.5	1.9	1.1	1.2	1.1	0.9	1.1	3.4	5.7	6.1	1.5	2.7	2.4	1.4	6.1	0.9	2.4
13	5.1	6.6	6.1	2.3	2.1	1.8	0.9	0.9	1.1	0.7	0.8	0.7	0.9	1.3	1.0	0.9	1.0	0.9	0.7	1.1	0.8	0.8	0.8	1.2	6.6	0.7	1.5
14	3.3	6.6	5.6	4.1	3.3	3.8	2.9	1.6	0.9	1.5	1.0	1.1	0.7	1.1	1.0	0.7	0.9	1.5	1.4	1.3	2.7	1.2	1.3	0.8	6.6	0.7	2.0
15	0.8	0.7	0.8	1.0	0.8	0.8	0.6	0.9	1.0	0.9	0.9	0.8	1.5	2.6	1.9	1.9	1.8	1.9	1.7	1.6	1.4	0.6	0.4	0.5	2.6	0.4	1.2
16	0.3	0.6	0.8	0.6	0.5	0.4	0.5	0.4	0.6	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.5	0.4	0.3	0.4	0.5	0.4	0.5	0.8	0.3	0.5
17	0.4	1.1	1.0	1.0	0.6	0.8	0.7	0.7	0.9	0.6	0.5	0.4	0.5	0.6	0.5	1.0	1.5	2.0	1.7	1.5	1.6	1.3	1.1	0.9	2.0	0.4	1.0
18	1.2	0.9	1.1	0.9	0.8	0.6	0.8	0.9	0.6	0.6	0.7	0.6	0.8	0.6	1.2	1.4	0.8	0.6	1.0	0.8	0.7	0.5	0.8	0.8	1.4	0.5	0.8
19	0.9	1.4	1.1	1.0	2.5	2.9	0.7	4.8	5.3	9.4	11.4	9.5	10.1	11.1	10.0	12.2	10.4	11.2	12.0	15.8	13.8	14.8	13.4	14.6	15.8	0.7	8.7
20	11.3	11.7	10.3	10.9	9.7	12.1	12.0	6.5	11.2	13.1	6.5	6.2	8.1	7.2	7.9	6.7	6.3	6.1	5.0	4.6	4.6	4.5	4.4	6.6	13.1	4.4	7.9
21	3.8	3.1	3.1	5.7	7.1	7.5	5.1	5.7	6.2	9.2	9.0	9.8	6.5	4.0	6.6	9.6	8.7	9.0	9.6	9.7	9.0	9.6	8.3	9.6	9.8	3.1	7.5
22	4.4	3.8	6.2	4.8	6.1	3.2	3.7	5.0	6.8	5.9	3.9	4.2	5.0	6.6	8.8	8.2	8.7	8.3	8.4	8.0	6.8	6.3	6.1	6.1	8.8	3.2	6.1
23	4.4	2.4	1.0	1.5	1.5	1.6	1.2	1.4	1.8	1.6	2.7	4.8	3.9	6.2	4.2	2.2	2.8	2.8	2.2	1.2	2.6	4.6	4.0	6.0	6.2	1.0	2.8
24	3.2	4.0	5.7	5.5	4.0	6.4	5.2	4.9	6.2	3.2	2.5	5.0	6.7	7.6	6.4	4.5	2.8	4.7	1.8	4.5	4.5	6.2	7.2	6.8	7.6	1.8	5.0
25	3.0	2.7	3.2	2.5	3.4	2.6	6.1	4.1	5.4	6.5	8.7	9.5	10.2	7.0	12.6	11.0	5.2	4.9	8.1	5.3	3.2	3.6	8.5	5.8	12.6	2.5	6.1
26	3.9	5.6	10.6	6.9	5.2	5.1	5.0	6.1	5.8	7.3	4.6	9.5	15.0	14.1	16.9	15.5	12.3	17.0	11.4	15.7	16.1	18.4	12.0	8.1	18.4	4.6	10.6
27	16.0	18.0	19.0	9.2	9.1	5.8	6.6	8.2	6.4	4.8	6.1	8.7	5.6	4.9	4.2	2.9	2.8	2.3	4.4	8.0	5.6	5.9	6.0	4.1	19.0	2.3	6.9
28	6.3	6.4	8.4	7.3	6.2	6.2	7.1	6.4	7.5	5.0	2.2	1.5	1.4	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.6	8.4	0.6	3.2
29	0.9	0.9	1.2	0.8	1.0	0.9	1.3	0.9	1.2	1.5	1.0	0.9	1.2	1.7	1.1	1.0	1.5	0.9	0.8	1.2	3.4	1.3	1.7	1.6	3.4	0.8	1.3
30	1.1	2.3	1.5	1.2	1.7	2.2	5.7	4.1	6.0	3.1	4.0	4.0	3.5	5.1	5.1	5.0	3.2	5.1	6.3	7.1	6.5	7.1	7.7	5.3	7.7	1.1	4.3
31	4.5	3.1	6.0	5.9	5.2	5.6	5.9	4.6	5.4	5.6	5.5	5.2	7.9	10.1	8.4	8.0	8.6	8.6	8.5	8.7	8.4	9.5	12.4	11.5	12.4	3.1	7.2
Max.	23.7	18.0	19.0	15.0	15.1	16.2	15.7	20.7	17.0	17.6	14.9	12.3	15.0	14.1	16.9	15.5	14.8	17.0	19.1	19.1	18.1	18.8	21.0	11.5	24.6		
Min.	0.3	0.6	0.8	0.6	0.5	0.4	0.5	0.4	0.6	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.5	0.4	0.3	0.4	0.5	0.4	5.3		0.3	
Avg.	5.0	4.8	4.6	4.4	4.4	4.5	4.0	3.9	4.3	4.3	4.0	4.0	4.3	4.4	4.7	5.0	4.6	4.7	4.7	5.1	5.0	5.3	5.3	8.4			4.7

Total Hours in Month 744

Hours Data Available 740

Data Recovery 99.5%

Rock Creek - Wind Speed (m/s)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	11.3	10.6	9.8	9.6	9.6	5.6	3.5	3.4	3.3	5.4	6.0	10.4	12.2	10.0	9.3	7.7	9.3	8.9	9.4	10.0	8.3	8.3	9.0	8.4	12.2	3.3	8.2
2	7.9	8.1	6.9	7.4	7.2	7.1	7.0	7.0	5.4	3.0	1.2	1.4	1.9	4.7	1.0	1.1	1.8	5.1	6.1	2.0	4.9	4.5	3.7	2.7	8.1	1.0	4.4
3	1.5	2.8	4.3	6.3	8.0	7.1	8.2	9.0	9.6	10.6	9.5	7.0	7.6	7.5	7.4	7.3	6.8	6.3	5.7	5.2	8.2	8.3	10.8	11.1	11.1	2.8	7.6
4	10.6	10.5	9.8	8.6	9.1	11.0	12.6	11.7	10.8	11.4	12.3	10.9	9.3	8.4	8.8	11.2	10.7	9.8	9.9	9.4	11.0	11.7	13.6	13.6	13.6	8.4	10.7
5	13.9	13.1	11.4	14.2	14.9	12.8	13.0	13.9	13.7	12.1	9.5	13.1	14.0	13.5	12.9	12.0	12.9	12.6	11.5	11.5	8.2	6.6	6.8	3.3	14.9	3.3	11.6
6	4.3	1.8	3.2	5.0	4.6	3.1	0.8	1.3	1.9	1.3	1.3	1.1	1.1	1.2	1.2	1.0	0.9	1.5	1.2	3.0	2.8	6.0	6.0	3.1	6.0	0.8	2.4
7	1.3	1.6	1.4	1.3	1.1	1.2	1.9	1.2	0.9	1.0	1.0	4.1	7.5	6.9	5.2	3.4	7.3	6.0	4.3	5.3	8.7	6.3	4.0	4.9	8.7	0.9	3.8
8	5.0	8.7	13.8	14.4	10.1	12.1	12.7	13.2	15.5	13.5	14.1	16.4	14.2	11.9	9.6	11.6	13.3	10.4	9.0	7.8	5.9	4.7	7.5	5.8	16.4	4.7	11.1
9	5.5	4.9	11.1	12.0	12.5	12.6	12.8	12.5	13.7	13.8	14.9	16.5	17.0	16.4	18.0	16.8	15.6	13.5	13.3	12.5	12.0	12.2	11.5	10.5	18.0	4.9	13.3
10	9.4	9.2	9.9	8.9	7.4	8.8	12.7	9.9	8.7	9.0	10.5	11.1	15.0	15.5	13.1	10.3	10.6	6.2	7.0	5.2	7.7	6.1	6.6	7.8	15.5	5.2	9.4
11	10.8	11.0	10.6	8.9	8.7	7.4	6.5	9.9	11.1	11.0	9.2	8.7	9.8	10.0	9.7	7.6	8.7	8.1	6.2	4.1	7.6	7.2	7.8	5.9	11.1	4.1	8.5
12	7.2	6.6	6.7	4.8	2.3	6.7	5.7	3.9	4.3	5.6	4.3	7.5	10.4	11.4	13.0	13.5	14.5	14.1	13.5	14.7	16.2	14.8	15.9	15.6	16.2	2.3	9.8
13	15.8	15.3	15.5	14.2	13.1	17.3	18.2	15.2	16.3	16.1	12.0	12.2	13.1	13.8	14.4	14.1	14.4	12.6	13.8	16.3	17.2	14.7	14.1	13.6	18.2	12.0	14.7
14	17.9	14.7	11.9	10.8	7.2	5.6	4.2	4.3	5.3	5.7	4.6	7.4	10.2	8.1	6.0	4.7	3.0	7.3	6.9	9.1	7.1	8.4	6.1	4.6	14.7	3.0	7.1
15	4.4	4.4	1.5	2.5	3.3	2.3	2.0	1.8	1.1	1.6	2.6	3.2	3.4	2.6	1.7	1.5	3.3	2.8	1.5	1.1	1.3	1.5	1.3	1.1	4.4	1.1	2.2
16	1.0	1.3	1.3	0.9	1.4	0.8	0.7	0.7	0.6	0.8	0.9	1.0	1.2	1.3	1.4	1.4	1.9	2.1	1.1	1.4	3.7	2.2	3.4	4.3	4.3	0.6	1.6
17	3.1	4.5	3.9	6.4	5.3	4.3	4.0	3.0	1.7	2.8	3.3	4.9	5.5	4.1	4.9	4.3	2.8	2.3	1.9	1.5	1.7	2.7	3.2	5.6	6.4	1.5	3.7
18	2.5	1.6	1.2	1.1	1.1	1.3	1.4	2.6	1.6	2.4	1.7	3.3	1.6	4.8	4.6	4.6	3.4	5.3	4.5	3.9	2.6	3.8	1.9	2.6	5.3	1.1	2.7
19	2.4	3.5	1.7	3.5	4.6	3.7	4.8	6.9	4.9	1.3	1.7	2.8	4.4	5.5	3.2	1.7	2.1	3.3	2.2	1.7	1.3	1.1	1.2	1.3	6.9	1.1	3.0
20	1.3	1.2	1.0	1.4	0.9	1.3	2.5	1.2	1.1	0.9	1.1	1.2	1.6	2.3	1.9	1.2	1.9	1.3	1.9	1.6	1.6	1.4	0.9	1.6	2.5	0.9	1.4
21	2.8	2.7	2.4	2.3	2.4	0.9	2.2	2.2	1.2	1.2	2.7	3.8	1.6	4.9	3.8	4.8	4.8	3.9	3.3	6.6	9.0	5.6	3.2	2.6	9.0	0.9	3.4
22	1.1	0.8	1.6	1.5	0.5	0.7	1.0	0.8	1.0	0.8	0.6	0.7	1.3	1.3	1.7	1.6	2.4	1.1	1.7	1.0	1.8	1.3	1.0	1.1	2.4	0.5	1.2
23	1.2	1.0	0.6	0.6	0.9	0.6	0.7	1.0	1.0	0.6	0.5	0.5	0.5	0.4	0.5	0.8	1.1	1.3	0.7	0.8	1.0	0.7	1.2	1.3	1.3	0.4	0.8
24	0.7	0.9	0.5	1.4	0.8	0.7	0.8	0.7	0.5	0.6	0.5	0.7	0.6	1.4	1.0	0.9	0.6	0.9	1.3	1.8	0.6	0.6	1.6	1.0	1.8	0.5	0.9
25	0.8	0.6	0.6	0.4	0.8	2.3	0.9	0.5	0.7	0.3	0.6	1.1	0.9	0.9	1.6	0.9	1.1	1.0	1.1	1.1	1.5	2.5	1.8	1.7	2.5	0.3	1.1
26	3.1	1.7	5.6	6.0	7.5	4.9	4.9	8.0	2.5	4.0	5.3	4.6	4.5	4.3	5.9	6.7	5.8	4.6	4.9	2.9	4.5	7.2	6.9	2.4	8.0	1.7	5.0
27	1.4	2.5	2.7	1.9	1.9	1.3	1.0	1.6	0.9	1.2	1.0	1.5	1.1	1.0	1.1	1.0	1.2	1.3	1.0	1.0	0.7	0.6	0.5	0.9	2.7	0.5	1.3
28	0.9	0.7	0.8	0.6	0.8	0.6	0.7	0.9	1.0	0.8	1.2	1.5	1.8	1.5	1.4	1.4	1.8	1.2	2.0	5.7	6.8	7.0	7.3	8.7	8.7	0.6	2.4
29	9.1	6.0	7.7	6.2	4.7	7.6	4.9	5.0	5.7	6.4	4.8	5.8	4.7	7.5	8.1	8.6	7.7	6.0	7.0	6.2	4.9	5.3	4.2	5.0	8.6	4.2	6.1
Max.	17.9	15.3	15.5	14.4	14.9	17.3	18.2	15.2	16.3	16.1	14.9	16.5	17.0	16.4	18.0	16.8	15.6	14.1	13.8	16.3	17.2	14.8	15.9	15.6	18.2		
Min.	0.7	0.6	0.5	0.4	0.5	0.6	0.7	0.5	0.5	0.3	0.5	0.5	0.5	0.4	0.5	0.8	0.6	0.9	0.7	0.8	0.6	0.6	0.5	0.9		0.3	
Avg.	5.5	5.2	5.5	5.6	5.3	5.2	5.2	5.3	5.0	5.0	4.8	5.7	6.1	6.3	5.9	5.6	5.9	5.5	5.3	5.3	5.8	5.6	5.6	5.3			5.5

Total Hours in Month

696

Hours Data Available

696

Data Recovery

100%

Rock Creek - Wind Speed (m/s)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.0	4.3	5.3	5.4	5.7	5.6	4.3	4.9	8.3	12.2	11.6	10.3	11.4	11.1	8.0	10.6	10.6	11.5	13.9	13.9	14.3	12.2	11.7	13.2	14.3	4.3	9.6
2	15.3	15.0	15.3	15.1	15.7	16.1	16.5	15.1	14.5	14.7	14.0	14.7	14.6	13.3	13.6	12.4	12.1	12.3	7.5	4.5	7.9	3.8	2.6	1.7	16.5	1.7	11.9
3	2.8	2.6	3.5	2.1	2.8	2.6	3.8	2.3	3.5	4.1	4.3	5.3	4.7	4.7	4.8	5.3	1.6	1.9	1.7	1.5	1.7	2.3	3.6	2.6	5.3	1.5	3.2
4	4.1	3.5	4.0	2.9	1.9	3.1	1.2	1.1	0.9	0.7	1.2	1.4	2.0	1.3	1.3	3.0	2.6	1.6	1.7	1.0	0.7	0.8	1.2	1.0	4.0	0.7	1.7
5	1.7	2.1	1.6	2.5	2.4	3.3	3.1	2.8	4.3	4.5	4.6	4.5	4.4	4.2	3.4	4.3	5.3	6.2	4.5	4.3	10.2	8.9	6.7	4.8	10.2	1.6	4.5
6	2.0	2.7	4.0	3.4	3.0	3.8	3.8	2.7	4.3	4.2	1.6	5.0	4.7	10.1	7.1	6.9	4.6	3.5	5.6	7.1	5.1	3.8	8.6	10.1	10.1	1.6	5.0
7	11.5	6.6	4.6	2.5	2.3	1.2	0.9	0.8	0.9	1.2	0.9	0.8	1.4	2.8	2.2	1.6	1.3	1.9	1.4	0.6	1.1	1.3	0.9	0.9	6.6	0.6	1.7
8	0.9	0.8	0.7	1.1	1.2	1.4	0.8	0.5	0.7	0.7	0.5	0.7	0.7	1.4	2.5	1.9	1.7	2.0	1.9	1.2	3.1	1.6	1.0	1.0	3.1	0.5	1.3
9	2.6	1.6	2.3	2.9	3.9	4.9	4.1	5.3	10.1	8.0	4.7	4.9	7.7	7.1	9.9	13.2	16.1	15.4	12.5	9.7	10.1	10.1	10.7	9.4	16.1	1.6	8.0
10	7.8	3.8	2.1	1.3	1.5	1.2	3.0	2.8	4.7	4.0	3.7	4.7	4.0	2.4	4.1	4.0	4.0	5.2	4.7	4.2	2.9	2.7	3.0	2.3	5.2	1.2	3.3
11	1.4	1.5	1.3	1.8	2.4	2.7	4.3	5.2	5.4	4.7	4.8	5.6	5.5	6.9	7.3	7.6	7.5	7.3	7.8	6.9	7.3	7.5	7.9	7.6	7.9	1.3	5.5
12	7.5	7.0	7.1	6.6	5.5	5.8	4.9	3.6	1.5	3.4	3.3	2.8	2.4	1.8	2.2	4.5	6.4	7.1	7.7	5.6	6.7	6.9	7.3	6.6	7.7	1.5	5.1
13	7.4	7.8	7.9	6.6	4.5	2.7	2.1	1.4	1.2	2.5	4.9	4.5	5.7	6.3	6.1	5.1	4.0	3.1	3.3	5.9	7.6	8.6	7.1	7.4	8.6	1.2	5.0
14	7.7	9.3	8.4	7.3	7.5	6.5	7.2	6.9	7.2	7.0	6.2	6.5	7.2	7.8	8.0	8.0	7.4	8.1	7.3	5.9	4.4	3.8	2.9	2.0	9.3	2.0	6.6
15	0.9	1.2	1.0	1.0	0.7	0.7	1.0	0.9	0.7	0.7	0.9	0.8	0.9	0.5	1.4	1.1	1.8	2.8	2.9	2.4	1.8	1.9	1.2	0.9	2.9	0.5	1.3
16	0.5	1.8	0.7	0.8	0.8	1.1	0.6	0.5	1.1	0.9	0.6	0.6	1.8	2.1	1.6	1.4	1.5	1.1	1.0	1.6	1.9	3.0	3.6	2.5	3.6	0.5	1.4
17	2.2	1.2	1.3	1.8	0.8	0.7	1.0	3.8	9.1	8.5	12.2	8.6	9.9	10.1	8.9	8.1	5.8	3.2	2.5	4.0	2.2	2.8	1.6	2.7	12.2	0.7	4.8
18	2.9	3.6	3.8	3.4	1.3	1.0	1.3	1.1	1.3	1.3	4.6	2.6	2.3	1.5	0.9	1.4	1.7	0.9	1.0	1.6	1.5	0.9	1.2	0.6	4.6	0.6	1.8
19	0.8	0.9	1.1	1.3	1.2	0.7	1.0	2.2	1.6	4.0	3.3	3.0	4.9	4.8	4.5	4.7	4.6	4.3	4.8	3.7	2.7	3.2	1.8	2.9	4.9	0.7	2.9
20	2.1	1.0	2.0	1.5	1.6	1.8	1.9	2.9	2.0	3.9	6.6	5.5	1.6	1.5	3.0	1.0	1.1	2.1	2.7	2.2	3.0	1.7	1.5	2.7	6.6	1.0	2.4
21	1.6	0.7	1.3	0.8	0.7	0.8	1.1	0.9	0.7	1.5	0.6	0.7	0.7	0.6	0.9	2.2	1.6	0.6	1.0	0.7	1.1	0.8	1.1	1.0	2.2	0.6	1.0
22	2.2	1.9	1.6	1.5	0.9	1.2	0.9	0.6	1.0	0.5	0.5	0.5	0.4	0.6	0.8	0.8	0.5	0.7	0.8	1.7	0.7				1.9	0.4	0.9
23													1.6	2.2	2.0	4.7	7.5	6.7	9.3	7.0	2.0	1.3	1.5	2.3	9.3	1.3	4.0
24	3.8	1.5	2.8	7.2	6.0	6.9	4.0	2.4	0.8	1.2	1.5	1.7	4.5	7.8	9.2	11.1	12.7	11.7	8.2	8.2	13.7	7.6	6.5	10.2	13.7	0.8	6.4
25	9.2	7.7	8.2	10.0	9.1	8.1	8.4	5.8	6.9	5.8	5.8	2.4	4.8	5.4	4.3	5.2	7.3	6.6	6.4	6.2	8.4	11.1	11.1	6.7	11.1	2.4	7.0
26	8.0	7.7	6.9	9.2	8.6	8.3	11.7	9.1	10.0	8.7	7.2	6.9	4.0	4.6	4.3	3.3	5.2	6.7	7.6	7.4	8.8	6.3	5.5	6.3	11.7	3.3	7.1
27	5.2	3.9	2.0	1.8	1.4	1.1	1.2	0.9	4.7	1.8	3.4	4.2	5.9	6.2	6.0	7.0	8.1	6.7	7.3	7.1	9.2	11.1	11.7	11.1	11.7	0.9	5.4
28	10.2	8.2	8.6	7.8	6.1	8.9	9.3	11.5	12.7	9.4	12.9	13.6	11.2	9.4	7.8	7.3	13.9	11.6	10.1	10.1	7.7	7.8	7.3	5.4	13.9	5.4	9.5
29	5.5	6.0	7.6	5.2	5.5	3.8	5.7	6.5	6.2	3.5	4.3	5.2	3.3	6.0	6.1	5.8	5.1	5.6	6.1	6.6	4.7	7.5	8.1	7.7	8.1	3.3	5.8
30	7.2	7.2	7.8	6.4	5.7	6.9	6.0	6.6	6.5	5.4	4.1	1.6	1.1	1.8	1.7	1.9	1.0	1.2	1.4	0.9	0.9	0.7	1.1	1.3	7.8	0.7	3.6
31	1.2	0.8	1.0	0.8	0.9	0.9	1.0	1.0	0.8	0.6	0.9	1.4	0.7	1.0	1.4	1.0	2.0	0.9	0.9	1.4	2.9	1.9	1.8	1.9	2.9	0.6	1.2
Max.	15.3	15.0	15.3	15.1	15.7	16.1	16.5	15.1	14.5	14.7	14.0	14.7	14.6	13.3	13.6	13.2	16.1	15.4	13.9	13.9	14.3	12.2	11.7	1.9	16.5		
Min.	0.5	0.7	0.7	0.8	0.7	0.7	0.6	0.5	0.7	0.5	0.5	0.5	0.4	0.5	0.8	0.8	0.5	0.6	0.8	0.6	0.7	0.7	0.9	1.3		0.4	
Avg.	4.7	4.1	4.2	4.1	3.7	3.8	3.9	3.7	4.5	4.3	4.5	4.4	4.4	4.8	4.7	5.0	5.4	5.2	5.0	4.7	5.0	4.8	4.7	1.6			4.4

Total Hours in Month 744

Hours Data Available 729

Data Recovery 98%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	21.9	22.8	23.3	20.4	19.6	19.4	14.1	9.4	5.5	4.6	4.3	4.0	3.3	4.8	4.8	5.3	5.9	5.1	4.8	6.8	9.5	7.2	11.6	11.2	23.3	3.3	9.9
2	9.9	9.0	9.8	6.7	7.1	8.2	6.6	3.5	4.0	5.2	5.0	5.2	4.5	4.3	5.0	4.3	5.4	6.4	5.5	5.5	3.7	4.4	2.2	3.4	9.8	2.2	5.4
3	3.9	2.2	2.0	2.1	2.4	2.9	2.9	4.4	2.4	1.8	1.3	1.7	3.7	3.1	1.8	1.9	1.8	1.4	2.1	1.3	1.7	1.9	1.3	2.3	4.4	1.3	2.2
4	1.2	2.1	2.3	1.9	2.7	3.7	4.0	2.1	2.0	2.4	2.5	2.1	2.1	1.2	1.5	1.0	1.3	1.5	1.2	1.1	1.9	2.8	1.3	1.8	4.0	1.0	2.0
5	1.6	1.7	1.5	1.7	2.1	1.6	4.2	3.3	2.7	2.6	1.9	1.9	2.7	3.4	7.6	11.5	12.0	15.8	13.0	17.8	17.2	14.3	14.9	18.0	18.0	1.5	7.5
6	13.5	12.0	10.2	13.3	10.6	12.6	6.4	5.2	4.5	7.2	6.6	4.6	3.4	2.2	7.2	11.9	12.1	11.6	11.4	10.2	5.6	8.0	11.0	16.9	16.9	2.2	8.9
7	11.0	6.2	3.5	12.4	5.3	6.7	6.8	15.1	18.6	16.6	14.7	14.6	14.8	14.8	20.0	18.9	16.3	12.3	10.6	12.0	14.0	13.9	20.6	17.9	20.6	3.5	13.3
8	15.1	16.6	15.4	21.0	23.3	18.4	26.8	28.5	24.0	23.4	20.5	18.8	19.4	16.3	17.1	23.2	22.9	27.6	28.9	31.0	30.1	27.5	27.8	32.6	32.6	15.4	23.5
9	32.1	27.3	13.3	18.6	23.6	23.3	17.8	16.2	13.1	12.5	8.7					18.6	13.3	9.8	7.4	8.9	11.2	9.1	7.5	5.1	27.3	5.1	14.0
10	2.9	8.7	4.6	7.9	4.1	4.9	2.2	2.9	3.5	2.6	1.5	1.9	1.8	1.2	2.0	3.1	2.7	2.2	2.1	7.2	7.5	7.3	5.8	4.8	8.7	1.2	4.0
11	5.3	4.6	2.9	3.1	3.2	2.7	3.6	1.5	2.1	4.3	5.1	5.2	6.6	6.1	5.2	2.6	2.8	2.5	4.5	7.1	7.3	7.4	6.4	6.1	7.4	1.5	4.5
12	5.9	5.6	4.0	4.2	5.9	6.8	5.2	5.3	4.4	4.5	4.8	3.8	2.8	2.4	2.1	2.0	3.5	6.0	7.8	7.5	4.8	4.5	5.3	3.5	7.8	2.0	4.6
13	7.7	8.0	7.9	5.1	3.9	3.5	2.0	2.1	2.2	1.7	1.7	1.5	2.6	3.2	2.9	1.6	2.4	2.4	1.8	4.0	1.9	2.1	1.6	2.9	8.0	1.5	3.0
14	7.9	10.9	8.9	7.9	5.9	7.4	6.0	4.8	2.4	3.0	2.7	2.5	1.8	2.4	2.0	1.9	2.2	3.6	2.7	3.1	4.5	4.2	2.5	1.7	10.9	1.7	4.1
15	1.8	1.6	2.1	2.8	2.2	1.5	1.7	1.8	1.8	1.6	1.5	1.4	2.9	3.5	2.8	2.4	2.5	2.4	2.3	2.1	2.1	1.3	1.0	0.9	3.5	0.9	2.0
16	0.8	1.0	1.5	1.0	1.1	0.8	1.0	0.7	1.0	0.8	0.9	0.6	0.9	0.9	0.8	0.7	0.6	0.8	0.7	0.6	0.7	0.8	0.7	0.8	1.5	0.6	0.8
17	1.4	1.5	1.9	1.8	1.3	1.7	1.7	1.5	1.9	1.3	1.0	1.0	1.2	1.0	1.4	1.8	2.2	3.4	3.5	3.3	3.4	3.0	2.1	2.4	3.5	1.0	2.0
18	3.4	2.3	2.6	2.9	1.9	1.5	2.1	2.0	1.5	1.3	1.9	1.7	1.9	1.3	3.2	2.6	2.2	2.3	2.3	2.0	1.4	1.3	2.1	1.5	3.2	1.3	2.0
19	2.5	3.6	2.8	1.9	4.6	4.8	2.2	7.8	9.0	17.2	16.2	15.4	16.3	15.9	16.4	20.0	18.8	19.2	20.5	22.5	20.8	20.8	18.7	19.6	22.5	1.9	13.7
20	16.5	16.9	17.2	15.9	15.5	19.4	19.6	15.6	19.1	23.9	15.4	13.4	15.1	13.1	13.5	12.7	11.5	9.3	7.9	7.8	7.5	8.5	7.8	11.4	23.9	7.5	13.8
21	7.8	7.1	6.4	9.0	11.3	11.4	9.1	8.9	13.7	13.5	13.2	13.1	10.8	9.4	13.3	13.1	13.9	13.1	13.0	14.7	13.9	15.4	16.9	14.8	16.9	6.4	12.1
22	9.3	10.7	12.5	8.5	9.1	5.0	7.1	8.7	9.1	8.1	6.2	7.1	7.1	12.1	12.4	11.4	12.2	11.8	11.1	11.3	9.4	8.4	7.8	7.9	12.5	5.0	9.3
23	6.8	3.7	1.8	2.3	2.6	2.9	3.0	3.5	4.1	5.0	7.1	9.3	8.0	9.8	8.4	5.5	7.0	7.0	5.0	4.1	7.4	9.7	8.4	10.1	10.1	1.8	5.9
24	8.7	8.4	9.9	9.0	9.7	12.9	10.2	12.0	13.1	8.3	9.3	10.3	11.3	12.9	12.3	11.9	8.8	10.1	5.6	8.6	7.9	10.0	11.0	12.8	13.1	5.6	10.3
25	9.5	6.5	10.8	10.8	10.2	7.0	16.8	14.3	10.8	10.6	13.9	16.6	16.4	16.2	20.3	21.7	11.4	11.7	15.6	14.2	8.1	9.2	16.1	14.8	21.7	6.5	13.2
26	12.1	13.0	18.4	17.5	12.3	9.9	11.3	15.2	12.1	13.2	11.3	16.8	21.8	20.6	23.3	23.3	18.1	25.5	22.5	24.8	23.9	27.9	25.1	15.3	27.9	9.9	18.4
27	24.2	23.7	23.8	19.5	22.9	15.7	14.2	14.5	11.3	8.6	10.0	11.9	13.4	12.2	7.6	9.4	9.3	7.0	10.2	13.0	12.5	11.5	11.9	10.7	23.8	7.0	13.2
28	9.4	11.3	15.4	12.8	10.7	11.8	10.0	9.5	10.0	10.1	5.0	3.9	2.7	2.1	1.5	2.0	1.3	1.5	1.8	1.8	2.1	1.7	1.3	1.5	15.4	1.3	5.7
29	2.1	2.0	3.4	2.7	2.0	2.4	3.4	1.8	2.8	3.9	2.0	2.2	2.8	3.9	2.8	2.2	2.8	2.0	2.1	2.5	5.8	3.5	5.0	4.9	5.8	1.8	3.0
30	2.4	5.1	3.7	4.3	4.1	5.9	8.9	8.3	9.6	6.2	7.6	7.2	5.6	8.7	6.9	8.2	8.1	8.2	10.1	9.9	8.6	9.7	11.3	9.8	11.3	2.4	7.4
31	8.6	7.5	8.8	8.4	8.4	9.7	8.9	6.4	8.0	8.3	8.4	7.5	11.7	13.1	11.7	14.4	13.1	13.6	13.2	13.8	13.9	13.3	17.0	16.3	17.0	6.4	11.0
Max.	32.1	27.3	23.8	21.0	23.6	23.3	26.8	28.5	24.0	23.9	20.5	18.8	21.8	20.6	23.3	23.3	22.9	27.6	28.9	31.0	30.1	27.9	27.8	16.3	32.6		
Min.	0.8	1.0	1.5	1.0	1.1	0.8	1.0	0.7	1.0	0.8	0.9	0.6	0.9	0.9	0.8	0.7	0.6	0.8	0.7	0.6	0.7	0.8	0.7	9.8		0.6	
Avg.	8.6	8.5	8.1	8.3	8.1	7.9	7.7	7.6	7.4	7.6	6.8	6.9	7.3	7.4	7.9	8.7	8.0	8.3	8.1	9.1	8.7	8.7	9.2	13.0			8.2

Total Hours in Month 744

Hours Data Available 740

Data Recovery 99.5%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	14.8	14.2	15.0	13.7	15.1	8.5	10.3	7.7	10.0	10.5	11.2	17.0	16.9	15.6	14.5	13.3	14.6	14.0	14.6	13.0	12.6	12.0	13.2	12.7	17.0	7.7	13.0
2	12.5	11.5	10.1	10.7	10.1	10.0	9.1	8.4	7.4	6.9	3.1	3.9	5.5	6.8	3.1	3.0	4.7	7.7	7.5	4.9	8.4	6.9	5.5	5.9	11.5	3.0	7.0
3	4.4	6.4	7.3	10.2	10.4	10.1	12.0	11.5	12.4	13.5	13.4	10.6	10.8	10.1	10.2	10.8	9.7	10.2	10.9	10.1	12.7	14.3	14.8	15.4	15.4	6.4	11.2
4	14.7	14.6	13.3	12.6	14.7	16.1	17.7	17.9	15.6	15.6	16.5	15.4	13.6	15.5	12.9	17.3	15.0	14.5	17.2	13.8	17.7	16.8	20.4	19.3	20.4	12.6	15.8
5	19.4	21.5	17.4	21.3	20.0	20.2	18.6	18.7	18.7	19.3	15.4	19.1	19.3	18.0	18.7	20.4	17.1	18.3	17.0	17.0	15.6	13.5	14.8	11.5	21.5	11.5	17.9
6	10.2	6.0	9.7	9.3	8.6	8.4	2.0	3.5	4.5	2.7	3.2	3.1	2.9	2.6	2.9	2.1	1.9	3.4	3.4	6.5	6.8	8.6	9.6	6.5	9.7	1.9	5.1
7	4.0	3.5	3.2	3.5	2.3	2.7	3.3	2.9	2.1	2.5	3.9	7.8	10.9	9.7	10.2	6.0	11.8	12.1	10.1	11.2	11.6	10.4	8.4	8.7	12.1	2.1	6.9
8	12.3	14.0	21.4	21.4	17.7	16.7	19.2	18.4	22.3	18.5	19.4	21.3	20.9	18.1	15.5	21.5	19.1	17.1	13.7	12.3	11.9	10.1	12.6	12.2	22.3	10.1	17.2
9	11.2	12.8	15.2	16.3	17.0	17.7	18.2	17.4	19.0	19.1	21.5	25.0	24.9	24.4	23.3	22.9	23.0	19.3	21.3	18.3	15.6	16.7	15.8	14.5	25.0	12.8	19.1
10	13.5	12.9	13.5	13.0	10.1	12.4	16.6	15.0	10.9	15.8	17.0	16.9	20.9	22.0	17.0	18.1	16.1	13.1	13.4	11.2	16.2	11.9	11.1	11.4	22.0	10.1	14.6
11	16.2	15.4	13.9	12.4	11.9	9.8	9.2	14.3	16.7	17.0	14.8	12.9	15.9	15.2	14.0	11.7	12.2	11.4	9.4	7.9	10.5	10.4	11.0	8.3	17.0	7.9	12.4
12	10.0	9.4	9.6	7.7	5.3	11.4	10.0	7.9	8.3	8.4	8.8	12.2	15.1	14.9	17.9	19.3	20.1	19.3	21.8	20.8	20.5	20.5	20.1	20.1	21.8	5.3	14.3
13	22.1	21.9	22.0	23.3	22.8	26.8	26.9	24.3	26.2	25.3	24.3	21.7	23.7	23.3	21.7	21.6	22.9	19.7	22.8	26.0	24.7	26.1	23.4	21.9	26.9	19.7	23.6
14	24.3	22.6	19.5	19.3	15.1	15.6	10.0	12.1	12.5	16.4	8.9	12.2	13.1	11.6	10.9	10.6	10.6	12.8	13.6	15.3	12.0	12.6	13.3	8.2	22.6	8.2	13.4
15	7.2	7.8	3.2	7.1	6.8	5.2	8.8	5.4	2.7	3.3	6.7	8.0	5.6	5.6	5.0	4.3	6.4	6.0	3.7	3.4	3.4	4.5	2.1	2.8	8.8	2.1	5.1
16	2.1	3.5	2.7	2.1	2.9	1.9	1.6	1.5	2.1	1.7	2.7	3.2	3.4	2.6	3.4	2.9	5.4	5.1	2.3	4.8	5.1	5.4	5.2	6.5	6.5	1.5	3.4
17	6.0	9.0	9.1	9.6	9.6	8.2	7.4	7.6	4.4	5.0	5.8	7.4	8.4	6.6	7.1	7.1	6.9	4.6	3.9	3.9	4.5	6.0	6.8	9.7	9.7	3.9	6.9
18	6.9	5.3	3.0	3.9	2.8	4.0	4.7	6.7	4.4	6.9	4.6	7.0	4.1	9.3	8.7	7.9	6.1	7.6	7.0	7.1	5.9	6.2	4.1	6.3	9.3	2.8	5.8
19	5.6	6.9	5.1	6.1	9.0	7.7	8.5	9.7	8.4	3.2	6.9	6.8	9.1	8.4	6.1	4.4	5.5	6.2	5.2	4.2	4.0	2.9	3.0	3.5	9.7	2.9	6.1
20	3.3	2.8	2.1	4.3	2.9	6.9	7.7	2.2	3.0	3.2	5.5	4.4	4.7	6.7	6.3	2.3	5.1	2.1	2.9	2.4	3.5	2.8	2.1	4.8	7.7	2.1	3.9
21	7.2	6.1	5.6	5.1	6.0	2.9	6.2	5.2	2.5	2.2	8.0	8.6	2.9	9.4	7.0	7.7	9.9	8.9	9.1	12.3	12.8	11.9	5.7	4.0	12.8	2.2	7.0
22	2.5	1.9	2.4	2.1	0.9	1.5	1.8	1.5	1.9	2.0	1.3	1.4	3.0	2.6	2.9	3.2	4.4	3.4	3.6	2.8	3.6	3.5	1.6	2.1	4.4	0.9	2.4
23	2.2	2.0	1.6	1.1	1.6	1.6	1.4	1.9	1.8	1.6	1.2	1.0	0.8	0.7	1.0	1.4	1.9	2.1	1.6	1.5	1.5	1.2	2.3	2.6	2.6	0.7	1.5
24	1.4	1.6	0.9	2.7	1.8	1.7	1.6	1.3	1.1	1.2	0.9	1.4	1.1	2.1	1.8	1.4	1.0	2.3	3.0	3.1	1.6	1.2	3.1	2.9	3.1	0.9	1.8
25	1.6	1.8	1.3	0.9	2.4	3.1	1.5	1.0	1.3	0.6	1.2	2.4	1.9	3.3	3.7	2.2	2.0	1.9	2.1	2.1	4.2	4.4	3.9	5.1	5.1	0.6	2.4
26	6.9	6.0	8.6	8.0	9.8	9.2	10.8	11.6	9.9	9.2	8.6	9.4	8.0	7.4	8.0	8.7	7.8	6.6	7.5	7.3	8.4	9.5	9.1	7.5	11.6	6.0	8.6
27	4.0	6.5	7.9	4.1	5.1	2.4	3.1	3.1	1.9	2.2	2.1	3.0	2.3	1.7	2.6	2.5	2.1	2.6	1.9	2.3	1.7	1.0	1.3	2.5	7.9	1.0	2.9
28	1.7	1.5	1.6	1.6	1.4	1.3	1.9	2.4	2.2	1.6	4.4	3.7	4.0	2.6	3.2	2.9	3.6	2.3	5.3	9.0	9.2	9.2	9.2	11.9	11.9	1.3	4.2
29	11.7	8.8	9.6	8.4	9.4	11.6	8.9	9.0	10.6	10.1	8.2	9.3	9.1	11.7	12.6	12.0	12.1	9.9	10.8	10.4	10.5	9.2	8.5	9.1	12.6	8.2	10.0
Max.	24.3	22.6	22.0	23.3	22.8	26.8	26.9	24.3	26.2	25.3	24.3	25.0	24.9	24.4	23.3	22.9	23.0	19.7	22.8	26.0	24.7	26.1	23.4	21.9	26.9		
Min.	1.4	1.5	0.9	0.9	0.9	1.3	1.4	1.0	1.1	0.6	0.9	1.0	0.8	0.7	1.0	1.4	1.0	1.9	1.6	1.5	1.5	1.0	1.3	2.1		0.6	
Avg.	9.0	8.9	8.8	9.0	8.7	8.8	8.9	8.6	8.4	8.5	8.6	9.5	9.7	10.0	9.4	9.3	9.6	9.1	9.2	9.1	9.5	9.3	9.0	8.9			9.1

Total Hours in Month

696

Hours Data Available

696

Data Recovery

100%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	8.4	9.5	8.6	9.0	9.2	9.1	7.9	10.2	14.4	18.1	15.8	15.7	16.3	16.0	13.0	15.9	14.6	15.4	18.5	18.5	19.7	18.4	16.7	18.6	19.7	7.9	14.3
2	22.5	19.6	22.1	20.5	21.9	21.8	21.2	20.4	20.1	23.6	18.7	19.5	19.4	18.9	20.1	16.3	15.9	16.6	13.9	10.7	11.1	10.4	6.6	3.8	23.6	3.8	17.1
3	5.3	4.7	5.8	4.3	5.4	4.7	6.0	6.5	5.7	6.0	5.9	6.9	6.7	6.1	5.9	8.2	4.7	3.5	3.4	2.8	3.5	3.3	5.9	4.5	8.2	2.8	5.2
4	5.9	5.8	6.0	4.9	3.2	4.7	2.9	1.9	1.8	1.7	2.5	2.5	2.5	2.4	3.2	3.8	4.0	2.2	2.4	2.1	1.7	1.7	2.5	1.9	6.0	1.7	3.0
5	3.2	5.1	3.3	5.4	5.7	5.9	6.0	4.7	6.8	6.1	5.9	7.2	7.9	7.4	7.1	8.7	8.5	10.5	7.5	12.0	13.8	14.2	10.6	10.8	14.2	3.3	7.9
6	5.5	6.1	6.6	7.1	4.9	6.8	7.2	7.5	7.0	7.6	4.5	12.7	13.1	15.0	13.8	11.1	8.3	5.1	8.3	9.4	8.8	8.6	14.2	15.2	15.2	4.5	9.1
7	15.0	11.2	7.8	6.9	5.2	3.5	2.5	2.1	2.3	2.1	2.0	2.3	3.5	4.3	3.9	3.2	2.2	3.2	2.5	1.5	3.0	2.4	1.8	2.7	11.2	1.5	3.6
8	1.7	1.5	1.6	3.1	2.8	2.8	1.6	1.3	1.3	1.9	0.9	1.5	1.4	3.1	3.4	4.0	3.1	3.5	3.3	3.0	4.9	3.9	2.5	3.3	4.9	0.9	2.6
9	6.0	3.9	5.4	7.2	6.7	7.5	7.5	14.6	14.8	12.2	7.5	11.3	11.9	11.8	14.1	18.3	21.4	20.6	16.7	15.1	14.7	13.6	13.0	15.4	21.4	3.9	12.4
10	11.0	7.1	5.4	4.3	3.2	2.5	7.3	6.0	7.7	6.4	5.6	9.6	7.2	4.8	7.1	7.5	6.8	7.6	7.8	6.8	5.2	6.1	6.0	3.9	9.6	2.5	6.2
11	3.3	3.1	2.7	3.6	4.9	5.0	6.3	6.8	7.0	7.2	6.8	7.9	7.6	8.8	9.3	9.2	10.1	10.1	10.0	9.6	10.7	9.7	10.2	10.0	10.7	2.7	7.7
12	9.4	8.7	9.1	8.5	7.5	7.4	6.5	5.2	3.1	5.1	4.0	3.8	3.6	2.9	4.2	6.5	8.4	9.2	9.9	8.4	9.3	10.1	10.0	9.4	10.1	2.9	7.0
13	10.4	10.0	11.4	9.5	7.3	4.0	3.5	3.1	3.2	5.7	6.7	7.7	8.8	8.5	9.3	7.3	7.6	5.7	5.6	8.4	11.2	11.8	9.8	10.5	11.8	3.1	7.7
14	10.5	11.6	10.3	9.4	9.6	9.4	9.5	9.3	9.9	9.2	8.2	9.0	10.1	10.3	10.5	10.8	10.0	10.3	9.3	8.6	6.0	5.1	5.8	4.4	11.6	4.4	9.0
15	2.2	2.3	1.8	1.9	2.1	1.3	1.6	1.6	1.7	1.4	2.8	1.7	1.7	1.3	2.6	1.8	2.7	5.2	3.8	3.6	2.5	3.1	1.9	1.7	5.2	1.3	2.3
16	1.3	2.7	1.7	1.8	1.4	2.2	1.3	1.2	1.8	2.0	1.3	1.4	3.1	3.0	2.2	2.1	2.4	1.8	1.7	3.2	2.9	5.7	5.3	4.5	5.7	1.2	2.5
17	6.3	2.9	3.1	3.0	1.8	1.9	2.9	10.9	12.9	13.8	16.7	13.9	14.0	13.4	13.2	12.9	9.8	7.3	7.3	6.6	5.9	5.5	3.6	7.1	16.7	1.8	8.3
18	5.6	7.2	6.6	6.9	2.7	2.4	2.8	3.4	3.2	3.0	6.6	5.5	3.8	2.6	1.9	2.5	3.3	1.5	2.4	2.9	2.5	1.9	2.0	1.4	7.2	1.4	3.4
19	2.1	2.8	2.6	3.4	3.2	2.0	1.9	5.1	4.9	8.1	7.9	5.9	6.8	6.5	5.9	7.3	6.1	6.0	6.0	7.7	6.0	6.6	5.7	6.1	8.1	1.9	5.4
20	4.4	2.1	3.7	3.2	3.1	6.3	5.0	8.3	5.3	9.2	10.1	9.2	5.9	4.6	6.8	1.7	2.4	3.4	3.8	3.7	4.6	3.7	2.9	3.9	10.1	1.7	4.9
21	2.7	2.0	2.1	1.8	1.4	1.8	1.7	1.8	1.5	2.9	1.3	1.3	1.4	1.5	1.9	3.1	3.1	1.0	1.6	1.3	2.1	1.7	2.0	1.8	3.1	1.0	1.8
22	3.9	3.0	3.0	2.4	1.6	1.9	1.5	1.5	2.0	1.2	0.9	1.0	0.8	1.0	1.3	1.2	1.1	1.6	1.8	4.8	3.8				4.8	0.8	1.9
23													3.5	3.5	3.3	12.4	12.2	11.1	14.2	10.9	5.1	3.1	4.6	4.5	14.2	3.1	7.4
24	6.4	2.9	9.2	10.3	8.9	9.6	8.1	5.0	1.9	2.4	3.1	3.6	6.6	12.3	14.2	15.7	18.9	18.8	18.6	16.1	20.3	14.3	17.4	16.4	20.3	1.9	11.1
25	14.1	14.8	14.5	14.7	14.6	13.1	13.0	10.5	9.7	8.6	8.4	6.5	7.9	7.4	6.8	7.0	11.0	9.7	12.9	11.4	13.9	16.3	14.2	14.1	16.3	6.5	11.3
26	15.1	14.0	10.2	14.0	12.2	12.3	16.0	13.4	15.3	13.0	10.7	11.3	9.8	9.1	9.0	8.3	8.5	11.3	11.4	12.1	13.1	12.1	9.9	11.7	16.0	8.3	11.7
27	8.0	6.8	4.4	4.1	2.9	2.1	2.7	2.0	6.9	5.7	5.6	6.5	9.1	9.6	8.2	10.6	11.2	9.8	9.8	11.3	13.0	17.0	16.0	16.5	17.0	2.0	8.3
28	15.2	11.6	14.2	11.5	11.5	12.6	15.6	17.6	17.9	17.1	18.6	18.4	17.4	15.0	13.2	12.6	19.1	17.9	13.1	14.5	11.5	12.7	10.9	9.6	19.1	9.6	14.5
29	9.9	10.1	13.1	7.8	9.5	9.1	11.8	9.3	11.2	8.6	9.2	9.5	6.0	9.2	10.0	9.2	7.9	8.8	9.2	9.2	7.4	11.8	12.3	11.8	13.1	6.0	9.6
30	10.8	10.3	10.5	10.3	9.2	9.4	10.8	10.3	9.9	8.1	8.2	3.1	2.6	3.4	2.4	3.2	2.8	2.3	2.9	1.8	2.0	1.9	2.1	2.8	10.8	1.8	5.9
31	3.7	2.1	2.1	2.1	2.8	1.8	3.9	2.4	1.6	2.2	2.4	2.2	1.6	2.5	2.3	2.5	3.4	2.0	1.8	3.3	4.3	3.4	4.3	3.8	4.3	1.6	2.7
Max.	22.5	19.6	22.1	20.5	21.9	21.8	21.2	20.4	20.1	23.6	18.7	19.5	19.4	18.9	20.1	18.3	21.4	20.6	18.6	18.5	20.3	18.4	17.4	3.8	23.6		
Min.	1.3	1.5	1.6	1.8	1.4	1.3	1.3	1.2	1.3	1.2	0.9	1.0	0.8	1.0	1.3	1.2	1.1	1.0	1.6	1.3	1.7	1.7	1.8	2.8		0.8	
Avg.	7.7	6.8	7.0	6.8	6.2	6.2	6.6	6.8	7.1	7.3	7.0	7.3	7.2	7.3	7.4	7.9	8.1	7.8	7.8	7.8	7.9	8.0	7.7	3.3			7.2

Total Hours in Month 744

Hours Data Available 729

Data Recovery 98%

Rock Creek - Wind Direction (degrees)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	107.7	113.8	125.1	127.8	130.6	132.6	140.5	173.6	166.1	169.2	166.5	159.0	136.5	141.6	150.6	142.6	140.4	160.7	148.4	170.5	198.2	186.2	190.6	222.8
2	218.7	142.8	128.2	148.2	126.7	149.6	133.4	120.2	156.8	174.8	173.7	190.2	169.6	197.9	182.3	160.7	138.3	143.3	133.7	153.4	212.0	155.5	323.1	347.7
3	355.6	350.8	329.1	64.6	347.4	153.6	36.0	31.5	30.1	345.3	161.7	124.1	13.1	6.4	342.0	346.7	343.4	18.1	348.4	171.7	331.7	340.1	283.9	349.8
4	331.4	332.9	97.7	179.3	339.2	348.6	20.3	97.2	175.0	62.4	15.1	38.4	19.7	220.1	146.4	23.9	161.4	356.7	150.8	355.3	3.5	38.9	299.0	120.4
5	349.7	142.3	359.7	157.3	24.3	175.1	148.8	165.1	14.9	4.1	108.7	201.9	160.0	13.5	8.0	334.6	343.8	6.3	7.9	23.0	38.4	39.6	22.7	35.6
6	33.6	18.7	338.6	18.8	56.1	44.3	334.7	51.6	172.7	344.2	343.1	24.1	334.4	346.9	70.9	3.6	2.1	20.5	22.9	16.2	42.1	100.0	41.4	25.1
7	109.6	349.7	129.9	28.5	356.0	3.4	4.6	43.0	68.3	25.5	13.5	356.3	351.6	14.5	12.3	7.8	10.2	13.0	47.9	22.0	17.2	26.6	29.7	29.0
8	26.5	25.7	22.8	8.3	10.4	25.5	37.0	26.3	19.8	25.1	28.8	19.6	22.6	20.7	22.6	22.1	31.2	29.0	33.1	36.5	35.0	38.8	49.3	49.5
9	57.8	33.6	4.1	13.5	10.7	23.5	21.1	6.5	4.0	3.7	7.8					40.7	43.6	27.5	296.9	319.9	341.4	351.1	359.2	10.2
10	28.0	1.2	281.3	301.5	8.3	9.5	349.1	177.6	9.2	179.6	356.4	358.9	318.5	24.0	160.0	347.8	343.5	327.1	284.9	106.9	115.4	135.4	123.8	125.6
11	114.3	121.5	101.9	29.1	16.5	339.3	311.1	262.7	227.3	324.9	331.8	328.0	120.7	129.5	282.3	10.1	357.2	312.9	327.8	321.8	346.7	12.1	0.7	2.1
12	51.9	71.9	37.3	49.4	330.0	21.2	50.2	60.1	77.3	57.6	349.8	356.9	352.1	13.5	100.1	165.9	188.3	356.6	345.9	347.5	355.5	345.5	317.0	224.4
13	9.1	11.8	10.4	34.7	308.9	128.8	160.7	42.7	358.4	72.6	13.6	20.8	8.0	11.4	205.3	20.2	332.2	96.1	140.9	7.1	71.0	131.5	7.7	46.8
14	357.5	17.2	7.4	349.4	4.1	6.7	5.9	93.0	136.9	156.5	359.2	163.7	147.9	163.7	161.4	206.5	357.3	355.1	99.0	85.2	153.5	114.1	343.9	347.2
15	191.3	356.1	334.8	166.0	359.7	3.5	294.2	158.4	356.0	27.4	13.1	0.3	343.1	353.9	356.0	338.6	339.7	347.1	340.8	348.9	346.2	217.3	334.6	228.3
16	298.4	332.0	354.0	328.4	143.9	179.4	13.7	359.0	12.6	353.8	23.0	135.6	8.9	169.9	3.2	238.5	19.7	358.6	131.9	337.7	140.8	331.3	329.1	324.9
17	320.6	354.2	0.6	356.4	320.7	60.6	18.2	3.7	327.2	201.2	197.2	42.6	34.5	333.9	13.5	341.4	345.3	9.7	338.9	354.5	335.8	333.3	143.9	241.4
18	22.3	347.7	347.9	162.8	324.9	19.6	182.0	12.7	237.4	183.9	245.0	27.9	21.2	291.0	2.3	337.2	2.1	52.1	320.6	33.4	318.9	95.3	343.6	92.0
19	340.9	0.1	322.5	354.9	337.6	344.9	336.7	9.3	6.9	34.2	60.8	37.7	36.7	34.3	36.7	27.5	34.7	16.2	35.6	42.1	41.4	52.7	53.8	51.6
20	41.7	38.9	19.3	345.7	41.1	33.5	50.4	39.2	68.5	52.5	6.2	14.0	35.7	34.4	26.2	28.9	34.2	35.1	37.8	42.6	23.7	17.5	34.2	56.4
21	38.5	33.6	41.6	11.5	338.1	1.8	28.4	16.8	344.5	15.3	16.1	39.0	46.9	17.9	1.9	8.0	12.6	6.6	10.7	19.9	16.0	26.3	37.8	67.9
22	94.9	60.4	40.5	43.4	69.8	48.4	68.1	86.9	90.4	106.5	88.8	61.7	68.2	72.9	78.8	82.6	87.0	83.4	88.0	99.7	100.3	109.2	106.4	119.9
23	140.7	163.5	302.3	8.7	356.0	0.6	339.5	49.4	45.2	263.6	58.5	48.5	38.3	63.9	59.9	17.0	352.4	75.2	355.4	205.6	123.6	66.8	23.9	356.9
24	17.5	5.3	356.5	20.1	48.0	65.9	53.7	72.9	88.4	96.1	49.6	96.7	106.6	100.5	104.9	101.8	133.5	103.9	319.8	85.3	82.1	66.7	69.7	82.4
25	25.4	10.3	5.1	307.9	332.7	321.2	48.9	28.7	91.3	80.0	87.5	94.5	92.6	75.0	88.5	82.5	14.2	15.1	348.6	352.7	335.1	21.8	73.5	344.5
26	338.7	66.0	64.4	27.8	14.6	358.0	343.6	337.8	342.1	30.8	59.6	65.2	52.6	49.5	53.0	53.5	52.5	50.8	53.0	55.6	51.0	54.0	56.8	2.2
27	49.2	58.4	57.2	65.2	60.3	45.6	10.2	347.4	348.0	13.7	31.0	37.0	7.1	350.5	37.9	238.7	204.1	47.1	8.2	58.6	4.3	7.5	5.6	342.7
28	23.0	1.0	346.7	357.2	347.9	326.4	344.6	15.6	12.2	19.7	342.9	333.6	353.6	265.0	221.6	329.6	160.6	90.2	342.3	136.9	303.9	191.1	349.4	151.0
29	338.6	286.2	330.9	309.9	344.2	245.6	346.9	0.5	332.5	338.5	317.4	79.0	9.0	351.7	2.8	214.6	354.1	325.9	105.0	163.5	343.2	129.1	6.8	315.9
30	2.4	1.3	314.5	2.1	338.8	346.3	316.2	319.2	326.6	306.5	320.1	335.7	328.8	329.7	331.2	2.6	2.7	354.0	337.0	340.5	341.6	342.6	339.9	359.0
31	350.5	12.1	348.5	4.1	331.2	325.5	334.4	318.3	319.1	324.6	324.1	327.4	13.7	14.0	20.4	11.8	9.8	2.4	13.2	8.9	358.5	5.5	12.6	10.0

Total Hours in Month

744

Hours Data Available

740

Data Recovery 99.5%

Rock Creek - Wind Direction (degrees)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	13.2	15.3	14.9	0.2	4.5	335.5	343.0	355.0	331.7	0.4	11.8	19.5	19.7	24.3	26.9	22.3	23.8	20.3	20.9	24.1	19.6	27.2	28.4	21.5
2	13.2	14.5	16.7	357.4	342.7	343.1	349.2	354.4	355.3	44.1	317.9	19.8	0.1	3.8	135.2	133.3	42.5	0.3	351.2	74.4	359.2	349.5	326.2	335.7
3	251.4	304.1	330.0	357.9	359.7	356.1	9.0	17.6	18.7	16.2	4.1	357.5	351.3	347.7	359.1	2.5	359.5	4.7	5.3	353.4	14.9	18.3	23.0	23.1
4	21.6	22.1	19.1	14.6	17.7	22.1	25.6	16.3	11.6	13.4	13.3	18.6	15.6	11.7	12.7	18.1	11.4	14.5	21.6	27.3	22.3	23.8	25.9	22.8
5	20.5	17.8	27.1	29.8	22.6	16.2	21.6	24.6	23.2	18.9	16.3	35.1	37.4	30.8	29.1	36.6	31.1	23.8	20.9	26.2	10.3	32.1	3.2	359.5
6	338.0	158.7	334.9	321.5	357.6	317.4	335.3	101.8	77.0	52.2	145.6	42.2	338.5	163.7	158.1	10.8	23.2	342.9	197.2	349.5	11.8	2.7	5.2	1.4
7	162.1	15.5	348.0	0.5	110.0	358.4	12.9	17.6	5.5	16.6	335.5	1.2	12.7	8.9	3.9	285.3	16.1	15.7	340.2	11.9	11.7	338.3	315.9	357.8
8	25.8	17.8	23.7	26.6	20.9	20.0	16.6	29.4	21.2	23.0	13.1	23.4	25.2	1.2	3.9	32.4	340.6	350.5	34.1	36.1	36.7	26.6	12.1	38.2
9	7.3	86.7	91.5	90.7	93.0	90.0	81.2	73.2	72.4	77.6	93.1	102.0	102.2	106.4	110.5	110.1	109.8	112.1	112.5	116.1	111.5	109.5	104.3	99.4
10	96.4	93.2	89.6	78.0	62.3	47.5	53.3	28.1	10.1	28.9	33.2	37.5	55.6	58.7	57.1	21.8	2.1	354.5	50.0	12.9	56.6	29.2	53.1	70.3
11	92.9	93.3	95.5	99.5	105.5	99.8	105.3	170.9	178.1	178.8	179.2	177.7	170.9	176.9	173.6	175.0	173.5	166.4	164.9	161.8	147.0	152.0	156.2	147.5
12	117.6	112.0	92.6	74.4	13.1	79.3	72.9	31.4	1.1	347.0	35.3	45.6	54.0	49.9	46.7	46.2	46.1	41.9	37.2	45.3	49.3	48.1	48.8	46.2
13	41.1	41.8	38.3	30.0	27.7	41.3	39.8	47.6	41.9	37.6	36.3	31.6	31.7	36.5	28.1	23.3	19.5	19.6	17.2	18.6	20.8	27.2	38.3	39.1
14	54.2	50.0	66.1	57.5	17.9	22.5	335.1	0.6	41.1	27.0	37.3	40.7	59.9	56.7	47.5	316.9	338.7	50.5	45.9	61.8	65.2	49.2	10.5	11.9
15	6.4	23.5	290.7	197.9	15.0	217.6	336.1	329.4	146.3	93.3	0.5	16.3	317.1	328.8	315.2	3.1	358.0	10.2	105.7	75.6	12.0	14.5	47.1	356.0
16	5.1	4.9	115.6	136.5	3.7	5.3	313.6	344.4	18.8	351.3	347.6	10.2	308.9	42.7	336.3	98.8	5.5	27.3	132.9	3.0	354.4	0.5	331.1	319.4
17	20.7	325.4	338.8	330.7	357.9	351.6	343.1	298.8	278.5	332.5	356.7	342.4	328.7	334.7	355.4	11.3	344.3	23.2	47.7	356.7	346.4	11.6	356.9	356.3
18	28.9	0.4	303.7	41.1	4.5	53.8	28.8	11.2	21.8	8.4	17.0	349.5	24.1	344.8	339.4	311.4	343.0	0.1	340.0	316.5	356.6	351.0	36.9	6.2
19	53.7	328.8	315.7	327.4	352.4	359.6	357.4	353.8	353.8	34.7	12.7	30.9	8.8	348.5	14.0	51.7	48.6	355.5	16.9	335.8	11.8	345.4	39.0	358.0
20	64.4	15.2	162.2	4.6	157.2	148.3	87.6	337.2	8.8	8.1	31.4	122.7	6.3	53.8	156.0	143.4	138.9	119.7	135.3	151.2	85.1	139.6	193.1	67.4
21	1.7	359.6	25.2	35.7	20.1	210.4	6.1	13.0	138.5	80.8	317.0	317.8	144.7	351.0	314.0	295.1	350.5	344.4	332.3	39.3	35.3	1.1	259.4	157.4
22	116.6	128.1	163.9	152.6	314.6	300.6	169.8	159.1	325.1	106.6	168.7	76.0	325.7	355.4	349.6	342.2	347.8	249.9	272.3	263.2	324.1	318.5	317.8	345.9
23	294.6	355.2	315.5	328.8	10.0	315.0	192.6	346.1	1.1	76.2	134.7	2.4	175.7	168.0	334.7	159.6	189.0	132.6	157.6	184.1	154.5	171.5	151.3	129.6
24	5.7	179.0	339.2	157.0	131.8	130.2	183.8	174.0	8.4	164.9	189.1	161.0	316.9	156.4	159.7	170.5	325.5	1.4	349.5	140.9	342.0	151.2	165.8	103.3
25	348.9	177.8	183.7	321.4	178.1	135.5	123.7	35.7	136.4	299.5	14.4	145.1	154.6	22.8	113.9	146.2	132.7	155.2	170.8	173.8	171.9	45.4	39.1	130.0
26	53.5	60.0	27.1	20.8	14.9	14.8	21.4	5.5	256.4	11.4	8.1	356.4	20.3	20.1	4.8	14.6	23.6	24.6	356.2	0.8	6.4	13.6	13.9	48.8
27	136.5	43.5	42.4	14.6	12.7	123.4	169.1	114.9	100.9	97.5	1.6	112.4	348.4	36.4	161.7	283.2	181.4	130.1	25.3	314.4	213.4	197.4	165.0	316.6
28	312.9	166.8	344.8	262.8	6.2	254.4	346.2	308.6	20.4	4.1	155.3	0.2	356.7	139.3	55.2	144.5	154.0	36.3	6.2	4.9	1.6	17.1	5.7	2.9
29	2.8	18.2	4.9	5.2	14.6	353.6	31.3	35.0	27.7	27.8	36.9	43.1	41.0	66.8	78.4	81.2	75.1	71.4	79.7	90.3	95.2	80.7	43.2	42.3

Total Hours in Month

696

Hours Data Available

696

Data Recovery 100%

Rock Creek - Wind Direction (degrees)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	56.7	48.8	51.7	44.9	52.8	52.3	35.2	52.4	82.8	96.6	97.3	93.2	98.2	94.6	93.1	96.5	97.8	96.6	93.6	91.6	93.3	90.7	82.7	92.1
2	90.6	94.6	92.8	96.2	96.1	96.8	94.3	94.8	94.7	96.9	97.3	96.0	95.8	93.1	86.8	91.1	89.6	90.5	85.8	79.2	81.3	87.4	30.7	31.9
3	70.4	134.3	122.1	196.5	91.6	2.8	344.6	229.7	137.1	116.3	91.0	86.1	90.6	91.7	92.1	77.5	102.4	69.8	39.0	16.8	57.6	86.7	68.0	51.8
4	357.9	359.2	0.0	12.0	15.9	119.0	352.6	40.7	168.7	83.0	354.3	171.0	126.2	131.3	36.8	338.3	4.9	132.1	151.6	1.9	170.3	261.7	358.3	265.0
5	155.2	4.7	11.7	238.7	43.4	6.1	356.6	26.9	9.2	6.7	342.2	359.9	350.0	3.1	18.3	24.5	3.4	1.3	335.8	328.7	15.2	7.3	345.2	349.0
6	330.4	21.8	351.2	327.2	323.3	338.3	15.1	317.1	0.9	6.6	307.7	12.6	348.5	33.7	26.8	21.5	321.1	353.5	352.6	15.1	17.3	347.4	358.1	10.7
7	17.5	346.8	6.1	25.7	129.3	348.2	213.3	334.0	14.1	2.9	348.4	329.4	337.1	338.9	120.2	280.9	178.4	331.7	5.5	314.4	348.1	159.1	45.4	17.7
8	358.6	169.3	6.1	156.1	173.6	34.9	150.7	215.4	211.2	271.0	282.4	265.6	311.4	335.3	328.7	338.8	334.5	344.0	330.8	21.7	359.6	348.1	335.1	19.7
9	351.0	337.7	21.3	40.2	34.6	28.5	4.1	7.1	52.0	82.2	61.2	348.1	31.2	35.9	44.5	43.3	41.5	50.3	50.5	36.2	26.0	22.3	29.8	359.2
10	336.8	350.8	59.6	146.8	128.2	219.5	337.7	54.3	20.1	28.1	19.8	68.0	32.4	5.6	334.5	357.1	349.5	2.1	358.7	3.5	329.2	327.6	326.1	349.0
11	345.0	330.6	318.7	357.8	56.6	32.9	95.1	92.3	93.7	97.5	93.6	91.1	99.5	106.0	100.2	98.1	99.9	102.8	106.0	101.1	102.4	99.9	101.4	103.7
12	102.6	96.7	103.1	106.3	109.9	115.5	121.6	139.3	165.4	95.0	97.8	99.1	332.7	221.4	123.0	98.5	99.4	100.4	92.1	84.0	86.4	83.9	86.1	95.1
13	95.2	98.5	107.0	180.3	191.8	163.6	118.4	2.1	337.1	65.0	105.6	104.4	80.9	79.9	79.0	67.1	38.5	10.2	47.8	39.8	31.6	35.0	47.6	51.9
14	41.3	51.3	47.9	51.1	63.7	62.7	60.9	56.6	59.9	56.9	52.4	63.7	70.5	76.9	81.6	95.0	105.3	105.4	100.3	107.4	103.7	101.9	81.0	9.5
15	329.1	332.5	212.8	350.7	350.4	280.2	306.9	19.0	274.1	37.1	350.6	319.8	191.9	52.2	352.4	91.7	341.1	167.6	130.9	127.2	144.5	147.7	168.1	95.4
16	328.5	157.5	154.6	86.5	331.3	117.7	312.6	70.7	174.2	104.5	161.1	156.4	151.6	151.2	144.4	143.6	162.6	152.5	179.5	353.4	342.1	3.2	8.4	353.3
17	352.7	30.0	150.5	134.9	16.9	120.3	214.8	26.9	19.0	19.5	17.3	24.5	24.7	28.7	27.8	29.0	26.0	5.0	3.2	32.2	349.6	60.1	357.4	14.8
18	19.9	2.4	355.7	319.8	173.8	141.6	9.5	250.7	150.5	68.7	350.8	160.3	164.1	155.1	357.4	146.5	182.9	84.3	18.8	8.5	70.4	259.6	350.6	71.9
19	343.6	107.7	8.1	352.4	6.8	33.4	345.6	355.3	101.0	129.7	59.5	77.7	92.8	96.3	108.5	84.9	95.1	103.2	96.6	69.6	34.4	37.3	3.2	47.5
20	280.2	261.4	297.6	332.9	307.6	291.4	292.9	350.2	21.6	59.1	79.1	69.2	63.9	9.5	23.3	4.1	350.1	5.3	353.4	8.5	15.1	34.2	358.5	348.8
21	356.8	312.9	345.1	180.1	197.2	324.8	349.1	198.4	121.1	156.3	203.0	167.1	274.8	313.9	190.4	202.8	180.4	180.1	173.5	153.1	181.4	7.8	34.0	55.8
22	335.7	145.5	352.1	154.8	157.9	145.2	356.0	285.6	144.2	14.5	174.3	167.4	116.2	5.6	166.0	161.5	184.7	347.6	343.2	190.6	166.1	146.6	156.2	139.6
23	24.7	124.0	343.8	150.2	356.8	194.7	137.4	16.6	116.6	126.2	144.4	331.1	160.9	162.6	168.2	146.2	14.6	15.5	14.9	18.9	66.8	115.9	129.9	46.3
24	12.8	171.5	10.1	12.2	354.5	4.3	105.1	124.5	143.7	148.4	22.9	121.5	347.6	358.6	10.7	14.5	20.6	19.0	44.7	48.2	29.5	19.6	1.3	32.1
25	45.5	41.3	50.4	47.0	50.3	23.9	2.2	356.9	358.7	355.7	352.6	4.8	8.4	8.0	7.2	6.7	31.6	19.2	13.0	17.1	9.1	25.9	20.1	16.9
26	24.4	6.5	17.2	27.6	23.5	7.5	22.5	18.2	16.4	13.3	12.9	14.5	31.6	31.0	26.1	133.1	31.5	23.6	29.0	23.0	18.8	17.6	12.2	3.4
27	16.7	357.7	111.1	283.2	92.8	52.3	156.6	0.3	6.7	50.8	9.8	6.8	19.6	4.4	1.8	13.7	15.2	8.5	20.1	22.1	26.4	24.1	10.7	24.6
28	16.5	11.5	22.6	6.9	16.6	14.1	15.1	16.4	16.7	16.9	17.4	20.0	15.4	18.7	27.9	28.4	15.6	20.2	11.2	5.5	17.7	20.3	13.0	355.0
29	6.7	1.1	7.6	357.8	3.1	11.3	359.9	349.2	357.3	12.3	2.2	346.0	353.8	357.5	345.7	341.8	346.6	356.5	355.9	359.2	358.9	359.7	357.0	7.9
30	359.3	4.5	24.1	20.5	16.6	23.4	23.6	26.3	18.8	15.7	351.3	207.5	142.4	182.9	152.1	144.1	108.6	336.3	354.9	273.2	31.1	36.0	13.5	345.8
31	52.1	67.3	131.4	359.3	161.3	353.6	8.7	33.4	11.0	20.4	227.8	146.8	146.8	201.0	155.2	172.2	350.3	355.0	323.9	10.2	2.8	339.1	32.7	357.0

Total Hours in Month

744

Hours Data Available

744

Data Recovery 100%

Rock Creek - Wind Sigma

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.6	6.1	5.8	5.0	4.9	5.2	6.4	25.6	16.1	9.3	11.2	10.5	12.5	10.0	7.3	9.2	8.8	11.9	12.8	12.5	19.2	16.4	11.5	5.6	25.6	4.6	10.4
2	7.3	16.7	10.9	12.1	8.8	14.3	19.9	20.7	14.6	8.0	5.8	6.6	20.6	13.8	19.5	15.6	22.3	29.6	13.9	57.2	54.4	11.2	51.6	54.5	57.2	5.8	21.2
3	29.6	59.6	60.3	57.7	41.6	45.3	35.0	26.7	24.8	60.0	75.9	48.5	41.3	35.3	65.3	41.2	56.1	72.3	56.0	67.9	69.4	52.3	62.9	45.2	75.9	24.8	51.3
4	44.1	24.4	43.0	42.2	33.1	10.6	37.4	46.8	34.1	37.1	22.8	38.0	57.1	64.1	57.0	54.4	49.1	48.3	24.6	25.5	38.8	58.0	68.5	54.0	68.5	10.6	42.2
5	69.9	59.8	55.0	51.0	67.3	55.6	59.3	28.2	32.7	61.8	53.9	56.1	67.9	78.1	55.0	14.2	17.5	10.1	10.7	10.2	16.6	12.1	16.4	6.0	78.1	6.0	40.2
6	5.6	15.7	10.6	10.8	6.4	18.3	53.1	34.2	45.1	50.0	7.6	58.1	36.6	27.9	58.6	5.4	6.8	26.5	11.9	11.8	59.9	67.0	24.7	6.2	67.0	5.4	27.4
7	41.2	46.4	51.7	25.6	40.8	21.6	68.9	56.4	9.4	12.8	4.9	6.9	6.7	6.9	4.6	4.4	5.0	18.3	45.4	39.3	14.0	8.4	7.9	6.5	68.9	4.4	23.1
8	8.8	7.3	12.6	7.1	5.5	7.0	7.4	6.9	6.9	4.8	5.0	5.6	4.8	5.0	6.2	6.2	6.9	6.4	6.9	7.8	7.8	6.7	5.1	4.6	12.6	4.6	6.6
9	5.3	19.4	18.7	12.0	5.9	6.0	8.3	6.6	7.0	6.7	37.1					9.8	7.0	14.3	27.8	13.1	14.5	8.4	51.5	59.6	59.6	5.3	16.9
10	61.5	35.4	67.6	61.6	46.7	47.5	52.1	49.5	52.1	31.6	53.0	34.4	50.5	34.9	42.0	25.3	65.3	35.4	49.0	42.5	4.4	5.0	5.3	7.2	67.6	4.4	40.0
11	8.2	7.0	7.5	17.3	31.5	20.5	39.5	54.7	57.3	30.0	35.8	42.5	6.6	4.7	42.5	6.0	19.6	55.8	37.5	15.8	15.9	9.2	8.5	9.8	57.3	4.7	24.3
12	17.0	7.7	11.7	44.5	28.3	63.6	30.6	43.3	57.0	14.2	27.6	31.8	54.3	68.8	54.3	57.4	76.6	40.8	5.8	5.9	57.3	15.9	29.6	62.3	76.6	5.8	37.8
13	31.0	4.6	4.7	63.0	35.1	52.3	34.1	39.0	15.2	70.7	45.0	70.9	35.7	51.1	51.6	62.0	59.3	60.0	48.4	40.2	68.2	63.7	66.1	63.5	70.9	4.6	47.3
14	27.5	11.5	7.8	16.4	16.9	27.0	51.6	36.7	56.6	50.4	34.1	55.0	70.0	49.9	52.2	70.7	37.5	28.5	53.1	46.9	17.2	57.0	19.7	58.5	70.7	7.8	39.7
15	71.7	53.6	61.1	41.4	47.1	48.1	60.5	54.2	34.8	32.0	21.6	21.0	13.1	6.2	8.5	9.5	5.9	5.9	8.0	6.0	38.0	42.7	56.2	47.2	71.7	5.9	33.1
16	69.6	47.3	57.8	25.7	64.3	49.4	24.2	37.1	33.7	46.9	37.5	29.0	35.9	35.9	32.3	43.3	43.7	38.5	48.7	63.8	67.4	39.3	64.1	52.7	69.6	24.2	45.3
17	52.7	15.8	53.1	37.2	42.1	58.0	54.9	38.3	27.7	70.9	66.2	80.0	57.0	26.7	53.8	26.7	15.7	17.5	58.7	69.3	43.7	43.4	58.1	64.0	80.0	15.7	47.1
18	70.1	47.4	65.0	83.9	48.8	52.5	44.0	48.7	91.8	58.5	71.1	79.4	51.4	62.9	62.5	43.9	63.6	68.0	48.1	78.2	48.8	72.3	56.6	66.7	91.8	43.9	61.8
19	68.8	57.1	62.5	42.7	21.3	21.9	73.2	33.8	14.9	13.3	5.4	10.5	9.6	7.4	9.5	7.7	9.9	10.5	10.5	6.2	7.0	5.8	6.0	5.1	73.2	5.1	21.7
20	7.1	5.7	10.3	11.7	12.8	13.2	16.2	28.6	10.7	24.4	33.6	23.6	15.0	11.1	10.5	10.4	10.5	8.2	10.2	11.7	9.5	11.8	12.9	9.5	33.6	5.7	13.7
21	16.0	18.4	18.2	7.7	10.0	10.2	10.5	8.5	18.5	12.6	8.8	8.1	11.1	50.1	9.1	7.9	7.5	7.0	8.3	6.7	9.6	14.4	19.3	41.7	50.1	6.7	14.2
22	23.3	36.4	13.6	14.5	6.1	9.4	9.7	7.2	5.1	5.2	12.8	8.7	7.2	8.6	5.6	5.2	4.8	5.6	5.2	5.1	4.3	4.7	4.5	4.7	36.4	4.3	9.1
23	6.4	10.6	23.9	15.5	29.0	14.4	36.8	10.3	33.9	71.6	48.1	28.7	34.4	9.8	22.6	35.6	19.6	58.7	32.0	61.0	43.1	12.9	21.5	11.0	71.6	6.4	28.8
24	22.5	15.2	12.4	13.7	17.7	13.4	11.3	19.1	9.3	40.6	52.0	42.6	8.8	9.0	9.9	45.8	64.5	31.3	54.4	17.3	10.8	7.9	6.8	9.8	64.5	6.8	22.7
25	39.6	26.5	37.7	65.8	49.9	73.6	44.2	64.1	37.0	10.3	7.5	7.7	7.2	41.0	6.9	44.9	39.8	31.1	11.5	30.5	47.5	37.8	9.6	34.2	73.6	6.9	33.6
26	69.6	35.3	7.5	18.3	29.4	20.9	22.8	30.1	41.9	20.0	51.5	34.5	4.9	5.2	4.4	8.1	8.6	7.2	12.3	9.4	6.9	5.7	36.5	20.9	69.6	4.4	21.3
27	6.1	4.8	4.4	23.0	18.3	51.8	23.5	13.2	11.8	14.8	8.8	7.2	32.2	46.7	35.9	69.9	66.6	77.0	57.3	23.8	46.1	17.9	31.7	45.0	77.0	4.4	30.7
28	11.5	10.7	12.6	10.0	14.7	15.3	7.5	9.5	6.5	56.6	53.9	44.7	44.6	44.6	56.1	58.2	60.4	55.4	51.9	67.4	71.4	74.3	61.5	58.4	74.3	6.5	39.9
29	43.6	69.8	69.4	57.3	53.6	74.2	54.4	60.0	58.5	45.7	83.1	86.0	55.5	58.2	65.6	54.2	20.1	73.4	71.6	62.4	22.7	61.4	63.7	52.2	86.0	20.1	59.0
30	67.9	34.7	68.7	62.0	60.0	42.2	11.4	24.1	7.4	32.4	10.6	20.8	25.2	11.3	6.9	32.2	52.1	16.6	11.9	7.3	7.0	6.9	6.8	35.6	68.7	6.8	27.6
31	24.4	37.8	13.4	25.1	24.0	11.9	12.0	10.3	7.0	9.6	10.1	20.7	13.0	7.2	6.4	5.6	7.3	7.4	8.9	9.2	6.0	5.9	5.0	4.8	37.8	4.8	12.2
Max.	71.7	69.8	69.4	83.9	67.3	74.2	73.2	64.1	91.8	71.6	83.1	86.0	70.0	78.1	65.6	70.7	76.6	77.0	71.6	78.2	71.4	74.3	68.5	66.7	91.8		
Min.	4.6	4.6	4.4	5.0	4.9	5.2	6.4	6.6	5.1	4.8	4.9	5.6	4.8	4.7	4.4	4.4	4.8	5.6	5.2	5.1	4.3	4.7	4.5	4.6		4.3	
Avg.	33.3	27.4	30.9	31.7	29.7	31.5	32.9	31.4	28.4	32.7	32.3	33.9	29.7	29.7	30.8	28.7	30.3	31.5	29.5	30.1	30.6	27.6	30.6	32.5			30.7

Total Hours in Month

744

Hours Data Available

740

Data Recovery

99.5%

Rock Creek - Wind Sigma

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.8	5.0	6.3	6.2	7.1	9.6	25.8	18.3	28.2	12.1	9.7	6.2	5.7	6.7	7.3	8.8	7.8	7.8	6.4	4.8	7.9	6.2	5.2	6.4	28.2	4.8	9.2
2	7.8	7.7	12.2	11.7	15.1	16.1	5.2	4.3	6.9	23.5	50.6	50.6	50.6	18.6	52.7	56.1	47.5	14.1	2.9	48.3	35.9	23.4	9.2	53.6	56.1	2.9	26.0
3	54.1	32.6	8.6	7.6	4.6	9.6	10.9	5.1	4.2	4.3	4.0	11.1	5.5	7.5	6.8	8.2	7.8	10.7	9.5	17.1	10.2	8.7	6.1	5.4	54.1	4.0	10.8
4	5.6	6.0	5.3	7.0	8.8	6.2	5.0	5.9	6.2	5.8	5.4	6.1	6.7	7.9	6.5	6.4	6.6	7.3	7.3	8.4	7.2	6.1	6.1	6.6	8.8	5.0	6.5
5	5.8	5.8	6.5	5.9	6.2	7.1	6.8	5.6	6.0	6.6	9.0	5.6	5.4	6.0	6.9	6.5	5.8	6.0	7.4	7.5	49.1	32.8	30.9	40.2	49.1	5.4	11.7
6	33.0	61.0	50.6	15.4	15.5	42.6	70.1	62.9	55.2	53.9	73.6	65.3	42.8	43.8	57.5	28.6	54.5	20.8	56.8	34.2	33.3	19.7	45.5	55.6	73.6	15.4	45.5
7	48.1	42.8	58.1	59.2	60.5	30.3	20.5	59.3	67.1	67.6	68.4	20.8	9.2	7.7	18.9	14.5	11.1	28.5	33.7	28.1	5.8	10.9	20.7	36.2	68.4	5.8	34.5
8	42.9	11.8	6.3	6.1	15.2	5.8	7.5	6.7	5.9	5.6	5.7	4.5	9.0	8.6	15.0	17.0	7.9	11.2	8.1	10.0	17.0	19.4	25.0	22.1	42.9	4.5	12.3
9	33.9	44.5	5.8	4.9	5.6	4.9	5.8	5.6	5.4	5.8	5.8	6.5	5.4	5.4	5.0	5.2	5.0	5.3	5.4	5.1	4.4	4.3	4.9	5.0	44.5	4.3	8.1
10	4.7	5.2	4.7	5.0	6.8	3.8	5.2	7.1	4.6	8.1	7.5	8.4	4.7	5.4	5.0	13.1	7.4	25.2	16.2	27.8	14.8	20.9	9.7	6.6	27.8	3.8	9.5
11	5.4	4.6	4.3	3.8	4.7	4.1	7.4	7.6	6.2	6.2	6.7	5.3	5.9	5.6	5.0	4.9	5.0	4.9	5.8	8.0	5.1	4.9	5.8	10.0	10.0	3.8	5.7
12	5.3	5.7	6.3	21.0	20.9	25.9	7.1	13.2	14.8	8.2	16.0	6.4	6.2	4.8	4.7	5.1	5.5	5.3	5.6	5.3	3.8	4.7	4.4	4.5	25.9	3.8	8.8
13	5.7	6.4	5.8	5.9	8.8	7.7	7.5	7.4	8.1	9.0	10.1	9.3	9.0	9.5	7.6	7.6	7.7	8.4	7.3	6.7	5.9	8.9	9.1	8.7	10.1	5.7	7.8
14	5.1	7.8	22.7	8.4	36.3	61.7	52.8	43.3	33.5	44.0	14.1	9.4	3.7	4.4	13.6	29.7	62.9	34.8	27.5	6.0	8.7	7.9	29.9	18.7	62.9	3.7	24.4
15	20.2	13.7	48.8	34.0	31.5	52.8	67.3	36.0	68.8	54.7	43.3	58.2	16.8	44.7	48.7	52.1	26.0	28.4	58.2	49.6	56.9	56.7	46.4	63.1	68.8	13.7	44.9
16	42.4	53.6	57.5	77.7	43.9	53.8	60.3	74.5	57.4	66.0	72.0	58.9	47.7	42.0	32.7	54.0	55.1	56.1	59.7	70.0	14.1	34.7	31.3	12.8	77.7	12.8	51.2
17	25.9	17.4	30.2	8.5	15.3	40.9	35.6	49.6	45.3	22.8	19.9	10.4	5.9	15.9	12.0	37.7	27.9	42.3	61.2	66.9	52.9	64.8	49.0	23.2	66.9	5.9	32.6
18	54.3	68.3	66.9	66.7	76.0	53.9	68.8	55.4	53.1	47.4	56.3	55.4	43.1	28.4	12.6	14.0	37.1	13.9	11.2	42.3	60.4	36.4	53.0	42.7	76.0	11.2	46.6
19	37.2	20.9	72.0	24.3	15.8	21.8	23.0	16.6	27.0	70.4	68.4	59.4	38.0	24.8	43.3	63.6	46.4	42.8	41.3	75.5	63.1	60.5	71.9	67.8	75.5	15.8	45.7
20	62.4	77.8	61.8	77.2	83.4	65.7	52.7	76.9	66.5	78.2	76.2	76.7	55.6	54.2	75.7	35.1	41.6	17.0	19.1	8.8	64.2	51.3	60.2	52.8	83.4	8.8	58.0
21	31.6	53.2	55.9	51.2	37.7	74.2	25.6	46.1	34.0	40.2	44.1	32.6	26.9	14.0	16.4	14.2	32.0	51.3	36.7	21.2	7.6	14.8	47.7	10.5	74.2	7.6	34.2
22	35.6	50.5	18.6	32.3	56.9	30.8	35.5	64.0	50.0	44.2	63.4	36.3	52.0	18.8	30.4	31.4	20.7	42.3	31.9	46.5	17.4	23.1	18.4	15.7	64.0	15.7	36.1
23	34.7	40.6	51.2	40.1	29.1	46.5	49.5	22.9	22.5	55.0	39.1	41.8	54.0	21.9	20.6	15.4	23.4	18.8	44.5	35.5	20.6	23.1	15.1	54.3	55.0	15.1	34.2
24	31.6	33.9	43.6	37.5	44.6	48.2	48.1	44.4	51.2	39.8	49.3	49.5	54.6	10.9	45.1	12.3	29.8	13.8	21.2	33.3	38.4	31.7	12.6	23.0	54.6	10.9	35.3
25	31.5	50.4	42.3	59.7	30.6	8.1	26.3	44.7	42.3	75.5	52.7	35.8	45.1	31.2	31.1	32.9	52.4	52.6	38.9	36.4	53.0	20.8	66.3	61.8	75.5	8.1	42.6
26	52.2	53.5	8.9	7.9	5.2	7.9	12.9	8.6	37.3	43.0	18.0	16.2	14.6	9.0	7.2	5.4	6.3	8.7	9.0	32.6	38.5	6.9	5.3	58.2	58.2	5.2	19.7
27	57.5	44.4	38.9	49.6	43.8	28.4	47.2	35.5	59.8	46.2	25.8	42.0	49.2	46.8	24.3	40.3	22.9	37.4	47.6	57.7	49.2	40.5	55.0	56.0	59.8	22.9	43.6
28	54.1	42.5	32.9	53.4	46.2	60.1	58.9	72.5	68.6	67.8	62.8	64.1	46.1	40.6	37.0	27.8	45.7	70.8	28.8	35.9	8.2	8.1	4.6	6.3	72.5	4.6	43.5
29	3.6	6.1	3.6	6.7	11.5	10.0	34.5	19.4	14.7	11.2	14.8	13.1	15.4	6.5	6.5	6.4	6.3	7.8	6.9	7.0	13.0	9.1	18.1	13.1	34.5	3.6	11.0
Max.	62.4	77.8	72.0	77.7	83.4	74.2	70.1	76.9	68.8	78.2	76.2	76.7	55.6	54.2	75.7	63.6	62.9	70.8	61.2	75.5	64.2	64.8	71.9	67.8	83.4		
Min.	3.6	4.6	3.6	3.8	4.6	3.8	5.0	4.3	4.2	4.3	4.0	4.5	3.7	4.4	4.7	4.9	5.0	4.9	2.9	4.8	3.8	4.3	4.4	4.5		2.9	
Avg.	28.9	30.1	28.9	27.4	27.2	28.9	30.5	31.7	32.8	35.3	34.2	29.9	25.3	19.0	22.6	22.6	24.7	23.9	24.7	28.8	26.4	22.8	26.5	29.0			27.6

Total Hours in Month 696

Hours Data Available 696

Data Recovery 100%

Rock Creek - Wind Sigma

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	12.9	17.0	9.0	9.9	9.5	10.1	18.0	13.3	8.4	5.4	4.7	6.1	5.1	5.4	7.6	5.6	5.0	4.8	4.6	4.4	4.6	4.9	5.4	5.9	18.0	4.4	7.8	
2	6.5	4.9	5.3	5.2	4.5	4.4	4.6	4.7	4.9	5.0	4.3	4.5	5.2	4.9	5.2	4.6	4.5	4.8	15.0	46.7	5.6	35.7	44.6	26.5	46.7	4.3	10.9	
3	17.7	10.1	28.6	36.2	24.5	16.2	7.6	34.4	7.0	5.2	6.2	4.5	5.7	5.1	4.9	6.7	46.4	25.6	31.5	30.5	28.9	9.6	6.5	12.2	46.4	4.5	17.2	
4	5.9	14.7	5.3	10.3	25.3	17.3	55.0	23.9	14.3	43.3	28.9	18.1	6.3	15.7	23.9	4.6	18.8	18.1	9.1	50.1	69.1	55.4	33.5	53.6	69.1	4.6	25.9	
5	42.7	39.0	48.6	38.3	34.2	19.2	35.7	16.0	5.3	9.5	7.7	20.5	10.1	20.6	25.0	30.8	10.7	11.6	32.3	52.0	5.9	12.7	10.3	45.7	52.0	5.3	24.4	
6	36.5	21.5	28.0	34.8	17.2	37.7	23.9	58.1	15.8	38.6	60.9	59.9	38.8	11.7	27.7	11.6	17.9	11.8	10.5	5.4	18.7	17.0	18.5	6.7	60.9	5.4	26.2	
7	5.3	14.7	19.6	62.8	64.4	59.6	67.7	67.9	53.5	26.7	41.3	44.1	19.5	7.6	19.9	24.9	41.4	8.7	45.1	70.2	58.7	62.1	58.6	61.5	70.2	5.3	41.9	
8	47.7	49.5	60.3	46.1	53.1	40.0	41.9	52.5	56.7	50.4	55.4	48.0	50.4	18.1	4.3	46.4	20.8	17.2	27.4	43.0	15.1	66.0	54.5	44.1	66.0	4.3	42.0	
9	33.3	48.6	35.8	21.8	9.4	8.0	19.4	22.6	5.7	8.8	16.4	23.4	16.3	9.1	5.5	4.5	4.6	4.4	4.6	10.8	7.4	7.6	4.7	12.2	48.6	4.4	14.4	
10	5.5	20.6	56.9	68.1	51.8	62.8	51.0	15.2	8.3	9.7	12.2	12.5	16.6	33.9	20.5	12.5	16.0	8.6	14.5	14.3	29.5	34.8	35.0	23.5	68.1	5.5	26.4	
11	62.2	49.3	44.6	39.8	29.7	26.7	7.1	5.8	5.2	9.8	8.6	6.8	6.2	4.2	5.0	4.5	4.9	4.8	4.1	4.6	4.7	3.9	4.0	3.8	62.2	3.8	14.6	
12	3.5	3.8	3.9	4.7	3.7	3.9	3.6	4.9	17.5	6.2	4.7	8.4	27.9	19.6	29.4	8.1	5.4	5.4	4.1	6.8	4.3	4.7	4.8	5.1	29.4	3.5	8.1	
13	4.6	4.0	10.9	6.8	6.9	11.5	11.6	23.6	44.3	36.3	7.1	8.7	7.5	5.2	6.2	9.7	21.4	21.0	20.6	5.5	6.0	6.2	5.6	4.4	44.3	4.0	12.3	
14	5.4	3.6	3.7	5.1	5.2	6.0	4.8	4.7	4.7	4.7	5.3	5.6	5.4	4.8	4.3	4.7	3.9	4.0	4.2	4.7	4.7	3.9	16.3	37.3	37.3	3.6	6.5	
15	52.8	35.0	36.7	20.9	74.0	56.3	43.7	52.6	73.5	39.8	59.9	43.5	32.3	37.9	21.1	26.4	6.2	28.3	7.8	11.2	9.9	11.7	16.4	31.9	74.0	6.2	34.6	
16	42.7	13.5	56.1	42.0	40.6	54.6	42.0	50.0	34.2	47.0	26.7	36.8	12.9	7.6	6.0	7.7	12.4	14.0	15.3	44.1	13.5	7.1	5.2	40.8	56.1	5.2	28.0	
17	31.0	45.9	56.2	42.8	47.8	60.7	62.3	54.1	6.7	6.8	5.1	9.0	5.7	6.0	7.2	7.3	11.9	41.4	53.2	9.3	52.5	30.9	42.9	50.3	62.3	5.1	31.1	
18	24.3	37.3	10.9	58.0	52.0	69.6	55.1	57.7	59.4	45.1	21.8	47.3	27.4	21.4	42.7	22.6	13.8	43.0	53.2	45.4	66.3	46.8	17.9	71.6	71.6	10.9	42.1	
19	62.5	68.4	33.1	39.6	43.7	58.6	69.1	33.2	65.7	20.5	47.5	21.0	5.5	5.7	5.4	11.9	5.1	5.3	4.7	17.3	30.8	21.4	59.8	42.0	69.1	4.7	32.4	
20	50.8	48.6	28.0	28.7	29.8	71.6	33.1	42.8	44.1	21.4	10.2	18.1	56.7	67.2	20.0	23.9	40.5	17.4	15.0	6.6	6.7	31.6	32.0	5.6	71.6	5.6	31.3	
21	12.8	58.5	23.0	52.5	34.4	36.7	15.0	46.0	38.0	11.1	24.0	17.9	32.2	55.4	26.6	8.8	11.3	25.4	13.9	23.1	10.7	40.1	18.0	33.1	58.5	8.8	27.9	
22	18.5	14.8	37.2	15.1	25.2	39.3	32.3	70.8	56.0	56.0	29.5	39.8	58.8	38.0	35.3	19.5	52.8	28.5	61.1	48.2	42.6	27.1	31.2	43.3	70.8	14.8	38.4	
23	58.4	19.2	40.8	53.1	44.1	42.1	33.8	63.5	74.9	61.2	16.1	50.9	39.5	10.7	18.2	29.0	7.7	7.9	7.0	29.2	65.2	55.1	67.7	53.1	74.9	7.0	39.5	
24	42.5	48.1	32.2	10.1	5.3	4.4	34.5	27.7	64.9	41.6	43.6	51.4	10.3	9.4	14.8	6.2	7.9	9.0	18.5	14.9	6.5	24.6	41.7	6.9	64.9	4.4	24.0	
25	10.6	13.5	12.3	6.9	7.7	11.7	9.2	17.0	6.8	10.1	11.0	36.6	29.1	5.3	10.7	6.4	7.7	7.9	8.4	9.9	8.8	7.0	4.5	24.4	36.6	4.5	11.8	
26	20.0	17.4	9.9	6.7	6.2	6.9	5.0	7.2	6.4	5.9	9.1	10.3	28.8	27.5	30.9	37.6	9.8	9.5	9.6	9.0	6.8	9.4	7.6	10.7	37.6	5.0	12.8	
27	13.1	35.8	56.8	57.4	60.3	58.6	54.9	29.3	12.9	60.8	38.0	5.3	7.3	6.9	6.4	9.0	7.6	5.7	5.3	5.8	5.3	5.8	6.1	5.2	60.8	5.2	23.3	
28	6.3	7.6	8.5	8.9	26.7	7.4	18.7	6.4	5.8	13.6	8.1	5.7	7.0	8.0	10.8	13.8	8.6	8.1	5.9	6.4	6.1	10.6	14.0	13.5	26.7	5.7	9.9	
29	16.2	18.7	6.9	12.2	7.3	58.6	7.4	7.4	7.6	49.2	23.6	8.8	12.4	9.9	9.5	11.0	8.5	8.6	7.5	5.3	7.0	4.9	6.6	7.5	58.6	4.9	13.4	
30	5.9	5.7	5.3	6.0	7.7	5.0	5.7	5.9	7.2	8.4	23.0	25.3	27.3	14.5	11.0	13.9	41.7	31.3	14.5	43.9	39.1	48.7	57.4	41.2	57.4	5.0	20.6	
31	67.6	63.0	65.2	61.4	63.4	27.0	41.2	47.5	46.2	56.8	55.7	26.9	42.1	37.3	21.1	31.2	29.9	31.2	28.7	25.2	11.1	33.0	41.6	40.8	67.6	11.1	41.5	
Max.	67.6	68.4	65.2	68.1	74.0	71.6	69.1	70.8	74.9	61.2	60.9	59.9	58.8	67.2	42.7	46.4	52.8	43.0	61.1	70.2	69.1	66.0	67.7	71.6	74.9			
Min.	3.5	3.6	3.7	4.7	3.7	3.9	3.6	4.7	4.7	4.7	4.3	4.5	5.1	4.2	4.3	4.5	3.9	4.0	4.1	4.4	4.3	3.9	4.0	3.8		3.5		
Avg.	26.6	27.5	28.4	29.4	29.5	32.0	29.5	31.2	27.8	26.3	23.1	23.4	21.2	17.2	15.7	15.0	16.3	15.3	18.0	22.7	21.0	23.9	24.9	27.9			23.9	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	93.2	93.3	92.2	92.4	94.1	94.1	94.6	96.5	97.9	98.5	96.8	94.4	93.9	94.2	94.8	93.6	92.6	93.1	92.5	92.8	94.4	94.3	92.2	93.3	98.5	92.2	94.2
2	93.5	95.0	95.4	96.0	97.2	93.9	89.7	88.8	89.1	90.8	91.1	93.6	94.2	94.1	94.8	93.6	92.8	89.8	88.2	89.2	92.3	89.0	93.3	95.9	97.2	88.2	92.6
3	91.3	94.7	95.6	97.5	95.5	95.7	95.5	96.6	97.2	95.5	95.5	95.0	94.0	93.3	92.5	92.7	92.3	92.2	91.8	92.3	91.6	93.0	94.0	94.5	97.5	91.3	94.2
4	95.1	95.3	95.5	96.5	97.6	97.4	97.4	97.4	97.3	97.2	96.7	95.7	94.6	94.2	93.3	93.3	93.3	93.0	91.5	92.2	91.4	90.6	88.0	81.3	97.6	81.3	94.0
5	75.3	78.2	72.3	69.8	66.4	62.7	60.7	74.2	70.8	62.0	56.7	53.0	54.9	60.5	65.3	67.7	74.1	58.4	50.4	48.6	48.7	51.0	44.9	43.1	78.2	43.1	61.2
6	39.6	42.6	46.5	32.8	40.6	43.7	35.1	38.1	42.0	42.7	37.3	38.7	46.7	43.5	44.8	38.3	38.9	36.1	30.8	34.4	38.6	38.6	36.8	31.3	46.7	30.8	39.1
7	35.4	40.7	43.8	40.9	45.9	43.0	44.6	42.8	58.4	50.8	49.6	47.6	48.6	50.0	55.0	59.4	54.7	49.4	50.1	46.8	39.7	39.0	46.7	56.6	59.4	35.4	47.5
8	59.6	62.2	58.3	65.5	69.6	66.5	71.5	78.2	73.3	69.4	62.4	64.5	63.7	60.0	57.7	61.9	63.7	68.7	71.9	76.4	79.1	81.3	79.4	78.7	81.3	57.7	68.5
9	69.2	66.0	62.1	63.2	66.2	63.4	59.7	53.6	53.7	51.5	55.3					57.3	57.1	61.1	61.4	59.9	61.9	63.7	62.8	68.7	69.2	51.5	60.9
10	69.9	71.0	71.5	70.0	71.9	72.4	72.7	73.2	72.9	73.5	71.4	73.7	75.8	75.6	76.7	78.8	80.2	80.7	80.8	83.4	84.8	84.7	85.1	84.6	85.1	69.9	76.5
11	82.6	82.3	83.7	84.0	84.0	84.7	85.2	84.9	86.6	85.8	83.1	84.6	84.2	86.4	86.7	86.7	86.0	87.5	87.2	85.4	85.0	85.3	86.2	85.8	87.5	82.3	85.2
12	85.4	84.4	85.0	86.3	86.0	87.9	86.2	85.1	85.9	87.5	87.6	88.2	88.9	87.8	87.6	88.2	87.4	87.2	85.9	84.0	84.9	84.4	84.5	84.8	88.9	84.0	86.3
13	78.1	71.5	74.6	80.3	81.3	73.5	70.5	69.7	68.4	70.0	71.1	70.9	68.9	68.1	69.9	70.7	72.2	68.7	70.0	69.7	69.6	70.1	67.1	72.1	81.3	67.1	71.5
14	66.3	54.3	54.5	53.0	54.4	57.1	57.2	59.9	61.6	67.5	70.6	71.8	77.7	75.6	78.6	79.6	82.5	80.0	79.5	76.9	82.5	84.7	84.4	82.7	84.7	53.0	70.5
15	81.5	81.9	79.4	80.6	79.9	80.8	78.6	79.1	79.7	79.4	78.9	79.7	80.6	83.1	83.2	82.9	82.9	83.2	83.1	84.0	83.4	83.2	82.1	81.7	84.0	78.6	81.4
16	80.7	79.6	79.1	79.3	78.7	77.6	76.9	76.9	76.2	76.7	75.4	76.5	76.9	78.9	79.8	81.1	80.6	79.0	77.8	77.2	75.7	76.2	76.2	78.0	81.1	75.4	78.0
17	78.8	79.7	79.4	77.7	74.4	75.4	75.9	75.8	75.2	75.4	74.9	75.1	75.4	76.1	76.6	76.5	76.9	77.3	74.3	76.5	76.9	75.9	75.3	75.7	79.7	74.3	76.3
18	76.3	74.9	74.0	74.7	75.2	73.3	72.9	74.4	72.7	72.8	72.3	73.7	73.1	74.7	76.4	75.4	74.9	74.3	72.0	73.7	73.6	72.9	74.0	72.7	76.4	72.0	74.0
19	70.5	74.2	73.1	71.5	73.5	73.9	73.5	77.5	78.5	80.6	77.8	68.4	56.3	54.6	57.1	59.4	56.7	57.0	58.8	62.3	56.4	57.0	54.8	58.4	80.6	54.6	65.9
20	54.8	57.1	54.0	53.6	51.2	54.3	54.1	48.0	57.8	67.0	66.3	71.5	70.5	69.3	71.7	71.7	72.2	72.0	70.4	69.7	69.0	70.4	68.9	69.0	72.2	48.0	63.9
21	67.2	67.0	67.1	72.0	74.2	74.4	72.5	73.1	76.2	74.7	73.1	71.6	69.7	68.1	69.4	69.3	64.0	65.8	69.9	59.0	59.7	60.2	58.7	59.8	76.2	58.7	68.2
22	65.8	63.9	60.4	64.0	66.7	66.1	67.4	72.8	85.1	91.3	93.0	91.1	89.6	88.9	90.4	89.7	87.3	87.7	90.6	95.6	97.3	97.6	97.4	97.3	97.6	60.4	83.2
23	96.5	93.8	94.8	92.7	91.7	91.5	95.9	97.4	97.7	95.3	91.3	91.7	92.8	91.0	86.9	88.9	87.8	85.4	85.1	85.6	80.4	77.1	74.9	78.5	97.7	74.9	89.4
24	73.7	74.6	73.9	63.7	57.5	56.3	57.2	55.9	58.8	57.1	56.9	61.1	59.3	52.0	51.0	48.0	45.3	47.2	42.9	44.2	44.7	43.8	40.8	41.9	74.6	40.8	54.5
25	38.1	35.1	32.7	31.5	31.9	30.3	32.0	30.2	32.1	32.0	33.1	35.8	37.9	37.0	40.3	38.7	31.6	31.9	33.6	32.4	31.6	31.8	32.7	31.1	40.3	30.2	33.6
26	29.9	33.8	35.3	29.3	29.9	34.4	36.8	36.5	35.5	32.5	34.3	37.0	41.5	35.2	39.2	39.8	36.6	44.2	49.8	51.1	54.9	57.4	61.3	56.0	61.3	29.3	40.5
27	65.9	68.9	66.5	60.9	57.1	52.5	51.4	51.5	49.3	49.4	51.1	48.4	42.8	39.2	42.2	40.9	41.0	39.1	36.8	35.9	39.4	44.1	44.3	40.9	68.9	35.9	48.3
28	38.1	45.4	39.5	41.7	43.5	47.1	49.3	47.9	45.6	47.3	55.4	61.3	61.0	62.7	60.9	62.9	66.0	65.1	63.7	67.6	64.5	64.6	67.8	66.6	67.8	38.1	55.6
29	62.2	63.1	63.4	55.9	54.2	55.8	52.7	50.5	50.1	48.6	50.2	52.6	50.7	50.4	47.4	45.5	44.8	46.5	53.4	49.1	43.9	53.2	46.6	50.6	63.4	43.9	51.7
30	51.8	50.6	48.5	46.7	48.1	49.1	43.7	49.6	48.3	52.3	46.4	40.8	41.5	39.6	39.4	43.0	46.4	44.6	46.0	48.3	48.0	49.0	46.7	47.4	52.3	39.4	46.5
31	50.7	53.2	53.3	46.7	51.9	47.1	43.6	49.0	51.2	52.7	54.0	53.0	48.4	44.8	42.9	46.5	44.9	50.4	44.7	47.5	52.0	52.2	50.2	49.8	54.0	42.9	49.2
Max.	96.5	95.3	95.6	97.5	97.6	97.4	97.4	97.4	97.9	98.5	96.8	95.7	94.6	94.2	94.8	93.6	93.3	93.1	92.5	95.6	97.3	97.6	97.4	97.3	98.5		
Min.	29.9	33.8	32.7	29.3	29.9	30.3	32.0	30.2	32.1	32.0	33.1	35.8	37.9	35.2	39.2	38.3	31.6	31.9	30.8	32.4	31.6	31.8	32.7	31.1		29.3	
Avg.	68.3	68.6	67.9	66.8	67.4	67.0	66.3	67.3	68.5	68.6	68.1	68.7	68.5	67.6	68.4	68.4	68.0	67.6	67.2	67.5	67.6	68.3	67.7	68.0			67.8

Total Hours in Month 744

Hours Data Available 740

Data Recovery 99.5%

Rock Creek - Relative Humidity (Percentage)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	49.9	49.6	48.2	55.9	56.3	55.8	55.7	55.4	58.0	60.4	60.0	59.8	57.0	57.4	57.7	58.4	58.5	59.9	59.5	58.3	60.5	59.1	57.7	57.9	60.5	48.2	56.9
2	59.2	59.0	57.8	61.2	65.3	64.7	63.2	63.4	62.4	63.1	62.6	60.8	58.5	56.9	53.7	54.6	57.3	60.0	61.4	61.8	61.8	61.9	62.4	63.8	65.3	53.7	60.7
3	63.8	61.7	61.3	58.7	59.6	60.3	61.1	63.3	61.8	58.9	58.2	60.0	59.7	60.3	57.9	58.0	56.9	57.9	57.3	58.2	55.2	53.6	52.4	51.3	63.8	51.3	58.6
4	50.2	51.2	54.4	55.1	54.4	54.3	56.0	55.9	55.2	54.7	55.6	54.1	53.3	52.6	53.0	53.1	54.3	54.9	56.6	58.4	59.7	56.9	55.9	54.9	59.7	50.2	54.8
5	57.9	58.9	58.9	57.7	59.8	60.8	58.8	57.4	56.7	54.4	53.7	52.2	52.6	50.9	51.6	49.9	51.6	51.8	51.6	51.2	47.5	48.1	48.4	51.9	60.8	47.5	53.9
6	48.0	56.8	54.7	43.2	44.4	50.8	64.2	66.2	68.1	67.4	64.3	59.2	63.5	65.8	66.6	66.3	66.0	64.8	69.5	66.8	68.2	66.2	62.6	62.0	69.5	43.2	61.5
7	62.5	61.2	62.0	61.7	60.9	62.2	61.0	63.0	67.0	64.5	64.6	64.3	58.1	58.7	56.1	55.0	56.4	57.6	60.3	59.8	58.9	57.9	54.2	58.1	67.0	54.2	60.2
8	56.6	52.6	49.4	47.8	48.2	48.0	44.7	42.1	46.6	44.2	47.5	45.9	45.4	49.2	53.2	67.3	74.9	75.5	73.8	75.1	75.2	76.4	81.6	83.0	83.0	42.1	58.5
9	87.3	89.0	92.0	92.7	92.1	90.6	88.6	86.5	84.4	84.7	90.6	81.7	74.0	72.0	76.1	82.4	86.6	86.9	87.0	85.9	88.2	90.9	92.0	92.5	92.7	72.0	86.4
10	90.5	92.6	89.7	78.0	74.5	76.9	75.9	69.6	72.6	60.0	57.1	48.3	65.5	68.0	65.6	77.3	71.5	75.0	80.0	89.3	87.8	87.5	88.2	90.6	92.6	48.3	76.3
11	93.3	94.1	94.6	95.3	95.6	95.2	94.4	96.1	96.7	96.2	95.8	95.7	95.3	94.0	92.1	94.8	95.5	96.1	97.0	97.5	94.8	92.7	93.1	93.1	97.5	92.1	95.0
12	90.9	90.2	85.8	82.2	82.6	82.3	79.4	79.6	80.5	79.8	72.5	66.4	65.2	66.4	68.2	68.5	69.2	69.1	67.1	68.5	71.8	68.1	69.3	68.9	90.9	65.2	74.7
13	67.1	62.8	60.9	56.9	52.9	64.2	64.0	58.8	59.3	55.1	46.0	42.7	42.1	42.1	44.5	40.4	40.9	39.2	41.4	44.3	48.6	49.7	50.1	51.4	67.1	39.2	51.1
14	64.9	58.0	59.4	56.8	55.1	47.8	53.5	53.6	51.7	51.9	54.8	56.5	58.7	58.4	55.6	59.5	60.3	58.0	59.3	57.8	59.3	59.0	60.1	59.8	64.9	47.8	57.1
15	61.3	62.5	60.8	59.8	56.2	52.6	52.8	57.0	61.1	65.1	59.7	56.5	51.6	53.6	49.1	48.7	51.1	49.4	59.0	62.3	63.6	65.2	65.3	63.9	65.3	48.7	57.8
16	67.3	68.3	64.7	65.4	65.3	66.1	67.0	68.9	67.4	66.8	66.9	65.6	60.9	57.6	51.5	53.7	55.3	55.6	59.4	60.6	53.3	54.0	52.4	50.6	68.9	50.6	61.0
17	53.7	53.2	52.9	54.8	58.1	60.7	63.1	63.4	65.0	62.3	62.5	59.4	54.6	51.6	52.0	53.7	53.3	55.6	61.7	64.2	63.4	60.5	61.1	57.7	65.0	51.6	58.3
18	57.1	62.0	65.0	62.0	59.7	55.9	58.5	56.8	58.3	60.1	59.7	57.2	51.3	51.0	50.8	50.5	51.3	55.1	58.8	53.2	60.9	61.6	58.8	59.9	65.0	50.5	57.3
19	53.8	52.8	51.4	54.1	53.8	54.9	54.2	50.1	56.1	56.0	55.7	50.3	48.1	49.0	48.9	46.5	47.7	54.8	59.0	64.1	64.3	67.7	66.5	67.6	67.7	46.5	55.3
20	67.1	66.1	65.8	67.6	65.7	63.0	63.3	63.8	62.6	63.7	64.4	61.3	62.8	62.0	63.4	65.8	71.1	75.6	78.8	78.9	80.7	83.4	85.4	85.9	85.9	61.3	69.5
21	82.3	79.9	77.3	76.2	76.8	78.5	80.0	80.4	80.7	81.9	81.5	77.2	79.1	70.7	67.7	64.1	61.4	61.6	63.7	61.2	60.5	67.5	74.2	94.5	94.5	60.5	74.1
22	95.5	94.1	95.4	94.2	95.5	91.9	87.4	84.5	84.5	85.9	85.3	82.8	80.6	78.0	79.2	82.1	86.3	85.8	89.1	89.3	89.6	89.6	91.0	91.8	95.5	78.0	87.9
23	91.9	93.2	93.2	93.6	92.5	91.7	91.7	91.8	92.4	93.0	91.3	87.9	88.0	85.4	83.9	85.2	84.2	86.8	88.1	89.5	90.3	91.0	91.3	90.9	93.6	83.9	90.0
24	91.4	91.3	92.0	91.5	91.9	91.8	91.8	90.4	91.2	90.6	88.4	82.7	74.9	79.9	78.5	79.1	76.8	82.5	84.3	88.6	90.4	90.7	90.3	89.4	92.0	74.9	87.1
25	88.6	89.1	89.4	90.2	90.7	91.0	91.3	91.2	90.8	91.0	89.1	86.3	84.0	80.7	81.4	79.8	81.9	83.3	83.8	82.3	79.5	75.7	80.9	81.6	91.3	75.7	85.6
26	80.0	83.1	80.0	79.6	79.5	77.9	75.4	76.3	75.4	74.5	73.2	71.9	70.4	70.2	72.1	72.7	71.4	72.2	74.4	74.3	74.4	75.2	74.3	76.9	83.1	70.2	75.2
27	78.2	81.0	82.7	84.9	85.9	88.5	89.7	89.6	90.0	90.0	89.2	85.4	77.1	73.3	73.7	72.6	73.8	76.1	79.8	83.5	85.9	87.3	89.8	89.4	90.0	72.6	83.2
28	87.0	86.9	86.3	86.6	85.7	85.9	87.1	88.1	87.1	86.8	84.6	80.3	74.2	70.2	68.8	70.4	71.8	73.0	76.8	76.6	73.9	74.7	74.9	74.3	88.1	68.8	79.7
29	74.7	74.9	75.6	75.1	76.6	78.1	80.7	80.9	80.5	81.8	77.6	74.9	73.4	71.9	70.0	68.5	69.8	70.3	71.8	74.5	75.9	78.6	83.7	82.0	83.7	68.5	75.9
Max.	95.5	94.1	95.4	95.3	95.6	95.2	94.4	96.1	96.7	96.2	95.8	95.7	95.3	94.0	92.1	94.8	95.5	96.1	97.0	97.5	94.8	92.7	93.1	94.5	97.5		
Min.	48.0	49.6	48.2	43.2	44.4	47.8	44.7	42.1	46.6	44.2	46.0	42.7	42.1	42.1	44.5	40.4	40.9	39.2	41.4	44.3	47.5	48.1	48.4	50.6		39.2	
Avg.	71.4	71.6	71.1	70.3	70.2	70.4	70.8	70.5	71.2	70.5	69.4	66.5	64.8	64.1	63.5	64.8	65.7	67.0	69.3	70.2	70.5	70.7	71.3	72.3			69.1

Total Hours in Month

696

Hours Data Available

696

Data Recovery

100%

Rock Creek - Relative Humidity (Percentage)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	83.0	83.8	83.6	81.9	81.3	83.3	83.0	85.7	87.0	89.8	91.1	89.0	90.3	87.5	88.8	89.3	90.8	92.3	93.8	94.3	92.0	92.1	92.4	93.2	94.3	81.3	88.3		
2	94.2	94.3	94.2	94.2	94.8	94.0	92.5	92.4	92.3	93.7	92.1	90.4	90.4	90.6	88.6	88.3	89.1	87.8	88.1	86.4	87.0	83.5	83.3	82.8	94.8	82.8	90.2		
3	82.0	86.4	88.6	85.9	83.7	86.8	92.7	92.7	94.4	91.2	88.5	86.6	85.0	87.2	85.9	83.2	80.8	82.4	82.6	85.9	87.1	86.0	88.3	88.1	94.4	80.8	86.8		
4	90.9	89.6	89.0	87.8	85.8	86.5	88.8	90.5	91.5	91.8	89.3	89.1	88.7	86.4	84.7	86.3	84.2	86.5	92.4	95.6	96.6	94.5	90.8	89.1	96.6	84.2	89.4		
5	93.4	92.1	91.5	88.3	85.7	80.4	81.5	75.9	67.8	68.6	66.5	65.0	59.8	53.9	47.9	45.8	43.6	46.1	48.1	47.8	49.3	45.5	51.3	51.1	93.4	43.6	64.5		
6	42.7	40.5	49.0	47.8	50.4	53.8	53.9	55.4	56.9	57.5	50.6	45.7	47.8	50.9	45.7	45.3	50.7	53.5	55.0	54.9	54.0	54.0	52.5	53.7	57.5	40.5	50.9		
7	52.6	48.5	52.0	53.4	57.2	58.5	58.0	56.6	54.8	52.6	50.1	46.7	43.6	44.3	45.6	40.3	41.5	44.9	49.9	58.0	56.0	58.9	61.0	58.6	61.0	40.3	51.8		
8	55.9	57.2	59.1	58.8	58.5	58.6	60.5	60.4	61.1	58.3	55.0	51.3	46.4	46.4	47.0	44.5	46.3	49.6	55.2	60.1	59.1	63.0	64.5	62.7	64.5	44.5	55.8		
9	57.2	58.0	50.1	39.4	37.5	37.2	36.3	36.8	45.9	40.5	42.5	39.2	44.9	44.2	49.2	55.0	56.6	59.9	55.0	52.5	54.0	56.4	58.2	57.8	59.9	36.3	48.5		
10	57.2	57.9	63.1	68.4	73.4	78.2	83.7	83.8	82.1	80.7	79.2	79.1	77.2	77.3	78.3	77.7	80.6	84.0	85.9	88.8	90.1	91.1	92.7	92.5	92.7	57.2	79.3		
11	94.2	94.0	97.4	96.8	95.1	96.1	94.6	95.4	95.6	93.6	94.2	89.9	91.8	90.4	89.5	89.0	89.3	91.6	93.5	94.6	96.1	96.0	95.9	96.0	97.4	89.0	93.8		
12	97.3	96.9	95.9	95.4	96.0	96.2	95.2	95.3	96.1	93.7	93.6	91.6	89.1	89.3	87.6	90.6	92.2	94.4	93.1	92.2	92.1	92.4	93.2	94.5	97.3	87.6	93.5		
13	95.2	94.8	93.9	94.9	94.9	94.3	92.0	93.5	93.0	90.8	89.5	80.2	79.5	83.2	82.7	78.5	74.4	73.1	71.7	70.6	68.6	70.4	70.0	71.7	95.2	68.6	83.4		
14	74.1	79.0	83.5	84.0	84.8	85.1	84.7	84.5	85.8	86.3	84.9	86.3	84.9	85.4	86.3	88.9	89.1	89.2	92.3	93.9	95.2	96.2	94.4	95.1	96.2	74.1	87.2		
15	95.9	93.9	95.3	93.8	95.2	94.4	93.5	92.3	92.0	90.2	87.7	83.9	81.6	78.6	77.6	76.0	76.7	87.3	89.3	88.8	90.5	93.4	94.7	95.6	95.9	76.0	89.1		
16	96.8	98.3	96.9	96.3	94.9	93.3	94.0	94.6	93.7	92.5	89.0	84.4	84.4	83.7	83.9	82.8	84.2	85.4	86.6	89.9	91.7	90.3	85.1	83.7	98.3	82.8	89.9		
17	82.2	84.6	88.8	93.0	91.3	89.6	88.4	88.7	74.9	70.3	69.9	63.1	59.7	57.3	55.3	52.5	49.8	49.1	46.0	50.0	50.4	57.4	52.4	55.3	93.0	46.0	67.5		
18	55.3	49.4	49.0	53.1	50.2	55.0	52.2	49.4	34.3	37.7	44.7	48.1	48.3	46.7	42.3	47.7	55.1	58.2	61.8	66.1	68.5	69.0	67.1	68.0	69.0	34.3	53.2		
19	65.0	66.9	66.1	63.8	66.4	70.3	71.1	72.3	76.1	81.1	76.7	74.7	76.7	76.5	77.5	73.1	77.5	78.5	79.6	77.3	76.1	74.4	71.7	69.9	81.1	63.8	73.3		
20	68.5	72.9	85.4	89.0	90.0	89.8	89.7	88.7	86.9	83.8	83.6	83.2	84.0	83.7	87.2	87.6	92.7	92.7	93.9	95.1	94.7	97.1	96.5	96.7	97.1	68.5	88.1		
21	96.7	96.5	96.7	96.1	96.2	96.1	96.2	96.3	96.8	97.0	99.0	99.0	99.4	98.3	93.7	93.1	93.5	93.8	96.8	98.1	98.5	98.4	98.0	97.9	99.4	93.1	96.8		
22	97.0	97.3	95.9	95.0	95.2	95.0	94.6	92.2	92.1	91.6	91.7	91.1	91.1	87.8	86.6	78.2	73.0	75.0	80.1	86.9	91.3	93.1	92.4	92.6	97.3	73.0	89.9		
23	89.1	87.1	90.7	90.7	91.8	93.8	94.3	95.6	94.2	89.7	88.0	80.5	72.6	76.3	73.1	69.7	59.7	58.7	64.2	64.7	68.7	77.2	78.9	78.9	95.6	58.7	80.3		
24	75.8	82.3	82.5	78.1	76.0	70.8	71.2	71.8	70.2	69.1	63.7	62.1	62.0	55.0	47.7	44.2	53.8	60.6	59.5	64.1	65.1	61.6	59.7	58.0	82.5	44.2	65.2		
25	54.4	49.7	51.9	52.3	50.0	46.3	51.2	51.5	50.1	47.0	46.7	44.5	44.3	37.5	37.8	45.6	48.2	54.0	57.9	59.5	60.8	63.3	64.2	63.9	64.2	37.5	51.3		
26	63.6	62.2	61.2	63.8	64.9	69.9	71.6	64.6	60.9	60.3	54.2	50.0	46.4	45.9	45.0	50.5	50.3	51.3	54.0	55.6	58.9	57.9	54.9	55.7	71.6	45.0	57.2		
27	48.7	51.8	56.5	56.1	53.6	52.7	55.0	55.3	66.0	63.4	62.0	63.2	61.8	58.6	58.2	56.1	55.7	58.9	60.1	62.1	63.0	63.8	66.9	63.2	66.9	48.7	58.9		
28	62.3	61.4	57.2	58.2	54.4	54.7	57.3	55.8	57.6	53.9	57.4	57.7	49.7	48.5	47.5	47.2	53.2	51.8	53.8	56.9	57.2	56.2	53.3	50.6	62.3	47.2	54.7		
29	56.7	56.3	58.4	56.7	55.0	57.1	65.3	66.7	64.2	64.6	62.9	59.2	54.9	59.6	56.8	58.5	57.5	61.5	64.1	67.0	68.1	67.8	63.7	61.7	68.1	54.9	61.0		
30	61.1	62.8	60.9	59.0	57.9	57.3	55.8	56.1	55.9	54.4	53.5	48.7	45.6	46.2	47.4	50.0	48.5	48.7	50.7	55.1	61.5	63.5	67.4	67.2	67.4	45.6	55.6		
31	65.6	67.6	66.0	67.2	66.9	68.2	67.1	68.7	66.8	64.8	60.7	58.5	53.3	53.9	57.1	53.7	57.3	53.1	55.2	62.5	66.3	69.4	68.7	70.0	70.0	53.1	62.9		
Max.	97.3	98.3	97.4	96.8	96.2	96.2	96.2	96.3	96.8	97.0	99.0	99.0	99.4	98.3	93.7	93.1	93.5	94.4	96.8	98.1	98.5	98.4	98.0	97.9	99.4				
Min.	42.7	40.5	49.0	39.4	37.5	37.2	36.3	36.8	34.3	37.7	42.5	39.2	43.6	37.5	37.8	40.3	41.5	44.9	46.0	47.8	49.3	45.5	51.3	50.6		34.3			
Avg.	74.3	74.6	75.8	75.5	75.1	75.6	76.3	76.1	75.4	74.2	72.9	70.4	68.9	68.1	67.2	66.7	67.6	69.5	71.3	73.4	74.5	75.3	75.0	74.7				72.8	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1011	1011	1011	1011	1011	1011	1012	1012	1012	1014	1015	1016	1016	1017	1018	1018	1019	1020	1021	1020	1020	1022	1023	1023	1023	1011	1016	
2	1025	1025	1026	1027	1028	1029	1030	1030	1031	1031	1032	1033	1033	1033	1034	1035	1035	1035	1035	1036	1036	1036	1037	1037	1037	1025	1032	
3	1037	1037	1037	1037	1038	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1037	1038	1038	1038	1037	1037
4	1038	1038	1039	1039	1039	1039	1039	1039	1040	1040	1040	1040	1040	1040	1039	1039	1039	1040	1040	1040	1040	1040	1040	1040	1040	1038	1039	
5	1040	1040	1039	1039	1039	1038	1039	1039	1038	1039	1039	1040	1040	1039	1039	1039	1040	1040	1040	1040	1041	1041	1041	1041	1041	1038	1040	
6	1041	1041	1041	1040	1040	1039	1039	1038	1038	1037	1037	1036	1036	1035	1033	1032	1032	1031	1030	1030	1029	1028	1027	1027	1041	1027	1035	
7	1027	1027	1026	1025	1024	1023	1022	1023	1022	1021	1021	1021	1020	1019	1018	1018	1018	1018	1017	1016	1015	1015	1014	1014	1027	1014	1020	
8	1013	1012	1011	1009	1009	1007	1005	1005	1006	1005	1006	1005	1004	1003	1002	1001	1000	998	998	998	997	997	995	994	1013	994	1003	
9	994	997	997	996	995	994	995	993	993	993	992	992	992	992	991	991	991	991	991	990	990	990	990	990	997	990	993	
10	990	989	989	989	989	988	989	990	990	991	992	993	994	995	996	997	997	998	1000	1000	1002	1003	1003	1004	1004	988	995	
11	1005	1006	1007	1007	1008	1009	1009	1009	1010	1011	1011	1012	1013	1013	1014	1014	1015	1015	1015	1016	1016	1016	1017	1017	1017	1005	1012	
12	1018	1018	1018	1019	1019	1019	1019	1020	1020	1020	1021	1021	1022	1022	1022	1022	1022	1022	1022	1023	1023	1023	1023	1024	1024	1018	1021	
13	1024	1024	1024	1025	1025	1025	1025	1026	1026	1026	1027	1027	1026	1026	1027	1027	1026	1026	1026	1026	1026	1025	1025	1025	1027	1024	1026	
14	1025	1024	1024	1024	1024	1024	1024	1023	1024	1023	1023	1023	1022	1022	1021	1021	1020	1020	1019	1019	1019	1019	1019	1019	1025	1019	1022	
15	1019	1019	1019	1019	1019	1019	1019	1019	1019	1020	1020	1020	1020	1019	1019	1019	1019	1019	1020	1019	1019	1019	1019	1018	1018	1020	1018	1019
16	1018	1018	1018	1018	1018	1018	1018	1017	1017	1017	1017	1017	1016	1016	1016	1016	1015	1015	1015	1015	1014	1014	1014	1014	1018	1014	1016	
17	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1015	1015	1015	1015	1015	1015	1015	1015	1016	1015	1016	1015	1016	1016	1016	1014	1015
18	1016	1016	1016	1016	1016	1016	1016	1015	1015	1015	1015	1016	1016	1016	1016	1017	1016	1017	1017	1017	1017	1017	1017	1018	1018	1018	1015	1016
19	1018	1017	1017	1017	1017	1017	1017	1016	1016	1016	1015	1015	1014	1012	1011	1010	1009	1008	1006	1005	1004	1004	1003	1002	1018	1002	1012	
20	1002	1001	1001	1001	999	999	1000	1000	999	1000	1000	1000	1000	1000	1000	1000	1000	1000	1001	1000	1000	1000	1000	1000	1002	999	1000	
21	1000	1000	1000	1000	999	999	998	998	997	996	996	997	997	997	995	994	994	994	993	993	994	995	995	996	1000	993	997	
22	997	997	998	998	999	999	1000	1001	1002	1003	1004	1005	1006	1006	1007	1008	1008	1009	1010	1011	1012	1013	1014	1016	1016	997	1005	
23	1017	1018	1018	1019	1020	1020	1021	1021	1021	1021	1022	1022	1023	1022	1022	1022	1022	1021	1021	1021	1020	1020	1019	1018	1017	1023	1017	1020
24	1017	1016	1015	1014	1014	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1014	1014	1014	1014	1013	1013	1017	1013	1014
25	1013	1013	1013	1013	1013	1013	1012	1013	1013	1013	1013	1012	1012	1012	1012	1011	1013	1012	1013	1013	1013	1013	1013	1012	1013	1013	1011	1013
26	1013	1013	1013	1013	1012	1012	1012	1011	1011	1010	1010	1008	1007	1007	1006	1006	1005	1005	1005	1003	1002	999	1002	1001	1013	999	1008	
27	1000	999	999	1000	1000	999	999	999	999	999	998	998	998	998	998	997	998	997	997	997	997	997	997	998	1000	997	998	
28	998	998	998	998	998	998	998	998	998	999	999	999	1000	1001	1001	1001	1001	1002	1002	1002	1003	1003	1003	1003	1004	1004	998	1000
29	1005	1005	1005	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1005	1005	1004	1004	1004	1003	1003	1003	1003	1006	1003	1005	
30	1002	1002	1002	1002	1001	1001	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	999	999	999	999	999	999	1000	1000	1002	999	1000
31	1000	1000	999	999	999	999	999	998	998	998	998	998	997	997	997	997	996	995	996	995	995	995	995	995	1000	995	997	
Max.	1041	1041	1041	1040	1040	1039	1039	1039	1040	1040	1040	1040	1040	1040	1039	1039	1040	1040	1040	1040	1041	1041	1041	1041	1041			
Min.	990	989	989	989	989	988	989	990	990	991	992	992	992	992	991	991	991	991	991	990	990	990	990	990		988		
Avg.	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1013	1013	1014	1013	1013	1013	1013	1013			1014

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	996	996	996	996	997	997	997	997	997	998	998	998	998	999	999	1000	1000	1000	1000	1001	1001	1001	1001	1002	1002	996	999	
2	1002	1002	1002	1002	1002	1002	1001	1002	1001	1001	1001	1001	1001	1001	1000	1000	999	999	999	999	998	998	999	999	1002	998	1000	
3	999	998	998	997	997	997	996	996	996	995	996	996	996	995	995	995	996	995	996	995	996	996	996	996	999	995	996	
4	996	997	997	997	997	997	997	997	998	998	998	1001	1000	1001	1000	1000	1001	1001	1001	1002	1002	1002	1002	1003	1003	996	999	
5	1003	1004	1004	1004	1004	1005	1005	1005	1005	1005	1005	1005	1003	1003	1004	1003	1005	1005	1004	1004	1004	1004	1005	1004	1005	1003	1004	
6	1004	1004	1004	1003	1003	1004	1004	1004	1003	1003	1004	1004	1004	1004	1005	1004	1004	1004	1004	1004	1004	1004	1004	1004	1005	1003	1004	
7	1005	1005	1005	1005	1005	1005	1005	1005	1006	1006	1006	1007	1006	1006	1005	1005	1004	1004	1004	1003	1002	1001	1000	999	1007	999	1004	
8	998	996	994	994	994	991	991	989	988	988	987	986	985	985	986	985	984	985	986	987	988	988	989	990	998	984	989	
9	990	990	990	990	991	991	991	990	990	990	989	989	989	989	990	991	992	993	994	995	996	996	996	996	996	989	992	
10	996	995	994	993	991	989	988	985	983	983	980	979	978	978	976	976	975	975	974	974	974	974	973	974	996	973	982	
11	974	974	974	975	976	977	978	980	982	986	987	989	990	991	993	994	995	996	998	999	1000	1001	1002	1003	1003	974	988	
12	1004	1004	1005	1005	1005	1005	1006	1006	1006	1006	1006	1006	1006	1005	1005	1004	1004	1004	1004	1003	1003	1003	1003	1002	1006	1002	1005	
13	1002	1001	1000	999	998	996	996	996	995	995	995	995	994	993	992	991	990	990	990	989	989	990	991	990	1002	989	994	
14	992	992	993	994	995	995	995	996	997	998	998	999	999	1000	1000	1001	1001	1001	1001	1002	1003	1003	1004	1004	1004	992	998	
15	1005	1005	1005	1005	1005	1005	1005	1006	1006	1006	1006	1007	1007	1007	1007	1007	1007	1007	1007	1008	1008	1008	1009	1009	1009	1005	1007	
16	1009	1009	1009	1009	1009	1009	1009	1009	1008	1009	1009	1009	1008	1008	1008	1009	1007	1007	1007	1007	1007	1006	1007	1007	1009	1006	1008	
17	1006	1006	1006	1006	1005	1005	1005	1005	1004	1004	1004	1004	1003	1003	1002	1002	1002	1002	1002	1002	1001	1001	1001	1001	1006	1001	1003	
18	1001	1001	1001	1000	1000	999	999	999	999	999	999	999	999	997	997	996	996	996	996	996	996	995	995	995	1001	995	998	
19	995	995	995	994	994	993	993	993	992	992	992	994	991	991	990	990	990	990	990	989	990	989	990	990	995	989	992	
20	989	990	990	989	989	989	989	989	989	989	989	990	990	990	989	989	989	989	989	990	989	989	989	989	990	989	989	
21	989	989	989	988	987	987	986	986	986	985	985	985	985	983	982	981	982	982	982	982	982	982	982	983	989	981	985	
22	984	984	985	985	985	986	987	987	988	988	989	990	990	991	991	992	992	992	993	994	994	995	995	996	996	984	990	
23	996	996	997	997	997	997	998	998	998	999	999	999	999	999	999	999	999	1000	1000	1000	1000	1001	1001	1001	1001	996	999	
24	1002	1002	1002	1002	1003	1003	1003	1004	1004	1005	1005	1005	1006	1006	1006	1007	1007	1007	1008	1008	1008	1009	1009	1009	1009	1002	1005	
25	1008	1009	1009	1009	1009	1009	1009	1009	1008	1008	1008	1008	1008	1007	1007	1006	1006	1005	1005	1004	1004	1003	1003	1002	1002	1009	1002	1007
26	1002	1001	1001	1000	1000	999	999	998	998	998	998	998	997	997	997	996	996	996	996	997	996	997	997	997	1002	996	998	
27	997	998	998	998	998	998	998	998	998	998	999	999	1000	1000	1000	1001	1001	1001	1002	1003	1003	1004	1005	1005	1006	1006	997	1000
28	1007	1007	1008	1008	1009	1009	1009	1010	1010	1011	1011	1013	1012	1012	1011	1012	1011	1012	1011	1011	1012	1012	1012	1012	1013	1007	1011	
29	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1013	1012	1012	1012	1013	1012	1012	
Max.	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1013	1012	1012	1012	1012	1012	1012	1012	1012	1013	1012	1012	1012	1013			
Min.	974	974	974	975	976	977	978	980	982	983	980	979	978	978	976	976	975	975	974	974	974	974	973	974		973		
Avg.	999	999	999	998	999	998	998	998	998	998	998	999	998	998	998	998	998	998	998	998	999	999	999	999			999	

Total Hours in Month 696 **Hours Data Available** 696 **Data Recovery** 100%

Rock Creek - Barometric Pressure (mbar)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1013	1012	1012	1012	1012	1011	1011	1011	1010	1009	1010	1010	1010	1010	1010	1010	1009	1009	1007	1007	1007	1007	1007	1006	1013	1006	1010	
2	1005	1004	1003	1003	1002	1001	1000	1000	999	998	998	997	996	996	995	994	993	993	993	992	992	992	992	992	992	1005	992	997
3	992	992	992	992	992	992	991	991	992	992	992	992	992	993	993	992	992	992	992	992	993	993	993	993	993	993	991	992
4	993	993	993	993	992	992	992	992	992	992	992	992	992	992	992	992	991	991	991	992	992	992	992	993	993	993	991	992
5	993	993	993	993	994	994	994	994	994	994	995	995	996	996	996	995	995	995	996	996	996	997	997	998	998	993	995	
6	998	998	998	998	998	998	998	998	998	999	999	999	999	1000	999	999	1000	999	999	999	1000	1000	1000	1000	1000	1000	998	999
7	1001	1001	1001	1001	1002	1002	1002	1003	1003	1004	1004	1004	1006	1005	1005	1005	1006	1005	1006	1006	1006	1006	1007	1007	1008	1008	1001	1004
8	1007	1007	1007	1007	1007	1007	1007	1006	1006	1006	1006	1006	1006	1006	1005	1005	1004	1004	1004	1003	1003	1003	1003	1003	1003	1007	1003	1005
9	1003	1002	1001	1001	1000	999	998	996	995	995	995	994	993	990	989	987	986	986	987	986	986	985	984	985	1003	984	993	
10	986	986	986	987	987	988	988	989	989	989	990	991	991	991	991	991	992	992	992	992	992	993	993	993	994	994	986	990
11	994	995	995	995	995	996	996	996	997	997	997	998	999	999	998	998	998	999	999	999	999	1000	1000	1000	1000	1000	994	997
12	1001	1001	1001	1001	1001	1002	1002	1003	1003	1003	1004	1004	1004	1004	1004	1003	1003	1003	1003	1003	1003	1002	1002	1002	1002	1004	1001	1003
13	1001	1000	1001	1002	1003	1003	1002	1002	1002	1002	1002	1002	1001	1001	1000	999	999	998	997	997	996	995	995	994	1003	994	1000	
14	993	993	992	992	991	991	991	991	991	991	991	991	991	991	991	991	991	991	991	991	991	992	992	992	992	993	991	991
15	993	993	993	993	993	993	993	994	994	995	995	996	996	996	996	996	996	997	997	998	998	999	999	999	999	999	993	996
16	1000	1000	1001	1001	1002	1002	1003	1003	1004	1004	1005	1005	1006	1007	1007	1007	1007	1008	1008	1009	1010	1011	1012	1012	1012	1012	1000	1006
17	1013	1014	1014	1015	1016	1017	1018	1018	1019	1020	1021	1022	1023	1023	1025	1025	1025	1026	1027	1027	1027	1027	1027	1028	1028	1028	1013	1022
18	1028	1029	1029	1029	1030	1031	1032	1032	1032	1032	1033	1033	1034	1034	1033	1033	1033	1033	1033	1032	1032	1032	1032	1032	1031	1034	1028	1032
19	1032	1033	1033	1033	1033	1033	1033	1033	1034	1034	1034	1034	1035	1035	1035	1034	1034	1034	1034	1034	1034	1034	1035	1035	1035	1035	1032	1034
20	1035	1035	1034	1034	1034	1033	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1035	1035	1034	1034	1035	1033	1034
21	1034	1034	1034	1034	1033	1033	1032	1032	1032	1032	1031	1030	1030	1029	1028	1027	1026	1025	1024	1023	1023	1023	1022	1022	1034	1022	1029	
22	1021	1021	1020	1020	1019	1019	1018	1018	1018	1018	1017	1017	1016	1016	1016	1014	1014	1013	1012	1012	1012	1011	1011	1010	1021	1010	1016	
23	1010	1009	1009	1009	1009	1009	1009	1009	1009	1009	1008	1009	1009	1008	1008	1007	1006	1007	1006	1006	1006	1006	1007	1007	1007	1010	1006	1008
24	1006	1006	1006	1005	1005	1005	1005	1005	1005	1005	1005	1005	1004	1005	1005	1005	1005	1007	1008	1008	1009	1010	1010	1011	1011	1011	1004	1006
25	1012	1012	1012	1013	1013	1013	1013	1013	1013	1013	1013	1012	1012	1012	1011	1010	1010	1010	1010	1010	1010	1009	1010	1010	1010	1013	1009	1011
26	1010	1010	1010	1010	1010	1010	1009	1010	1010	1010	1010	1010	1010	1012	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1012	1009	1010
27	1010	1010	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1010	1010	1009	1009	1009	1009	1009	1010	1010	1010	1010	1011	1011	1011	1009	1010
28	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1010	1010	1010	1011	1012	1010	1010	1011	1010	1010	1011	1011	1011	1011	1012	1010	1011
29	1011	1010	1011	1010	1010	1010	1010	1010	1009	1010	1009	1009	1009	1008	1006	1010	1008	1007	1007	1007	1007	1007	1007	1006	1006	1011	1006	1009
30	1006	1006	1006	1006	1006	1006	1007	1007	1007	1008	1008	1009	1004	1007	1010	1009	1008	1009	1009	1009	1010	1010	1010	1011	1011	1011	1004	1008
31	1011	1011	1011	1011	1012	1012	1012	1013	1013	1013	1014	1014	1015	1016	1016	1016	1016	1016	1017	1018	1018	1019	1019	1020	1020	1011	1015	
Max.	1035	1035	1034	1034	1034	1033	1034	1034	1034	1034	1034	1034	1035	1035	1035	1034	1034	1034	1034	1034	1034	1035	1035	1035	1035	1035		
Min.	986	986	986	987	987	988	988	989	989	989	990	991	991	990	989	987	986	986	987	986	986	985	984	985		984		
Avg.	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1008	1007	1008	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007			1007	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

January 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	0	0	2	11	21	24	21	4	0	0	0	0	0	0	0	24	0	3
2	0	0	0	0	0	0	0	0	0	0	0	2	7	19	14	5	1	0	0	0	0	0	0	0	19	0	2
3	0	0	0	0	0	0	0	0	0	0	0	2	12	32	32	16	2	0	0	0	0	0	0	0	32	0	4
4	0	0	0	0	0	0	0	0	0	0	0	3	9	28	24	15	2	0	0	0	0	0	0	0	28	0	3
5	0	0	0	0	0	0	0	0	0	0	0	2	8	56	70	34	6	0	0	0	0	0	0	0	70	0	7
6	0	0	0	0	0	0	0	0	0	0	0	4	23	54	55	32	8	0	0	0	0	0	0	0	55	0	7
7	0	0	0	0	0	0	0	0	0	0	0	3	21	61	64	38	7	0	0	0	0	0	0	0	64	0	8
8	0	0	0	0	0	0	0	0	0	0	0	3	24	37	42	27	5	0	0	0	0	0	0	0	42	0	6
9	0	0	0	0	0	0	0	0	0	0	0	3	35	56	59	35	6	0	0	0	0	0	0	0	59	0	8
10	0	0	0	0	0	0	0	0	0	0	0	3	12	31	37	11	4	0	0	0	0	0	0	0	37	0	4
11	0	0	0	0	0	0	0	0	0	0	0	3	15	25	23	18	4	0	0	0	0	0	0	0	25	0	4
12	0	0	0	0	0	0	0	0	0	0	0	3	21	46	82	56	13	0	0	0	0	0	0	0	82	0	9
13	0	0	0	0	0	0	0	0	0	0	0	4	31	75	80	41	6	0	0	0	0	0	0	0	80	0	10
14	0	0	0	0	0	0	0	0	0	0	0	5	34	79	85	58	16	0	0	0	0	0	0	0	85	0	12
15	0	0	0	0	0	0	0	0	0	0	0	4	13	26	19	10	5	0	0	0	0	0	0	0	26	0	3
16	0	0	0	0	0	0	0	0	0	0	0	7	19	31	31	22	6	1	0	0	0	0	0	0	31	0	5
17	0	0	0	0	0	0	0	0	0	0	0	4	26	44	41	33	16	1	0	0	0	0	0	0	44	0	7
18	0	0	0	0	0	0	0	0	0	0	0	4	28	46	46	37	17	1	0	0	0	0	0	0	46	0	7
19	0	0	0	0	0	0	0	0	0	0	0	7	52	96	105	75	27	2	0	0	0	0	0	0	105	0	15
20	0	0	0	0	0	0	0	0	0	0	0	10	29	33	47	33	11	1	0	0	0	0	0	0	47	0	7
21	0	0	0	0	0	0	0	0	0	0	0	6	24	41	46	31	10	1	0	0	0	0	0	0	46	0	7
22	0	0	0	0	0	0	0	0	0	0	0	11	35	49	41	32	20	2	0	0	0	0	0	0	49	0	8
23	0	0	0	0	0	0	0	0	0	0	0	9	40	55	66	37	22	2	0	0	0	0	0	0	66	0	10
24	0	0	0	0	0	0	0	0	0	0	1	12	81	163	122	36	14	1	0	0	0	0	0	0	163	0	18
25	0	0	0	0	0	0	0	0	0	0	1	18	85	130	137	111	51	5	0	0	0	0	0	0	137	0	22
26	0	0	0	0	0	0	0	0	0	0	1	21	92	137	146	120	57	7	0	0	0	0	0	0	146	0	24
27	0	0	0	0	0	0	0	0	0	0	1	23	102	184	214	114	27	4	0	0	0	0	0	0	214	0	28
28	0	0	0	0	0	0	0	0	0	0	1	8	29	66	70	56	28	4	0	0	0	0	0	0	70	0	11
29	0	0	0	0	0	0	0	0	0	0	2	32	109	151	159	135	73	12	0	0	0	0	0	0	159	0	28
30	0	0	0	0	0	0	0	0	0	0	3	36	111	152	160	137	77	13	0	0	0	0	0	0	160	0	29
31	0	0	0	0	0	0	0	0	0	0	2	38	115	155	163	139	81	16	0	0	0	0	0	0	163	0	30
Max.	0	0	0	0	0	0	0	0	0	0	3	38	115	184	214	139	81	16	0	0	0	0	0	0	214		
Min.	0	0	0	0	0	0	0	0	0	0	0	2	7	19	14	5	1	0	0	0	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	0	0	0	0	9	40	70	74	50	20	2	0	0	0	0	0	0			11

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

February 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	0	2	35	119	161	170	146	87	17	0	0	0	0	0	0	170	0	31
2	0	0	0	0	0	0	0	0	0	0	3	43	125	167	176	152	93	21	1	0	0	0	0	0	176	0	32
3	0	0	0	0	0	0	0	0	0	0	2	41	134	185	172	92	103	24	1	0	0	0	0	0	185	0	31
4	0	0	0	0	0	0	0	0	0	0	3	52	138	179	187	161	103	25	1	0	0	0	0	0	187	0	35
5	0	0	0	0	0	0	0	0	0	0	5	64	142	183	190	165	110	29	1	0	0	0	0	0	190	0	37
6	0	0	0	0	0	0	0	0	0	0	6	73	151	191	200	175	111	29	1	0	0	0	0	0	200	0	39
7	0	0	0	0	0	0	0	0	0	0	7	76	149	187	196	173	119	36	2	0	0	0	0	0	196	0	39
8	0	0	0	0	0	0	0	0	0	0	5	57	79	90	57	52	29	15	3	0	0	0	0	0	90	0	16
9	0	0	0	0	0	0	0	0	0	0	3	23	61	193	178	79	44	17	2	0	0	0	0	0	193	0	25
10	0	0	0	0	0	0	0	0	0	0	4	34	43	44	49	72	47	15	2	0	0	0	0	0	72	0	13
11	0	0	0	0	0	0	0	0	0	0	6	24	61	79	162	118	63	25	2	0	0	0	0	0	162	0	22
12	0	0	0	0	0	0	0	0	0	0	7	48	101	100	104	107	96	34	2	0	0	0	0	0	107	0	25
13	0	0	0	0	0	0	0	0	0	0	12	48	111	145	139	113	62	32	3	0	0	0	0	0	145	0	28
14	0	0	0	0	0	0	0	0	0	0	17	56	102	168	139	71	28	14	2	0	0	0	0	0	168	0	25
15	0	0	0	0	0	0	0	0	0	1	11	43	101	109	105	102	97	46	5	0	0	0	0	0	109	0	26
16	0	0	0	0	0	0	0	0	0	2	25	110	144	219	262	235	177	84	6	0	0	0	0	0	262	0	53
17	0	0	0	0	0	0	0	0	0	2	40	145	217	262	272	244	185	99	7	0	0	0	0	0	272	0	61
18	0	0	0	0	0	0	0	0	0	2	45	151	224	269	279	251	192	106	9	0	0	0	0	0	279	0	64
19	0	0	0	0	0	0	0	0	0	2	53	164	235	184	271	240	198	109	11	0	0	0	0	0	271	0	61
20	0	0	0	0	0	0	0	0	0	3	26	63	95	117	134	125	92	45	7	0	0	0	0	0	134	0	29
21	0	0	0	0	0	0	0	0	0	3	30	89	122	247	288	279	148	82	18	0	0	0	0	0	288	0	54
22	0	0	0	0	0	0	0	0	0	2	18	56	71	92	82	143	102	45	9	0	0	0	0	0	143	0	26
23	0	0	0	0	0	0	0	0	0	5	39	87	93	127	112	101	67	38	11	0	0	0	0	0	127	0	28
24	0	0	0	0	0	0	0	0	0	5	86	219	305	307	347	333	269	91	32	1	0	0	0	0	347	0	83
25	0	0	0	0	0	0	0	0	0	4	28	60	98	127	143	145	109	57	15	1	0	0	0	0	145	0	33
26	0	0	0	0	0	0	0	0	0	8	61	103	147	156	175	163	124	74	21	1	0	0	0	0	175	0	43
27	0	0	0	0	0	0	0	0	0	10	52	127	188	211	169	170	169	145	40	2	0	0	0	0	211	0	53
28	0	0	0	0	0	0	0	0	0	12	117	215	287	333	333	287	237	152	47	3	0	0	0	0	333	0	84
29	0	0	0	0	0	0	0	0	0	16	73	128	159	256	234	301	147	64	22	1	0	0	0	0	301	0	58
Max.	0	0	0	0	0	0	0	0	0	16	117	219	305	333	347	333	269	152	47	3	0	0	0	0	347		
Min.	0	0	0	0	0	0	0	0	0	0	2	23	43	44	49	52	28	14	0	0	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	0	0	3	27	84	138	175	184	165	117	54	10	0	0	0	0	0			40

Total Hours in Month 696

Hours Data Available 696

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

March 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0	0	0	0	0	0	0	0	0	13	91	167	131	207	134	141	96	64	26	2	0	0	0	0	207	0	45	
2	0	0	0	0	0	0	0	0	0	12	52	114	138	146	163	155	106	64	32	3	0	0	0	0	163	0	41	
3	0	0	0	0	0	0	0	0	0	1	22	68	168	222	168	193	165	124	80	44	5	0	0	0	0	222	0	52
4	0	0	0	0	0	0	0	0	0	1	16	67	164	196	208	201	191	140	95	51	7	0	0	0	0	208	0	56
5	0	0	0	0	0	0	0	0	0	2	20	157	263	343	391	401	371	304	210	93	7	0	0	0	0	401	0	107
6	0	0	0	0	0	0	0	0	0	2	46	173	276	354	401	408	376	309	216	99	7	0	0	0	0	408	0	111
7	0	0	0	0	0	0	0	0	0	3	52	177	279	359	404	412	381	313	219	106	8	0	0	0	0	412	0	113
8	0	0	0	0	0	0	0	0	0	3	58	183	286	367	413	421	390	323	228	115	8	0	0	0	0	421	0	117
9	0	0	0	0	0	0	0	0	0	4	67	196	300	379	425	432	401	335	238	122	10	0	0	0	0	432	0	121
10	0	0	0	0	0	0	0	0	0	3	28	74	158	204	243	280	231	127	91	45	9	0	0	0	0	280	0	62
11	0	0	0	0	0	0	0	0	0	3	31	60	157	198	274	222	220	156	106	58	16	0	0	0	0	274	0	63
12	0	0	0	0	0	0	0	0	0	4	35	85	150	197	229	230	244	174	103	53	18	0	0	0	0	244	0	63
13	0	0	0	0	0	0	0	0	0	6	45	105	177	247	284	296	230	223	144	74	22	1	0	0	0	296	0	77
14	0	0	0	0	0	0	0	0	0	8	48	144	234	272	268	249	184	223	154	91	22	1	0	0	0	272	0	79
15	0	0	0	0	0	0	0	0	0	8	56	118	184	231	277	319	331	230	162	77	26	1	0	0	0	331	0	84
16	0	0	0	0	0	0	0	0	0	9	43	117	153	208	326	266	260	204	148	79	24	1	0	0	0	326	0	77
17	0	0	0	0	0	0	0	0	0	16	116	248	352	433	479	480	433	369	272	163	40	2	0	0	0	480	0	142
18	0	0	0	0	0	0	0	0	1	20	125	236	346	434	482	489	449	344	230	118	22	1	0	0	0	489	0	137
19	0	0	0	0	0	0	0	0	0	16	81	233	337	423	474	478	362	271	273	116	38	2	0	0	0	478	0	129
20	0	0	0	0	0	0	0	0	0	16	59	104	143	176	197	195	182	167	102	80	18	2	0	0	0	197	0	60
21	0	0	0	0	0	0	0	0	1	20	68	143	231	284	328	309	267	211	155	80	30	3	0	0	0	328	0	89
22	0	0	0	0	0	0	0	0	2	20	91	239	291	386	461	492	469	397	293	178	60	5	0	0	0	492	0	141
23	0	0	0	0	0	0	0	0	3	36	165	290	397	479	522	527	491	419	319	201	71	6	0	0	0	527	0	164
24	0	0	0	0	0	0	0	0	3	45	181	303	410	491	534	544	511	438	334	214	79	6	0	0	0	544	0	171
25	0	0	0	0	0	0	0	0	4	53	197	317	423	503	545	548	511	439	337	218	85	6	0	0	0	548	0	174
26	0	0	0	0	0	0	0	0	4	60	208	334	427	508	553	552	521	445	342	223	91	7	0	0	0	553	0	178
27	0	0	0	0	0	0	0	0	4	46	170	302	442	496	576	563	526	442	352	224	93	10	0	0	0	576	0	177
28	0	0	0	0	0	0	0	0	6	75	212	335	441	521	564	568	532	458	353	229	99	11	0	0	0	568	0	183
29	0	0	0	0	0	0	0	0	7	45	160	247	379	443	426	536	489	441	294	174	60	10	0	0	0	536	0	155
30	0	0	0	0	0	0	0	0	8	89	222	346	452	533	573	576	538	466	363	239	110	12	0	0	0	576	0	189
31	0	0	0	0	0	0	0	0	10	59	148	289	429	515	574	555	517	376	375	245	106	13	0	0	0			
Max.	0	0	0	0	0	0	0	0	10	89	222	346	452	533	576	576	538	466	375	245	110	13	0	0	0	576		
Min.	0	0	0	0	0	0	0	0	0	0	12	52	114	131	146	134	141	96	64	26	2	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	0	2	22	90	188	282	344	385	388	357	293	217	125	39	3	0	0	0			113

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - 2-m Temperature (deg. C)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-21.8	-21.3	-20.8	-20.5	-20.6	-20.8	-21.3	-21.9	-22.6	-22.4	-21.3	-20.6	-19.6	-19.0	-18.6	-18.6	-18.4	-18.4	-18.3	-18.7	-20.6	-20.5	-21.5	-21.9	-18.3	-22.6	-20.4
2	-22.3	-23.6	-22.9	-23.8	-23.5	-21.4	-22.2	-20.8	-19.6	-17.2	-16.3	-14.4	-12.7	-12.1	-11.3	-11.4	-11.4	-12.6	-13.6	-14.8	-14.8	-15.5	-16.5	-16.4	-11.3	-23.8	-17.1
3	-16.3	-16.1	-15.2	-16.4	-15.9	-15.5	-15.7	-17.3	-16.4	-15.4	-15.5	-14.2	-13.5	-12.4	-12.0	-11.7	-11.5	-11.9	-12.3	-13.2	-14.6	-15.9	-17.3	-17.1	-11.5	-17.3	-14.7
4	-17.0	-18.5	-18.5	-17.9	-17.8	-17.5	-16.7	-17.3	-16.8	-15.5	-14.1	-12.6	-11.6	-10.4	-9.9	-9.3	-8.4	-8.3	-8.3	-9.0	-9.7	-9.4	-8.7	-7.9	-7.9	-18.5	-13.0
5	-6.7	-6.7	-5.8	-4.1	-3.5	-2.4	-2.1	-2.0	-2.0	-2.2	-1.1	-0.3	0.4	0.3	0.9	1.0	0.7	1.6	1.6	1.9	2.2	2.0	2.7	3.2	3.2	-6.7	-0.9
6	2.8	2.8	2.5	2.5	2.1	1.6	0.9	1.4	1.3	1.7	2.4	2.6	3.3	4.0	4.0	4.0	3.7	4.1	3.5	3.2	3.1	2.9	2.7	2.7	4.1	0.9	2.7
7	3.2	2.3	2.3	3.3	4.1	4.4	3.9	3.2	2.9	3.4	4.3	4.9	5.2	5.7	5.8	5.6	5.7	4.6	3.8	3.0	2.4	2.6	3.4	3.9	5.8	2.3	3.9
8	3.5	2.4	3.0	2.9	1.8	1.0	1.2	2.2	1.8	1.9	1.8	1.5	1.4	1.8	1.6	1.8	2.2	2.3	2.5	2.8	2.7	2.5	2.7	3.0	3.5	1.0	2.2
9	1.4	1.8	3.2	3.8	3.8	3.8	4.0	3.8	4.0	4.0	4.7	5.2	5.0	4.6	4.3	4.4	4.8	4.5	5.3	4.4	3.7	3.4	3.3	3.0	5.3	1.4	3.9
10	2.7	2.6	2.5	2.1	1.7	1.4	1.2	1.0	1.1	1.1	1.1	1.3	1.8	2.1	2.4	2.7	2.5	2.6	2.3	1.5	1.6	1.6	1.6	1.8	2.7	1.0	1.8
11	1.8	1.6	1.5	1.5	1.0	0.8	0.8	0.8	0.7	1.0	1.0	1.2	1.2	1.4	1.5	1.6	1.8	2.0	2.0	1.9	2.0	2.2	2.2	1.9	2.2	0.7	1.5
12	1.7	1.5	2.4	2.9	3.6	3.7	3.9	3.9	3.9	4.3	5.2	5.2	5.2	5.3	5.3	5.3	5.4	5.7	5.5	4.9	3.8	3.3	2.6	2.5	5.7	1.5	4.0
13	2.4	2.4	2.4	2.6	2.2	1.5	1.0	0.8	1.4	1.7	1.8	1.5	1.7	1.6	1.4	1.4	2.2	2.1	1.8	1.5	1.2	0.7	0.8	0.6	2.6	0.6	1.6
14	0.3	0.2	0.2	0.0	-0.4	-0.8	-0.7	-0.6	0.0	0.8	1.3	0.6	1.0	0.9	1.0	1.4	1.0	0.7	0.4	0.1	0.1	0.2	0.5	0.5	1.4	-0.8	0.4
15	0.9	0.9	1.0	1.6	1.7	2.0	2.3	2.5	2.2	2.4	2.4	2.0	1.8	1.9	2.1	2.2	2.0	2.3	2.8	2.0	2.0	1.8	2.1	1.8	2.8	0.9	1.9
16	1.4	1.3	1.1	0.9	0.6	0.5	0.4	0.1	0.0	0.1	-0.2	-0.2	-0.2	-0.1	0.0	0.0	0.1	0.3	0.2	0.0	-0.3	-0.5	-0.6	-0.5	1.4	-0.6	0.2
17	-0.6	-0.6	-0.5	-0.5	-0.6	-0.7	-1.2	-1.6	-2.0	-2.3	-1.8	0.6	2.1	2.7	2.8	2.8	2.8	2.9	2.7	2.2	1.3	0.4	0.4	0.7	2.9	-2.3	0.5
18	0.4	-0.1	0.0	0.3	0.9	0.4	0.1	-0.1	0.4	1.1	1.7	2.5	2.5	2.4	2.6	2.8	3.0	2.9	2.7	2.7	2.0	1.3	1.4	1.5	3.0	-0.1	1.5
19	2.2	1.6	1.5	1.0	0.9	1.4	1.1	1.5	1.2	0.4	0.8	1.3	1.5	0.5	1.0	1.1	1.1	0.3	-0.7	-0.7	-0.8	-1.3	-1.4	-2.0	2.2	-2.0	0.6
20	-2.3	-2.4	-2.7	-3.6	-5.0	-4.4	-4.6	-3.5	-1.8	-0.5	0.1	-0.4	0.0	-0.1	0.9	1.0	1.1	0.8	0.5	0.4	0.3	0.0	-0.3	-0.4	1.1	-5.0	-1.1
21	-0.4	-0.5	-0.5	-0.6	-0.7	-0.7	-0.7	-0.7	-0.5	-0.3	0.4	0.7	2.0	2.2	2.2	2.5	3.3	3.6	3.3	2.5	1.0	-1.0	-1.8	-2.3	3.6	-2.3	0.5
22	-2.4	-2.5	-2.5	-3.4	-3.9	-3.6	-3.1	-2.5	-1.5	0.1	1.7	2.9	3.3	3.5	3.1	3.4	3.6	3.2	2.3	1.2	-0.2	-0.8	-0.7	-1.3	3.6	-3.9	0.0
23	-2.1	-1.2	-2.2	-2.0	-2.0	-1.5	-1.9	-0.9	-0.5	1.1	2.3	2.4	2.8	3.4	3.4	2.8	2.4	1.7	1.6	0.3	-0.6	-0.9	-1.8	-3.1	3.4	-3.1	0.2
24	-3.3	-3.2	-3.5	-3.5	-4.3	-5.6	-6.9	-6.5	-5.5	-4.9	-3.9	-2.9	-2.1	-2.5	-2.6	-2.2	-1.8	-1.9	-1.6	-2.3	-2.7	-3.2	-3.6	-3.8	-1.6	-6.9	-3.5
25	-4.8	-4.6	-4.7	-5.0	-5.4	-5.9	-6.4	-6.4	-6.6	-6.5	-5.9	-4.9	-3.9	-3.0	-2.5	-2.5	-2.5	-2.9	-2.9	-3.4	-3.9	-4.4	-4.3	-3.7	-2.5	-6.6	-4.5
26	-2.1	-2.0	-1.7	-1.4	-1.2	-1.5	-1.3	-1.0	-0.9	-0.6	-0.1	0.0	-0.2	0.0	-0.2	0.0	-0.4	-0.3	-0.1	-0.1	-0.3	-0.4	-0.2	0.0	0.0	-2.1	-0.7
27	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	-0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	-0.6	-1.6	-1.9	-2.1	0.1	-2.1	-0.3
28	-2.0	-1.8	-1.6	-1.5	-1.9	-2.1	-2.4	-2.3	-1.6	-1.6	-1.4	-0.5	-0.3	-0.8	-0.6	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.7	-0.9	-0.2	-2.4	-1.1
29	-0.7	-0.8	-0.8	-1.0	-0.9	-0.7	-1.6	-2.6	-1.3	0.5	1.4	2.4	3.2	4.3	5.3	5.7	5.9	6.0	5.6	4.9	4.1	2.6	2.3	1.6	6.0	-2.6	1.9
30	1.9	1.8	0.8	1.5	2.0	1.3	1.2	1.9	2.8	3.7	5.0	5.8	6.4	6.7	7.0	7.5	7.4	7.3	7.2	5.9	5.2	3.5	2.1	2.5	7.5	0.8	4.1
Max.	3.5	2.8	3.2	3.8	4.1	4.4	4.0	3.9	4.0	4.3	5.2	5.8	6.4	6.7	7.0	7.5	7.4	7.3	7.2	5.9	5.2	3.5	3.4	3.9	7.5		
Min.	-22.3	-23.6	-22.9	-23.8	-23.5	-21.4	-22.2	-21.9	-22.6	-22.4	-21.3	-20.6	-19.6	-19.0	-18.6	-18.6	-18.4	-18.4	-18.3	-18.7	-20.6	-20.5	-21.5	-21.9		-23.8	
Avg.	-2.6	-2.7	-2.6	-2.6	-2.7	-2.7	-2.9	-2.8	-2.5	-2.0	-1.4	-0.9	-0.4	-0.2	0.0	0.2	0.3	0.2	0.0	-0.5	-1.0	-1.5	-1.7	-1.7			-1.5

Total Hours in Month	720	Hours Data Available	720	Data Recovery	100%
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Rock Creek - 2-m Temperature (deg. C)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.8	1.8	2.6	4.5	4.2	1.2	3.7	4.2	5.8	7.2	8.5	9.5	10.3	10.8	11.8	11.5	11.1	11.0	11.0	10.6	9.6	8.9	8.6	8.2	11.8	1.2	7.4
2	7.0	7.2	5.7	7.0	5.9	5.5	6.0	6.3	7.6	8.5	9.7	11.3	11.5	11.7	12.3	12.9	13.3	13.4	13.1	12.2	10.2	7.9	5.1	4.7	13.4	4.7	9.0
3	3.9	2.0	2.8	2.4	1.0	1.5	1.4	2.4	5.9	9.1	11.2	11.8	12.0	12.5	13.7	13.9	14.1	14.0	13.2	11.7	7.5	6.6	4.6	3.7	14.1	1.0	7.6
4	2.9	1.2	1.4	0.4	-0.4	-0.3	0.1	0.6	3.7	5.3	7.6	9.1	9.8	9.6	8.3	8.4	8.8	9.1	9.0	7.0	5.4	3.8	2.5	1.9	9.8	-0.4	4.8
5	1.2	0.8	0.6	1.0	2.0	2.3	2.6	3.2	3.3	3.6	3.6	3.8	3.8	4.1	4.3	3.3	3.5	4.0	4.0	4.1	4.1	3.3	3.5	3.9	4.3	0.6	3.1
6	4.4	4.1	4.0	3.7	3.2	2.9	2.8	2.6	2.3	1.9	1.6	1.3	1.0	1.3	1.0	1.1	1.9	2.6	1.8	2.4	2.7	2.5	1.8	1.6	4.4	1.0	2.3
7	1.9	2.3	3.2	3.9	4.3	4.2	4.0	3.7	3.9	4.2	4.5	4.6	4.7	4.6	5.3	5.8	5.5	5.8	5.6	4.5	4.1	3.9	3.7	3.4	5.8	1.9	4.2
8	3.1	1.9	1.5	0.8	0.5	0.3	0.1	0.5	1.1	1.4	1.0	0.9	1.8	1.9	2.1	2.0	1.3	0.6	0.3	0.0	0.0	0.0	-0.1	-0.2	3.1	-0.2	0.9
9	-0.4	-0.4	-0.6	-1.0	-1.0	-0.5	-0.2	0.0	0.4	0.6	0.5	0.6	0.8	0.9	0.9	1.0	1.0	1.0	1.6	1.8	1.1	0.6	0.5	1.1	1.8	-1.0	0.4
10	1.4	1.9	1.7	0.8	0.4	0.4	0.5	0.6	0.7	1.5	1.7	1.9	2.1	1.9	1.7	1.9	1.4	1.3	1.2	0.9	0.7	0.6	0.5	0.6	2.1	0.4	1.2
11	0.6	0.5	0.5	0.3	0.0	-0.3	-0.5	-1.2	-1.0	-0.6	-0.5	-0.6	-0.1	0.5	1.1	1.9	2.8	3.0	3.3	3.0	2.7	2.0	1.6	1.3	3.3	-1.2	0.8
12	1.2	1.2	1.1	1.1	0.8	1.0	1.4	2.2	3.0	3.9	5.0	5.8	6.9	7.1	7.5	7.4	7.5	7.4	6.5	5.8	4.0	3.8	4.3	3.7	7.5	0.8	4.1
13	2.8	3.1	4.6	4.7	3.9	4.6	5.3	5.4	6.3	6.9	7.5	8.0	7.5	7.1	5.4	4.6	3.0	1.8	1.7	2.0	2.1	2.0	1.9	2.2	8.0	1.7	4.4
14	1.9	1.7	2.0	2.1	2.2	2.2	2.7	3.0	2.9	2.6	2.8	3.5	5.0	5.9	5.5	5.3	6.1	7.1	7.1	7.4	7.4	6.3	5.5	5.3	7.4	1.7	4.3
15	5.9	6.2	6.8	5.8	5.5	5.3	6.0	7.9	9.0	8.5	6.9	5.4	4.9	5.2	6.7	7.8	7.0	6.7	5.5	5.2	5.2	4.7	4.4	4.1	9.0	4.1	6.1
16	3.0	4.7	5.0	4.9	4.8	5.1	5.2	4.5	4.3	4.3	4.2	4.8	5.5	5.5	5.6	5.2	5.0	5.7	5.4	5.0	4.9	4.2	4.0	3.4	5.7	3.0	4.8
17	3.0	1.8	1.6	1.4	1.3	1.7	2.4	2.8	3.0	3.3	2.4	3.2	3.5	3.1	3.5	3.3	3.6	3.7	3.9	3.9	3.6	3.3	3.1	2.9	3.9	1.3	2.9
18	2.9	2.9	2.6	2.3	2.2	2.2	2.3	2.2	2.1	1.9	2.0	2.4	2.5	2.5	2.5	2.3	2.1	1.9	1.7	1.4	1.0	0.7	0.4	0.4	2.9	0.4	2.0
19	0.3	-0.2	-0.7	-1.4	-1.5	-1.2	-1.1	-0.6	-0.4	0.0	0.3	1.1	1.4	1.2	0.9	1.3	1.6	2.4	3.7	3.9	3.3	2.7	2.0	1.7	3.9	-1.5	0.9
20	1.5	1.2	0.8	0.9	0.7	0.5	0.8	1.8	2.9	3.7	5.3	6.3	6.8	7.4	8.3	8.6	8.8	8.8	9.0	8.7	8.3	7.9	6.5	5.1	9.0	0.5	5.0
21	3.9	2.9	2.3	2.4	2.9	3.7	4.3	6.9	7.7	7.6	7.9	7.4	7.3	7.6	8.3	8.2	7.8	7.1	7.0	6.7	6.6	6.4	5.2	4.1	8.3	2.3	5.9
22	3.7	3.0	2.6	2.6	2.7	2.6	2.7	3.1	3.4	3.7	4.3	4.7	5.1	5.9	6.7	7.2	7.7	8.2	9.3	9.9	9.6	8.9	8.2	8.0	9.9	2.6	5.6
23	8.3	8.8	10.8	12.4	11.9	12.0	11.5	10.9	10.4	10.2	10.2	10.4	9.1	8.3	8.0	8.3	7.9	7.3	7.3	7.3	7.0	7.4	7.4	7.0	12.4	7.0	9.2
24	6.2	5.9	5.9	5.6	5.3	5.5	6.1	7.2	7.9	8.4	8.6	9.1	9.2	9.9	10.9	11.5	10.9	10.7	11.2	12.2	12.3	9.7	7.8	5.9	12.3	5.3	8.5
25	5.3	5.5	4.6	4.9	5.3	5.5	6.3	7.6	9.3	11.5	12.3	12.7	13.5	13.9	14.0	13.6	13.7	13.2	12.2	11.2	10.4	8.6	7.3	5.9	14.0	4.6	9.5
26	4.8	4.5	3.4	2.9	2.7	2.4	3.5											8.8	8.5	7.6	6.4	5.3	3.9	2.9	8.8	2.4	4.8
27	1.5	0.3	-0.4	0.0	0.3	0.6	1.9	3.3				7.9	6.8	6.6	7.1	9.4	9.2	9.8	8.8	8.3	6.8	5.0	3.5	1.6	9.8	-0.4	4.7
28	0.6	0.1	-0.3	-0.7	-1.0	-0.9	0.2	2.2	5.9	4.3	4.6	5.9	7.5	8.4	9.0	9.6	10.1	10.1	11.0	10.7	10.3	9.8	8.9	8.5	11.0	-1.0	5.6
29	7.8	7.4	6.8	6.4	6.1	6.1	6.9	7.6	7.3	7.7	8.5	9.6	8.6	8.8	10.7	11.2	11.0	11.0	12.2	12.0	10.7	9.9	8.7	6.4	12.2	6.1	8.7
30	5.0	3.4	2.1	1.8	0.7	1.5	3.1	6.9	9.5	11.7	13.3	14.8	16.2	16.6	16.2	16.5	17.0	17.0	16.2	16.2	15.6	14.9	13.6	11.3	17.0	0.7	10.9
31	10.8	9.5	10.1	9.2	8.3	7.9	7.7	7.8	8.4	8.0	6.7	6.4	7.2	8.4	9.3	9.1	9.1	11.0	11.7	12.0	12.0	11.2	8.6	7.2	12.0	6.4	9.1
Max.	10.8	9.5	10.8	12.4	11.9	12.0	11.5	10.9	10.4	11.7	13.3	14.8	16.2	16.6	16.2	16.5	17.0	17.0	16.2	16.2	15.6	14.9	13.6	11.3	17.0		
Min.	-0.4	-0.4	-0.7	-1.4	-1.5	-1.2	-1.1	-1.2	-1.0	-0.6	-0.5	-0.6	-0.1	0.5	0.9	1.0	1.0	0.6	0.3	0.0	0.0	0.0	-0.1	-0.2		-1.5	
Avg.	3.5	3.1	3.1	3.0	2.7	2.8	3.2	3.8	4.7	5.2	5.6	6.1	6.4	6.6	7.0	7.1	7.1	7.3	7.2	7.0	6.3	5.6	4.8	4.1			5.1

Total Hours in Month 744 Hours Data Available 731 Data Recovery 98.3%

Rock Creek - 2 -m Temperature (deg. C)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	5.4	3.5	3.4	3.2	2.1	3.0	5.2	9.9	13.1	14.3	15.7	16.0	16.1	16.6	16.4	16.1	16.6	17.2	17.1	16.1	14.5	13.3	11.8	10.5	17.2	2.1	11.5	
2	9.3	7.3	7.9	7.9	7.1	7.3	8.2	9.4	11.0	12.2	13.4	14.7	14.4	14.1	14.8	15.5	14.8	13.3	13.2	13.0	13.0	12.9	10.3	7.2	15.5	7.1	11.3	
3	5.3	4.2	3.5	3.0	4.1	3.7	5.6	7.3	9.9	12.1	12.0	12.7	12.3	12.4	12.6	12.6	13.4	12.6	13.5	12.1	13.1	12.3	10.1	6.8	13.5	3.0	9.5	
4	6.3	3.6	3.6	3.6	3.6	2.5	5.2	9.5	13.5	14.6	14.3	13.7	15.3	17.9	16.8	16.9	15.7	13.9	15.6	17.0	14.4	13.4	13.4	12.8	17.9	2.5	11.5	
5	12.7	12.5	10.1	11.4	10.4	11.2	12.6	14.3	15.4	16.9	18.6	20.4	22.4	24.0	24.5	24.5	24.6	24.7	24.4	23.5	22.5	21.0	18.8	15.9	24.7	10.1	18.2	
6	14.6	14.6	12.2	13.4	14.9	14.5	15.7	19.1	20.8	23.4	24.9	26.1	27.3	27.7	28.2	27.8	25.7	24.4	24.1	24.1	24.9	20.7	16.4	14.6	28.2	12.2	20.8	
7	12.6	14.7	16.8	20.8	21.2	21.1	21.8	22.2	23.1	25.4	26.9	28.2	28.8	29.2	28.7	27.4	27.0	29.0	28.0	23.3	23.8	21.9	21.0	20.8	29.2	12.6	23.5	
8	18.4	10.2	8.5	8.4	8.1	7.6	7.1	6.5	6.6	6.8	7.0	7.1	7.5	7.8	9.5	9.6	8.8	9.0	8.6	9.8	9.1	8.5	7.4	6.9	18.4	6.5	8.5	
9	6.8	6.5	6.5	6.6	6.7	6.6	7.1	7.6	8.6	9.0	10.8	12.1	12.8	14.6	15.5	16.0	15.4	15.4	15.0	14.5	13.8	13.2	12.0	10.4	16.0	6.5	11.0	
10	8.3	6.9	5.2	5.8	5.1	6.1	7.2	10.5	13.2	15.4	17.3	16.3	17.4	18.7	17.8	16.5	16.9	14.8	10.9	9.0	11.7	13.0	12.2	12.6	18.7	5.1	12.0	
11	12.3	10.2	9.2	7.3	6.4	7.0	9.4	12.1	15.2	16.7	17.1	18.2	19.7	20.5	21.6	22.5	20.8	20.8	22.1	21.8	21.4	18.5	18.2	14.8	22.5	6.4	16.0	
12	12.7	10.6	9.4	7.6	7.7	7.2	9.4	13.5	17.2	19.7	21.4	21.5	22.0	21.9	21.6	21.4	21.4	22.5	22.7	22.0	21.6	20.5	18.2	13.6	22.7	7.2	17.0	
13	9.6	8.2	7.4	6.4	5.4	5.5	7.3	11.4	15.3	17.9	18.5	18.4	18.6	18.1	17.2	16.2	15.5	14.6	13.0	11.5	9.9	7.7	6.1	4.7	18.6	4.7	11.8	
14	3.4	2.3	1.2	0.8	1.5	1.6	2.5	3.4	4.8	6.3	9.7	10.3	10.5	10.8	12.0	12.6	14.0	14.2	14.1	12.6	12.2	11.3	10.0	7.8	14.2	0.8	7.9	
15	7.0	6.2	6.7	6.8	6.5	6.0	6.5	7.9	9.8	13.6	13.9	14.3	15.3	16.3	16.3	16.0	15.4	16.4	17.2	17.4	17.0	16.1	14.4	11.5	17.4	6.0	12.3	
16	9.0	6.8	5.8	6.3	6.9	8.4	8.8	10.9	15.9	17.2	17.4	18.1	18.1	15.4	15.1	15.7	15.6	14.1	12.9	12.6	12.5	10.8	9.3	8.4	18.1	5.8	12.2	
17	7.1	6.0	5.7	5.8	5.9	6.0	6.3	6.7	7.2	7.7	8.5	9.9	10.8	11.5	11.7	11.8	11.6	11.1	10.6	10.4	10.1	9.5	8.5	7.3	11.8	5.7	8.6	
18	7.0	7.1	7.0	6.3	6.2	6.4	7.0	7.7	9.1	11.8	14.4	14.9	14.6	14.9	15.3	15.0	15.1	14.1	12.6	12.3	12.5	13.3	13.5	13.5	15.3	6.2	11.3	
19	13.4	13.0	12.6	11.1	10.6	11.0	10.8	11.7	12.2	12.4	12.0	12.4	12.7	12.5	12.2	11.8	13.4	14.2	13.5	12.8	11.9	11.9	11.2	10.6	14.2	10.6	12.2	
20	9.6	9.0	8.7	8.8	8.8	8.7	9.4	10.3	11.6	12.6	13.7	14.2	14.4	15.1	14.8	15.5	16.1	15.2	14.6	14.8	14.7	14.1	13.7	13.2	16.1	8.7	12.6	
21	12.5	12.2	12.7	13.0	12.5	12.0	12.0	12.2	13.9	13.8	14.3	14.7	15.8	14.9	14.9	14.9	13.1	12.2	12.9	12.7	11.8	11.2	10.8	10.2	15.8	10.2	13.0	
22	9.9	9.8	9.5	9.4	9.3	9.5	9.4	9.3	9.9	10.8	11.1	10.9	11.5	12.4	12.1	11.8	11.4	11.4	11.7	11.7	11.6	11.7	11.7	11.5	12.4	9.3	10.8	
23	11.4	11.3	11.4	11.4	10.4	9.9	9.7	9.6	9.2	8.9	8.4	8.5	8.7	7.8	8.0	8.9	9.5	10.1	10.0	9.8	9.3	8.0	7.9	7.8	11.4	7.8	9.4	
24	7.6	7.3	6.6	6.6	6.6	7.8	8.0	8.4	8.9	9.2	9.8	9.7	9.2	9.9	10.8	11.3	11.8	12.1	11.7	10.6	10.2	8.7	8.1	7.8	12.1	6.6	9.1	
25	7.4	7.3	7.3	7.2	7.3	7.2	7.6	8.0	8.4	8.8	8.7	8.4	7.7	8.1	8.4	8.4	8.4	8.6	8.7	8.7	8.6	8.5	8.2	7.9	8.8	7.2	8.1	
26	7.4	6.9	6.7	6.8	6.6	6.6	6.8	7.5	8.1	8.8	9.4	10.0	10.7	11.7	12.9	13.3	13.9	15.0	13.6	13.0	12.6	12.4	11.1	8.2	15.0	6.6	10.0	
27	6.4	4.8	3.5	2.7	2.0	2.4	4.4	8.0	11.8	15.1	17.3	17.7	17.4	19.0	20.0	19.6	20.0	22.4	22.5	22.1	21.5	20.2	18.2	15.0	22.5	2.0	13.9	
28	11.3	10.1	8.4	7.8	7.4	7.9	10.0	14.0	18.3	21.7	24.2	26.5	28.0	28.6	29.4	29.3	29.5	29.5	29.1	28.6	27.7	26.0	22.5	18.5	29.5	7.4	20.6	
29	14.6	13.2	13.6	10.8	9.7	11.2	11.4	14.9	19.0	22.3	23.9	25.6	27.2	26.7	26.4	28.2	27.3	25.7	26.9	26.5	26.4	23.3	21.0	18.7	28.2	9.7	20.6	
30	16.0	15.3	15.0	15.5	16.5	16.6	15.8	17.5	19.1	20.0	21.6	22.5	22.5	23.3	24.7	23.8	24.3	25.6	24.0	21.9	21.4	20.0	17.7	16.3	25.6	15.0	19.9	
Max.	18.4	15.3	16.8	20.8	21.2	21.1	21.8	22.2	23.1	25.4	26.9	28.2	28.8	29.2	29.4	29.3	29.5	29.5	29.1	28.6	27.7	26.0	22.5	20.8	29.5			
Min.	3.4	2.3	1.2	0.8	1.5	1.6	2.5	3.4	4.8	6.3	7.0	7.1	7.5	7.8	8.0	8.4	8.4	8.6	8.6	8.7	8.6	7.7	6.1	4.7		0.8		
Avg.	9.8	8.7	8.2	8.1	7.9	8.1	8.9	10.7	12.7	14.2	15.2	15.8	16.3	16.7	17.0	17.0	16.9	16.8	16.5	15.9	15.5	14.5	13.1	11.5				13.2

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - 10-m Temperature (deg. C)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-21.4	-21.1	-20.7	-20.3	-20.3	-20.5	-20.8	-21.5	-21.7	-22.0	-21.1	-20.5	-19.7	-19.2	-18.6	-18.7	-18.6	-18.5	-18.5	-18.6	-20.0	-19.9	-20.8	-21.0	-18.5	-22.0	-20.2
2	-21.1	-22.3	-21.6	-22.7	-22.4	-20.3	-21.4	-19.8	-18.7	-16.8	-16.0	-14.1	-12.4	-11.9	-11.1	-11.3	-11.3	-12.5	-13.4	-14.5	-14.5	-14.9	-15.5	-15.3	-11.1	-22.7	-16.5
3	-15.2	-15.1	-14.0	-15.4	-14.6	-14.1	-14.2	-16.2	-14.8	-14.3	-15.0	-14.0	-13.3	-12.5	-12.0	-11.8	-11.7	-11.9	-12.4	-13.1	-14.3	-14.8	-15.9	-16.1	-11.7	-16.2	-14.0
4	-16.0	-17.4	-17.6	-17.2	-17.2	-17.1	-16.3	-16.4	-16.3	-15.1	-14.0	-12.8	-11.7	-10.5	-9.9	-9.4	-8.6	-8.5	-8.3	-8.8	-9.3	-9.1	-8.4	-7.7	-7.7	-17.6	-12.6
5	-6.5	-6.3	-5.5	-3.7	-3.3	-2.1	-1.7	-1.7	-1.9	-2.2	-1.0	-0.4	0.2	0.2	0.8	1.0	0.8	1.7	1.8	2.3	2.6	2.6	3.1	3.7	3.7	-6.5	-0.6
6	3.4	3.5	3.2	3.1	2.8	2.4	1.5	2.0	1.7	2.0	2.7	3.0	3.7	4.5	4.4	4.3	4.0	4.4	3.8	3.6	3.7	3.5	3.4	3.7	4.5	1.5	3.3
7	3.7	3.5	2.9	4.0	4.6	5.2	4.9	4.1	3.6	3.8	4.9	5.2	5.5	5.9	5.9	6.0	5.9	5.3	4.4	4.0	3.1	3.7	4.1	4.8	6.0	2.9	4.5
8	4.4	3.1	3.5	3.5	2.1	1.4	1.4	2.5	2.2	2.2	1.9	1.7	1.5	1.9	1.9	2.0	2.5	2.6	3.0	3.3	3.2	3.2	3.5	3.9	4.4	1.4	2.6
9	1.9	2.3	4.0	4.6	4.8	4.8	5.0	4.5	4.6	4.5	4.9	5.2	5.3	5.1	4.7	4.7	5.1	5.0	5.8	5.0	4.3	3.9	3.9	3.5	5.8	1.9	4.5
10	3.1	3.0	2.8	2.4	1.9	1.6	1.3	1.1	1.1	1.1	1.1	1.3	1.8	2.2	2.5	2.8	2.6	2.8	2.5	1.6	1.7	1.7	1.8	2.1	3.1	1.1	2.0
11	2.0	1.8	1.7	1.7	1.1	0.9	0.8	0.9	0.7	1.0	1.0	1.1	1.1	1.3	1.4	1.5	1.7	1.8	1.9	1.9	2.1	2.4	2.5	2.2	2.5	0.7	1.5
12	2.1	2.1	3.1	3.5	4.2	4.5	4.6	4.6	4.4	4.7	5.4	5.4	5.5	5.6	5.6	5.5	5.3	5.5	5.4	5.1	4.1	3.9	3.2	3.1	5.6	2.1	4.4
13	2.9	2.8	2.9	3.2	2.7	2.0	1.4	1.1	1.6	1.7	1.7	1.4	1.4	1.4	1.2	1.2	1.8	1.9	1.7	1.5	1.3	0.8	0.8	0.7	3.2	0.7	1.7
14	0.3	0.2	0.2	0.0	-0.3	-0.7	-0.7	-0.5	0.0	0.8	1.3	0.6	1.0	0.9	0.9	1.3	0.9	0.7	0.4	0.1	0.0	0.2	0.5	0.6	1.3	-0.7	0.4
15	1.0	1.0	1.1	1.7	1.9	2.3	2.6	2.7	2.4	2.6	2.6	2.2	1.9	2.1	2.2	2.3	2.2	2.5	2.8	2.2	2.2	2.0	2.3	1.9	2.8	1.0	2.1
16	1.5	1.4	1.2	1.0	0.7	0.5	0.3	0.1	0.0	0.0	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	0.0	0.2	0.1	-0.1	-0.4	-0.6	-0.7	-0.6	1.5	-0.7	0.1
17	-0.7	-0.6	-0.5	-0.5	-0.6	-0.8	-1.3	-1.8	-2.2	-2.5	-2.0	0.3	1.7	1.9	2.1	2.3	2.5	2.6	2.4	2.1	1.5	0.7	0.6	0.9	2.6	-2.5	0.3
18	0.6	0.1	0.4	0.6	1.2	0.7	0.2	-0.1	0.4	0.9	1.3	1.9	1.9	1.8	1.9	2.1	2.4	2.5	2.6	2.7	2.3	1.5	1.7	1.8	2.7	-0.1	1.4
19	2.6	1.8	1.8	1.5	1.4	1.7	1.3	1.6	1.1	0.4	0.7	1.1	1.2	0.2	0.6	0.7	0.8	0.1	-0.8	-0.8	-1.0	-1.4	-1.6	-2.2	2.6	-2.2	0.5
20	-2.5	-2.5	-2.6	-3.2	-4.1	-4.2	-4.5	-3.6	-1.9	-0.6	0.0	-0.5	-0.1	-0.3	0.5	0.7	0.9	0.7	0.4	0.4	0.2	-0.1	-0.4	-0.5	0.9	-4.5	-1.2
21	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.7	-0.6	-0.2	0.5	0.8	1.8	2.2	2.1	2.3	3.0	2.9	2.7	2.1	1.0	-0.8	-1.6	-2.1	3.0	-2.1	0.4
22	-2.0	-2.3	-2.1	-3.1	-3.5	-3.2	-3.1	-2.5	-1.6	0.1	1.7	2.8	3.2	3.2	2.9	3.1	3.2	3.1	2.3	1.2	-0.1	-0.6	-0.5	-1.1	3.2	-3.5	0.0
23	-1.9	-0.9	-1.9	-1.6	-1.8	-1.2	-1.6	-0.5	-0.3	1.1	2.2	2.3	2.6	2.7	2.7	2.5	2.1	1.6	1.5	0.2	-0.6	-0.7	-1.7	-3.0	2.7	-3.0	0.2
24	-3.2	-3.2	-3.6	-3.5	-4.2	-5.2	-6.3	-6.4	-5.6	-5.0	-3.9	-3.0	-2.4	-2.9	-3.0	-2.6	-2.0	-2.1	-2.0	-2.5	-2.9	-3.3	-3.7	-3.9	-2.0	-6.4	-3.6
25	-4.9	-4.7	-4.8	-5.1	-5.5	-6.1	-6.6	-6.6	-6.9	-6.8	-6.2	-5.2	-4.4	-3.6	-3.0	-2.9	-2.9	-3.2	-3.2	-3.6	-4.2	-4.6	-4.3	-3.7	-2.9	-6.9	-4.7
26	-2.1	-2.0	-1.7	-1.4	-1.2	-1.5	-1.3	-1.0	-0.8	-0.6	-0.1	-0.1	-0.3	-0.1	-0.3	-0.1	-0.5	-0.4	-0.2	-0.2	-0.4	-0.5	-0.3	-0.1	-0.1	-2.1	-0.7
27	0.1	-0.1	-0.1	-0.2	-0.3	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.2	0.0	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.2	-0.7	-1.8	-2.1	-2.2	0.1	-2.2	-0.4
28	-2.1	-1.9	-1.6	-1.6	-1.9	-2.2	-2.5	-2.5	-1.8	-1.7	-1.6	-0.6	-0.5	-1.0	-0.7	-0.5	-0.4	-0.4	-0.4	-0.4	-0.3	-0.4	-0.8	-1.0	-0.3	-2.5	-1.2
29	-0.7	-0.7	-0.8	-0.9	-0.6	-0.5	-1.0	-2.2	-1.2	0.6	1.4	2.1	3.0	3.7	4.4	4.8	5.1	5.2	5.4	4.9	4.2	3.2	3.2	2.5	5.4	-2.2	1.9
30	2.5	2.5	1.8	2.2	2.6	2.1	1.9	2.3	2.9	3.7	4.9	5.5	5.9	6.2	6.3	6.6	6.9	7.2	6.9	6.0	5.4	3.9	3.3	3.2	7.2	1.8	4.3
Max.	4.4	3.5	4.0	4.6	4.8	5.2	5.0	4.6	4.6	4.7	5.4	5.5	5.9	6.2	6.3	6.6	6.9	7.2	6.9	6.0	5.4	3.9	4.1	4.8	7.2		
Min.	-21.4	-22.3	-21.6	-22.7	-22.4	-20.5	-21.4	-21.5	-21.7	-22.0	-21.1	-20.5	-19.7	-19.2	-18.6	-18.7	-18.6	-18.5	-18.5	-18.6	-20.0	-19.9	-20.8	-21.0		-22.7	
Avg.	-2.3	-2.4	-2.3	-2.3	-2.4	-2.4	-2.6	-2.6	-2.3	-1.9	-1.4	-0.9	-0.5	-0.3	-0.1	0.0	0.1	0.1	-0.1	-0.4	-0.9	-1.2	-1.3	-1.4			-1.3

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100%

Rock Creek - 10-m Temperature (deg. C)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.9	2.4	3.3	5.2	4.8	1.8	4.6	4.8	6.1	7.4	8.6	9.3	9.9	10.5	11.4	11.1	10.7	11.1	10.8	10.8	9.9	9.5	9.7	9.2	11.4	1.8	7.7
2	8.2	7.9	6.6	8.0	6.9	6.4	6.6	6.7	8.0	8.8	9.7	11.0	11.2	11.6	11.9	12.2	12.2	12.2	12.2	11.6	10.4	9.0	6.3	6.3	12.2	6.3	9.2
3	5.2	4.1	5.0	4.2	3.3	3.3	3.6	3.4	6.5	9.1	10.9	11.5	11.7	12.2	12.7	12.7	12.8	12.9	13.0	12.0	7.8	6.7	5.7	5.7	13.0	3.3	8.2
4	4.7	3.2	2.8	2.7	1.3	0.7	1.3	1.3	3.6	4.9	7.0	8.6	9.3	9.2	7.8	7.9	8.4	8.6	8.7	7.1	5.6	4.4	3.4	2.8	9.3	0.7	5.2
5	2.3	2.2	1.7	1.7	2.5	2.7	2.6	3.3	3.3	3.5	3.3	3.6	3.6	3.8	4.1	3.2	3.3	3.7	3.7	3.9	4.1	3.3	3.5	4.0	4.1	1.7	3.2
6	4.5	4.2	4.2	3.8	3.4	3.0	2.9	2.7	2.3	1.9	1.4	1.1	0.7	0.9	0.6	0.6	1.4	2.1	1.5	2.1	2.6	2.6	2.0	1.9	4.5	0.6	2.3
7	2.0	2.4	3.3	4.0	4.3	4.3	4.0	3.7	3.8	4.1	4.3	4.4	4.4	4.4	5.2	5.8	5.4	5.8	5.6	4.7	4.2	4.1	3.9	3.7	5.8	2.0	4.2
8	3.3	1.9	1.6	0.8	0.4	0.2	0.1	0.4	1.1	1.3	0.9	0.9	1.7	1.9	2.1	2.0	1.3	0.5	0.2	-0.1	-0.1	-0.1	-0.2	-0.3	3.3	-0.3	0.9
9	-0.5	-0.5	-0.7	-1.0	-1.0	-0.5	-0.2	0.1	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.0	1.6	1.9	1.1	0.6	0.5	1.2	1.9	-1.0	0.5
10	1.5	1.9	1.7	0.8	0.4	0.4	0.5	0.6	0.7	1.5	1.7	1.9	2.1	1.9	1.7	1.8	1.4	1.2	1.1	0.8	0.7	0.6	0.5	0.6	2.1	0.4	1.2
11	0.6	0.5	0.4	0.2	-0.1	-0.3	-0.6	-1.3	-1.2	-0.8	-0.8	-0.9	-0.5	0.0	0.7	1.6	2.4	2.7	3.0	2.8	2.6	1.9	1.6	1.4	3.0	-1.3	0.7
12	1.3	1.3	1.2	1.3	1.0	1.2	1.6	2.2	2.8	3.5	4.3	5.0	5.9	6.3	6.6	6.6	6.8	6.7	6.0	5.7	3.9	3.8	4.5	4.0	6.8	1.0	3.9
13	3.2	3.3	5.0	5.2	4.1	5.1	5.4	5.4	6.1	6.7	7.3	7.7	7.3	7.0	5.3	4.5	3.0	1.6	1.5	1.8	2.0	1.9	2.0	2.4	7.7	1.5	4.4
14	2.0	1.7	2.0	2.1	2.2	2.3	2.7	2.9	2.8	2.5	2.6	3.3	4.6	5.3	5.1	5.1	5.7	6.5	6.9	7.1	7.0	6.3	5.8	5.7	7.1	1.7	4.2
15	6.3	6.7	7.2	6.4	5.8	5.7	6.3	8.0	9.2	8.5	6.9	5.0	4.6	4.9	6.1	7.1	6.5	6.3	5.4	5.1	5.0	4.7	4.5	4.3	9.2	4.3	6.1
16	3.3	5.1	5.2	5.0	4.9	5.1	5.2	4.4	4.2	4.1	4.0	4.5	5.1	5.3	5.3	5.0	4.8	5.6	5.5	5.0	4.9	4.3	4.1	3.5	5.6	3.3	4.7
17	3.1	1.8	1.7	1.5	1.3	1.7	2.4	2.8	2.9	3.3	2.4	3.0	3.4	3.0	3.3	3.2	3.4	3.5	3.7	3.8	3.5	3.4	3.2	3.0	3.8	1.3	2.8
18	2.9	3.0	2.7	2.3	2.3	2.3	2.3	2.2	2.1	1.9	2.0	2.3	2.4	2.3	2.3	2.1	1.9	1.8	1.6	1.3	0.9	0.7	0.4	0.4	3.0	0.4	1.9
19	0.3	-0.3	-0.8	-1.6	-1.7	-1.3	-1.1	-0.6	-0.5	0.0	0.3	0.9	1.1	0.9	0.6	1.0	1.4	2.2	3.2	3.4	3.1	2.5	2.1	1.7	3.4	-1.7	0.7
20	1.6	1.3	1.1	1.0	0.8	0.8	0.9	1.7	2.7	3.4	4.8	5.6	6.0	6.6	7.3	7.7	8.0	8.1	8.3	8.2	8.0	7.9	6.9	5.7	8.3	0.8	4.8
21	4.4	3.5	2.6	2.9	3.4	4.3	4.7	7.0	7.7	7.7	8.0	7.4	7.2	7.5	8.0	8.0	7.7	7.1	6.9	6.6	6.6	6.4	5.2	4.2	8.0	2.6	6.0
22	3.7	3.1	2.7	2.6	2.7	2.6	2.8	3.1	3.3	3.7	4.2	4.6	5.1	5.8	6.7	7.2	7.5	7.7	8.8	9.5	9.3	8.9	8.3	8.5	9.5	2.6	5.5
23	8.5	9.0	11.2	12.7	12.1	12.3	11.7	11.1	10.6	10.2	10.1	10.2	8.9	8.1	7.7	8.0	7.7	7.1	7.2	7.2	6.9	7.4	7.4	7.0	12.7	6.9	9.2
24	6.4	6.0	6.0	5.7	5.4	5.6	6.1	7.1	7.8	8.2	8.3	8.8	9.2	9.6	10.3	10.9	10.2	10.0	10.4	11.8	11.9	9.3	7.7	6.6	11.9	5.4	8.3
25	6.2	6.2	5.4	5.5	5.7	5.7	6.3	7.3	9.1	11.2	11.9	12.2	13.0	13.3	13.3	12.9	13.0	12.5	11.6	10.7	10.0	8.4	7.3	6.2	13.3	5.4	9.4
26	5.4	5.2	4.6	4.4	4.2	3.8	4.3											8.2	7.9	7.1	6.0	5.1	3.9	3.2	8.2	3.2	5.2
27	2.4	0.8	-0.2	0.3	0.5	0.7	1.8	3.1				7.7	7.1	8.5	7.5	10.5	9.4	7.5	7.0	6.5	5.3	3.8	2.4	0.9	10.5	-0.2	4.5
28	0.0	-0.4	-0.9	-1.3	-1.6	-1.5	-1.0	0.5	1.8	3.2	3.9	5.1	6.3	7.3	8.0	8.5	9.2	9.3	10.0	10.0	10.0	9.7	8.9	8.7	10.0	-1.6	4.7
29	8.1	7.7	7.1	6.7	6.3	6.2	6.8	7.3	6.9	7.3	8.0	9.1	7.9	7.8	9.4	9.8	9.9	10.0	11.4	11.4	10.3	9.6	8.6	6.7	11.4	6.2	8.3
30	5.6	4.0	3.0	2.5	2.0	2.4	3.3	6.8	9.2	11.2	12.6	14.2	15.3	15.5	15.3	15.5	16.0	16.2	15.8	15.7	15.3	14.8	13.8	11.9	16.2	2.0	10.7
31	11.2	10.2	10.5	9.7	8.5	7.9	7.7	7.6	8.2	7.8	6.4	5.9	6.5	7.5	8.2	8.1	8.4	10.3	11.0	11.4	11.6	11.0	9.0	8.0	11.6	5.9	8.8
Max.	11.2	10.2	11.2	12.7	12.1	12.3	11.7	11.1	10.6	11.2	12.6	14.2	15.3	15.5	15.3	15.5	16.0	16.2	15.8	15.7	15.3	14.8	13.8	11.9	16.2		
Min.	-0.5	-0.5	-0.9	-1.6	-1.7	-1.5	-1.1	-1.3	-1.2	-0.8	-0.8	-0.9	-0.5	0.0	0.6	0.6	1.1	0.5	0.2	-0.1	-0.1	-0.1	-0.2	-0.3		-1.7	
Avg.	3.9	3.5	3.4	3.4	3.1	3.1	3.4	3.9	4.5	5.1	5.4	5.8	6.1	6.3	6.5	6.7	6.7	6.8	6.8	6.7	6.1	5.6	4.9	4.5			5.1

Total Hours in Month 744

Hours Data Available 731

Data Recovery 98.3%

Rock Creek - 10-m Temperature (deg. C)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	6.5	4.6	4.9	4.8	3.7	4.5	5.7	9.8	12.9	13.9	15.0	15.1	15.3	15.5	15.1	14.9	15.4	16.4	16.3	15.6	14.3	13.4	12.1	11.2	16.4	3.7	11.5	
2	10.3	8.9	10.0	8.8	8.1	7.9	8.5	9.3	10.8	11.9	12.9	14.1	13.5	13.2	13.6	14.3	14.0	12.6	12.7	12.9	13.1	12.6	11.0	8.1	14.3	7.9	11.4	
3	6.2	5.6	4.9	5.3	4.6	4.6	5.8	7.0	9.6	11.6	11.2	11.7	11.2	11.1	11.3	11.4	12.3	11.8	12.8	11.7	12.6	12.5	11.3	8.1	12.8	4.6	9.4	
4	7.9	5.2	5.4	5.5	5.4	4.4	5.9	9.5	13.2	14.3	13.9	13.1	14.7	16.8	16.0	15.8	15.2	13.8	15.3	16.9	14.9	13.8	13.9	13.5	16.9	4.4	11.8	
5	13.3	13.1	10.7	11.9	11.3	11.6	12.8	14.4	15.3	16.6	18.2	19.6	20.8	21.3	21.8	22.2	22.4	22.4	22.5	22.2	21.6	20.4	18.3	16.1	22.5	10.7	17.5	
6	15.4	14.5	13.2	14.9	15.4	15.0	16.0	18.7	20.1	22.1	23.5	24.4	25.3	26.1	26.6	26.4	24.1	22.6	21.8	21.8	22.8	18.6	15.1	14.1	26.6	13.2	19.9	
7	14.2	16.6	19.1	21.7	21.7	21.6	21.9	22.0	22.8	24.5	25.6	26.7	27.3	27.7	27.5	26.2	26.2	27.2	26.0	23.3	22.2	22.4	21.8	21.9	27.7	14.2	23.2	
8	17.8	10.0	8.2	7.9	7.5	7.0	6.3	5.6	5.6	5.8	5.9	5.9	6.2	6.6	7.7	7.7	7.4	7.3	7.3	8.0	7.7	7.5	6.9	6.6	17.8	5.6	7.5	
9	6.3	6.1	6.3	6.4	6.3	6.3	6.4	6.7	7.3	7.8	9.1	9.9	10.7	11.9	12.8	13.6	13.8	14.0	13.4	13.1	12.7	12.2	11.6	10.2	14.0	6.1	9.8	
10	8.2	6.7	6.2	7.0	5.5	7.0	6.8	9.1	11.3	13.1	15.0	14.2	15.2	16.4	15.7	14.5	15.1	13.1	10.3	8.8	12.0	12.9	12.2	12.4	16.4	5.5	11.2	
11	12.3	10.7	9.6	7.3	7.2	8.0	10.1	11.0	13.6	15.0	15.4	16.1	17.6	18.3	19.5	20.6	19.9	19.7	20.2	20.3	20.0	17.9	16.9	14.9	20.6	7.2	15.1	
12	13.3	11.5	10.6	8.7	8.9	8.2	9.6	12.2	15.9	17.5	18.5	18.9	19.5	19.4	19.0	19.1	19.7	20.6	20.5	19.8	19.6	18.5	16.5	12.7	20.6	8.2	15.8	
13	10.1	9.0	8.2	7.0	6.0	6.9	6.7	10.1	13.2	15.2	16.0	16.0	16.0	15.6	14.8	14.0	13.5	12.6	11.1	9.9	8.3	6.5	5.1	4.2	16.0	4.2	10.7	
14	3.8	2.5	1.5	1.1	1.4	1.1	1.7	2.1	3.0	4.6	7.6	7.9	8.1	8.4	9.6	10.4	12.1	12.4	12.4	11.2	10.9	10.0	8.7	7.9	12.4	1.1	6.7	
15	7.1	6.8	7.0	6.3	6.2	5.8	5.6	6.5	8.2	10.9	11.5	12.1	13.0	13.5	13.5	13.7	13.5	14.2	14.9	15.1	15.0	14.4	13.1	11.9	15.1	5.6	10.8	
16	10.1	8.4	7.4	7.2	8.5	8.3	9.5	10.8	14.7	15.4	15.9	16.5	16.4	15.0	14.2	14.9	14.6	13.4	12.4	12.0	11.6	9.9	8.5	7.4	16.5	7.2	11.8	
17	6.2	5.5	5.3	5.2	5.3	5.3	5.4	5.7	6.1	6.7	7.2	8.2	9.3	10.1	10.0	10.1	10.4	10.0	9.5	9.3	9.0	8.5	7.7	6.7	10.4	5.2	7.6	
18	6.4	6.3	6.0	5.4	5.5	5.8	6.2	7.1	8.3	9.9	11.5	12.7	12.8	13.2	13.8	13.9	14.2	13.5	12.1	11.9	12.3	13.2	13.4	13.5	14.2	5.4	10.4	
19	13.4	12.7	12.3	10.5	10.2	10.3	10.3	10.9	11.4	11.8	11.5	11.7	11.8	11.7	11.3	11.2	12.1	12.8	12.8	12.1	11.4	11.3	10.5	10.1	13.4	10.1	11.5	
20	9.3	9.1	8.7	8.9	8.6	8.5	9.2	9.9	10.6	11.4	11.9	12.2	12.4	12.9	13.0	13.3	13.8	13.4	13.2	13.6	13.8	13.6	13.4	13.0	13.8	8.5	11.6	
21	12.5	12.3	12.9	12.7	11.8	11.2	11.2	11.2	12.2	12.5	12.6	12.8	13.5	13.4	13.5	13.7	12.5	11.8	12.0	12.1	11.6	10.6	10.1	9.8	13.7	9.8	12.1	
22	9.3	9.5	9.2	9.1	9.1	9.3	8.9	8.6	9.2	10.1	10.4	10.2	10.6	11.2	11.3	11.3	10.8	11.0	11.3	11.4	11.4	11.5	11.5	11.4	11.5	8.6	10.3	
23	11.2	11.2	11.3	11.3	10.2	9.6	9.4	9.3	8.9	8.5	8.1	8.2	8.3	7.3	7.7	8.2	8.7	9.1	9.2	9.1	8.7	7.7	7.8	7.7	11.3	7.3	9.0	
24	7.6	7.5	7.0	6.7	6.6	7.7	7.6	8.0	8.5	8.7	9.1	9.0	8.5	9.1	9.7	10.1	10.4	10.5	10.3	9.8	9.7	8.3	7.7	7.5	10.5	6.6	8.6	
25	7.3	7.4	7.1	6.9	6.8	6.9	7.3	7.7	8.0	8.2	8.2	7.8	7.0	7.2	7.5	7.5	7.6	7.7	7.8	7.9	7.9	7.7	7.5	7.3	8.2	6.8	7.5	
26	6.7	6.3	6.3	6.5	6.3	6.4	6.4	6.7	7.0	7.5	8.0	8.4	8.8	9.2	10.0	10.5	11.3	12.5	11.9	11.6	11.5	11.5	10.2	9.0	12.5	6.3	8.8	
27	7.3	5.7	4.7	3.5	3.0	3.3	4.7	6.8	9.9	12.1	14.0	14.8	15.2	16.4	17.5	17.6	18.5	20.3	20.3	20.3	19.8	18.9	18.2	15.8	20.3	3.0	12.9	
28	11.6	11.4	10.3	9.8	9.0	9.5	11.5	13.9	17.5	20.3	22.7	24.0	24.9	26.0	26.6	26.9	27.4	27.6	27.8	27.3	26.8	25.3	22.3	18.6	27.8	9.0	19.9	
29	15.4	15.4	15.2	11.9	11.8	13.3	11.6	14.6	18.0	20.2	21.1	22.9	24.8	24.1	24.3	25.8	25.6	24.6	25.3	25.2	25.0	23.9	21.6	18.3	25.8	11.6	20.0	
30	16.2	15.7	15.1	15.6	17.7	17.5	16.8	18.5	18.7	19.1	20.0	20.7	20.9	21.7	22.9	22.2	22.8	24.1	22.4	21.0	20.4	19.8	18.1	16.7	24.1	15.1	19.4	
Max.	17.8	16.6	19.1	21.7	21.7	21.6	21.9	22.0	22.8	24.5	25.6	26.7	27.3	27.7	27.5	26.9	27.4	27.6	27.8	27.3	26.8	25.3	22.3	21.9	27.8			
Min.	3.8	2.5	1.5	1.1	1.4	1.1	1.7	2.1	3.0	4.6	5.9	5.9	6.2	6.6	7.5	7.5	7.4	7.3	7.3	7.9	7.7	6.5	5.1	4.2		1.1		
Avg.	10.1	9.2	8.8	8.5	8.3	8.4	8.9	10.1	11.7	12.9	13.7	14.2	14.6	15.0	15.3	15.4	15.5	15.4	15.2	14.8	14.6	13.8	12.8	11.5				12.5

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Delta T (deg. C)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.4	0.2	0.1	0.1	0.3	0.4	0.5	0.4	0.8	0.5	0.2	0.1	-0.2	-0.2	0.0	-0.1	-0.2	-0.1	-0.1	0.1	0.6	0.6	0.7	0.9	0.9	-0.2	0.2
2	1.2	1.3	1.3	1.1	1.1	1.1	0.8	1.0	0.9	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.6	1.0	1.1	1.3	0.1	0.6
3	1.1	1.0	1.2	0.9	1.4	1.4	1.5	1.1	1.6	1.1	0.5	0.2	0.2	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	0.0	0.3	1.1	1.4	1.1	1.6	-0.2	0.7
4	1.0	1.1	0.8	0.8	0.6	0.4	0.4	0.9	0.5	0.4	0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.3	-0.2	0.0	0.2	0.4	0.3	0.3	0.3	1.1	-0.3	0.3
5	0.3	0.4	0.4	0.4	0.2	0.3	0.4	0.3	0.2	0.1	0.1	0.0	-0.1	-0.1	-0.1	0.0	0.2	0.1	0.2	0.4	0.4	0.6	0.4	0.5	0.6	-0.1	0.2
6	0.6	0.7	0.6	0.6	0.7	0.8	0.6	0.6	0.4	0.4	0.3	0.4	0.4	0.5	0.3	0.4	0.3	0.4	0.4	0.4	0.6	0.6	0.8	1.0	1.0	0.3	0.5
7	0.5	1.1	0.5	0.7	0.5	0.7	1.0	0.9	0.8	0.3	0.5	0.2	0.3	0.2	0.2	0.4	0.2	0.7	0.6	1.0	0.7	1.1	0.7	1.0	1.1	0.2	0.6
8	0.8	0.7	0.5	0.5	0.3	0.4	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.7	0.8	1.0	1.0	0.1	0.4
9	0.5	0.5	0.8	0.8	1.0	1.0	1.0	0.7	0.6	0.6	0.2	0.0	0.3	0.5	0.4	0.3	0.3	0.5	0.6	0.6	0.6	0.6	0.5	0.5	1.0	0.0	0.6
10	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.0	0.2
11	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.2	0.3	0.3	0.3	-0.1	0.0
12	0.4	0.5	0.7	0.6	0.6	0.7	0.7	0.8	0.6	0.4	0.2	0.3	0.3	0.4	0.3	0.2	-0.1	-0.2	0.0	0.2	0.4	0.6	0.6	0.6	0.8	-0.2	0.4
13	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.0	0.0	-0.1	-0.3	-0.2	-0.1	-0.2	-0.4	-0.2	-0.1	0.0	0.1	0.0	0.1	0.0	0.5	-0.4	0.1
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	0.0
15	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.2
16	0.1	0.1	0.1	0.0	0.0	0.0	0.0	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	-0.1	-0.1	-0.1	-0.1	0.1	-0.1	0.0
17	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.4	-0.8	-0.7	-0.5	-0.4	-0.3	-0.3	0.0	0.2	0.2	0.2	0.2	0.2	-0.8	-0.2
18	0.2	0.2	0.4	0.2	0.3	0.3	0.1	0.0	-0.1	-0.2	-0.4	-0.6	-0.5	-0.5	-0.7	-0.7	-0.6	-0.4	-0.2	0.0	0.3	0.2	0.3	0.3	0.4	-0.7	-0.1
19	0.4	0.2	0.3	0.4	0.4	0.3	0.3	0.1	-0.1	0.0	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	0.4	-0.3	0.0
20	-0.1	-0.1	0.1	0.3	0.9	0.2	0.1	-0.1	0.0	-0.2	-0.1	-0.1	-0.2	-0.3	-0.4	-0.3	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	0.9	-0.4	0.0
21	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.1	-0.2	-0.1	-0.1	-0.1	-0.3	-0.7	-0.6	-0.4	0.1	0.2	0.2	0.2	0.2	-0.7	-0.1
22	0.4	0.2	0.4	0.3	0.4	0.4	0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.2	0.0	0.0	0.1	0.1	0.2	0.2	0.4	-0.4	0.0
23	0.2	0.3	0.3	0.4	0.2	0.3	0.2	0.4	0.1	0.1	-0.1	-0.2	-0.2	-0.7	-0.7	-0.2	-0.3	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.1	0.4	-0.7	0.0
24	0.0	0.0	0.0	0.0	0.1	0.4	0.6	0.1	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.3	-0.4	-0.2	-0.2	-0.4	-0.3	-0.2	-0.1	-0.1	-0.1	0.6	-0.4	-0.1
25	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.5	-0.6	-0.5	-0.5	-0.4	-0.4	-0.3	-0.3	-0.2	-0.1	0.0	0.0	0.0	-0.6	-0.2
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	-0.1	0.0	-0.1	-0.1
27	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	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1
28	-0.1	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.2	-0.1
29	0.0	0.1	0.0	0.2	0.3	0.2	0.5	0.4	0.1	0.1	-0.1	-0.3	-0.2	-0.6	-0.8	-0.8	-0.9	-0.7	-0.3	0.0	0.0	0.7	0.9	0.9	0.9	-0.9	0.0
30	0.6	0.7	1.0	0.7	0.6	0.7	0.7	0.4	0.1	0.0	-0.1	-0.3	-0.4	-0.5	-0.7	-0.9	-0.5	-0.1	-0.3	0.1	0.2	0.4	1.2	0.7	1.2	-0.9	0.2
Max.	1.2	1.3	1.3	1.1	1.4	1.4	1.5	1.1	1.6	1.1	0.5	0.4	0.4	0.5	0.4	0.4	0.3	0.7	0.6	1.0	0.7	1.1	1.4	1.1	1.6		
Min.	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.6	-0.5	-0.8	-0.8	-0.9	-0.9	-0.7	-0.6	-0.4	-0.2	-0.1	-0.1	-0.2		-0.9	
Avg.	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.1	0.2	0.3	0.3	0.4			0.1

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Delta T (deg. C)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.1	0.6	0.7	0.7	0.6	0.6	0.8	0.6	0.4	0.2	0.1	-0.2	-0.4	-0.3	-0.4	-0.4	-0.4	0.1	-0.1	0.2	0.3	0.7	1.1	1.0	1.1	-0.4	0.3
2	1.2	0.7	0.9	1.0	0.9	0.9	0.7	0.4	0.4	0.3	0.0	-0.4	-0.4	-0.2	-0.4	-0.7	-1.1	-1.2	-0.9	-0.6	0.2	1.1	1.3	1.6	1.6	-1.2	0.2
3	1.3	2.1	2.2	1.9	2.4	1.8	2.2	1.0	0.6	0.0	-0.3	-0.3	-0.3	-0.3	-1.0	-1.2	-1.2	-1.1	-0.2	0.3	0.3	0.1	1.1	2.0	2.4	-1.2	0.6
4	1.8	1.9	1.4	2.3	1.7	1.0	1.2	0.7	-0.1	-0.3	-0.6	-0.5	-0.5	-0.4	-0.5	-0.5	-0.4	-0.5	-0.3	0.0	0.2	0.6	0.9	0.9	2.3	-0.6	0.4
5	1.0	1.4	1.1	0.7	0.5	0.4	0.1	0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2	-0.1	-0.2	-0.3	-0.2	-0.2	0.0	0.0	0.0	0.1	1.4	-0.3	0.1
6	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.3	-0.2	0.0	0.2	0.2	0.2	-0.5	-0.1
7	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	-0.2	0.0
8	0.2	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.2	-0.1	0.0
9	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	-0.1	0.0
10	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	-0.1	0.0
11	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	0.0	0.1	0.1	-0.5	-0.2
12	0.0	0.1	0.1	0.2	0.2	0.2	0.1	-0.1	-0.2	-0.4	-0.6	-0.8	-1.0	-0.7	-1.0	-0.8	-0.6	-0.6	-0.4	-0.2	-0.1	0.0	0.2	0.3	0.3	-1.0	-0.3
13	0.4	0.2	0.4	0.5	0.3	0.5	0.2	0.0	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	0.1	0.1	0.5	-0.3	0.0
14	0.1	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.4	-0.6	-0.4	-0.2	-0.4	-0.6	-0.2	-0.3	-0.4	-0.1	0.2	0.3	0.3	-0.6	-0.1
15	0.4	0.5	0.4	0.7	0.3	0.4	0.3	0.1	0.2	0.0	-0.1	-0.4	-0.3	-0.3	-0.6	-0.7	-0.5	-0.3	-0.1	-0.1	-0.1	0.0	0.1	0.2	0.7	-0.7	0.0
16	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.2	-0.2	-0.2	-0.2	-0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.3	-0.4	0.0
17	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.1	0.0	0.0	0.1	0.1	0.1	-0.2	0.0
18	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	-0.2	0.0
19	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.0	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.4	-0.5	-0.3	-0.1	0.0	0.0	0.0	-0.5	-0.2
20	0.1	0.1	0.3	0.1	0.0	0.2	0.1	-0.2	-0.2	-0.3	-0.5	-0.7	-0.8	-0.8	-1.0	-0.9	-0.8	-0.7	-0.7	-0.5	-0.3	0.0	0.4	0.6	0.6	-1.0	-0.3
21	0.5	0.6	0.3	0.5	0.5	0.6	0.4	0.1	0.0	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.1	0.6	-0.3	0.1
22	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.1	-0.2	-0.4	-0.4	-0.4	-0.3	0.0	0.1	0.4	0.4	-0.4	-0.1
23	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.0	-0.1	-0.2	-0.1	-0.2	-0.3	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.3	-0.3	0.0
24	0.2	0.1	0.1	0.1	0.0	0.1	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	-0.1	-0.3	-0.5	-0.6	-0.7	-0.7	-0.8	-0.4	-0.4	-0.4	-0.1	0.7	0.7	-0.8	-0.2
25	0.9	0.7	0.8	0.6	0.4	0.1	0.0	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	-0.4	-0.4	-0.2	0.0	0.3	0.9	-0.7	-0.1
26	0.7	0.7	1.2	1.5	1.5	1.4	0.8											-0.6	-0.6	-0.5	-0.4	-0.2	0.0	0.3	1.5	-0.6	0.4
27	0.9	0.5	0.2	0.3	0.2	0.1	-0.1	-0.2				-0.3	0.4	1.9	0.5	1.1	0.3	-2.3	-1.8	-1.8	-1.5	-1.3	-1.1	-0.6	1.9	-2.3	-0.2
28	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-1.2	-1.7	-4.1	-1.0	-0.7	-0.8	-1.2	-1.2	-1.0	-1.1	-1.0	-0.8	-1.0	-0.7	-0.3	-0.1	0.1	0.2	0.2	-4.1	-0.9
29	0.2	0.3	0.3	0.3	0.2	0.0	-0.2	-0.3	-0.4	-0.5	-0.5	-0.5	-0.7	-1.1	-1.3	-1.3	-1.1	-1.0	-0.8	-0.6	-0.4	-0.4	-0.1	0.4	0.4	-1.3	-0.4
30	0.6	0.6	0.9	0.7	1.2	1.0	0.2	-0.2	-0.4	-0.5	-0.7	-0.6	-0.9	-1.1	-0.9	-1.1	-1.0	-0.8	-0.4	-0.4	-0.3	0.0	0.2	0.6	1.2	-1.1	-0.1
31	0.4	0.6	0.4	0.5	0.2	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.5	-0.7	-1.0	-1.1	-1.0	-0.7	-0.7	-0.7	-0.6	-0.4	-0.2	0.4	0.7	0.7	-1.1	-0.2
Max.	1.8	2.1	2.2	2.3	2.4	1.8	2.2	1.0	0.6	0.3	0.1	0.1	0.4	1.9	0.5	1.1	0.3	0.1	0.0	0.3	0.3	1.1	1.3	2.0	2.4		
Min.	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-1.2	-1.7	-4.1	-1.0	-0.7	-0.8	-1.2	-1.2	-1.3	-1.3	-1.2	-2.3	-1.8	-1.8	-1.5	-1.3	-1.1	-0.6		-4.1	
Avg.	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.0	-0.2	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.4	-0.3	-0.2	0.0	0.2	0.4			0.0

Total Hours in Month 744

Hours Data Available 731

Data Recovery 98.3%

Rock Creek - Delta T (deg. C)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.1	1.1	1.5	1.5	1.6	1.5	0.5	-0.1	-0.2	-0.4	-0.7	-1.0	-0.8	-1.1	-1.3	-1.2	-1.2	-0.8	-0.7	-0.6	-0.2	0.1	0.3	0.7	1.6	-1.3	0.0
2	1.0	1.5	2.1	0.9	1.0	0.6	0.3	-0.1	-0.2	-0.3	-0.4	-0.6	-0.8	-0.9	-1.2	-1.2	-0.8	-0.7	-0.5	-0.1	0.1	-0.3	0.6	0.9	2.1	-1.2	0.0
3	0.9	1.3	1.4	2.3	0.5	0.9	0.1	-0.2	-0.3	-0.5	-0.8	-1.0	-1.2	-1.3	-1.3	-1.2	-1.1	-0.9	-0.7	-0.5	-0.5	0.2	1.3	1.3	2.3	-1.3	0.0
4	1.5	1.6	1.8	1.9	1.8	1.8	0.7	-0.1	-0.3	-0.3	-0.4	-0.6	-0.6	-1.1	-0.8	-1.1	-0.5	0.0	-0.3	-0.1	0.4	0.4	0.5	0.6	1.9	-1.1	0.3
5	0.5	0.6	0.6	0.5	0.9	0.4	0.3	0.1	-0.1	-0.2	-0.4	-0.7	-1.6	-2.7	-2.7	-2.3	-2.1	-2.2	-1.9	-1.3	-0.9	-0.6	-0.5	0.2	0.9	-2.7	-0.7
6	0.7	-0.2	1.0	1.4	0.5	0.5	0.3	-0.4	-0.7	-1.4	-1.5	-1.7	-2.0	-1.6	-1.5	-1.3	-1.7	-1.8	-2.3	-2.2	-2.1	-2.1	-1.2	-0.4	1.4	-2.3	-0.9
7	1.6	1.9	2.2	0.9	0.4	0.5	0.1	-0.2	-0.3	-0.9	-1.4	-1.5	-1.5	-1.6	-1.2	-1.2	-0.9	-1.8	-2.0	0.0	-1.6	0.5	0.7	1.1	2.2	-2.0	-0.3
8	-0.6	-0.2	-0.3	-0.5	-0.6	-0.6	-0.8	-0.8	-1.0	-1.0	-1.1	-1.1	-1.3	-1.2	-1.8	-1.8	-1.5	-1.7	-1.3	-1.7	-1.3	-0.9	-0.5	-0.3	-0.2	-1.8	-1.0
9	-0.5	-0.3	-0.2	-0.2	-0.5	-0.3	-0.7	-0.9	-1.3	-1.1	-1.8	-2.2	-2.1	-2.7	-2.7	-2.4	-1.6	-1.4	-1.6	-1.4	-1.1	-1.0	-0.4	-0.2	-0.2	-2.7	-1.2
10	-0.1	-0.2	1.0	1.3	0.4	0.9	-0.4	-1.4	-1.9	-2.3	-2.4	-2.2	-2.2	-2.3	-2.2	-2.0	-1.7	-1.7	-0.6	-0.2	0.4	0.0	0.0	-0.1	1.3	-2.4	-0.8
11	0.1	0.5	0.4	0.0	0.8	1.1	0.6	-1.2	-1.6	-1.8	-1.8	-2.1	-2.1	-2.2	-2.1	-1.9	-0.9	-1.1	-1.8	-1.5	-1.4	-0.7	-1.3	0.0	1.1	-2.2	-0.9
12	0.6	0.9	1.2	1.1	1.1	1.0	0.1	-1.4	-1.4	-2.2	-3.0	-2.6	-2.5	-2.5	-2.6	-2.2	-1.8	-2.0	-2.2	-2.2	-2.0	-2.0	-1.7	-0.9	1.2	-3.0	-1.2
13	0.5	0.9	0.8	0.6	0.6	1.3	-0.5	-1.3	-2.2	-2.7	-2.5	-2.4	-2.6	-2.5	-2.5	-2.3	-2.0	-2.0	-1.9	-1.6	-1.5	-1.2	-1.0	-0.5	1.3	-2.7	-1.2
14	0.5	0.2	0.3	0.3	-0.2	-0.6	-0.9	-1.3	-1.7	-1.7	-2.1	-2.4	-2.4	-2.4	-2.4	-2.2	-1.9	-1.8	-1.8	-1.4	-1.3	-1.3	-1.2	0.2	0.5	-2.4	-1.2
15	0.1	0.5	0.3	-0.5	-0.4	-0.2	-0.9	-1.4	-1.6	-2.7	-2.4	-2.3	-2.3	-2.8	-2.8	-2.4	-1.9	-2.2	-2.4	-2.3	-2.0	-1.7	-1.3	0.5	0.5	-2.8	-1.5
16	1.1	1.6	1.6	0.9	1.6	-0.1	0.7	-0.2	-1.2	-1.8	-1.5	-1.6	-1.7	-0.4	-0.9	-0.8	-0.9	-0.7	-0.5	-0.6	-1.0	-0.9	-0.8	-1.0	1.6	-1.8	-0.4
17	-0.9	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.0	-1.0	-1.3	-1.7	-1.5	-1.4	-1.8	-1.7	-1.2	-1.0	-1.1	-1.1	-1.1	-1.0	-0.8	-0.7	-0.5	-1.8	-1.0
18	-0.6	-0.8	-0.9	-0.8	-0.7	-0.6	-0.7	-0.6	-0.8	-1.9	-2.9	-2.2	-1.8	-1.7	-1.5	-1.1	-0.9	-0.6	-0.5	-0.4	-0.3	-0.1	-0.1	0.1	0.1	-2.9	-0.9
19	0.0	-0.3	-0.2	-0.6	-0.4	-0.6	-0.5	-0.8	-0.8	-0.5	-0.5	-0.8	-1.0	-0.9	-0.8	-0.6	-1.3	-1.5	-0.8	-0.7	-0.5	-0.5	-0.6	-0.5	0.0	-1.5	-0.7
20	-0.2	0.1	0.0	0.1	-0.3	-0.1	-0.2	-0.4	-1.0	-1.1	-1.8	-2.1	-2.0	-2.1	-1.9	-2.2	-2.3	-1.7	-1.4	-1.2	-0.9	-0.5	-0.3	-0.2	0.1	-2.3	-1.0
21	0.1	0.0	0.2	-0.3	-0.7	-0.8	-0.7	-1.0	-1.7	-1.3	-1.7	-1.8	-2.3	-1.5	-1.4	-1.2	-0.7	-0.4	-0.9	-0.7	-0.2	-0.6	-0.6	-0.4	0.2	-2.3	-0.9
22	-0.6	-0.3	-0.3	-0.3	-0.2	-0.3	-0.5	-0.7	-0.7	-0.7	-0.7	-0.8	-0.9	-1.2	-0.8	-0.6	-0.6	-0.4	-0.4	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-1.2	-0.5
23	-0.1	-0.1	0.0	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.3	-0.3	-0.4	-0.5	-0.3	-0.7	-0.8	-0.9	-0.8	-0.7	-0.5	-0.3	-0.2	-0.1	0.0	-0.9	-0.4
24	0.1	0.2	0.4	0.0	0.0	-0.1	-0.3	-0.5	-0.4	-0.6	-0.7	-0.7	-0.7	-0.8	-1.1	-1.2	-1.4	-1.5	-1.4	-0.8	-0.6	-0.4	-0.5	-0.3	0.4	-1.5	-0.6
25	-0.1	0.1	-0.2	-0.3	-0.5	-0.3	-0.3	-0.3	-0.4	-0.6	-0.6	-0.7	-0.7	-0.9	-0.9	-0.9	-0.8	-0.8	-0.9	-0.8	-0.7	-0.7	-0.7	-0.6	0.1	-0.9	-0.6
26	-0.7	-0.6	-0.4	-0.3	-0.2	-0.2	-0.4	-0.7	-1.1	-1.2	-1.4	-1.6	-1.9	-2.5	-3.0	-2.9	-2.6	-2.5	-1.8	-1.4	-1.1	-0.9	-0.9	0.8	0.8	-3.0	-1.2
27	0.9	0.9	1.2	0.8	1.0	0.9	0.3	-1.1	-1.9	-3.0	-3.3	-2.9	-2.2	-2.6	-2.5	-2.0	-1.5	-2.1	-2.1	-1.8	-1.7	-1.3	0.0	0.8	1.2	-3.3	-1.1
28	0.3	1.3	1.9	1.9	1.6	1.6	1.6	-0.1	-0.8	-1.3	-1.6	-2.5	-3.1	-2.6	-2.8	-2.4	-2.1	-1.9	-1.3	-1.3	-0.9	-0.8	-0.3	0.1	1.9	-3.1	-0.6
29	0.8	2.3	1.6	1.1	2.1	2.1	0.2	-0.2	-0.9	-2.0	-2.8	-2.7	-2.5	-2.6	-2.1	-2.3	-1.7	-1.1	-1.5	-1.3	-1.4	0.6	0.6	-0.4	2.3	-2.8	-0.6
30	0.2	0.5	0.1	0.1	1.1	0.8	1.0	1.0	-0.4	-0.9	-1.7	-1.8	-1.7	-1.6	-1.8	-1.6	-1.5	-1.5	-1.6	-0.9	-1.0	-0.2	0.4	0.4	1.1	-1.8	-0.5
Max.	1.6	2.3	2.2	2.3	2.1	2.1	1.6	1.0	-0.1	-0.2	-0.3	-0.3	-0.4	-0.4	-0.3	-0.6	-0.5	0.0	-0.3	0.0	0.4	0.6	1.3	1.3	2.3		
Min.	-0.9	-0.8	-0.9	-0.8	-0.7	-0.8	-0.9	-1.4	-2.2	-3.0	-3.3	-2.9	-3.1	-2.8	-3.0	-2.9	-2.6	-2.5	-2.4	-2.3	-2.1	-2.1	-1.7	-1.0		-3.3	
Avg.	0.3	0.5	0.6	0.4	0.4	0.3	-0.1	-0.6	-0.9	-1.3	-1.5	-1.6	-1.7	-1.7	-1.7	-1.6	-1.4	-1.4	-1.3	-1.0	-0.9	-0.6	-0.4	0.0			-0.7

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Backup Temperature (deg. C)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-22.0	-21.5	-21.0	-20.7	-20.8	-21.0	-21.5	-21.9	-22.5	-21.8	-20.9	-20.0	-18.3	-17.7	-17.6	-17.5	-17.4	-17.6	-17.7	-18.5	-20.7	-20.7	-21.7	-22.1	-17.4	-22.5	-20.1
2	-22.5	-23.8	-23.1	-24.0	-23.7	-21.6	-22.4	-21.0	-19.7	-17.1	-16.1	-13.9	-12.0	-11.3	-10.4	-10.6	-10.7	-11.9	-13.2	-14.6	-14.9	-15.7	-16.7	-16.7	-10.4	-24.0	-17.0
3	-16.5	-16.4	-15.4	-16.6	-16.1	-15.8	-15.9	-17.5	-16.5	-15.2	-14.8	-13.2	-12.0	-10.5	-10.7	-10.6	-10.6	-11.1	-11.7	-12.7	-14.6	-16.1	-17.5	-17.3	-10.5	-17.5	-14.4
4	-17.3	-18.8	-18.7	-18.2	-18.1	-17.7	-16.9	-17.3	-16.8	-15.2	-13.2	-11.1	-9.2	-9.4	-9.0	-8.4	-7.3	-7.4	-7.7	-8.8	-9.8	-9.7	-8.9	-8.2	-7.3	-18.8	-12.6
5	-7.0	-6.9	-6.0	-4.4	-3.8	-2.6	-2.3	-2.2	-2.0	-2.1	-0.7	0.3	1.1	1.1	2.2	1.7	1.1	2.2	2.0	1.8	2.0	1.8	2.4	3.0	3.0	-7.0	-0.7
6	2.5	2.6	2.3	2.2	1.9	1.4	0.6	1.2	1.2	1.7	2.7	3.0	4.1	5.0	4.7	4.7	4.6	4.7	3.7	3.2	2.9	2.7	2.4	2.5	5.0	0.6	2.9
7	3.0	2.1	2.1	3.0	3.8	4.2	3.6	3.0	2.9	3.9	4.8	5.5	5.9	7.0	7.4	6.5	6.8	4.8	3.9	2.9	2.2	2.4	3.1	3.6	7.4	2.1	4.1
8	3.3	2.2	2.7	2.7	1.6	0.8	0.9	2.1	1.8	2.0	2.0	1.7	1.5	2.1	2.0	2.2	2.6	2.4	2.5	2.8	2.5	2.2	2.4	2.7	3.3	0.8	2.2
9	1.2	1.5	3.0	3.6	3.6	3.6	3.7	3.6	3.9	4.0	5.0	5.8	5.5	5.1	4.8	4.8	5.3	4.8	5.4	4.4	3.5	3.1	3.1	2.8	5.8	1.2	4.0
10	2.5	2.3	2.2	1.9	1.5	1.2	1.0	0.8	1.0	1.0	1.2	1.5	2.2	2.4	2.8	3.0	2.6	2.6	2.2	1.4	1.4	1.3	1.4	1.6	3.0	0.8	1.8
11	1.6	1.4	1.3	1.3	0.8	0.6	0.5	0.6	0.5	0.9	1.0	1.2	1.2	1.3	1.6	1.7	2.0	2.0	2.0	1.8	1.8	1.9	2.0	1.7	2.0	0.5	1.4
12	1.5	1.3	2.2	2.6	3.4	3.5	3.7	3.7	3.8	4.4	5.5	5.6	5.7	5.9	5.9	5.8	5.9	6.0	5.7	4.9	3.7	3.0	2.4	2.3	6.0	1.3	4.1
13	2.1	2.1	2.1	2.4	2.0	1.3	0.8	0.6	1.3	1.7	1.8	1.7	1.9	1.7	1.3	1.4	2.3	2.2	1.7	1.4	1.0	0.5	0.6	0.4	2.4	0.4	1.5
14	0.1	0.0	0.0	-0.3	-0.6	-1.0	-1.0	-0.8	-0.1	0.8	1.5	0.8	1.2	1.0	1.0	1.4	0.9	0.7	0.3	0.0	-0.1	0.0	0.3	0.3	1.5	-1.0	0.3
15	0.7	0.7	0.7	1.3	1.4	1.7	2.0	2.3	2.0	2.3	2.3	1.9	1.8	1.9	2.1	2.1	1.9	2.3	2.9	1.9	1.8	1.6	1.8	1.5	2.9	0.7	1.8
16	1.2	1.1	0.9	0.7	0.4	0.3	0.1	-0.1	-0.2	-0.1	-0.4	-0.4	-0.4	-0.2	-0.2	-0.2	-0.1	0.2	0.1	-0.1	-0.4	-0.7	-0.8	-0.8	1.2	-0.8	0.0
17	-0.9	-0.9	-0.7	-0.7	-0.8	-0.9	-1.4	-1.7	-2.0	-2.2	-1.7	0.8	2.5	3.2	3.3	3.1	3.0	3.0	2.8	2.2	1.2	0.2	0.2	0.5	3.3	-2.2	0.5
18	0.2	-0.3	-0.2	0.1	0.7	0.2	-0.1	-0.2	0.3	1.1	1.9	2.8	2.6	2.5	2.9	2.9	3.1	2.9	2.8	2.7	1.9	1.1	1.2	1.3	3.1	-0.3	1.4
19	1.9	1.4	1.3	0.8	0.7	1.2	0.9	1.4	1.2	0.5	1.1	1.4	1.6	0.4	1.0	1.1	1.1	0.2	-0.7	-0.8	-1.0	-1.5	-1.7	-2.3	1.9	-2.3	0.5
20	-2.6	-2.7	-2.9	-3.7	-5.2	-4.6	-4.8	-3.7	-1.8	-0.4	0.2	-0.3	0.2	0.0	1.0	1.0	1.2	0.9	0.4	0.4	0.2	-0.2	-0.5	-0.7	1.2	-5.2	-1.2
21	-0.7	-0.7	-0.8	-0.8	-0.9	-1.0	-0.9	-0.9	-0.6	-0.1	0.9	0.9	2.3	2.6	2.6	3.3	3.7	3.9	3.5	2.6	0.9	-1.2	-2.1	-2.5	3.9	-2.5	0.6
22	-2.6	-2.7	-2.7	-3.6	-4.2	-3.8	-3.3	-2.7	-1.6	0.1	1.8	3.1	3.5	3.6	3.1	3.6	3.8	3.3	2.3	1.1	-0.4	-1.0	-0.9	-1.5	3.8	-4.2	-0.1
23	-2.3	-1.4	-2.4	-2.2	-2.2	-1.7	-2.1	-1.1	-0.6	1.0	2.4	2.5	3.0	3.7	3.7	2.9	2.5	1.7	1.6	0.2	-0.7	-1.1	-2.0	-3.3	3.7	-3.3	0.1
24	-3.5	-3.4	-3.7	-3.7	-4.4	-5.8	-7.0	-6.6	-5.6	-5.0	-3.8	-2.3	-1.7	-2.4	-2.5	-2.0	-1.4	-1.7	-1.6	-2.2	-2.9	-3.4	-3.8	-4.0	-1.4	-7.0	-3.5
25	-4.9	-4.8	-4.8	-5.1	-5.6	-6.1	-6.6	-6.6	-6.7	-6.5	-6.0	-4.8	-4.0	-3.1	-2.6	-2.6	-2.6	-3.0	-3.0	-3.5	-4.1	-4.6	-4.5	-3.9	-2.6	-6.7	-4.6
26	-2.4	-2.2	-2.0	-1.6	-1.5	-1.8	-1.5	-1.2	-1.0	-0.6	-0.1	0.0	-0.1	0.1	-0.1	-0.1	-0.5	-0.5	-0.3	-0.3	-0.5	-0.7	-0.5	-0.2	0.1	-2.4	-0.8
27	-0.1	-0.3	-0.3	-0.4	-0.4	-0.6	-0.5	-0.5	-0.6	-0.5	-0.5	-0.3	0.0	-0.1	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.8	-1.9	-2.2	-2.4	0.0	-2.4	-0.5
28	-2.3	-2.0	-1.8	-1.8	-2.1	-2.3	-2.6	-2.6	-1.9	-1.8	-1.6	-0.6	-0.4	-1.0	-0.7	-0.6	-0.4	-0.4	-0.5	-0.5	-0.4	-0.5	-0.9	-1.1	-0.4	-2.6	-1.3
29	-0.9	-1.0	-1.0	-1.2	-1.1	-0.9	-1.7	-2.7	-1.4	0.5	1.6	2.6	3.4	4.6	5.6	6.0	6.2	6.2	5.7	5.0	4.1	2.4	2.1	1.4	6.2	-2.7	1.9
30	1.6	1.7	0.5	1.2	1.7	1.1	0.9	1.7	2.7	3.6	5.0	5.9	6.5	6.9	7.2	7.8	7.7	7.4	7.4	6.0	5.1	3.4	1.8	2.2	7.8	0.5	4.0
Max.	3.3	2.6	3.0	3.6	3.8	4.2	3.7	3.7	3.9	4.4	5.5	5.9	6.5	7.0	7.4	7.8	7.7	7.4	7.4	6.0	5.1	3.4	3.1	3.6	7.8		
Min.	-22.5	-23.8	-23.1	-24.0	-23.7	-21.6	-22.4	-21.9	-22.5	-21.8	-20.9	-20.0	-18.3	-17.7	-17.6	-17.5	-17.4	-17.6	-17.7	-18.5	-20.7	-20.7	-21.7	-22.1		-24.0	
Avg.	-2.8	-3.0	-2.9	-2.8	-2.9	-2.9	-3.1	-3.0	-2.6	-2.0	-1.2	-0.6	0.0	0.2	0.4	0.5	0.6	0.4	0.1	-0.5	-1.2	-1.7	-1.9	-2.0			-1.5

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Backup Temperature (deg. C)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.5	1.6	2.3	4.2	4.0	1.0	3.5	4.0	5.6	7.2	8.6	9.7	10.5	11.0	12.0	11.7	11.3	11.1	11.1	10.7	9.6	8.7	8.3	8.0	12.0	1.0	7.4
2	6.8	7.0	5.4	6.7	5.7	5.2	5.8	6.1	7.5	8.5	9.7	11.4	11.7	11.9	12.5	13.1	13.5	13.7	13.4	12.3	10.3	7.8	4.9	4.3	13.7	4.3	9.0
3	3.7	1.7	2.5	2.2	0.7	1.3	1.3	2.2	5.9	9.3	11.6	12.2	12.3	13.2	14.2	14.4	14.5	14.3	13.4	11.8	7.6	6.5	4.3	3.5	14.5	0.7	7.7
4	2.6	1.1	1.0	0.2	-0.6	-0.6	-0.2	0.5	3.7	5.4	7.9	9.5	10.0	9.7	8.5	8.6	9.0	9.3	9.2	7.0	5.4	3.6	2.3	1.7	10.0	-0.6	4.8
5	1.0	0.6	0.4	0.8	1.7	2.1	2.4	3.0	3.1	3.4	3.4	3.6	3.7	3.9	4.2	3.1	3.3	3.8	3.7	3.9	3.9	3.1	3.2	3.6	4.2	0.4	2.9
6	4.1	3.8	3.8	3.4	3.0	2.6	2.5	2.3	2.0	1.6	1.3	1.0	0.7	1.3	1.0	1.0	2.0	2.6	1.7	2.4	2.6	2.3	1.5	1.4	4.1	0.7	2.2
7	1.6	2.1	2.9	3.6	4.0	4.0	3.7	3.4	3.6	4.0	4.2	4.4	4.4	4.4	5.1	5.6	5.3	5.6	5.3	4.3	3.8	3.7	3.4	3.2	5.6	1.6	4.0
8	2.8	1.6	1.2	0.5	0.2	0.0	-0.1	0.3	0.9	1.1	0.8	0.8	1.6	1.8	1.9	1.9	1.1	0.3	0.0	-0.3	-0.3	-0.4	-0.4	-0.6	2.8	-0.6	0.7
9	-0.7	-0.7	-0.9	-1.2	-1.2	-0.7	-0.4	-0.1	0.3	0.4	0.4	0.6	0.8	0.8	0.8	0.9	0.9	0.8	1.4	1.6	0.8	0.4	0.2	0.8	1.6	-1.2	0.3
10	1.2	1.6	1.4	0.6	0.1	0.1	0.2	0.3	0.4	1.2	1.4	1.7	1.9	1.7	1.5	1.7	1.2	1.0	1.0	0.6	0.5	0.4	0.2	0.3	1.9	0.1	0.9
11	0.3	0.2	0.2	0.0	-0.4	-0.6	-0.8	-1.4	-1.0	-0.5	-0.6	-0.7	-0.2	0.4	1.0	1.9	2.6	2.9	3.1	2.8	2.5	1.8	1.4	1.1	3.1	-1.4	0.7
12	1.0	1.0	0.8	0.9	0.6	0.8	1.2	2.0	3.0	3.9	4.9	5.8	6.9	7.0	7.6	7.4	7.4	7.3	6.3	5.7	3.9	3.6	4.1	3.5	7.6	0.6	4.0
13	2.6	2.9	4.3	4.5	3.6	4.3	5.1	5.3	6.2	6.8	7.4	7.9	7.4	7.0	5.3	4.5	2.9	1.6	1.6	1.9	1.9	1.8	1.7	2.0	7.9	1.6	4.2
14	1.7	1.4	1.7	1.8	1.9	2.0	2.4	2.8	2.7	2.4	2.6	3.3	4.9	5.8	5.4	5.2	5.9	7.1	7.0	7.2	7.4	6.2	5.3	5.1	7.4	1.4	4.1
15	5.7	6.0	6.6	5.6	5.3	5.1	5.8	7.6	8.9	8.4	6.8	5.3	4.8	5.1	6.7	7.8	7.0	6.6	5.4	5.0	5.0	4.5	4.1	3.9	8.9	3.9	6.0
16	2.8	4.5	4.8	4.7	4.6	4.8	5.0	4.2	4.1	4.1	4.0	4.6	5.4	5.3	5.5	5.0	4.8	5.6	5.3	4.8	4.7	4.0	3.8	3.2	5.6	2.8	4.6
17	2.7	1.5	1.4	1.2	1.1	1.5	2.2	2.6	2.7	3.1	2.2	3.0	3.4	3.0	3.3	3.1	3.5	3.5	3.8	3.7	3.4	3.1	2.9	2.7	3.8	1.1	2.7
18	2.6	2.7	2.4	2.0	2.0	2.0	2.1	1.9	1.9	1.7	1.8	2.2	2.3	2.3	2.3	2.1	1.9	1.7	1.5	1.1	0.8	0.5	0.2	0.2	2.7	0.2	1.8
19	0.1	-0.4	-0.9	-1.7	-1.8	-1.5	-1.3	-0.7	-0.5	-0.1	0.3	1.1	1.2	1.0	0.7	1.0	1.4	2.2	3.5	3.8	3.2	2.6	1.8	1.5	3.8	-1.8	0.7
20	1.2	0.9	0.6	0.6	0.5	0.3	0.6	1.6	2.7	3.6	5.3	6.5	7.0	7.7	8.6	8.9	9.1	8.9	9.1	8.8	8.3	7.8	6.4	4.9	9.1	0.3	5.0
21	3.7	2.6	2.1	2.2	2.6	3.5	4.1	6.7	7.5	7.4	7.8	7.3	7.2	7.6	8.2	8.1	7.7	6.9	6.8	6.5	6.4	6.2	5.0	3.9	8.2	2.1	5.8
22	3.5	2.8	2.4	2.4	2.4	2.4	2.5	2.8	3.2	3.5	4.0	4.5	5.0	5.8	6.8	7.5	7.9	8.3	9.5	9.9	9.5	8.8	8.1	7.8	9.9	2.4	5.5
23	8.1	8.5	10.6	12.2	11.7	11.8	11.3	10.7	10.2	10.0	10.0	10.2	8.9	8.1	7.8	8.1	7.7	7.1	7.1	7.1	6.8	7.2	7.2	6.7	12.2	6.7	9.0
24	6.0	5.6	5.7	5.4	5.1	5.3	5.9	7.0	7.8	8.3	8.4	9.1	9.2	10.0	11.0	11.7	10.9	10.7	11.3	12.4	12.4	9.7	7.8	5.7	12.4	5.1	8.4
25	5.0	5.2	4.4	4.7	5.1	5.3	6.1	7.5	9.4	11.8	12.3	12.7	13.6	14.1	14.2	13.8	13.9	13.4	12.4	11.3	10.5	8.5	7.2	5.7	14.2	4.4	9.5
26	4.6	4.3	3.3	2.6	2.5	2.1	3.3											9.0	8.6	7.7	6.5	5.3	3.8	2.7	9.0	2.1	4.7
27	1.3	0.1	-0.6	-0.2	0.0	0.4	1.7	3.1				6.5	7.9	7.5	7.1	9.5	9.4	9.9	8.9	8.3	6.8	5.0	3.3	1.3	9.9	-0.6	4.6
28	0.3	-0.1	-0.6	-0.9	-1.3	-1.2	-0.2	1.9	3.3	4.4	4.6	6.0	7.5	8.5	9.1	9.7	10.1	10.1	11.0	10.6	10.2	9.7	8.7	8.3	11.0	-1.3	5.4
29	7.7	7.2	6.6	6.2	5.8	5.9	6.8	7.4	7.2	7.6	8.5	9.6	8.5	8.7	10.6	11.2	10.9	11.0	12.2	12.0	10.7	9.8	8.6	6.2	12.2	5.8	8.6
30	4.8	3.2	1.8	1.6	0.5	1.2	2.8	6.8	9.4	11.6	13.3	14.9	16.4	16.7	16.2	16.6	17.0	17.1	16.1	16.1	15.5	14.7	13.4	11.2	17.1	0.5	10.8
31	10.6	9.4	9.9	9.0	8.1	7.7	7.5	7.5	8.2	7.8	6.6	6.2	7.1	8.3	9.3	9.1	9.1	11.1	11.8	12.1	12.0	11.2	8.5	7.0	12.1	6.2	9.0
Max.	10.6	9.4	10.6	12.2	11.7	11.8	11.3	10.7	10.2	11.8	13.3	14.9	16.4	16.7	16.2	16.6	17.0	17.1	16.1	16.1	15.5	14.7	13.4	11.2	17.1		
Min.	-0.7	-0.7	-0.9	-1.7	-1.8	-1.5	-1.3	-1.4	-1.0	-0.5	-0.6	-0.7	-0.2	0.4	0.7	0.9	0.9	0.3	0.0	-0.3	-0.3	-0.4	-0.4	-0.6		-1.8	
Avg.	3.3	2.9	2.8	2.8	2.5	2.5	3.0	3.6	4.5	5.1	5.5	6.0	6.4	6.7	6.9	7.1	7.1	7.2	7.2	6.9	6.2	5.4	4.6	3.9			5.0

Total Hours in Month

744

Hours Data Available

731

Data Recovery

98.3%

Rock Creek - Backup Temperature (deg. C)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.3	3.3	3.2	3.0	1.9	2.8	4.9	9.7	13.0	14.2	15.7	16.1	16.1	16.6	16.4	16.1	16.6	17.2	17.1	16.1	14.4	13.2	11.6	10.3	17.2	1.9	11.5
2	9.2	7.1	7.8	7.7	6.9	7.1	8.1	9.3	10.9	12.0	13.3	14.8	14.4	14.0	14.8	15.5	14.7	13.2	13.2	12.9	12.9	12.8	10.3	7.0	15.5	6.9	11.2
3	5.1	4.1	3.2	2.7	3.9	3.5	5.4	7.2	9.8	12.1	12.0	12.7	12.4	12.4	12.6	12.5	13.3	12.5	13.4	12.1	13.1	12.2	9.9	6.6	13.4	2.7	9.4
4	6.1	3.4	3.3	3.3	3.5	2.3	4.9	9.3	13.4	14.5	14.3	13.7	15.4	18.0	16.8	16.8	15.7	13.8	15.6	17.0	14.3	13.2	13.3	12.6	18.0	2.3	11.4
5	12.5	12.3	9.9	11.2	10.2	11.0	12.4	14.1	15.3	16.8	18.6	20.4	22.9	24.5	25.3	25.5	25.5	25.3	24.9	23.8	22.6	21.1	18.8	15.7	25.5	9.9	18.4
6	14.3	14.3	11.8	13.1	14.7	14.2	15.5	19.0	20.7	23.6	25.5	26.8	28.2	28.6	29.0	28.6	26.6	25.2	24.9	24.7	25.1	21.2	16.5	14.3	29.0	11.8	21.1
7	12.2	14.3	16.4	20.6	21.0	20.9	21.6	22.0	23.1	25.4	27.2	28.5	29.2	29.7	29.1	27.9	27.5	30.1	28.5	23.4	23.9	21.7	20.8	20.5	30.1	12.2	23.6
8	18.3	10.1	8.3	8.0	7.8	7.4	7.0	6.3	6.4	6.7	7.0	7.1	7.6	8.0	10.0	10.1	9.3	9.5	8.7	10.0	9.1	8.3	7.1	6.6	18.3	6.3	8.5
9	6.5	6.2	6.2	6.3	6.5	6.4	6.8	7.5	8.4	9.0	11.1	12.5	13.0	15.1	16.1	16.7	16.1	15.9	15.7	15.2	14.3	13.5	12.2	10.0	16.7	6.2	11.1
10	7.9	6.4	4.8	5.2	4.8	5.6	7.0	10.6	13.6	15.8	18.0	17.2	18.3	19.7	18.8	17.6	17.8	15.6	11.0	8.8	11.3	12.6	11.9	12.2	19.7	4.8	12.2
11	11.9	9.9	8.7	6.8	5.9	6.5	9.2	12.1	15.6	17.2	17.9	19.1	20.7	21.4	22.5	23.3	20.9	21.0	22.5	22.1	21.7	18.7	18.2	14.7	23.3	5.9	16.2
12	12.2	10.1	8.9	7.1	7.2	6.7	9.1	13.6	17.3	20.2	22.1	22.4	23.0	23.0	22.7	22.5	22.5	23.5	23.6	22.6	22.1	20.7	18.2	13.3	23.6	6.7	17.3
13	9.1	7.7	6.8	5.9	4.9	5.0	7.1	11.5	15.5	18.4	19.3	19.3	19.5	19.0	18.3	17.4	16.6	15.7	14.0	12.4	10.5	8.1	6.4	4.6	19.5	4.6	12.2
14	3.0	1.8	0.7	0.4	1.2	1.4	2.3	3.3	4.9	6.8	10.5	11.3	11.6	11.9	13.2	13.8	15.2	15.2	15.0	13.2	12.6	11.4	9.8	7.5	15.2	0.4	8.2
15	6.5	5.8	6.3	6.4	6.2	5.8	6.3	7.8	10.0	14.2	14.8	15.2	16.2	17.3	17.4	17.0	16.1	17.2	18.0	18.2	17.6	16.5	14.6	11.3	18.2	5.8	12.6
16	8.5	6.2	5.1	5.5	6.2	7.9	8.6	11.1	16.3	17.6	17.5	18.2	18.4	15.6	15.3	15.9	15.6	13.9	12.8	12.4	12.3	10.7	9.1	8.2	18.4	5.1	12.0
17	6.9	5.8	5.5	5.5	5.6	5.8	6.1	6.4	7.0	7.6	8.4	10.1	11.1	11.9	12.2	12.0	11.7	11.1	10.7	10.4	10.1	9.5	8.4	7.2	12.2	5.5	8.6
18	6.7	6.7	6.6	5.9	5.8	6.1	6.7	7.5	9.3	12.1	14.9	15.6	15.2	15.4	15.9	15.4	15.4	14.3	12.6	12.2	12.4	13.1	13.4	13.3	15.9	5.8	11.3
19	13.2	12.7	12.3	11.0	10.3	10.6	10.5	11.7	12.3	12.4	12.0	12.7	13.0	12.7	12.3	11.9	14.0	14.6	13.7	12.9	11.9	11.8	11.0	10.2	14.6	10.2	12.1
20	9.3	8.6	8.3	8.4	8.4	8.3	9.2	10.1	11.8	12.9	14.4	15.0	15.3	15.9	15.4	16.3	16.8	15.3	14.7	14.7	14.5	13.8	13.4	12.8	16.8	8.3	12.6
21	12.1	11.9	12.3	12.8	12.1	11.6	11.9	12.2	14.2	14.1	14.8	15.3	16.6	15.4	15.3	15.3	13.4	12.2	12.8	12.6	11.7	11.0	10.5	9.8	16.6	9.8	13.0
22	9.6	9.5	9.3	9.2	9.1	9.3	9.2	9.1	9.9	11.0	11.3	11.1	11.8	12.8	12.3	12.0	11.5	11.4	11.6	11.6	11.5	11.5	11.5	11.3	12.8	9.1	10.8
23	11.1	11.0	11.1	11.2	10.2	9.6	9.5	9.4	9.1	8.8	8.2	8.4	8.6	7.8	8.0	9.0	9.8	10.4	10.2	9.8	9.2	7.8	7.7	7.5	11.2	7.5	9.3
24	7.3	7.1	6.3	6.2	6.2	7.5	7.8	8.3	8.9	9.3	9.9	9.7	9.3	10.0	11.2	11.8	12.4	12.8	12.2	10.7	10.2	8.5	7.9	7.5	12.8	6.2	9.1
25	7.1	7.0	7.1	6.8	6.9	6.9	7.3	7.8	8.3	8.8	8.7	8.5	7.8	8.1	8.5	8.3	8.3	8.5	8.6	8.5	8.5	8.2	7.9	7.6	8.8	6.8	7.9
26	7.0	6.5	6.4	6.4	6.2	6.3	6.5	7.2	8.0	8.8	9.5	10.3	11.1	12.3	13.9	14.5	15.0	15.8	14.3	13.6	13.1	12.8	11.5	8.2	15.8	6.2	10.2
27	5.9	4.4	3.1	2.2	1.5	1.9	4.3	8.2	12.2	15.5	17.9	18.6	18.3	20.2	21.2	20.6	21.0	23.2	23.0	22.6	21.8	20.4	18.3	14.8	23.2	1.5	14.2
28	10.9	9.7	7.9	7.2	6.8	7.4	9.8	13.9	18.6	21.9	24.6	27.2	29.1	29.7	30.6	30.7	30.7	30.4	29.9	28.9	27.8	26.1	22.5	18.2	30.7	6.8	20.9
29	14.2	12.5	12.9	10.1	9.1	10.6	11.2	14.9	19.4	22.8	24.7	26.3	27.9	27.7	27.4	29.3	28.1	26.4	27.6	27.1	26.6	23.4	20.7	18.3	29.3	9.1	20.8
30	15.6	14.9	14.6	15.1	16.1	16.1	15.5	17.3	19.0	20.2	22.1	23.1	23.3	24.1	25.5	24.7	25.2	26.5	24.8	22.4	21.6	20.1	17.5	15.9	26.5	14.6	20.0
Max.	18.3	14.9	16.4	20.6	21.0	20.9	21.6	22.0	23.1	25.4	27.2	28.5	29.2	29.7	30.6	30.7	30.7	30.4	29.9	28.9	27.8	26.1	22.5	20.5	30.7		
Min.	3.0	1.8	0.7	0.4	1.2	1.4	2.3	3.3	4.9	6.7	7.0	7.1	7.6	7.8	8.0	8.3	8.3	8.5	8.6	8.5	8.5	7.8	6.4	4.6		0.4	
Avg.	9.5	8.4	7.8	7.7	7.6	7.7	8.7	10.6	12.7	14.4	15.5	16.2	16.8	17.3	17.6	17.6	17.4	17.2	16.8	16.1	15.6	14.5	13.0	11.3			13.3

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Wind Speed (m/s)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.8	0.9	0.9	0.8	0.6	0.5	0.9	0.8	1.0	1.1	2.7	2.5	3.7	4.8	6.8	6.2	5.1	6.0	4.5	5.7	5.9	5.9	6.4	5.7	6.8	0.5	3.5
2	4.2	4.9	5.0	3.1	3.9	4.4	2.8	4.5	4.9	4.8	5.3	6.2	7.2	7.1	7.2	5.9	7.2	5.9	7.3	6.7	5.1	2.9	6.2	5.0	7.3	2.8	5.4
3	5.4	7.0	5.5	4.5	4.4	7.3	6.8	2.1	4.3	4.7	2.1	2.3	1.6	1.7	2.3	2.2	3.0	2.9	1.9	2.3	2.8	2.8	1.6	1.4	7.3	1.4	3.4
4	1.0	1.1	1.0	1.8	1.1	1.7	1.7	1.3	2.1	2.9	1.1	1.0	0.8	4.1	4.8	4.1	3.5	4.5	5.2	6.0	7.3	7.6	8.3	8.4	8.4	0.8	3.5
5	7.5	8.5	7.3	7.8	9.4	8.7	7.8	8.0	6.0	6.3	6.3	5.2	4.7	6.2	5.6	6.1	6.7	4.8	8.7	9.6	9.0	8.8	10.2	10.8	10.8	4.7	7.5
6	12.4	12.4	11.6	11.2	11.0	11.3	11.6	9.1	9.7	7.5	6.2	8.4	8.4	7.7	5.2	7.4	7.6	7.9	6.8	5.8	7.9	6.9	7.6	7.9	12.4	5.2	8.6
7	6.5	6.0	3.2	3.0	4.1	4.8	2.1	2.7	2.2	1.3	4.7	2.8	3.1	1.8	1.7	2.6	1.8	3.2	3.0	4.7	2.4	2.1	1.6	1.1	6.0	1.1	2.9
8	2.0	1.5	1.7	3.5	5.5	6.1	2.4	3.5	6.0	5.5	5.9	6.0	5.0	5.3	7.7	7.0	6.9	7.7	7.1	6.5	7.2	7.3	6.7	6.1	7.7	1.5	5.6
9	3.5	5.1	7.5	7.8	8.8	8.6	8.1	8.2	7.6	6.9	5.0	4.2	5.0	6.1	6.9	6.3	6.1	8.6	6.0	6.1	6.6	7.9	8.2	7.8	8.8	4.2	6.9
10	8.3	8.3	8.6	8.5	9.3	9.1	8.6	8.7	8.2	8.2	7.2	7.8	7.5	7.8	8.1	8.3	7.2	7.3	8.0	6.8	7.0	5.7	5.2	4.7	9.3	4.7	7.6
11	5.7	6.9	7.1	6.5	5.8	6.2	6.6	6.3	6.4	6.1	6.1	6.0	5.7	4.9	4.2	3.8	3.9	3.7	4.0	5.0	3.4	2.2	2.7	4.6	7.1	2.2	5.1
12	5.0	4.2	6.2	5.9	6.2	6.4	6.9	8.0	7.2	8.1	8.7	9.7	10.1	10.5	11.9	11.2	8.4	7.7	6.6	6.9	5.6	6.2	6.0	6.4	11.9	4.2	7.6
13	6.7	7.3	7.1	7.4	8.1	8.6	8.6	8.1	9.0	8.6	8.0	7.3	5.0	4.4	3.8	3.8	5.7	7.0	6.5	5.7	5.0	5.5	5.7	5.7	9.0	3.8	6.6
14	5.1	4.4	4.6	5.4	5.4	5.5	6.8	8.1	8.9	9.4	10.3	11.7	11.4	12.1	9.8	8.1	8.0	7.7	8.2	6.9	6.8	4.2	5.6	6.3	12.1	4.2	7.6
15	6.6	7.7	10.2	11.8	12.0	13.3	11.2	9.2	11.2	14.8	14.9	13.9	13.4	13.4	11.9	11.0	10.3	9.7	9.3	9.4	9.5	9.5	9.4	8.6	14.9	7.7	11.1
16	8.4	9.0	8.1	7.5	7.8	8.1	8.1	7.8	7.3	7.5	7.4	6.7	6.5	6.2	6.3	5.7	5.3	4.4	3.9	3.8	2.8	3.3	2.7	1.9	9.0	1.9	6.0
17	2.5	2.4	2.4	2.2	1.9	1.9	1.9	2.2	1.8	2.8	4.2	4.4	5.8	4.9	5.9	4.7	5.1	5.0	5.3	5.3	4.9	5.4	5.5	6.2	6.2	1.8	4.0
18	4.6	4.3	3.0	3.8	5.3	5.4	4.8	4.6	5.2	5.8	5.2	4.7	4.8	6.0	6.8	4.7	3.3	2.3	2.0	2.9	3.1	4.2	3.3	2.1	6.8	2.0	4.2
19	3.3	1.1	1.5	3.8	4.6	3.4	2.0	1.9	2.4	1.5	1.6	2.1	6.0	5.1	4.5	3.9	4.9	3.9	3.0	2.2	2.5	2.2	2.1	3.1	6.0	1.1	3.0
20	1.9	1.5	1.4	2.5	1.7	3.2	1.2	2.8	1.0	1.3	1.7	1.4	1.9	3.3	3.2	3.3	3.0	3.7	3.2	1.9	1.8	2.2	1.9	1.7	3.7	1.0	2.2
21	1.4	1.2	1.2	0.5	0.7	1.4	1.0	1.0	1.6	2.6	2.2	4.0	2.6	2.0	2.6	1.7	2.8	4.2	5.4	6.1	6.0	6.7	6.9	6.1	6.9	0.5	3.1
22	3.9	3.8	3.7	6.6	5.1	5.1	2.6	2.7	5.3	7.3	7.3	6.4	5.7	7.5	7.6	8.1	9.2	9.2	9.1	9.5	11.1	11.0	8.1	4.8	11.1	2.6	6.8
23	8.5	8.7	7.0	7.6	7.7	6.8	7.9	5.0	6.2	5.8	7.2	6.1	5.2	5.9	5.2	5.5	6.5	6.5	6.6	6.7	5.6	4.8	3.3	2.1	8.7	2.1	6.1
24	1.7	1.8	3.8	2.2	1.8	1.2	0.9	1.3	2.1	4.5	2.3	1.2	2.5	4.1	2.9	2.0	1.2	2.4	4.3	2.0	2.3	1.5	0.8	0.8	4.5	0.8	2.2
25	2.3	2.8	1.7	1.9	1.8	2.0	2.5	2.4	2.9	1.6	3.1	1.9	2.6	3.9	4.7	4.6	4.8	5.0	4.9	4.7	4.9	4.9	2.1	2.1	5.0	1.6	3.2
26	7.0	7.6	7.5	7.0	7.3	9.0	10.9	11.9	12.1	12.0	10.6	9.0	7.1	6.1	5.9	5.9	7.0	5.7	6.2	5.5	5.6	4.5	4.3	7.0	12.1	4.3	7.6
27	7.8	6.8	6.7	6.3	5.9	4.9	4.7	3.7	4.3	6.2	6.4	6.1	5.2	4.5	4.6	4.3	4.4	3.9	4.7	4.5	1.4	0.6			6.8	0.6	4.8
28		0.5	2.4	3.5	3.1	3.8	3.5	2.7	5.2	5.6	5.2	6.1	7.1	6.8	6.6	6.4	5.7	5.4	3.9	2.7	2.7	3.0	5.0	5.0	7.1	0.5	4.4
29	1.8	1.2	1.6	0.8	0.6	1.5	2.2	3.0	4.3	4.2	4.7	5.1	4.8	5.0	4.8	5.0	4.4	5.0	4.9	5.0	4.3	4.9	5.6	6.7	6.7	0.6	3.9
30	6.3	5.7	5.2	6.3	6.4	5.8	6.1	3.6	6.6	5.5	5.2	5.8	7.3	8.0	7.1	4.3	3.7	3.5	3.5	4.3	3.8	3.0	4.3	4.9	8.0	3.0	5.2
Max.	12.4	12.4	11.6	11.8	12.0	13.3	11.6	11.9	12.1	14.8	14.9	13.9	13.4	13.4	11.9	11.2	10.3	9.7	9.3	9.6	11.1	11.0	10.2	4.9	14.9		
Min.	0.8	0.5	0.9	0.5	0.6	0.5	0.9	0.8	1.0	1.1	1.1	1.0	0.8	1.7	1.7	1.7	1.2	2.3	1.9	1.9	1.4	0.6	0.8	4.9		0.5	
Avg.	4.9	4.8	4.8	5.0	5.3	5.5	5.1	4.8	5.4	5.7	5.6	5.5	5.6	5.9	5.9	5.5	5.4	5.5	5.5	5.4	5.1	4.9	5.1	4.9			5.3

Total Hours in Month 720

Hours Data Available 717

Data Recovery 99.6%

Rock Creek - Wind Speed (m/s)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.3	6.5	8.6	10.6	9.6	3.5	7.7	8.2	7.4	3.5	4.8	4.9	7.7	9.0	8.2	10.6	5.6	4.5	5.0	3.6	3.4	3.4	8.9	10.4	10.6	3.4	6.8
2	7.4	5.3	3.9	5.8	4.6	6.2	5.5	5.4	5.9	5.7	5.8	5.3	5.4	4.9	4.5	3.6	3.8	3.1	3.4	3.4	3.8	4.9	2.6	1.5	6.2	1.5	4.5
3	1.2	1.0	1.2	0.8	0.7	0.7	0.7	0.7	0.7	0.9	1.2	1.9	2.3	1.5	2.7	2.8	3.5	3.1	2.7	3.0	2.0	0.8	0.7	0.8	3.5	0.7	1.6
4	0.9	0.9	0.9	0.6	1.0	0.7	1.2	0.9	0.8	1.3	1.5	2.1	2.9	4.1	4.0	3.9	4.1	3.1	2.8	2.9	2.1	1.7	0.7	0.9	4.1	0.6	2.0
5	1.0	0.7	0.6	1.0	1.1	1.1	1.5	2.9	4.1	4.8	5.9	4.4	3.4	3.3	4.0	3.6	2.7	3.4	3.2	3.4	2.7	3.7	7.1	8.3	8.3	0.6	3.3
6	8.3	6.8	5.9	4.9	5.1	4.9	5.5	5.8	5.9	5.6	4.8	5.2	5.6	4.0	2.9	2.5	1.9	2.5	2.2	1.0	2.2	2.7	1.4	1.3	6.8	1.0	3.9
7	2.3	1.5	4.4	7.0	6.6	6.2	6.1	5.8	5.5	5.0	4.0	4.4	3.9	4.7	5.7	5.7	6.8	6.3	4.4	5.0	4.3	4.0	3.1	3.9	7.0	1.5	5.0
8	4.1	3.0	2.0	2.3	1.9	1.6	0.8	0.8	1.9	6.3	6.9	6.9	7.5	8.0	7.8	6.6	6.2	4.8	4.5	4.1	3.7	3.3	0.8		8.0	0.8	4.2
9									4.6	5.2	5.4	6.3	7.6	8.9	10.3	10.3	10.1	10.3	9.1	8.3	7.5	5.0	3.4	4.2	10.3	3.4	7.3
10	5.8	6.1	6.4	5.4	4.6	4.4	5.9	5.4	6.5	7.8	8.7	9.1	9.7	8.9	9.4	8.6	8.4	8.5	8.2	7.5	6.5	6.8	6.6	6.5	9.7	4.4	7.2
11	6.8	6.1	5.5	5.4	5.0	4.5	3.8	1.3	1.8	3.8	4.1	3.7	3.0	3.3	2.5	2.1	3.7	3.2	3.1	3.8	4.3	4.3	4.0	3.5	6.1	1.3	3.7
12	3.0	3.7	3.2	2.3	1.1	0.9	1.4	2.0	1.5	1.8	3.9	4.1	3.9	4.9	5.6	5.1	4.7	4.8	3.6	2.8	1.7	1.4	2.3	3.3	5.6	0.9	3.0
13	1.6	2.0	2.0	2.1	0.9	2.2	5.5	5.5	6.5	5.7	5.1	4.3	5.9	6.3	7.6	6.4	5.3	3.5	2.1	1.1	1.6	1.4	1.3	3.3	7.6	0.9	3.8
14	3.8	4.7	4.3	2.0	4.0	4.9	3.4	3.6	2.6	1.8	1.3	1.0	3.3	5.1	4.4	4.2	4.8	4.0	3.3	3.1	2.6	3.8	3.6	4.9	5.1	1.0	3.5
15	4.5	5.2	4.8	3.2	3.9	3.3	4.7	3.7	6.4	5.5	7.8	6.5	4.6	3.4	4.0	4.6	6.7	7.2	6.6	6.1	5.5	5.1	5.3	3.9	7.8	3.2	5.1
16	2.0	3.4	5.3	6.1	5.5	5.8	5.7	8.1	7.9	7.2	6.5	7.0	6.1	4.9	6.1	7.0	7.8	7.6	9.5	8.1	8.2	8.9	9.6	9.7	9.7	3.4	7.0
17	10.9	8.7	7.3	7.7	6.1	6.3	7.7	9.1	9.2	10.2	8.3	6.7	8.1	6.7	7.4	6.6	6.5	6.8	6.4	6.5	6.7	6.8	6.6	6.8	10.2	6.1	7.4
18	6.7	6.9	7.3	7.1	6.8	6.4	6.9	7.1	7.0	7.6	8.1	7.5	7.9	7.8	8.4	8.3	7.4	6.7	6.5	6.2	4.6	3.2	2.9	3.3	8.4	2.9	6.6
19	2.5	1.7								0.4	0.9	1.8	3.1	4.4	3.9	3.7	3.5	3.7	4.5	3.8	2.5	2.4	2.3	1.3	4.5	0.4	2.7
20	1.3	1.2	1.7	2.0	1.3	1.6	0.7	1.5	1.6	1.5	2.2	3.0	2.7	2.4	3.0	2.9	3.1	3.2	3.0	2.6	1.9	2.9	4.4	3.5	4.4	0.7	2.3
21	1.7	0.9	1.1	0.9	1.2	1.0	1.7	3.3	3.2	3.3	3.2	2.7	2.9	2.5	4.8	4.7	3.1	2.9	2.1	2.1	2.5	1.5	3.0	2.0	4.8	0.9	2.5
22	1.6	2.8	1.7	0.8	1.1	1.1	1.0	1.0	1.3	2.1	2.0	1.8	1.9	1.0	1.9	3.0	3.2	2.2	1.8	3.6	4.8	4.3	3.7	4.2	4.8	0.8	2.3
23	4.4	5.7	4.1	7.6	7.4	7.2	7.1	7.3	7.5	6.0	4.7	5.0	3.4	2.8	2.2	2.0	3.1	1.9	0.9	1.2	1.0	0.9	1.0	1.0	7.6	0.9	4.0
24	1.3	1.6	2.4	2.3	1.6	1.2	1.1	1.2	1.2	0.9	2.5	2.0	3.0	2.8	1.8	2.3	3.9	3.6	3.0	1.7	3.2	2.5	1.1	1.3	3.9	0.9	2.1
25	1.0	1.8	1.1	0.8	1.5	1.6	1.1	1.0	0.7	1.1	3.5	3.0	3.6	4.5	5.5	5.1	5.2	5.9	6.5	6.6	5.3	5.1	4.1	5.2	6.6	0.7	3.5
26	4.2	2.0	2.1	3.8	3.4	3.4	2.6											4.5	4.9	5.2	5.1	4.7	3.2	3.2	5.2	2.0	3.7
27	2.3	0.7	0.7	0.8	0.9	0.6	0.9	2.0				3.0	2.4	0.9	0.7	1.9	5.7	6.4	7.8	6.7	7.2	7.5	6.0	8.9	8.9	0.6	3.6
28	6.8	5.5	5.8	6.5	5.9	5.1	4.2	4.3	3.8	2.3	1.8	2.0	3.8	3.6	2.9	3.1	3.8	3.5	3.6	4.2	4.9	4.5	4.5	2.8	6.5	1.8	4.0
29	1.5	1.7	1.1	1.1	1.3	1.0	0.6	1.6	2.6	2.0	1.9	2.0	4.2	3.6	4.1	4.6	4.4	3.4	3.1	4.0	5.0	4.2	4.3	5.7	5.7	0.6	2.9
30	6.2	4.3	1.7	1.1	1.2	0.7	0.8	2.6	4.8	4.3	4.0	2.3	2.6	4.4	3.9	4.0	4.0	4.4	3.9	4.3	3.9	3.9	4.7	2.6	4.8	0.7	3.2
31	2.3	1.7	2.9	1.9	1.6	1.4	1.6	1.7	2.4	2.3	4.1	4.1	4.4	3.6	5.2	4.3	2.1	2.2	2.2	2.1	1.6	2.4	2.3	1.9	5.2	1.4	2.6
Max.	10.9	8.7	8.6	10.6	9.6	7.2	7.7	9.1	9.2	10.2	8.7	9.1	9.7	9.0	10.3	10.6	10.1	10.3	9.5	8.3	8.2	8.9	9.6	10.4	10.9		
Min.	0.9	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.4	0.9	1.0	1.9	0.9	0.7	1.9	1.9	1.9	0.9	1.0	1.0	0.8	0.7	0.8		0.4	
Avg.	3.7	3.5	3.4	3.6	3.3	3.1	3.4	3.7	4.1	4.0	4.3	4.1	4.6	4.5	4.9	4.8	4.8	4.5	4.3	4.1	4.0	3.8	3.7	4.0			4.0

Total Hours in Month 744

Hours Data Available 715

Data Recovery 96.1%

Rock Creek - Wind Speed (m/s)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.0	0.9	0.7	0.7	0.8	0.8	0.7	2.8	5.0	4.9	3.7	3.7	4.0	5.4	5.7	5.0	3.8	4.2	6.2	8.2	6.4	6.2	5.2	4.5	8.2	0.7	3.9
2	3.5	2.6	3.9	3.1	1.0	1.2	1.0	0.8	1.3	2.1	2.6	2.4	4.1	4.6	4.5	4.3	4.9	4.1	2.9	1.6	1.2	1.9	1.1	0.6	4.9	0.6	2.5
3	1.0	0.7	0.7	0.8	0.8	0.9	0.8	0.7	0.8	1.9	3.5	4.5	5.1	5.0	5.1	4.4	4.9	4.3	3.7	3.4	1.6	1.1	1.1	1.1	5.1	0.7	2.5
4	0.8	0.8	0.9	0.8	0.8	0.7	1.1	1.0	1.2	1.1	2.9	3.2	2.0	3.5	4.3	5.4	4.1	1.8	1.4	4.7	5.8	6.4	7.3	6.9	7.3	0.7	3.0
5	7.0	5.2	2.4	3.3	3.6	4.2	5.0	4.4	5.9	5.8	7.2	5.7	4.6	4.6	4.2	4.4	4.6	4.5	5.2	6.5	7.2	7.4	6.6	7.3	7.4	2.4	5.2
6	6.5	3.7	2.9	4.3	4.3	3.7	4.7	5.3	4.4	4.2	4.9	4.6	4.4	5.4	6.8	7.2	7.0	4.6	3.4	1.4	1.2	3.3	1.6	1.2	7.2	1.2	4.1
7	1.5	3.9	3.1	7.6	8.0	7.9	7.5	7.8	8.1	6.3	5.7	6.7	7.4	7.2	5.8	4.4	3.1	2.7	3.9	3.2	2.8	5.3	5.5	6.2	8.1	2.7	5.7
8	3.6	2.8	4.0	1.5	2.8	3.2	3.3	2.8	2.1	2.8	3.2	3.6	3.8	4.6	4.6	6.1	6.1	5.7	4.2	3.7	4.0	3.1	4.2	2.6	6.1	1.5	3.7
9	1.9	3.0	2.4	2.6	2.2	2.5	2.1	1.3	2.1	3.8	3.0	2.4	1.5	1.5	1.7	2.9	3.5	4.1	4.9	4.6	4.4	3.3	2.7	1.8	4.9	1.3	2.8
10	1.4	0.8	0.8	1.4	2.0	1.0	0.6	1.9	1.8	1.8	2.6	4.7	4.3	4.9	5.7	5.2	5.0	5.0	4.2	2.4	2.8	2.5	1.1	1.3	5.7	0.6	2.8
11	1.1	1.4	1.0	0.8	0.7	0.9	0.8	0.9	1.1	2.0	3.6	3.4	3.9	5.0	5.3	6.1	4.1	3.2	5.2	5.2	4.2	5.1	2.3	1.5	6.1	0.7	2.9
12	1.0	1.0	0.8	0.9	1.0	0.8	1.0	0.9	2.3	2.2	1.9	3.4	3.9	4.4	4.6	4.8	4.5	3.9	3.0	3.7	2.3	1.8	1.2	1.1	4.8	0.8	2.4
13	1.0	0.9	0.6	0.6	0.6	0.8	1.1	0.9	0.7	1.8	3.1	3.6	4.2	5.2	5.3	4.6	4.6	4.5	4.3	4.1	3.9	3.7	2.7	1.1	5.3	0.6	2.7
14	0.7	0.7	0.6	1.4	1.2	0.5	1.0	0.9	1.2	2.4	3.1	4.0	4.5	4.4	4.3	4.0	4.3	4.5	4.2	4.3	2.8	2.0	1.3	1.0	4.5	0.5	2.5
15	1.0	0.9	0.7	1.3	1.3	1.3	0.8	1.1	0.8	1.7	3.4	4.2	4.7	4.0	3.5	4.9	4.7	3.9	3.2	2.5	2.3	1.9	1.2	1.0	4.9	0.7	2.4
16	1.2	0.8	0.7	0.7	1.1	1.0	0.8	0.9	0.8	1.8	1.7	0.8	1.9	2.2	2.5	1.5	2.1	2.9	2.6	1.0	1.8	2.5	2.0	1.9	2.9	0.7	1.6
17	2.8	3.4	3.3	2.3	1.9	2.0	1.5	1.4	0.9	1.0	1.2	1.5	2.4	3.7	3.8	2.3	2.9	3.1	2.5	2.1	2.7	3.0	3.3	2.8	3.8	0.9	2.4
18	2.1	1.2	1.1	1.3	1.7	1.4	1.3	1.7	1.3	1.8	1.4	2.4	4.6	4.3	3.8	4.1	4.5	4.1	3.1	2.9	4.0	6.3	6.0	5.9	6.3	1.1	3.1
19	5.0	1.9	2.6	3.3	2.3	1.0	1.2	1.8	2.1	4.3	5.4	5.3	5.6	4.1	2.6	2.6	2.1	2.0	4.1	4.2	3.6	2.8	1.9	1.2	5.6	1.0	3.0
20	1.5	1.0	1.0	1.3	0.8	0.9	1.4	3.8	3.1	4.3	4.1	3.6	3.7	3.5	3.2	2.3	2.3	2.3	1.4	1.5	2.5	3.1	3.6	2.7	4.3	0.8	2.5
21	1.3	1.1	2.7	3.1	1.2	1.3	2.6	2.0	2.0	3.7	3.8	4.2	3.8	4.5	3.6	3.1	3.6	2.9	1.2	2.3	4.0	2.0	1.9	1.2	4.5	1.1	2.7
22	1.8	3.9	3.3	3.2	3.0	3.2	3.4	2.5	1.8	3.7	4.5	4.9	4.5	3.9	5.0	5.1	5.6	5.1	5.2	6.0	5.7	5.9	4.7	4.5	6.0	1.8	4.3
23	4.7	5.6	6.0	5.0	5.1	4.6	5.1	6.5	7.0	6.9	6.7	7.1	7.2	7.2	6.1	5.7	6.6	7.0	6.5	5.4	5.0	4.2	3.8	3.4	7.2	3.4	5.8
24	3.5	3.4	3.0	1.2	1.1	3.1	3.6	3.7	4.9	4.3	4.6	4.8	5.3	4.9	5.3	5.8	5.6	5.1	4.8	4.9	5.4	4.5	3.2	2.2	5.8	1.1	4.1
25	2.3	3.0	3.1	1.2	1.7	2.5	3.4	3.7	5.0	5.2	6.0	7.2	6.4	5.7	5.3	4.5	4.7	4.2	4.2	3.6	3.5	2.7	1.7	1.7	7.2	1.2	3.9
26	2.1	1.5	1.8	1.8	2.2	1.7	1.2	0.9	0.8	1.6	1.8	2.2	2.4	2.4	2.5	2.9	1.8	3.4	5.8	5.2	4.6	2.9	3.0	3.0	5.8	0.8	2.5
27	1.5	1.4	1.0	1.2	0.9	0.6	0.7	0.6	0.6	0.9	1.2	3.5	4.5	3.4	3.6	5.9	4.9	3.4	4.1	3.4	3.5	3.4	4.0	4.7	5.9	0.6	2.7
28	3.5	1.2	0.7	0.7	0.7	1.0	0.8	1.3	1.0	3.6	3.4	2.3	2.2	2.5	2.6	2.5	2.9	3.3	4.2	4.6	4.8	4.1	3.0	1.1	4.8	0.7	2.4
29	2.1	0.9	1.0	0.8	1.1	0.8	1.5	1.5	0.8	0.8	1.8	1.7	3.1	4.4	3.7	2.4	3.8	3.2	2.6	2.0	0.9	1.1	1.2	2.0	4.4	0.8	1.9
30	2.8	2.6	3.0	3.0	2.3	1.7	1.7	1.1	0.9	1.2	1.7	2.0	2.5	2.2	2.5	3.1	2.6	2.0	3.4	3.0	2.1	1.2	1.4	1.1	3.4	0.9	2.1
Max.	7.0	5.6	6.0	7.6	8.0	7.9	7.5	7.8	8.1	6.9	7.2	7.2	7.4	7.2	6.8	7.2	7.0	7.0	6.5	8.2	7.2	7.4	7.3	1.1	8.2		
Min.	0.7	0.7	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.8	1.2	0.8	1.5	1.5	1.7	1.5	1.8	1.8	1.2	1.0	0.9	1.1	1.1	1.1		0.5	
Avg.	2.4	2.1	2.0	2.1	1.9	1.9	2.1	2.2	2.4	3.0	3.5	3.8	4.1	4.3	4.2	4.2	4.2	3.8	3.9	3.7	3.6	3.5	3.0	1.1			3.1

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.0	2.0	1.8	1.9	1.7	1.3	1.9	2.0	2.5	2.4	4.7	4.5	8.5	7.7	9.2	8.5	7.4	8.4	7.2	7.8	7.6	9.5	8.8	8.4	9.5	1.3	5.5
2	5.7	8.9	8.8	5.8	6.8	6.4	8.1	6.6	7.4	9.7	8.6	9.1	9.9	11.1	10.2	8.5	9.7	9.3	11.5	9.6	9.5	7.8	10.1	8.0	11.5	5.8	8.8
3	7.9	8.6	8.5	8.4	7.6	9.7	9.2	5.3	7.6	7.3	5.8	5.2	3.9	3.9	4.0	3.7	4.9	5.1	4.3	5.1	6.0	6.1	3.8	3.4	9.7	3.4	6.0
4	2.4	2.3	2.6	5.4	2.7	3.8	4.3	3.4	4.0	5.6	3.3	2.7	1.6	6.5	6.8	9.0	5.5	6.3	6.8	8.7	9.3	9.3	9.4	10.9	10.9	1.6	5.7
5	10.2	10.8	14.4	11.5	12.1	12.0	10.8	11.4	8.6	9.0	8.9	9.1	8.8	8.9	9.3	8.7	10.8	9.8	12.9	13.1	11.9	11.7	14.9	15.1	15.1	8.6	11.1
6	16.6	16.2	15.6	14.9	14.4	13.8	14.5	13.4	13.3	13.4	10.0	11.1	11.9	10.9	10.1	12.0	12.0	10.9	10.3	14.5	11.8	10.9	10.8	11.4	16.2	10.0	12.5
7	9.4	9.5	5.9	6.9	10.2	10.8	6.2	6.7	6.7	3.8	7.8	7.3	7.4	4.0	4.5	5.5	3.5	4.8	4.9	6.0	4.2	4.5	4.4	2.6	10.8	2.6	6.0
8	4.6	3.6	3.9	10.6	11.5	12.1	4.2	7.1	9.8	8.0	8.8	9.4	7.8	9.3	11.0	11.0	10.4	10.2	10.2	8.8	10.5	9.5	8.7	8.5	12.1	3.6	8.9
9	7.1	8.9	10.0	10.5	10.9	10.7	11.1	10.9	10.7	10.7	7.4	6.3	8.3	9.8	10.1	10.0	11.4	12.1	10.1	9.3	9.9	12.2	12.4	11.6	12.4	6.3	10.2
10	13.3	12.3	13.0	12.8	13.3	13.1	12.8	11.7	11.2	11.3	9.5	10.6	10.4	10.2	11.1	11.4	9.7	11.1	11.6	9.9	9.3	8.5	8.0	6.8	13.3	6.8	10.8
11	7.9	9.6	9.2	9.8	8.2	8.3	8.5	8.4	8.6	8.2	8.5	8.2	7.5	7.2	5.8	4.9	5.2	5.6	6.0	6.9	6.8	5.6	4.9	6.3	9.8	4.9	7.3
12	6.5	6.2	8.8	8.7	10.0	9.8	9.5	9.8	9.3	11.2	11.8	13.1	13.4	14.2	15.6	15.4	12.3	11.2	9.5	10.1	9.0	8.9	8.7	8.6	15.6	6.2	10.7
13	8.9	9.5	9.4	10.6	12.5	12.1	11.5	12.1	12.3	11.9	11.4	10.5	7.7	6.4	5.5	5.7	8.5	9.4	9.2	7.9	7.0	7.8	8.4	8.4	12.5	5.5	9.4
14	7.4	5.9	6.5	7.9	7.7	8.6	9.6	11.6	12.6	13.5	14.8	16.5	18.0	17.4	14.4	11.7	13.9	13.2	13.3	10.9	10.3	8.0	9.3	9.4	18.0	5.9	11.5
15	10.3	12.6	13.9	16.4	17.7	19.8	17.3	14.6	19.3	21.1	21.0	20.5	20.1	19.4	17.3	15.9	14.0	13.5	13.2	13.2	13.9	13.5	13.7	12.2	21.1	12.2	16.3
16	11.6	12.7	13.5	10.8	11.5	11.5	10.8	11.0	10.7	10.4	11.6	10.1	9.2	9.6	9.1	8.5	7.5	6.3	6.2	6.0	4.7	5.1	4.4	3.2	13.5	3.2	8.9
17	3.7	3.3	3.7	3.7	3.5	3.6	4.0	3.9	3.8	4.8	6.2	8.1	8.4	9.1	9.7	9.2	8.3	8.4	8.7	8.4	8.9	8.0	8.7	8.9	9.7	3.3	6.7
18	7.6	6.7	4.3	6.6	7.4	7.6	7.7	6.6	7.9	8.2	8.4	7.6	8.4	8.4	9.2	7.5	5.6	4.1	4.8	4.5	5.0	6.0	5.7	4.7	9.2	4.1	6.7
19	5.3	2.9	3.6	5.7	6.0	5.3	5.4	4.4	5.4	4.8	5.3	4.8	8.7	7.7	6.4	5.8	6.8	6.8	5.2	3.4	3.4	3.2	3.1	3.8	8.7	2.9	5.1
20	2.9	2.3	2.6	5.1	3.1	6.0	2.7	5.4	2.8	3.1	3.2	3.1	5.1	5.0	5.2	4.5	4.4	5.1	4.8	2.9	2.9	2.9	2.7	2.9	6.0	2.3	3.8
21	2.1	1.6	1.7	1.4	1.5	2.0	1.8	1.9	4.4	5.8	4.5	5.5	5.3	3.9	6.7	3.8	5.0	6.1	7.1	7.6	7.7	8.4	8.7	8.8	8.8	1.4	4.8
22	8.4	8.0	7.7	9.0	8.0	9.8	7.8	8.4	10.3	11.8	10.2	9.2	8.6	9.9	10.3	11.4	12.6	11.9	12.8	13.6	14.8	14.6	12.8	10.4	14.8	7.7	10.6
23	11.7	11.8	10.6	11.0	11.4	10.6	10.7	8.2	9.1	8.8	11.0	10.1	7.8	8.1	7.4	7.9	8.7	9.2	9.0	9.1	8.5	7.7	7.6	4.8	11.8	4.8	9.1
24	5.2	4.0	7.5	6.0	4.0	3.3	2.5	4.8	6.2	6.3	4.4	3.2	5.5	6.4	5.4	4.3	2.7	6.1	6.6	5.9	3.7	3.0	1.7	2.2	7.5	1.7	4.6
25	4.0	3.7	3.0	3.7	2.9	3.5	3.9	3.7	5.1	4.3	4.9	3.7	5.4	6.3	6.9	6.6	7.6	7.5	8.0	7.4	7.4	8.7	4.5	4.8	8.7	2.9	5.4
26	15.1	16.2	11.2	10.1	10.8	13.5	15.6	17.3	16.7	17.3	15.9	12.9	11.1	9.2	8.6	8.9	11.3	8.5	9.9	8.6	8.4	7.2	7.6	11.4	17.3	7.2	11.7
27	11.9	12.5	9.8	9.9	9.0	7.3	7.4	5.8	6.4	9.2	8.8	8.4	7.1	6.9	7.0	5.9	6.2	6.0	6.5	6.5	4.7	4.3			12.5	4.3	7.4
28		3.7	3.9	5.4	4.9	5.2	5.3	4.8	8.2	7.9	8.4	9.5	9.3	9.1	8.9	8.7	7.9	8.2	6.5	3.9	3.9	5.0	8.4	7.8	9.5	3.7	6.7
29	5.1	2.3	3.7	1.6	1.3	3.3	3.1	5.9	6.2	6.3	7.4	7.8	8.1	6.8	6.7	6.7	6.2	6.8	6.4	6.3	5.6	5.9	7.0	8.1	8.1	1.3	5.6
30	8.1	9.1	7.8	8.5	9.1	7.8	9.1	6.9	9.1	7.8	8.1	8.3	11.2	11.3	10.4	7.6	6.2	5.5	5.6	6.5	6.4	5.7	9.9	9.1	11.3	5.5	8.1
Max.	16.6	16.2	15.6	16.4	17.7	19.8	17.3	17.3	19.3	21.1	21.0	20.5	20.1	19.4	17.3	15.9	14.0	13.5	13.3	14.5	14.8	14.6	14.9	9.1	21.1		
Min.	2.0	1.6	1.7	1.4	1.3	1.3	1.8	1.9	2.5	2.4	3.2	2.7	1.6	3.9	4.0	3.7	2.7	4.1	4.3	2.9	2.9	2.9	1.7	9.1		1.3	
Avg.	7.7	7.6	7.6	8.0	8.0	8.4	7.9	7.8	8.5	8.8	8.7	8.5	8.8	8.8	8.8	8.3	8.2	8.2	8.3	8.1	7.8	7.7	7.9	9.1			8.2

Total Hours in Month 720

Hours Data Available 717

Data Recovery 99.6%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	6.0	12.3	13.5	14.5	14.7	9.7	11.5	11.6	11.6	7.7	11.9	12.1	12.0	11.4	11.6	14.4	10.0	9.2	9.0	8.2	7.8	10.2	17.3	18.6	18.6	7.7	11.8
2	11.3	11.1	9.7	11.7	8.7	9.1	9.5	8.5	10.3	8.0	8.4	7.8	7.4	7.2	7.0	6.6	6.5	5.5	5.2	4.6	5.2	6.7	6.2	4.0	11.7	4.0	7.6
3	4.2	2.7	2.4	1.9	1.6	1.5	2.0	1.3	1.5	2.0	2.2	4.1	4.2	3.5	5.2	5.7	5.4	5.6	4.9	4.4	5.1	2.2	1.9	1.7	5.7	1.3	3.2
4	1.7	2.8	1.9	1.2	2.1	1.3	2.1	1.9	2.3	2.6	2.5	4.2	5.0	6.0	5.5	6.0	6.2	5.4	4.1	4.3	2.7	3.0	1.4	1.8	6.2	1.2	3.3
5	1.8	1.5	1.1	2.1	2.3	2.1	3.1	9.3	9.0	8.4	8.8	6.0	5.1	5.2	5.8	5.3	3.9	4.7	4.7	5.2	5.5	7.1	11.7	12.3	12.3	1.1	5.7
6	11.6	9.6	10.0	7.4	8.4	9.1	8.6	9.3	8.9	8.4	8.6	7.3	9.0	6.9	4.9	4.0	3.9	5.2	5.7	1.8	4.4	4.4	3.0	2.2	10.0	1.8	6.6
7	5.0	3.8	10.6	11.5	10.4	9.4	8.3	8.0	7.8	7.8	5.7	7.5	5.9	8.0	8.9	9.9	9.5	10.7	7.7	8.3	7.2	6.4	5.0	5.9	11.5	3.8	8.0
8	5.5	5.6	4.0	4.5	2.8	2.4	1.7	2.7	5.4	9.1	9.3	10.4	11.2	13.4	12.5	10.1	9.7	8.6	6.2	6.7	5.6	5.1	4.0		13.4	1.7	6.9
9								6.0	6.6	7.5	8.5	9.3	11.2	13.5	14.4	15.0	15.4	14.6	14.2	12.7	12.2	8.9	7.1	7.8	15.4	6.0	10.9
10	9.4	9.6	11.4	8.6	9.1	10.1	10.1	9.0	10.7	11.9	12.7	13.5	14.1	14.3	13.7	13.7	13.0	13.7	12.9	12.8	10.3	10.8	10.8	10.3	14.3	8.6	11.6
11	10.0	9.6	8.7	8.0	8.6	7.3	6.4	4.9	4.7	5.3	5.6	6.0	5.8	5.5	4.3	4.6	6.0	5.4	5.2	5.8	6.1	5.7	6.0	5.0	9.6	4.3	6.1
12	4.9	5.0	4.8	3.6	2.4	2.2	3.2	3.6	3.3	4.1	6.0	5.8	6.1	7.7	9.2	8.4	7.4	7.0	5.6	4.4	3.9	2.8	4.6	5.2	9.2	2.2	5.1
13	4.2	5.1	4.3	4.8	3.1	6.6	8.4	8.7	9.9	9.1	8.3	7.6	11.1	12.1	11.2	9.6	9.8	5.2	3.5	1.7	4.4	2.4	3.9	5.4	12.1	1.7	6.8
14	6.3	6.9	8.2	5.7	6.1	8.0	7.2	5.2	4.6	3.3	2.2	1.6	5.4	7.1	6.7	6.2	6.4	6.1	5.2	4.9	4.4	5.8	6.0	6.9	8.2	1.6	5.7
15	6.9	7.9	9.3	5.9	6.0	7.7	7.7	6.8	9.4	12.1	13.8	10.4	8.0	5.7	6.7	7.9	9.4	9.9	9.4	9.3	7.7	7.5	7.6	7.9	13.8	5.7	8.4
16	4.8	7.3	8.4	9.4	8.3	9.4	11.4	12.3	11.9	10.2	9.6	10.6	9.2	8.4	10.4	11.5	12.3	13.8	15.0	14.8	12.0	13.8	16.1	15.4	16.1	7.3	11.4
17	19.0	15.7	11.4	12.0	12.3	11.3	12.4	14.1	14.2	15.1	17.8	11.8	12.6	10.7	12.3	10.4	10.5	10.3	10.4	9.4	10.2	10.4	10.8	10.6	17.8	9.4	12.0
18	10.2	11.7	11.3	10.9	10.9	9.9	10.5	11.5	10.8	13.1	12.3	13.0	12.6	12.3	12.8	13.7	11.4	10.3	11.3	10.1	7.8	5.1	4.5	6.6	13.7	4.5	10.6
19	4.6	4.8								2.8	2.4	3.4	4.6	6.9	5.5	5.4	5.3	5.8	6.8	6.9	3.9	3.3	3.5	2.1	6.9	2.1	4.6
20	2.4	2.2	2.7	3.3	2.0	2.4	1.6	2.8	2.5	3.4	5.2	5.7	5.8	5.0	5.5	5.7	5.8	5.1	4.9	4.0	4.2	5.2	5.9	5.7	5.9	1.6	4.2
21	3.6	3.5	2.8	2.3	3.7	2.6	3.6	5.8	5.2	5.5	5.9	5.6	7.2	6.4	9.2	8.0	6.7	4.5	4.7	5.3	4.8	3.7	5.0	3.2	9.2	2.3	5.0
22	2.6	5.7	2.4	1.3	2.5	2.5	1.8	2.0	2.5	3.3	3.0	3.2	3.1	2.0	4.2	5.2	5.3	4.2	3.9	5.8	7.2	6.7	6.5	7.2	7.2	1.3	4.0
23	8.4	9.2	8.6	13.2	10.7	10.2	11.0	11.3	11.5	9.7	8.1	10.1	8.1	4.4	3.1	3.5	4.7	3.9	1.7	2.8	2.1	2.1	2.1	2.1	13.2	1.7	6.7
24	2.3	3.1	4.1	3.4	2.6	2.3	1.7	1.9	1.9	1.4	4.6	3.8	4.8	4.3	3.2	4.8	6.0	5.7	5.5	5.0	5.5	4.4	2.3	4.9	6.0	1.4	3.8
25	2.7	5.9	3.5	1.4	3.5	3.1	2.1	2.0	1.5	3.3	5.6	5.4	8.8	7.6	8.3	8.5	8.4	9.1	10.7	10.4	9.1	9.5	6.8	7.8	10.7	1.4	6.2
26	7.5	4.3	4.0	5.2	4.8	4.8	4.4											7.6	7.7	7.5	8.0	7.5	6.0	6.2	8.0	4.0	6.0
27	3.5	1.3	1.3	2.4	1.9	1.7	1.6	5.1				5.9	5.1	12.6	19.1	17.1	9.5	10.3	11.4	10.9	10.4	10.7	8.6	13.8	19.1	1.3	8.0
28	10.9	11.5	10.8	9.8	10.3	8.0	6.3	7.2	6.0	4.8	4.3	5.6	12.3	8.7	7.4	6.0	8.8	6.4	6.7	6.5	7.2	6.4	6.1	4.7	12.3	4.3	7.5
29	4.2	3.8	2.3	2.1	2.1	2.1	1.3	3.2	4.5	3.3	3.5	3.8	6.6	6.4	6.1	7.6	7.4	6.8	7.8	6.6	7.6	6.2	6.1	7.9	7.9	1.3	5.0
30	7.7	8.3	4.0	2.7	2.6	1.8	1.7	6.3	6.7	6.4	6.1	5.2	6.5	7.9	6.8	6.6	7.7	7.0	7.0	7.0	6.3	6.7	7.4	5.9	8.3	1.7	5.8
31	5.7	3.5	5.7	3.6	3.9	3.4	2.6	2.9	4.8	5.6	7.3	6.6	6.8	6.4	9.0	7.2	5.7	5.4	5.8	3.8	4.0	3.5	3.7	4.5	9.0	2.6	5.0
Max.	19.0	15.7	13.5	14.5	14.7	11.3	12.4	14.1	14.2	15.1	17.8	13.5	14.1	14.3	19.1	17.1	15.4	14.6	15.0	14.8	12.2	13.8	17.3	18.6	19.1		
Min.	1.7	1.3	1.1	1.2	1.6	1.3	1.3	1.3	1.5	1.4	2.2	1.6	3.1	2.0	3.1	3.5	3.9	3.9	1.7	1.7	2.1	2.1	1.4	1.7		1.1	
Avg.	6.3	6.5	6.3	6.0	5.8	5.6	5.7	6.4	6.8	6.7	7.2	7.1	7.9	7.9	8.3	8.3	7.9	7.5	7.2	6.8	6.5	6.3	6.4	6.8			6.9

Total Hours in Month 744

Hours Data Available 716

Data Recovery 96.2%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.7	2.7	1.6	2.9	1.6	1.7	1.3	5.2	7.2	6.7	6.0	6.5	6.1	10.0	8.4	8.1	6.1	7.9	9.9	12.0	10.8	9.8	8.2	7.6	12.0	1.3	6.4
2	6.7	4.5	5.3	5.5	2.4	2.7	3.3	1.5	2.6	3.5	4.5	5.8	6.1	6.9	7.4	7.5	7.6	6.0	4.6	2.5	2.1	2.9	2.0	1.3	7.6	1.3	4.3
3	2.3	1.6	1.5	2.1	1.5	1.7	1.4	1.4	2.0	4.6	5.5	6.8	7.2	7.3	8.3	6.7	7.5	7.3	5.3	5.1	3.3	1.9	3.1	2.5	8.3	1.4	4.2
4	2.1	1.7	1.7	1.9	1.5	1.3	2.1	2.7	2.1	2.9	5.0	4.9	5.9	6.7	8.1	8.8	7.5	4.8	6.7	8.7	8.3	9.2	9.9	9.0	9.9	1.3	5.3
5	9.5	9.1	5.3	7.7	5.2	7.1	7.1	7.4	8.3	9.3	10.0	9.1	7.4	7.9	7.9	7.8	7.9	7.7	9.1	10.1	10.5	10.6	10.6	9.3	10.6	5.2	8.4
6	9.4	9.2	5.2	8.5	8.2	6.7	7.7	8.2	8.6	7.5	9.6	7.8	8.4	9.2	11.0	11.0	11.0	8.2	7.7	3.0	2.5	5.7	4.0	2.8	11.0	2.5	7.5
7	4.5	5.7	8.1	12.8	12.1	11.5	11.3	11.3	11.5	9.8	11.3	11.5	11.5	12.3	15.5	8.1	6.0	4.9	6.7	7.2	6.0	7.5	7.2	8.4	15.5	4.9	9.5
8	9.9	5.5	8.6	4.5	4.2	5.5	5.2	4.6	3.9	4.3	5.2	5.6	7.1	7.5	7.0	9.1	9.4	8.3	7.9	8.4	8.3	6.8	7.6	5.9	9.4	3.9	6.5
9	3.7	4.6	5.9	7.8	3.3	4.4	3.9	3.2	4.6	5.9	5.7	4.7	2.9	3.7	4.0	5.5	6.4	5.9	7.0	6.9	6.8	4.7	3.8	2.9	7.8	2.9	5.0
10	3.0	1.8	1.8	3.0	4.3	2.1	1.3	3.1	3.3	3.1	6.4	6.6	6.9	7.1	8.5	8.1	7.6	7.0	8.8	5.0	5.7	5.4	2.6	2.3	8.8	1.3	4.9
11	3.7	2.7	2.4	1.3	1.9	1.6	1.8	1.7	2.1	4.4	5.5	5.3	6.1	7.0	9.1	10.2	6.9	7.0	8.4	7.6	6.5	7.9	4.2	3.6	10.2	1.3	5.0
12	2.6	2.3	1.6	2.1	2.2	1.9	2.3	1.7	3.8	4.3	4.9	5.4	6.8	6.8	6.9	7.2	7.2	6.4	5.7	6.1	3.7	3.2	2.6	2.5	7.2	1.6	4.2
13	1.9	1.4	1.5	1.2	1.4	1.9	1.9	1.6	1.6	4.1	6.6	6.0	6.8	7.5	8.0	6.8	7.4	6.9	5.8	6.2	5.5	5.1	4.2	2.1	8.0	1.2	4.4
14	1.2	2.1	1.1	3.4	2.7	1.0	2.1	2.1	2.6	3.9	5.4	6.0	6.6	6.8	6.7	6.5	6.4	7.2	6.1	6.1	4.4	3.3	1.7	1.6	7.2	1.0	4.2
15	1.9	1.4	1.3	2.4	2.2	2.3	1.5	2.2	2.1	3.6	5.2	6.5	6.8	6.9	5.7	8.1	7.3	6.7	5.9	4.3	4.2	2.9	2.3	2.2	8.1	1.3	4.1
16	2.6	1.7	1.7	2.1	3.2	3.1	1.4	1.7	1.9	2.7	2.5	1.6	3.3	5.4	4.1	3.0	4.6	4.7	3.9	2.2	3.0	3.5	3.1	2.7	5.4	1.4	2.9
17	5.3	4.7	4.4	3.6	2.8	3.1	2.3	2.2	1.9	1.9	2.2	3.3	4.8	6.3	6.5	4.3	4.7	4.2	3.7	3.5	3.8	4.5	5.0	4.3	6.5	1.9	3.8
18	3.4	2.1	2.0	2.4	2.6	2.4	3.2	2.6	2.4	3.5	3.3	5.1	7.6	7.4	8.0	6.8	7.0	7.3	4.9	5.2	8.4	9.8	9.3	8.4	9.8	2.0	5.3
19	7.8	6.2	4.7	6.1	3.4	1.9	2.7	3.3	5.4	6.6	9.2	8.0	8.1	7.0	4.7	4.7	3.9	4.2	6.3	6.1	5.9	4.4	4.2	3.4	9.2	1.9	5.2
20	3.7	2.2	1.8	3.2	2.7	2.2	5.1	6.1	6.5	7.0	6.8	6.1	5.8	6.3	7.6	4.9	4.5	4.2	3.4	2.5	4.0	4.8	5.2	5.2	7.6	1.8	4.7
21	3.2	2.6	6.9	5.9	2.4	2.6	4.2	3.5	5.0	5.8	6.6	7.4	7.1	6.8	6.0	5.8	5.4	5.3	3.2	6.0	6.8	3.4	3.6	3.2	7.4	2.4	5.0
22	3.9	6.0	5.2	4.5	3.9	6.1	5.2	5.2	4.4	6.0	7.4	7.2	7.1	6.6	7.5	7.6	8.5	7.9	8.8	9.7	9.3	9.5	7.2	6.9	9.7	3.9	6.9
23	7.3	8.7	9.1	9.0	8.1	7.9	8.2	10.7	11.2	10.9	11.3	10.9	11.2	12.4	10.0	8.4	11.1	11.4	10.6	9.0	7.8	6.8	5.6	4.4	12.4	4.4	9.3
24	4.3	4.3	4.2	2.1	3.0	5.3	6.2	6.4	7.6	7.2	7.1	7.2	9.7	7.8	8.2	8.9	9.2	9.5	7.4	7.4	9.7	8.2	6.1	3.2	9.7	2.1	6.8
25	3.1	4.6	4.9	2.0	3.3	4.0	5.6	6.7	8.0	8.4	10.1	11.0	10.2	8.7	8.9	7.6	7.6	6.8	5.9	5.4	5.9	4.6	2.6	2.9	11.0	2.0	6.3
26	5.1	2.7	3.7	3.7	4.3	3.5	2.7	1.7	1.6	3.5	3.2	4.0	4.9	4.9	5.5	6.3	4.8	10.8	9.6	7.6	6.6	5.6	4.2	3.9	10.8	1.6	4.8
27	3.2	3.5	3.6	2.8	2.4	1.3	1.4	1.0	1.6	2.1	3.2	6.2	6.9	6.6	6.3	8.6	7.9	6.3	6.3	6.5	5.0	5.2	5.4	6.1	8.6	1.0	4.6
28	6.3	4.1	2.1	1.5	1.5	3.9	2.1	3.7	4.4	5.0	6.4	4.9	5.0	5.2	5.0	5.1	6.1	6.8	6.9	7.2	8.2	7.6	5.6	3.2	8.2	1.5	4.8
29	4.2	2.2	2.2	1.6	2.4	1.8	3.8	2.7	1.9	1.9	4.0	5.2	6.8	7.1	6.3	5.2	7.4	5.4	4.3	3.8	1.6	2.7	3.2	4.4	7.4	1.6	3.8
30	4.4	4.9	5.0	5.2	5.2	3.6	3.4	2.9	1.9	2.1	2.4	3.3	3.5	3.2	4.6	4.4	3.9	3.2	4.4	4.3	3.1	2.3	2.5	2.4	5.2	1.9	3.6
Max.	9.9	9.2	9.1	12.8	12.1	11.5	11.3	11.3	11.5	10.9	11.3	11.5	11.5	12.4	15.5	11.0	11.1	11.4	10.6	12.0	10.8	10.6	10.6	2.4	15.5		
Min.	1.2	1.4	1.1	1.2	1.4	1.0	1.3	1.0	1.6	1.9	2.2	1.6	2.9	3.2	4.0	3.0	3.9	3.2	3.2	2.2	1.6	1.9	1.7	2.4		1.0	
Avg.	4.5	3.9	3.8	4.1	3.5	3.5	3.7	3.9	4.4	5.1	6.1	6.3	6.8	7.2	7.4	7.0	7.0	6.7	6.5	6.2	5.9	5.7	4.9	2.4			5.3

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Wind Direction (degrees)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	163.9	20.4	39.0	27.5	45.9	74.7	1.4	336.9	102.0	178.0	351.8	341.6	37.1	47.0	60.8	48.5	54.4	55.6	49.6	49.2	5.2	14.4	357.5	348.0
2	349.8	329.2	342.7	357.1	332.3	9.6	335.8	353.3	338.0	329.2	318.2	354.5	18.2	6.0	17.7	4.3	9.0	13.4	11.1	346.2	10.1	36.7	343.5	325.3
3	323.8	344.5	10.8	1.8	6.5	6.0	3.5	328.2	10.3	8.3	18.8	12.5	140.7	234.5	339.5	358.6	11.8	9.6	11.8	37.6	29.3	6.0	133.5	64.2
4	306.4	172.1	331.0	8.5	9.8	337.0	6.1	353.3	3.5	340.1	101.9	52.3	106.8	15.2	6.1	0.2	27.3	40.6	41.1	20.8	20.0	23.8	26.7	13.2
5	18.4	351.2	353.7	33.7	23.1	38.5	48.3	55.3	36.2	30.3	31.2	28.6	33.7	53.0	33.5	37.2	10.2	29.6	49.7	59.0	47.5	41.6	33.9	37.2
6	41.9	39.7	37.3	35.2	40.2	44.1	41.2	40.4	35.3	20.0	35.0	39.1	36.9	44.5	13.3	45.0	46.7	51.6	26.7	348.8	354.6	350.1	348.9	338.1
7	315.5	326.1	342.8	350.4	3.3	7.4	35.1	56.9	1.4	35.0	66.1	354.7	356.2	45.8	87.9	63.2	353.4	347.7	352.9	349.6	145.3	358.3	310.1	69.5
8	2.9	318.0	340.4	50.4	114.7	93.4	23.6	107.4	89.3	93.3	93.0	91.1	94.6	99.5	95.6	97.1	97.6	93.7	85.7	79.1	81.5	89.5	85.8	80.3
9	321.8	307.5	33.7	44.1	51.1	50.3	48.0	50.6	73.9	78.6	53.2	55.9	86.7	95.4	85.7	82.1	84.2	80.4	72.8	94.0	97.8	99.8	99.7	101.7
10	107.6	106.4	106.9	103.4	107.8	107.3	107.9	112.0	115.5	118.5	117.1	118.4	115.2	112.2	98.0	95.0	94.3	106.1	111.5	107.9	96.7	112.1	126.1	122.2
11	99.5	91.3	91.9	102.6	109.3	104.6	100.9	102.3	98.0	106.3	115.1	119.7	124.4	134.5	119.1	122.6	110.4	94.3	93.9	87.3	17.7	305.2	17.4	13.8
12	15.6	8.3	46.6	35.9	38.3	44.4	53.1	51.9	48.1	51.4	54.8	50.8	45.7	44.5	49.9	49.2	49.9	59.9	58.3	78.3	73.8	82.0	89.4	90.2
13	89.0	90.6	85.6	91.7	92.0	86.5	90.9	91.9	91.7	94.5	104.0	110.7	122.5	131.3	133.2	114.5	91.3	93.6	100.5	94.4	104.8	106.0	116.0	132.0
14	146.8	132.1	117.3	110.8	105.6	101.9	97.6	93.2	93.4	96.5	108.4	112.7	113.4	119.7	123.4	141.5	158.3	156.3	165.1	162.3	163.3	139.8	100.7	97.4
15	102.8	104.1	91.6	88.1	94.9	95.1	93.5	105.8	106.3	98.7	101.8	108.3	111.0	112.0	114.7	116.9	115.7	117.7	122.5	112.1	117.2	116.9	138.0	135.6
16	137.0	140.8	149.3	147.7	150.5	152.6	155.8	160.5	169.1	168.8	169.6	171.6	172.3	171.4	177.6	181.3	177.0	182.0	189.5	170.1	149.4	146.7	139.7	96.2
17	107.2	96.6	71.3	70.4	52.2	45.4	16.0	21.7	32.9	351.1	337.5	1.1	26.3	36.8	40.9	32.9	34.0	31.0	32.3	18.1	10.7	17.8	17.3	8.5
18	0.9	347.3	356.3	20.5	34.9	39.9	27.8	22.1	25.8	25.8	37.3	36.6	47.8	51.1	57.6	67.3	80.0	94.7	30.1	7.0	22.6	4.0	14.5	46.0
19	54.8	273.2	116.9	14.4	33.7	28.8	48.1	53.4	81.3	322.5	18.3	23.3	106.2	121.2	133.7	141.4	146.3	161.5	200.0	207.3	186.3	170.4	138.4	125.1
20	147.9	186.2	325.5	17.4	91.2	5.6	97.3	337.7	66.0	112.7	182.7	320.0	122.4	136.9	116.7	134.3	182.8	203.8	198.5	197.2	206.2	205.7	195.8	188.6
21	185.7	206.6	216.4	241.0	188.9	205.2	358.5	257.1	19.6	3.0	17.9	356.7	106.2	310.8	173.1	196.4	11.4	26.7	29.3	26.6	5.8	332.4	320.0	329.7
22	356.4	358.0	356.4	332.3	333.8	357.0	4.8	13.1	348.2	1.6	338.0	11.6	11.5	21.6	19.0	20.6	21.1	12.5	11.6	4.7	2.7	7.6	10.4	358.1
23	1.4	5.2	348.1	337.1	315.5	357.3	4.4	353.5	330.6	338.2	19.8	14.3	3.8	24.8	22.1	7.2	12.0	1.4	4.7	359.8	0.9	355.9	11.3	358.6
24	359.2	5.8	346.0	343.7	262.6	2.1	286.4	117.1	338.6	348.8	326.6	296.1	187.5	199.3	194.4	169.1	250.0	221.1	8.9	84.9	186.4	288.1	282.4	220.1
25	316.7	14.7	347.3	345.4	332.8	349.3	342.4	359.8	38.8	24.0	352.7	126.5	114.1	107.0	129.7	133.1	136.1	124.5	126.0	113.8	128.9	94.0	302.4	352.1
26	82.1	94.2	107.2	115.4	141.4	129.5	125.5	132.6	142.9	144.0	155.6	179.4	208.6	214.6	209.6	197.8	202.3	191.1	193.4	180.4	181.0	169.9	166.8	172.8
27	180.1	181.0	177.3	178.0	173.6	172.7	175.2	177.9	166.4	163.4	167.2	167.0	170.3	173.8	173.2	174.3	181.2	179.0	178.3	187.4	194.4	195.2	187.7	187.2
28	177.5	156.8	164.0	180.8	181.2	168.9	161.0	156.1	144.7	169.5	175.0	182.3	176.4	168.8	165.6	160.7	159.5	152.9	158.2	155.7	136.7	112.4	105.3	79.6
29	80.1	23.0	287.2	38.1	58.4	35.3	16.3	357.7	350.3	349.1	4.8	13.7	9.8	23.6	28.2	28.2	27.7	27.1	11.8	6.8	8.9	14.2	23.9	16.6
30	21.3	13.9	2.9	7.6	9.4	8.9	2.4	9.5	18.6	7.3	12.5	21.9	24.4	25.8	31.9	27.4	11.1	1.4	13.5	352.5	0.4	320.3	2.9	21.9

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - Wind Direction (degrees)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	337.9	356.1	21.1	33.6	22.0	320.8	6.1	353.1	1.3	346.5	5.1	17.6	40.6	39.9	24.6	27.3	12.3	308.4	14.0	355.0	286.4	2.3	32.3	32.6
2	42.8	17.8	353.2	37.2	0.2	21.1	14.1	354.8	348.5	354.3	9.5	19.2	18.1	7.2	15.1	42.1	76.4	41.3	37.6	32.4	7.7	350.2	357.1	1.4
3	8.5	21.9	356.3	108.4	73.5	126.0	70.8	183.5	315.9	313.8	165.2	171.1	184.6	239.3	33.5	59.2	33.4	29.6	2.5	327.0	175.3	340.0	345.5	121.6
4	105.8	157.5	358.7	40.7	154.6	214.0	358.9	187.3	190.9	182.0	188.1	172.9	176.1	182.1	180.1	175.0	184.0	174.5	184.2	178.1	174.1	166.8	33.5	15.2
5	35.3	4.3	2.6	181.0	6.0	334.6	339.7	120.5	72.0	104.6	107.7	120.5	154.4	124.1	142.9	187.9	159.8	118.3	115.2	91.9	95.9	106.7	95.0	97.6
6	94.6	106.1	158.1	142.6	159.1	160.6	163.4	159.3	162.6	175.9	186.4	191.0	195.2	195.2	187.5	186.0	194.4	181.1	191.5	201.5	35.9	344.6	101.1	58.7
7	315.7	317.5	44.9	78.3	93.7	101.8	95.2	97.1	100.8	96.1	99.1	106.1	102.9	106.6	118.7	128.3	116.4	129.5	139.4	158.0	160.2	154.5	142.3	125.0
8	121.1	165.1	169.3	168.7	153.2	181.2	216.3	280.0	37.7	115.9	117.0	123.0	142.7	147.0	165.1	168.9	187.4	184.9	191.2	182.5	177.5	173.9	175.2	192.0
9	196.2	195.0	191.4	185.1	163.3	140.1	131.2	118.9	126.2	138.7	131.8	126.9	124.7	124.4	121.5	122.4	121.6	115.0	124.6	163.0	177.6	185.8	180.1	180.9
10	168.1	163.7	167.4	173.3	183.0	178.5	184.2	176.1	169.3	168.7	165.5	166.2	164.8	167.7	176.8	179.5	176.4	180.7	180.8	184.5	182.1	180.4	181.9	178.7
11	180.4	180.0	183.2	180.6	191.2	184.9	193.0	216.2	210.4	204.3	200.9	192.4	190.5	191.3	189.1	193.8	177.7	169.5	154.7	150.6	139.9	122.7	99.5	109.5
12	99.8	91.9	85.3	40.3	336.1	7.1	337.6	347.2	306.9	79.2	118.6	118.3	112.1	138.0	130.9	122.9	130.2	129.5	98.1	135.9	228.1	349.9	26.5	335.6
13	290.4	339.4	76.2	73.8	318.1	109.0	94.2	95.6	93.5	101.3	107.9	97.7	104.8	105.0	119.1	123.4	162.9	181.1	181.6	164.3	192.4	329.2	296.5	127.8
14	106.2	95.6	74.5	92.3	89.0	107.6	130.9	116.0	118.8	184.1	203.5	189.2	145.7	128.4	121.0	128.3	124.6	124.5	112.6	84.3	37.7	351.1	1.4	27.0
15	29.3	40.9	40.1	11.8	326.0	319.2	314.4	356.9	47.2	84.1	112.0	113.7	147.6	174.8	167.6	132.9	120.6	121.5	119.3	112.9	98.6	93.5	86.9	72.5
16	337.3	71.6	65.3	80.5	84.1	96.2	103.4	115.6	111.3	114.5	110.5	113.9	116.9	113.0	117.6	126.7	107.9	103.5	125.2	128.6	115.9	119.7	140.0	150.2
17	162.4	182.8	181.6	183.5	176.4	155.7	157.3	149.2	151.6	155.2	164.3	166.1	168.1	169.7	166.9	173.2	166.9	167.2	165.9	155.9	151.4	156.9	148.9	154.4
18	155.2	154.1	167.8	164.4	168.0	165.1	165.2	176.3	178.2	181.5	187.5	190.1	197.7	194.1	196.2	199.9	198.5	199.0	198.7	203.1	207.2	213.1	202.0	179.6
19	198.2	207.3	196.3	171.0	142.8	9.8	342.5	329.4	327.2	346.7	13.3	173.7	189.1	195.4	187.5	193.3	193.7	198.3	210.2	204.9	177.2	176.1	189.2	176.7
20	133.0	150.1	62.6	95.7	1.6	16.5	13.3	313.1	324.4	310.7	173.6	188.9	194.7	181.7	193.7	205.2	200.2	195.9	187.5	194.7	164.1	30.9	7.0	346.5
21	339.2	3.5	338.1	345.5	12.0	350.0	344.3	10.5	0.5	21.3	41.1	352.3	348.5	323.2	98.3	112.5	102.9	124.3	110.4	115.9	81.3	352.4	195.1	177.7
22	191.2	189.7	161.9	214.2	28.9	284.6	189.0	337.9	344.4	332.4	343.1	327.6	328.9	218.9	197.0	206.1	196.8	227.6	321.5	24.8	4.3	12.2	23.0	21.9
23	340.1	342.6	28.4	84.7	85.8	84.2	80.2	79.6	78.1	84.9	90.3	103.2	163.6	200.3	183.5	186.7	192.4	193.7	213.3	214.0	251.9	339.7	217.5	306.6
24	346.1	343.9	340.4	342.0	347.0	345.7	335.2	324.9	316.7	303.3	205.6	194.4	195.6	201.0	203.2	187.3	196.3	192.2	178.0	246.8	291.7	179.6	173.9	2.9
25	65.8	33.9	290.2	107.7	352.0	350.0	200.6	175.0	172.3	243.4	347.1	350.6	326.7	320.1	301.2	301.0	303.0	320.7	338.7	348.6	334.6	323.9	4.4	16.9
26	0.8	345.0	356.4	349.0	349.3	351.0	2.7											293.4	302.3	292.3	302.1	310.6	305.5	350.1
27	25.1	198.5	308.8	176.6	136.3	314.0	102.5	26.4				197.9	340.4	33.6	17.5	78.9	348.3	352.7	1.8	1.7	2.6	356.0	14.1	11.7
28	14.1	7.2	10.2	6.9	12.0	9.5	11.9	14.4	25.8	43.3	211.0	66.9	75.1	52.7	70.5	156.2	56.3	84.9	31.0	31.8	11.5	17.0	30.5	61.0
29	28.3	7.2	354.2	340.5	345.0	178.8	164.0	203.7	182.8	189.3	204.7	197.6	181.2	164.5	176.9	175.8	184.6	170.9	339.6	315.9	308.0	336.0	342.2	338.4
30	341.0	351.4	356.8	27.4	4.8	161.2	129.4	356.7	346.4	350.6	356.8	329.8	192.1	199.9	192.6	199.6	190.7	218.8	278.5	289.8	308.4	2.8	16.8	338.4
31	325.1	347.1	344.8	331.4	357.7	306.0	341.6	331.9	269.3	186.2	186.4	177.2	183.5	177.7	198.3	203.8	175.5	188.9	198.3	211.3	179.5	176.6	110.4	346.8

Total Hours in Month

744

Hours Data Available

731

Data Recovery

98.3%

Rock Creek - Wind Direction (degrees)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	339.0	347.2	6.8	143.2	174.4	26.1	76.5	325.6	10.8	9.2	18.1	190.6	185.7	192.1	191.8	194.1	196.3	7.7	344.5	356.2	356.9	11.3	8.9	357.3
2	348.1	342.3	345.6	350.6	45.1	58.9	351.0	231.3	321.4	336.7	340.4	299.1	187.4	189.0	180.4	173.0	177.4	184.2	189.7	159.2	140.0	335.5	326.5	242.6
3	204.5	27.7	1.0	25.4	210.6	131.4	163.1	255.1	220.8	187.9	190.6	189.0	191.1	184.0	178.4	170.2	169.1	150.8	151.2	148.4	176.5	216.1	14.9	5.2
4	137.8	330.8	42.1	19.2	18.0	253.2	344.3	321.1	180.2	151.5	185.6	190.9	312.3	11.3	167.1	177.7	171.4	178.2	304.0	7.5	16.7	13.8	17.8	17.2
5	17.7	9.0	278.4	293.5	309.9	297.0	309.8	335.4	350.4	4.5	13.5	19.9	16.3	29.5	12.1	12.3	19.7	26.6	20.1	20.9	24.3	22.3	2.7	357.3
6	359.4	340.8	299.2	307.4	311.8	313.2	298.1	315.2	344.6	344.4	79.1	78.5	82.8	92.2	123.5	119.0	168.7	193.6	198.5	274.2	238.3	171.2	186.0	157.3
7	355.1	330.6	8.6	38.4	32.8	36.8	41.1	36.4	32.9	34.1	31.7	43.9	49.8	52.3	73.5	125.5	126.2	142.3	201.4	34.5	345.9	18.4	20.9	21.4
8	127.3	162.9	168.4	113.3	174.9	178.1	197.9	198.9	209.4	204.6	212.0	205.6	204.6	201.3	210.9	203.9	199.6	206.6	219.3	288.1	314.4	336.9	326.5	329.7
9	96.0	61.3	318.8	319.2	126.0	28.8	244.9	76.7	316.2	332.4	346.1	340.2	292.0	243.3	220.8	173.5	166.4	163.9	175.7	166.1	158.9	156.8	115.8	1.0
10	338.0	152.4	15.5	96.6	158.4	351.5	352.7	155.9	153.8	181.8	188.5	187.9	175.4	176.8	172.6	164.5	156.4	156.3	179.4	45.0	354.9	3.8	358.5	339.9
11	145.0	157.3	12.0	181.6	11.9	30.4	354.8	185.5	159.3	172.3	182.9	177.0	179.5	180.2	185.5	204.0	304.1	327.8	308.4	304.1	317.7	82.3	324.5	147.6
12	342.2	108.1	31.9	143.6	20.2	12.5	157.8	333.7	327.6	186.2	186.2	196.4	186.5	190.8	189.7	188.9	186.2	184.4	175.8	343.5	212.3	326.9	119.6	118.3
13	283.4	332.6	176.5	355.8	169.7	81.1	164.3	173.6	229.5	170.4	188.0	189.9	197.4	209.8	192.2	181.1	177.3	175.8	154.7	163.5	171.2	172.6	164.0	149.6
14	11.2	131.3	130.4	148.6	120.5	358.5	181.0	269.2	237.0	183.2	182.0	184.7	179.3	177.0	175.7	171.6	168.7	167.0	159.6	147.0	159.7	192.2	186.8	151.8
15	199.8	3.9	86.7	140.7	164.6	179.1	165.2	185.0	208.2	192.6	184.9	191.8	198.0	204.4	194.3	203.1	220.5	212.5	203.5	194.2	198.7	183.7	173.9	66.2
16	14.9	21.6	355.0	339.1	3.5	332.8	349.3	330.5	184.8	170.0	198.4	209.9	5.5	138.1	186.2	149.5	132.3	333.5	344.9	279.1	183.0	170.3	180.8	185.7
17	181.5	160.6	143.5	149.9	159.8	180.7	180.7	185.6	257.2	282.5	196.4	199.9	195.1	194.6	198.8	201.9	185.8	204.2	186.7	185.2	197.9	198.1	193.1	174.0
18	163.6	179.9	161.2	48.7	356.4	340.0	360.0	324.8	325.8	315.4	245.8	120.4	197.7	191.1	132.5	114.0	108.1	104.1	69.6	41.6	84.8	107.5	107.6	110.1
19	118.8	179.6	167.0	160.6	121.8	193.1	128.7	154.5	162.9	140.5	157.2	170.8	172.6	177.2	155.2	98.6	89.4	129.9	170.8	167.0	165.6	160.7	163.6	196.7
20	72.8	254.7	319.7	151.1	208.3	326.5	13.2	138.3	150.8	165.3	179.2	173.2	179.2	186.9	189.3	178.1	171.2	202.7	247.3	337.6	359.1	358.8	347.2	341.7
21	13.0	300.9	98.4	127.3	185.5	142.7	156.9	175.5	159.0	179.6	178.7	192.3	186.6	186.3	168.8	133.0	121.2	77.2	244.2	95.6	133.1	192.4	173.1	177.9
22	156.6	159.9	158.5	151.4	138.6	149.9	182.8	172.7	153.3	171.0	164.0	166.6	168.1	148.1	119.4	113.9	107.8	94.8	108.5	124.8	116.1	115.1	110.2	104.7
23	93.1	88.3	84.0	120.5	163.3	161.7	159.6	167.5	178.7	187.0	200.5	198.1	195.7	193.4	202.5	194.9	184.7	190.1	186.2	175.3	165.2	163.1	149.1	140.3
24	127.6	117.7	95.1	341.7	318.2	103.7	107.8	98.8	112.3	146.4	165.3	161.6	175.0	172.0	173.8	177.3	173.6	171.7	171.9	165.2	154.2	178.1	188.7	161.4
25	150.4	128.7	142.2	170.9	153.7	144.5	163.0	167.0	187.5	182.7	185.9	204.2	204.5	210.9	210.6	221.3	216.1	225.0	223.4	219.3	212.6	221.2	200.7	186.2
26	200.1	195.6	182.4	208.0	240.7	252.9	329.0	90.4	142.5	159.2	195.0	204.2	203.9	200.5	205.1	205.2	291.1	262.4	199.0	193.4	180.1	167.8	126.7	120.6
27	357.7	336.6	80.6	177.1	65.0	146.0	165.7	314.4	208.2	169.8	237.2	190.2	191.0	174.9	182.6	184.5	165.1	294.5	298.7	308.9	320.2	342.9	358.3	334.8
28	343.9	46.9	16.7	26.5	338.4	356.9	355.5	342.2	352.9	350.8	6.4	32.1	61.5	72.1	77.7	106.3	59.5	57.5	67.8	38.0	26.3	18.6	2.8	252.3
29	354.8	157.8	115.7	82.9	80.4	41.4	154.4	336.5	323.6	255.3	182.2	340.9	37.7	175.5	174.8	177.0	164.1	153.3	158.8	166.5	174.3	35.3	6.0	346.7
30	322.5	343.1	348.7	350.2	2.4	334.2	329.1	348.3	338.3	178.9	184.8	183.4	171.7	157.0	169.0	152.2	149.3	130.9	148.6	146.9	157.4	148.6	49.9	151.7

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - Wind Sigma

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	50.5	40.4	59.0	35.8	45.2	43.2	30.0	54.9	56.7	44.0	33.6	41.1	25.7	8.2	7.0	7.0	10.3	6.4	9.5	6.3	10.5	9.4	6.4	7.4	59.0	6.3	27.0
2	9.2	11.9	17.7	32.0	21.2	47.0	63.2	26.7	14.4	40.4	8.9	8.6	7.4	12.0	6.9	7.9	7.0	27.1	5.8	9.2	24.2	60.6	20.3	12.6	63.2	5.8	20.9
3	6.3	5.6	22.5	26.2	20.9	10.3	11.3	46.1	42.6	32.3	62.7	37.6	65.7	59.7	25.6	10.1	13.2	10.4	12.9	39.0	43.1	43.2	41.8	58.5	65.7	5.6	31.1
4	54.2	52.6	47.9	62.1	63.2	53.4	33.3	59.4	45.8	42.3	63.1	61.7	49.6	13.9	5.0	33.1	12.8	7.9	5.0	6.3	4.2	4.2	3.2	8.8	63.2	3.2	33.0
5	7.2	6.0	8.3	19.1	4.8	4.7	4.5	4.3	8.1	6.2	8.2	14.5	13.7	6.2	10.6	8.8	9.1	17.8	6.2	4.9	5.5	4.3	5.4	5.8	19.1	4.3	8.1
6	5.2	4.1	4.7	4.0	4.5	3.5	3.8	6.1	6.0	8.2	9.0	4.9	5.9	5.8	16.0	6.2	6.4	5.3	14.4	13.8	5.1	9.8	6.3	5.9	16.0	3.5	6.9
7	8.9	16.2	30.2	38.4	28.6	49.3	71.9	44.3	63.4	55.5	25.7	25.1	61.7	28.7	49.1	52.8	35.7	11.0	37.7	24.1	35.4	53.7	67.5	62.1	71.9	8.9	40.7
8	44.5	50.4	49.7	37.5	51.9	26.5	28.0	39.3	6.3	7.2	7.9	7.6	9.8	9.0	5.1	7.3	5.8	4.9	5.1	5.3	5.3	4.8	4.3	4.7	51.9	4.3	17.8
9	32.2	28.6	4.3	5.4	3.3	4.4	4.9	5.1	5.7	6.2	8.4	8.3	9.4	7.3	7.5	8.5	12.6	7.2	10.4	8.0	6.0	6.1	6.8	5.6	32.2	3.3	8.8
10	6.8	6.5	6.0	5.8	5.5	5.5	5.6	5.3	5.6	5.1	5.7	5.7	5.7	5.4	5.5	5.3	5.6	6.0	5.9	6.4	5.6	6.6	6.7	7.4	7.4	5.1	5.9
11	6.5	5.5	5.9	6.3	5.6	5.3	4.9	5.0	5.0	5.3	5.4	5.4	5.4	7.9	7.4	6.4	7.3	8.3	7.4	6.4	16.6	42.3	27.6	6.1	42.3	4.9	9.0
12	5.0	13.6	4.2	6.3	6.4	5.4	4.4	4.0	4.9	4.4	4.7	5.0	4.7	4.7	4.6	5.0	7.5	6.2	7.4	6.4	6.6	6.1	4.9	4.7	13.6	4.0	5.7
13	4.6	5.2	5.5	5.6	5.7	5.7	5.9	6.2	5.5	5.6	6.3	6.6	8.2	8.2	9.8	7.3	6.6	6.3	5.3	6.3	8.0	6.4	6.5	6.6	9.8	4.6	6.4
14	6.1	7.8	5.7	5.7	7.0	7.1	5.7	5.5	5.8	6.5	6.4	6.3	6.6	5.8	6.2	7.3	7.1	8.2	5.7	6.7	5.3	8.2	7.1	6.1	8.2	5.3	6.5
15	7.5	6.3	5.4	5.7	5.5	5.7	6.7	7.1	6.6	6.2	5.8	5.9	6.0	6.0	5.8	5.5	5.5	6.0	6.3	6.1	5.5	6.2	5.9	6.2	7.5	5.4	6.1
16	5.9	5.2	5.9	6.7	6.4	6.2	5.9	6.1	6.4	6.6	6.8	7.2	7.6	7.8	7.4	7.3	6.4	7.5	8.6	8.1	8.4	7.8	8.5	19.4	19.4	5.2	7.5
17	8.6	7.2	11.0	9.3	15.6	28.6	42.0	17.6	49.1	15.9	10.0	20.6	9.7	10.5	9.2	11.8	9.5	9.9	8.6	7.4	7.1	6.5	5.7	5.4	49.1	5.4	14.0
18	8.0	4.8	8.8	9.2	6.0	5.0	8.2	5.5	6.4	6.1	9.0	11.2	10.0	6.8	6.3	9.4	10.4	15.7	26.9	15.1	13.2	8.0	30.5	54.9	54.9	4.8	12.3
19	25.9	55.0	38.2	8.6	4.6	9.3	64.7	18.9	18.7	42.9	43.8	53.6	8.3	7.3	10.4	9.8	9.1	11.9	12.2	14.4	8.0	8.3	8.4	6.4	64.7	4.6	20.8
20	9.8	12.9	19.1	16.3	34.3	14.0	57.2	24.2	70.1	45.5	16.5	17.3	51.8	9.1	13.3	10.9	12.7	7.7	7.9	8.5	7.2	5.3	6.1	6.7	70.1	5.3	20.2
21	6.4	7.3	13.5	18.9	11.9	7.6	31.9	44.7	37.2	32.9	22.8	8.1	41.9	36.4	36.6	30.7	49.2	9.7	6.4	4.8	5.1	4.1	4.9	14.8	49.2	4.1	20.3
22	26.5	16.5	43.8	6.6	15.3	25.4	51.1	58.8	29.2	20.0	10.8	9.6	8.8	6.7	6.6	7.3	7.1	7.6	7.1	6.5	4.7	4.9	6.2	28.7	58.8	4.7	17.3
23	6.7	7.3	9.2	8.4	6.2	9.6	6.1	12.8	10.3	10.9	10.4	10.6	11.3	8.2	9.5	10.3	8.5	6.1	7.8	5.5	9.9	14.3	30.7	30.9	30.9	5.5	10.9
24	38.6	49.8	12.6	39.7	40.3	34.7	55.4	61.4	33.6	6.9	18.0	53.1	30.9	11.0	15.9	15.3	62.6	38.3	13.8	59.4	18.3	26.8	20.2	35.9	62.6	6.9	33.0
25	27.0	6.2	16.4	19.0	19.2	12.8	9.2	9.3	41.0	48.0	10.9	49.5	18.3	13.9	12.7	9.4	11.1	8.2	8.8	11.2	9.0	12.6	39.6	40.9	49.5	6.2	19.3
26	12.7	10.3	7.7	6.8	7.1	6.1	5.9	5.6	5.6	5.7	6.1	8.5	7.4	6.9	10.0	8.1	7.7	7.4	7.2	7.3	6.9	7.2	8.4	6.8	12.7	5.6	7.5
27	6.2	6.8	6.1	6.1	6.5	6.3	7.3	6.6	5.9	5.7	6.4	6.0	7.3	7.8	8.7	7.8	7.9	7.3	6.5	6.3	7.5	10.5	9.3	7.8	10.5	5.7	7.1
28	8.4	9.2	6.5	6.0	6.0	6.8	9.4	16.1	10.2	7.7	8.2	8.0	6.6	6.7	6.5	6.5	6.6	7.1	8.2	10.3	8.3	11.5	7.9	15.4	16.1	6.0	8.5
29	50.1	37.5	61.6	52.8	56.5	33.2	9.1	17.9	7.8	10.0	8.3	8.3	12.6	8.2	9.5	8.2	8.4	8.2	9.0	5.1	5.2	4.5	3.1	3.1	61.6	3.1	18.3
30	4.8	7.8	7.1	5.2	5.4	6.0	5.3	31.9	6.4	7.4	8.9	8.3	7.6	7.2	8.3	11.3	17.5	17.0	14.3	10.4	6.9	19.5	13.6	31.6	31.9	4.8	11.2
Max.	54.2	55.0	61.6	62.1	63.2	53.4	71.9	61.4	70.1	55.5	63.1	61.7	65.7	59.7	49.1	52.8	62.6	38.3	37.7	59.4	43.1	60.6	67.5	62.1	71.9		
Min.	4.6	4.1	4.2	4.0	3.3	3.5	3.8	4.0	4.9	4.4	4.7	4.9	4.7	4.7	4.6	5.0	5.5	4.9	5.0	4.8	4.2	4.1	3.1	3.1		3.1	
Avg.	16.7	16.8	18.1	17.2	17.3	16.3	21.8	21.9	20.7	18.2	15.3	17.5	17.5	11.5	11.4	11.4	12.9	10.3	9.9	11.2	10.4	14.1	14.1	17.2			15.4

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Wind Sigma

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	61.5	18.8	11.8	5.5	5.9	41.9	8.4	7.0	9.1	36.4	46.6	19.9	9.2	6.4	7.8	5.9	16.0	30.1	14.4	43.1	41.6	30.9	32.1	6.9	61.5	5.5	21.5
2	7.3	23.8	16.5	27.3	33.7	8.3	30.1	11.9	10.7	9.6	8.0	8.3	7.4	9.5	12.8	19.6	11.8	13.3	10.8	8.1	9.8	5.7	55.2	45.8	55.2	5.7	16.9
3	58.9	58.3	40.8	60.7	69.1	63.9	57.9	44.4	41.9	23.9	32.5	21.4	21.0	58.7	37.0	49.2	10.1	14.2	47.6	15.5	40.2	34.4	73.4	47.1	73.4	10.1	42.6
4	27.4	50.1	41.1	67.2	44.5	58.7	25.4	41.7	39.8	17.4	12.0	12.5	12.0	9.7	8.3	8.5	10.3	10.7	12.0	7.9	13.9	13.4	46.8	41.8	67.2	7.9	26.4
5	24.3	40.7	22.3	52.7	50.3	34.0	25.7	49.8	26.9	7.9	6.7	7.0	9.8	10.7	10.7	6.8	11.5	9.4	8.2	8.0	28.6	9.6	7.1	6.4	52.7	6.4	19.8
6	6.1	7.5	9.2	7.5	7.4	6.8	7.3	7.3	8.3	8.7	10.4	8.3	7.5	12.5	13.3	17.1	17.4	19.1	13.2	17.3	23.4	14.2	59.9	41.0	59.9	6.1	14.6
7	25.6	44.8	26.6	8.9	8.6	7.5	5.9	5.1	9.2	7.7	6.7	9.3	8.7	8.5	8.1	7.9	7.5	6.3	7.9	7.9	7.9	7.5	7.8	4.8	44.8	4.8	10.7
8	20.5	11.0	17.9	7.5	6.4	8.8	16.3	33.2	50.8	9.0	7.1	9.6	7.1	7.6	7.3	8.0	8.3	9.4	7.8	7.3	6.6	6.6	6.7	7.7	50.8	6.4	12.0
9	9.6	8.2	8.8	8.4	8.2	8.3	7.1	6.5	6.5	6.4	6.7	6.7	6.3	6.4	6.1	6.3	6.5	6.0	7.8	7.4	7.5	8.6	9.9	8.9	9.9	6.0	7.5
10	7.3	7.1	7.1	7.9	9.1	8.2	8.0	7.7	7.4	7.1	6.7	7.0	7.1	7.4	7.2	7.7	7.7	7.7	7.9	7.9	8.2	7.5	7.9	7.9	9.1	6.7	7.6
11	7.6	7.8	7.9	7.5	8.0	7.4	8.5	9.4	10.6	8.2	9.9	10.8	15.0	12.4	17.0	19.2	11.5	10.9	13.1	12.1	6.7	7.3	7.0	7.3	19.2	6.7	10.1
12	8.2	6.8	11.4	16.3	42.4	44.7	32.8	22.2	45.9	44.5	11.5	11.8	16.1	13.9	11.0	10.0	10.4	8.9	8.9	16.8	31.1	29.2	17.8	8.4	45.9	6.8	20.0
13	35.6	27.5	25.4	43.7	48.6	45.6	7.5	8.8	8.2	8.4	8.9	10.9	10.6	10.1	6.9	7.3	9.7	7.4	11.1	19.7	17.0	18.6	36.9	7.0	48.6	6.9	18.4
14	7.7	6.5	13.5	53.7	8.5	8.1	12.6	6.1	15.5	16.3	11.2	25.4	18.0	9.3	8.3	7.1	7.7	12.2	11.4	11.5	17.7	9.9	13.1	7.0	53.7	6.1	13.3
15	8.6	6.9	9.0	15.3	13.0	32.2	11.6	20.6	6.0	11.3	7.6	8.4	10.8	10.7	14.1	14.8	7.7	6.9	6.2	6.8	7.1	7.0	6.9	17.4	32.2	6.0	11.1
16	37.7	21.5	8.4	8.2	7.7	8.1	8.8	6.9	6.9	6.8	6.8	7.1	7.3	8.5	8.2	7.6	7.5	8.0	7.0	6.8	6.7	6.8	8.2	7.5	37.7	6.7	9.4
17	9.2	7.6	8.1	8.1	8.5	7.5	7.3	7.5	7.5	7.8	8.6	8.5	8.0	8.7	8.7	8.6	8.0	7.9	8.9	7.8	7.5	7.0	7.1	7.4	9.2	7.0	8.0
18	7.3	7.3	7.9	7.6	8.0	7.6	8.4	8.2	8.1	8.4	8.1	8.9	8.2	7.8	8.0	7.9	8.1	8.3	8.6	8.6	9.0	9.4	8.2	10.0	10.0	7.3	8.2
19	7.9	8.8	8.9	13.2	14.3	39.8	10.8	11.6	15.7	17.0	35.3	13.3	11.4	9.0	9.1	10.4	10.1	10.1	10.4	12.5	12.4	8.2	8.0	10.8	39.8	7.9	13.3
20	9.8	45.5	17.1	8.0	37.1	11.8	30.1	26.5	18.1	35.6	26.9	18.7	19.9	32.1	26.4	32.0	19.6	17.9	15.7	13.8	32.1	13.2	6.5	11.5	45.5	6.5	21.9
21	28.0	68.1	42.1	36.4	24.5	43.8	52.1	47.5	25.5	10.7	9.4	24.4	23.2	39.4	37.8	10.0	18.2	14.4	36.5	25.0	23.2	36.3	7.7	5.9	68.1	5.9	28.7
22	8.5	9.0	7.0	61.9	17.4	45.9	33.0	34.8	20.2	9.9	10.0	9.7	9.0	28.6	20.3	12.7	13.4	38.1	33.4	25.9	7.7	13.9	10.4	12.3	61.9	7.0	20.5
23	28.0	9.4	23.2	8.3	6.7	7.1	7.2	7.5	7.5	7.5	7.8	8.9	13.3	7.7	8.4	9.3	8.1	9.3	10.7	14.3	28.1	26.5	15.5	19.7	28.1	6.7	12.5
24	14.8	20.8	11.1	9.5	10.2	12.4	13.6	6.0	8.7	17.8	12.0	17.5	11.5	11.9	29.4	24.6	9.9	13.1	20.3	40.6	31.0	11.1	25.5	38.1	40.6	6.0	17.6
25	81.1	64.3	49.1	66.2	53.3	29.0	25.5	31.8	44.6	62.8	11.9	20.3	23.5	15.4	13.3	13.5	14.8	14.9	12.5	12.1	13.8	10.9	10.0	6.5	81.1	6.5	29.2
26	10.4	23.9	46.7	5.9	9.1	8.0	11.6											13.6	14.7	13.1	11.0	10.1	14.7	16.2	46.7	5.9	14.9
27	36.7	41.7	31.3	58.1	39.5	61.4	37.4	43.9				53.8	27.2	74.0	0.7	62.7	29.4	10.5	8.5	10.0	8.7	6.7	6.6	7.7	74.0	0.7	31.3
28	7.7	11.1	5.9	5.5	5.9	5.3	6.7	8.8	12.4	38.0	70.3	43.2	26.7	26.8	46.0	54.7	22.2	22.7	27.7	9.8	7.4	7.4	5.4	30.2	70.3	5.3	21.2
29	61.0	29.6	44.4	26.4	26.4	50.6	44.7	25.7	12.0	17.2	23.5	42.6	9.9	15.0	13.7	14.7	13.2	16.2	35.6	17.3	8.9	9.5	9.5	6.3	61.0	6.3	23.9
30	4.2	11.1	46.6	54.1	35.1	56.0	55.8	44.8	7.0	11.0	12.1	44.0	43.1	15.5	14.7	16.8	17.6	18.2	13.5	10.9	13.5	10.8	9.0	32.3	56.0	4.2	24.9
31	31.4	36.3	19.5	41.1	33.1	37.0	13.9	8.7	25.8	13.9	8.8	11.5	12.1	19.9	14.2	14.5	44.7	37.7	35.2	42.5	47.5	14.3	33.9	36.3	47.5	8.7	26.4
Max.	81.1	68.1	49.1	67.2	69.1	63.9	57.9	49.8	50.8	62.8	70.3	53.8	43.1	74.0	46.0	62.7	44.7	38.1	47.6	43.1	47.5	36.3	73.4	47.1	81.1		
Min.	4.2	6.5	5.9	5.5	5.9	5.3	5.9	5.1	6.0	6.4	6.7	6.7	6.3	6.4	0.7	5.9	6.5	6.0	6.2	6.8	6.6	5.7	5.4	4.8		0.7	
Avg.	22.6	23.9	20.9	26.1	22.6	26.3	20.4	20.1	17.8	16.8	15.3	17.0	14.0	17.1	14.5	16.5	13.3	14.0	15.7	15.1	17.3	13.3	18.5	16.9			18.2

Total Hours in Month 744

Hours Data Available 731

Data Recovery 98.3%

Rock Creek - Wind Sigma

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	75.6	77.3	59.7	75.9	60.3	60.2	61.5	17.1	8.6	9.2	14.9	41.8	12.1	11.8	12.2	12.8	17.5	36.3	11.6	7.8	8.8	8.5	7.6	7.8	77.3	7.6	29.9
2	12.6	33.3	16.0	40.1	81.9	51.5	67.7	35.5	27.2	17.0	16.6	33.0	12.1	12.3	13.9	15.4	12.8	13.7	12.4	15.0	52.0	10.9	47.0	58.0	81.9	10.9	29.5
3	37.8	58.2	41.4	43.0	41.9	41.7	33.1	50.5	74.3	30.3	11.0	11.5	11.2	10.3	13.0	11.9	11.8	11.7	10.9	13.1	24.2	24.0	47.8	57.4	74.3	10.3	30.1
4	56.2	72.4	61.5	41.0	66.7	66.9	39.1	60.6	36.0	39.8	10.0	10.8	49.8	24.1	30.1	10.9	11.2	19.9	40.7	14.6	11.2	5.6	5.2	4.5	72.4	4.5	32.9
5	5.8	9.0	48.1	17.0	9.7	10.1	7.2	9.5	10.1	9.4	8.8	12.0	16.7	13.8	14.4	16.3	16.6	15.0	15.1	9.6	8.1	6.4	7.5	6.3	48.1	5.8	12.6
6	6.7	44.3	15.3	13.5	15.5	11.9	12.0	7.8	16.9	38.4	14.4	16.6	26.4	15.2	16.3	10.8	19.4	11.6	15.5	32.0	31.8	10.7	25.1	59.9	59.9	6.7	20.3
7	46.6	10.8	44.4	7.5	6.6	6.4	6.2	6.2	6.2	10.6	14.3	13.4	11.9	11.7	13.4	11.5	16.2	26.4	22.2	59.3	17.3	5.2	4.8	5.7	59.3	4.8	16.0
8	37.4	40.5	8.8	29.8	13.8	9.9	9.4	13.8	23.7	13.8	13.4	12.5	12.8	9.9	15.0	10.0	9.2	9.4	15.1	41.0	18.7	25.7	17.7	49.3	49.3	8.8	19.2
9	54.3	24.3	22.9	44.8	18.6	22.6	19.7	36.3	41.2	9.1	21.2	22.5	36.0	56.2	55.5	24.0	15.9	12.4	10.5	10.5	10.1	11.1	8.1	33.6	56.2	8.1	25.9
10	22.9	57.6	53.2	52.4	18.2	41.7	54.3	12.9	17.9	21.1	18.6	10.4	13.4	13.8	11.1	10.6	10.7	11.9	17.7	46.2	48.4	49.3	59.2	51.8	59.2	10.4	30.2
11	52.3	24.2	21.7	39.3	30.3	50.6	51.6	40.1	26.1	22.6	12.8	12.8	14.1	11.2	10.9	27.2	11.3	17.5	12.5	9.7	11.9	12.0	22.9	56.8	56.8	9.7	25.1
12	65.0	63.9	66.4	62.1	61.9	58.7	38.9	43.3	11.3	44.9	34.7	16.4	16.4	15.2	13.3	11.5	11.8	14.1	33.4	11.5	37.8	28.0	43.9	44.8	66.4	11.3	35.4
13	34.3	48.0	67.4	57.7	50.5	38.6	21.6	45.1	64.6	38.7	18.2	14.8	13.6	11.9	10.8	12.4	13.3	11.9	9.5	10.7	10.5	9.9	8.8	10.8	67.4	8.8	26.4
14	40.6	48.2	51.7	33.7	46.5	59.3	32.1	31.9	37.4	16.1	18.6	12.5	12.2	11.2	12.6	14.4	13.4	12.5	11.8	9.8	13.6	12.1	12.9	21.7	59.3	9.8	24.4
15	24.3	25.7	66.9	35.8	25.8	12.4	50.4	19.7	58.1	35.5	11.5	12.1	11.1	13.6	15.6	11.3	12.6	14.5	16.1	17.6	15.1	12.1	35.5	39.5	66.9	11.1	24.7
16	38.3	49.4	44.4	68.2	65.4	54.8	64.5	57.0	58.5	10.9	11.1	37.2	21.4	23.7	12.4	55.7	50.3	14.8	9.1	28.4	8.5	8.8	8.0	8.9	68.2	8.0	33.7
17	10.1	8.0	6.6	7.1	7.6	7.8	12.0	11.4	23.5	23.3	35.2	44.1	19.4	13.5	13.0	17.9	13.0	8.9	12.0	13.0	12.0	11.2	9.2	12.1	44.1	6.6	14.7
18	11.8	14.1	20.6	18.2	13.2	25.5	41.8	10.6	33.6	20.1	44.5	30.4	14.9	13.7	26.8	14.3	13.1	10.9	10.5	18.9	12.8	7.7	6.7	6.6	44.5	6.6	18.4
19	8.9	28.7	20.7	9.8	11.1	49.5	28.8	12.6	15.1	8.3	8.7	10.1	10.0	9.6	14.6	11.6	24.1	30.5	11.3	9.2	8.5	9.3	17.6	53.7	53.7	8.3	17.6
20	56.4	57.0	62.9	58.8	51.1	43.4	49.5	7.8	16.8	12.1	15.5	17.4	17.5	19.4	16.8	36.7	25.0	19.6	27.9	11.7	10.3	10.0	8.5	36.3	62.9	7.8	28.7
21	60.6	63.6	39.6	11.3	33.1	21.0	11.8	12.7	20.6	14.1	13.0	13.9	17.7	11.1	14.7	18.4	10.8	25.4	52.1	38.3	15.0	12.6	9.0	24.3	63.6	9.0	23.5
22	10.3	8.3	7.3	7.8	5.8	8.4	9.3	14.0	20.7	10.5	10.4	10.1	11.4	15.9	10.7	9.1	9.1	9.0	9.6	7.7	8.2	7.6	8.4	8.0	20.7	5.8	9.9
23	8.9	8.4	7.8	10.8	8.1	8.7	8.1	8.0	9.5	9.1	8.7	8.8	9.2	9.8	9.6	10.2	10.8	11.3	11.0	10.6	9.2	9.0	6.5	5.0	11.3	5.0	9.0
24	4.9	4.1	25.5	14.4	61.4	10.8	10.2	9.8	8.0	9.8	10.9	9.5	9.5	12.1	11.4	10.7	12.9	15.5	12.5	9.7	9.3	9.4	7.5	6.7	61.4	4.1	12.8
25	6.8	6.8	11.7	21.6	31.8	13.6	10.2	8.9	8.8	10.3	10.0	9.6	10.0	11.0	11.4	13.1	12.2	11.9	10.2	10.6	8.4	10.8	9.1	11.0	31.8	6.8	11.7
26	11.7	15.2	14.3	16.4	9.2	18.2	65.2	32.4	18.7	26.6	20.2	22.4	30.4	33.9	48.8	29.2	69.6	41.1	10.1	9.7	8.6	12.4	8.4	5.9	69.6	5.9	24.1
27	44.1	51.9	52.8	41.5	51.1	56.5	41.4	41.0	60.6	48.7	54.6	21.4	13.5	19.1	15.0	10.0	12.1	28.8	13.0	10.9	8.9	9.3	8.6	4.9	60.6	4.9	30.0
28	21.0	60.5	65.9	69.3	71.2	58.7	57.9	59.1	58.7	12.3	24.8	42.5	36.5	36.0	34.0	39.6	37.0	22.8	15.8	11.7	11.1	8.6	39.3	54.0	71.2	8.6	39.5
29	48.7	71.9	55.9	79.0	49.9	68.4	47.3	44.2	24.0	53.4	19.6	48.5	21.2	38.5	18.3	41.3	30.0	9.5	12.1	9.2	21.8	40.5	57.8	25.4	79.0	9.2	39.0
30	8.4	19.4	18.3	18.1	34.5	23.7	46.8	49.9	64.3	39.0	11.5	9.1	9.9	12.9	14.4	9.9	10.6	17.2	7.2	6.7	9.9	51.8	28.4	41.9	64.3	6.7	23.5
Max.	75.6	77.3	67.4	79.0	81.9	68.4	67.7	60.6	74.3	53.4	54.6	48.5	49.8	56.2	55.5	55.7	69.6	41.1	52.1	59.3	52.0	51.8	59.2	59.9	81.9		
Min.	4.9	4.1	6.6	7.1	5.8	6.4	6.2	6.2	6.2	8.3	8.7	8.8	9.2	9.6	9.6	9.1	9.1	8.9	7.2	6.7	8.1	5.2	4.8	4.5		4.1	
Avg.	30.8	36.8	36.7	34.9	35.1	33.7	33.6	27.0	30.0	22.1	17.9	19.6	17.4	17.4	17.7	17.9	18.1	17.2	16.0	17.2	16.1	15.0	19.6	27.1			24.0

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	69.3	73.0	75.6	79.9	81.1	82.2	81.5	80.5	76.9	71.7	64.3	55.7	48.7	50.1	51.4	50.5	49.8	52.3	52.5	55.4	62.2	58.1	59.6	58.6	82.2	48.7	64.2
2	57.9	61.4	59.2	61.1	61.9	56.9	58.9	58.4	58.2	54.7	54.0	47.4	46.7	45.9	44.6	47.5	50.3	53.6	55.6	59.6	59.0	59.4	61.8	60.3	61.9	44.6	55.6
3	60.1	59.8	57.0	60.2	58.5	58.3	58.1	60.7	57.7	54.1	54.9	51.7	50.2	45.4	47.0	46.3	51.6	54.2	55.2	59.5	61.8	61.8	65.5	62.4	65.5	45.4	56.3
4	61.3	65.1	65.3	66.0	65.6	67.9	68.0	69.2	69.1	67.4	64.8	61.4	58.7	64.7	65.5	65.3	63.8	65.1	65.2	68.8	72.6	71.8	70.8	70.0	72.6	58.7	66.4
5	69.6	71.1	69.9	73.4	73.5	71.7	71.2	72.3	77.2	78.0	74.7	70.5	66.7	69.2	62.8	65.5	68.6	65.5	67.1	68.7	66.7	70.8	67.5	62.8	78.0	62.8	69.8
6	61.9	60.5	57.7	56.7	57.5	59.4	60.4	60.6	61.1	58.6	57.6	57.6	53.7	50.0	51.4	51.0	52.4	52.1	57.2	60.0	60.8	61.9	63.1	63.6	63.6	50.0	57.8
7	61.0	68.9	71.2	65.9	61.8	59.9	62.8	61.1	59.7	56.5	57.3	52.6	52.2	49.4	47.5	50.6	50.4	62.0	69.2	75.2	79.3	76.4	70.4	66.3	79.3	47.5	62.0
8	67.7	75.1	70.9	72.6	79.0	83.3	83.5	79.7	82.6	82.0	81.3	81.6	84.3	81.9	83.6	84.6	82.7	83.4	83.1	79.2	76.8	76.4	72.2	69.2	84.6	67.7	79.0
9	74.0	71.2	64.0	62.2	61.4	59.9	58.2	60.2	61.0	65.7	64.4	59.3	58.7	59.1	60.8	61.9	58.1	62.9	61.5	66.1	67.6	67.6	70.5	72.1	74.0	58.1	63.7
10	75.3	76.3	76.0	78.4	80.5	84.0	85.6	87.0	87.7	88.6	89.6	88.3	84.9	83.0	81.9	79.7	81.5	81.1	82.2	86.9	86.0	85.8	87.5	88.0	89.6	75.3	83.6
11	88.2	88.5	89.2	89.5	92.4	94.8	95.2	94.8	94.5	93.4	93.1	92.9	93.1	92.7	91.7	91.2	89.9	89.4	88.6	89.7	88.0	85.6	85.1	86.9	95.2	85.1	90.8
12	87.3	86.0	80.6	76.3	70.1	68.0	65.6	64.0	63.8	61.7	56.4	56.6	56.2	56.1	56.2	57.6	59.7	60.1	59.5	62.6	67.7	67.7	71.9	71.7	87.3	56.1	66.0
13	71.9	71.8	70.8	69.2	71.2	72.9	75.1	75.5	74.2	75.4	76.6	80.2	83.0	85.4	87.4	88.5	83.7	82.8	82.9	84.9	84.5	88.5	90.4	92.2	92.2	69.2	80.0
14	93.7	94.6	94.1	94.9	96.2	95.7	94.8	92.3	87.4	83.7	78.7	84.8	87.8	87.8	90.2	91.7	91.3	89.7	91.5	93.6	92.9	91.8	92.4	93.7	96.2	78.7	91.1
15	92.8	95.4	97.7	97.9	96.3	93.1	90.6	87.9	89.9	90.4	91.3	92.6	93.7	92.4	91.9	92.3	93.1	93.4	91.7	91.7	90.3	89.1	87.2	89.3	97.9	87.2	92.2
16	91.7	91.6	92.3	92.6	93.3	93.7	94.4	94.8	95.1	94.4	95.6	94.7	94.7	94.2	93.9	93.5	93.0	89.2	89.9	89.9	92.0	94.7	93.7	93.8	95.6	89.2	93.2
17	93.9	90.3	87.9	87.9	86.5	87.3	88.6	89.5	90.5	91.4	88.4	75.8	66.0	63.0	63.8	62.1	65.1	66.4	67.6	69.6	70.3	74.2	75.7	75.2	93.9	62.1	78.2
18	78.2	82.1	81.6	79.6	71.0	73.3	78.7	82.8	77.8	73.7	69.4	65.1	66.9	67.6	68.4	70.1	70.4	70.7	70.3	70.5	74.7	78.9	78.9	78.4	82.8	65.1	74.1
19	73.3	76.3	77.8	79.7	77.7	74.1	75.5	76.6	84.8	93.3	89.9	88.2	92.3	95.9	90.8	84.3	82.7	86.4	92.2	91.5	94.3	98.3	98.3	98.6	98.6	73.3	86.4
20	98.3	97.6	97.1	95.6	97.3	97.9	96.9	94.8	87.2	81.5	79.3	86.2	87.4	89.7	87.6	89.5	84.4	87.6	90.3	88.5	91.5	95.0	97.9	98.8	98.8	79.3	91.6
21	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	99.7	95.7	87.9	82.4	78.2	74.3	77.8	75.5	67.7	65.3	64.9	66.9	73.0	80.8	81.6	81.2	100.0	64.9	85.5
22	80.7	80.3	79.1	80.3	81.8	80.5	79.9	79.2	76.7	71.9	68.9	65.3	63.8	64.3	64.7	63.0	61.1	61.8	65.2	68.2	71.7	73.0	71.6	72.2	81.8	61.1	71.9
23	76.0	72.1	76.5	75.2	73.6	72.1	72.5	69.2	67.0	62.3	56.8	57.0	54.5	52.6	53.2	57.3	58.6	61.7	61.7	66.4	70.8	70.7	74.2	78.4	78.4	52.6	66.3
24	78.9	76.9	76.5	75.0	78.4	81.6	85.2	84.0	76.5	71.7	69.6	66.4	71.3	79.4	79.9	77.6	72.4	76.2	70.2	75.9	82.2	78.7	79.1	80.7	85.2	66.4	76.8
25	82.9	82.7	85.0	85.8	86.6	88.3	89.6	90.2	91.0	89.1	88.4	86.7	85.8	82.9	83.8	84.2	85.6	89.5	86.6	87.3	88.2	88.9	84.8	83.8	91.0	82.7	86.6
26	82.8	86.6	91.0	91.1	87.8	91.6	93.7	92.7	92.4	91.4	91.2	92.9	93.2	91.3	92.9	93.2	95.6	96.0	94.5	95.3	97.6	98.1	97.9	96.0	98.1	82.8	92.7
27	95.7	95.9	97.3	99.1	99.8	100.0	99.8	99.2	99.8	99.8	98.8	95.5	94.2	94.6	95.3	95.1	95.9	96.3	97.4	97.6	98.1	99.8	99.4	98.8	100.0	94.2	97.6
28	96.6	94.9	94.7	93.0	94.9	96.3	98.7	98.4	99.5	99.5	98.9	93.9	91.5	96.2	97.4	96.0	94.6	94.5	94.5	94.1	93.2	94.5	95.0	93.8	99.5	91.5	95.6
29	91.8	92.0	92.1	93.5	91.9	86.8	86.3	87.2	83.3	72.9	64.7	59.4	54.4	53.0	49.9	47.7	47.9	48.5	48.5	52.1	58.3	66.7	67.2	71.5	93.5	47.7	69.5
30	69.3	64.1	66.4	62.3	62.1	67.0	68.3	64.1	59.9	57.4	53.3	52.0	49.3	48.8	48.3	46.1	44.5	46.3	49.3	54.4	58.0	62.2	62.1	51.7	69.3	44.5	57.0
Max.	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.8	98.9	95.5	94.7	96.2	97.4	96.0	95.9	96.3	97.4	97.6	98.1	99.8	99.4	98.8	100.0		
Min.	57.9	59.8	57.0	56.7	57.5	56.9	58.1	58.4	57.7	54.1	53.3	47.4	46.7	45.4	44.6	46.1	44.5	46.3	48.5	52.1	58.0	58.1	59.6	51.7		44.5	
Avg.	79.4	80.1	79.8	79.8	79.7	79.9	80.6	80.2	79.4	77.6	75.3	73.1	72.1	72.0	72.0	72.0	71.5	72.8	73.5	75.7	77.6	78.9	79.1	78.7			76.7

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	49.1	47.4	44.7	30.9	30.1	44.3	32.3	31.1	28.0	25.3	24.0	23.4	23.7	23.1	19.9	22.5	25.3	26.0	29.8	28.6	30.4	29.8	28.4	29.2	49.1	19.9	30.3	
2	33.8	35.1	39.5	36.8	42.7	48.8	50.2	50.0	47.0	45.4	43.0	37.7	36.7	34.1	29.4	27.3	27.1	27.0	28.1	32.4	39.0	46.4	55.7	55.6	55.7	27.0	39.5	
3	57.2	65.5	60.4	61.9	68.2	65.5	65.9	65.9	54.3	39.1	30.1	30.0	30.3	29.4	30.4	29.9	29.4	27.7	27.0	32.7	57.3	59.9	60.6	62.8	68.2	27.0	47.6	
4	64.3	71.1	70.6	73.3	76.9	75.6	74.1	76.2	64.9	61.1	52.0	43.4	36.3	39.3	46.1	45.5	41.8	38.1	39.1	52.8	60.4	67.7	71.1	75.7	76.9	36.3	59.1	
5	78.3	81.1	84.6	85.1	78.4	77.1	76.7	75.8	91.2	92.9	94.3	95.4	96.1	95.5	95.1	97.8	97.2	94.5	95.8	94.3	92.8	95.6	95.3	95.3	97.8	75.8	89.8	
6	95.2	95.7	96.7	97.5	97.9	97.6	97.8	98.0	98.7	99.5	99.5	98.8	97.8	93.1	93.0	91.9	89.0	87.4	91.7	90.0	90.3	90.7	93.4	94.5	99.5	87.4	94.8	
7	94.9	94.6	93.4	92.9	94.3	95.6	95.9	96.7	96.3	95.8	96.0	95.3	95.8	96.2	95.4	95.2	95.4	95.6	96.0	96.6	97.2	96.4	97.1	94.4	97.2	92.9	95.5	
8	95.0	98.8	99.6	100.0	100.0	100.0	100.0	100.0	100.0	98.9	98.5	97.4	97.4	97.1	96.8	96.7	97.6	99.1	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	95.0	98.9
9	100.0	100.0	100.0	99.8	99.5	99.2	98.7	98.3	97.8	97.5	96.8	95.9	95.2	95.6	96.3	96.3	96.3	96.4	97.5	98.5	99.7	99.7	99.9	98.3	100.0	95.2	98.1	
10	97.0	96.5	96.7	98.8	99.9	100.0	100.0	99.7	99.5	98.4	97.9	97.5	97.1	97.2	97.0	95.1	96.1	97.2	96.4	97.4	97.7	97.7	98.2	98.1	100.0	95.1	97.8	
11	98.3	99.0	98.7	99.8	100.0	100.0	100.0	99.8	96.9	93.3	94.9	97.7	95.1	92.6	91.4	88.4	83.4	78.6	77.6	83.0	85.9	91.5	94.5	95.6	100.0	77.6	93.2	
12	97.1	96.4	96.3	96.1	96.5	95.9	92.2	87.7	84.2	81.0	78.4	74.5	68.0	63.6	61.8	60.8	59.4	63.0	68.4	70.1	81.7	83.7	75.5	79.4	97.1	59.4	79.6	
13	81.4	81.1	71.4	70.8	77.0	70.3	65.7	66.4	62.2	58.7	57.0	57.4	65.0	69.3	85.5	92.8	94.5	96.4	96.9	96.0	96.8	97.9	98.4	95.4	98.4	57.0	79.3	
14	96.1	98.1	97.5	96.8	95.0	97.0	95.5	95.3	96.1	97.7	98.2	95.2	88.9	83.2	87.5	88.1	81.9	75.8	73.5	72.7	71.9	75.3	77.3	76.4	98.2	71.9	88.0	
15	74.8	77.4	72.4	75.8	77.0	80.8	76.0	69.1	63.8	73.9	82.2	87.2	90.1	85.4	73.2	70.9	76.7	77.3	85.1	90.9	90.6	90.5	90.4	90.0	90.9	63.8	80.1	
16	91.6	84.6	87.2	92.8	94.2	94.4	94.7	95.7	95.8	95.7	95.8	94.2	91.3	89.9	89.8	91.5	93.2	93.8	92.2	92.5	92.6	92.9	94.7	96.1	96.1	84.6	92.8	
17	97.1	96.2	96.1	96.0	93.6	91.6	92.7	92.4	92.9	92.8	94.9	95.0	92.9	93.2	91.6	92.1	92.6	90.9	88.3	85.7	88.3	88.0	89.0	88.7	97.1	85.7	92.2	
18	89.6	89.6	91.5	95.5	95.3	93.8	93.8	94.9	94.7	96.5	96.4	95.3	93.5	92.9	92.5	93.0	94.4	95.9	97.3	98.3	99.0	99.7	100.0	100.0	100.0	89.6	95.1	
19	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.6	99.7	99.5	99.6	98.9	99.3	99.6	99.6	99.6	99.1	95.5	88.6	84.0	86.4	89.7	93.0	94.3	100.0	84.0	96.9	
20	95.4	95.7	96.6	96.6	97.0	97.5	96.6	94.2	89.3	85.2	72.6	67.9	63.8	60.1	55.8	55.2	54.3	56.5	54.9	56.6	58.3	59.4	65.5	70.3	97.5	54.3	74.8	
21	74.5	79.1	81.5	80.5	78.1	75.7	78.3	68.3	65.9	76.9	79.5	82.4	85.7	85.5	86.8	88.9	89.2	91.9	92.9	94.5	95.6	96.2	98.1	99.0	99.0	65.9	84.4	
22	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.6	99.3	98.8	98.6	96.8	92.3	87.8	84.1	79.5	78.5	78.5	79.5	80.9	82.1	100.0	78.5	93.1	
23	82.7	83.2	77.0	70.2	71.5	70.0	75.9	82.6	86.9	90.5	93.0	93.8	95.2	96.9	97.4	98.0	98.3	98.6	98.8	98.8	99.0	99.1	99.1	99.1	99.1	99.1	70.0	89.8
24	99.1	99.2	99.3	99.3	99.3	99.3	99.4	99.5	99.5	99.5	99.5	99.3	97.7	92.6	85.6	81.2	84.7	85.5	82.2	75.9	74.5	82.7	88.1	93.4	99.5	74.5	92.3	
25	94.8	94.6	95.3	96.3	95.1	94.5	93.0	88.5	80.3	68.7	67.8	66.5	58.6	54.9	51.6	53.5	54.8	55.6	55.0	57.9	61.1	68.4	70.8	75.1	96.3	51.6	73.0	
26	78.3	78.3	81.8	84.6	84.8	86.8	81.9											56.8	57.9	60.4	65.8	70.1	76.3	80.7	86.8	56.8	74.6	
27	86.5	91.4	95.6	94.7	95.0	93.1	89.3	85.5			69.5	65.1	63.1	58.8	48.5	46.5	44.3	46.4	45.9	49.5	49.5	56.3	63.0	69.9	95.6	44.3	69.4	
28	72.8	74.1	75.3	74.1	73.9	73.2	70.0	60.3	54.1	50.9	51.8	50.3	50.2	50.1	49.0	48.2	51.0	51.9	51.2	53.9	55.5	57.9	62.8	65.6	75.3	48.2	59.5	
29	68.9	71.4	73.4	75.7	78.3	79.4	76.2	75.5	73.7	71.7	73.9	73.5	77.5	75.1	70.9	67.2	67.9	67.8	62.0	60.3	62.8	64.5	67.9	74.3	79.4	60.3	71.2	
30	78.9	84.4	90.6	91.2	94.2	94.7	89.4	76.1	66.0	60.0	53.9	47.1	41.8	41.0	40.9	39.9	39.2	39.5	46.6	49.0	50.2	54.1	60.8	76.1	94.7	39.2	62.7	
31	75.1	83.1	77.0	85.5	92.9	95.8	97.5	98.1	97.0	97.5	95.8	91.2	86.0	80.4	66.2	61.7	59.9	54.2	53.2	53.4	54.5	59.6	71.1	74.7	98.1	53.2	77.6	
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.6	99.3	99.3	99.6	99.6	99.6	99.1	99.1	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0		
Min.	33.8	35.1	39.5	30.9	30.1	44.3	32.3	31.1	28.0	25.3	24.0	23.4	23.7	23.1	19.9	22.5	25.3	26.0	27.0	28.6	30.4	29.8	28.4	29.2		19.9		
Avg.	83.8	85.2	85.2	85.5	86.3	86.7	85.5	84.0	81.9	80.8	79.9	78.4	77.0	75.6	74.4	73.7	73.5	72.4	72.6	73.6	76.2	78.7	81.2	83.2			79.8	

Total Hours in Month 744

Hours Data Available 731

Data Recovery 98.3%

Rock Creek - Relative Humidity (Percentage)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	78.8	85.3	84.8	85.6	89.6	86.7	81.3	65.4	49.0	45.8	40.5	43.8	43.6	42.1	43.2	43.7	41.9	40.1	39.6	40.5	40.4	41.8	45.8	48.0	89.6	39.6	56.1
2	48.6	56.0	52.4	53.2	55.1	55.6	54.4	52.2	42.4	36.3	32.7	30.4	40.0	39.0	36.7	36.1	37.8	44.1	43.4	46.4	45.5	47.3	56.7	68.4	68.4	30.4	46.3
3	76.2	80.1	84.7	88.8	84.5	84.8	82.9	78.2	62.8	57.1	62.6	55.7	52.5	46.4	42.9	45.5	41.5	44.7	43.9	52.8	51.9	56.7	64.7	73.7	88.8	41.5	63.2
4	70.8	79.2	77.8	77.3	76.0	82.6	75.4	64.0	47.4	46.1	49.3	50.5	51.1	45.3	45.4	42.9	49.0	73.5	65.1	58.8	74.3	77.7	74.2	71.7	82.6	42.9	63.6
5	69.2	67.0	75.7	68.0	71.3	68.2	62.3	57.1	52.4	43.2	36.3	31.3	27.3	25.8	24.4	23.8	23.9	24.1	25.6	28.6	31.5	35.9	43.9	53.1	75.7	23.8	44.6
6	56.5	55.6	63.8	55.3	47.5	49.3	48.0	39.4	36.3	31.3	28.6	27.1	24.9	24.2	23.1	23.4	29.1	32.8	33.4	34.6	35.4	50.1	65.7	74.8	74.8	23.1	41.3
7	81.9	67.4	54.6	38.9	36.8	36.9	35.3	34.2	32.5	28.1	24.8	22.2	20.9	20.7	22.3	26.4	26.5	20.7	24.3	40.4	46.0	45.6	45.6	44.4	81.9	20.7	36.5
8	51.8	85.6	92.9	92.4	92.1	89.3	90.3	93.2	92.0	90.2	89.4	88.6	85.9	82.8	74.8	74.1	77.8	75.6	78.7	71.5	74.7	79.0	87.4	91.5	93.2	51.8	83.4
9	92.2	93.0	93.3	92.2	90.7	90.8	89.3	87.2	82.6	81.2	73.4	68.3	66.8	60.5	58.2	56.6	58.3	58.3	57.0	58.2	61.1	64.0	68.9	77.4	93.3	56.6	74.1
10	84.8	88.8	92.6	93.8	93.5	93.1	89.9	77.7	67.3	60.3	54.3	55.9	53.4	50.2	52.2	54.2	53.3	60.0	85.9	94.0	95.1	90.7	92.5	93.1	95.1	50.2	76.1
11	92.1	94.0	95.9	95.4	96.7	97.3	98.0	91.4	77.1	72.1	70.2	62.9	55.1	51.3	47.3	43.7	49.9	49.8	42.1	43.1	45.8	60.0	61.7	74.1	98.0	42.1	69.5
12	81.3	85.6	89.1	92.3	94.6	94.9	92.6	76.4	63.3	52.4	46.6	46.8	43.6	41.0	37.4	30.8	21.7	20.5	27.1	34.3	33.1	37.1	48.5	63.3	94.9	20.5	56.4
13	79.3	83.4	87.4	89.5	92.0	93.1	88.7	74.3	59.6	52.1	48.9	48.8	48.0	48.5	48.0	47.7	49.4	50.0	54.8	59.5	66.2	75.4	82.1	88.0	93.1	47.7	67.3
14	93.4	95.0	95.8	97.0	97.9	97.9	97.5	94.9	89.9	82.5	68.9	63.8	61.6	59.4	54.8	52.7	48.5	45.8	44.9	54.2	57.7	65.2	74.3	83.0	97.9	44.9	74.0
15	85.8	89.2	89.8	88.0	88.8	91.3	90.7	84.8	76.2	61.3	59.5	57.5	54.1	51.0	51.2	53.2	60.7	58.4	54.7	53.5	56.0	60.6	69.7	78.4	91.3	51.0	69.3
16	82.0	84.5	87.9	86.2	86.1	80.7	86.6	81.2	55.7	55.1	51.0	48.9	50.9	72.3	73.0	66.2	70.5	80.2	86.5	90.2	91.4	91.7	93.0	93.4	93.4	48.9	76.9
17	93.8	95.1	96.1	96.1	95.9	95.6	94.9	94.0	93.2	91.7	90.2	84.7	80.7	76.9	75.1	75.3	77.6	82.2	83.8	86.5	87.6	88.0	89.6	93.0	96.1	75.1	88.2
18	93.5	94.4	95.1	95.1	95.9	96.3	95.2	92.5	84.2	70.4	59.1	56.4	62.3	62.3	54.9	52.4	52.1	62.6	81.6	87.1	89.9	91.1	91.7	90.6	96.3	52.1	79.4
19	90.9	92.8	93.0	93.4	95.7	95.2	94.7	87.3	80.9	81.9	80.3	69.4	67.4	66.6	70.4	77.4	68.3	64.7	68.3	71.9	78.2	78.8	83.0	86.9	95.7	64.7	80.7
20	88.5	89.4	90.1	90.7	89.6	90.0	87.4	81.9	75.4	65.5	61.2	56.0	50.6	46.1	44.4	41.2	42.6	47.7	51.0	54.4	57.1	60.1	62.3	65.4	90.7	41.2	66.2
21	71.7	73.7	73.1	75.8	84.0	87.1	85.0	83.2	71.6	67.4	63.7	63.0	55.2	57.0	54.7	58.7	76.5	82.3	84.4	85.1	90.9	93.5	93.8	93.6	93.8	54.7	76.0
22	94.7	95.0	95.4	95.4	94.8	94.3	95.3	93.9	89.6	85.1	82.7	82.6	77.3	71.7	72.6	76.1	83.5	88.2	90.8	91.2	91.7	92.5	92.8	93.5	95.4	71.7	88.4
23	93.6	92.9	92.8	93.2	94.3	95.8	95.4	94.6	93.7	91.9	91.3	87.8	80.1	87.8	85.3	76.6	75.1	70.8	72.3	73.5	77.3	88.8	89.9	89.1	95.8	70.8	86.8
24	88.9	87.2	87.7	90.3	90.9	88.6	90.3	87.8	85.2	83.3	78.1	76.1	77.4	71.9	65.9	61.5	59.5	57.9	61.8	68.9	74.8	89.8	91.1	90.7	91.1	57.9	79.4
25	89.6	89.6	90.5	92.5	93.0	93.8	92.7	92.6	91.1	88.1	89.9	84.4	81.1	79.2	76.8	76.5	75.5	74.9	74.7	75.4	73.6	72.3	77.0	80.2	93.8	72.3	83.5
26	88.3	92.8	92.7	90.4	89.2	87.3	86.5	83.3	77.7	71.6	66.9	64.1	61.0	55.8	52.5	50.9	48.9	46.8	54.6	57.5	60.0	61.6	68.2	80.3	92.8	46.8	70.4
27	85.9	88.0	92.6	94.4	95.6	96.3	94.6	81.7	65.9	51.5	42.2	46.2	50.3	41.9	39.0	39.8	37.7	31.7	31.1	30.1	31.7	34.2	42.0	53.7	96.3	30.1	58.2
28	69.2	71.5	76.2	77.1	78.2	78.0	73.2	65.2	50.5	39.2	29.8	21.9	18.0	18.2	18.2	19.3	19.2	18.7	19.2	21.8	23.8	28.3	38.4	51.4	78.2	18.0	42.7
29	60.9	60.4	54.7	65.8	68.9	64.9	68.9	59.4	51.2	35.2	30.1	24.5	18.5	23.2	25.0	22.2	28.5	36.4	32.7	37.0	44.9	51.6	53.2	63.2	68.9	18.5	45.0
30	73.6	71.2	69.6	67.0	63.8	65.6	71.1	68.3	67.7	70.6	60.9	54.9	53.5	49.3	44.3	47.5	47.9	47.9	52.0	58.0	62.4	67.7	74.4	81.1	81.1	44.3	62.1
Max.	94.7	95.1	96.1	97.0	97.9	97.9	98.0	94.9	93.7	91.9	91.3	88.6	85.9	87.8	85.3	77.4	83.5	88.2	90.8	94.0	95.1	93.5	93.8	93.6	98.0		
Min.	48.6	55.6	52.4	38.9	36.8	36.9	35.3	34.2	32.5	28.1	24.8	21.9	18.0	18.2	18.2	19.3	19.2	18.7	19.2	21.8	23.8	28.3	38.4	44.4		18.0	
Avg.	80.3	82.8	83.9	83.7	84.1	84.0	82.9	77.2	68.8	62.9	58.8	55.8	53.8	52.3	50.5	49.9	51.1	53.0	55.5	58.6	61.7	65.9	70.7	76.3			66.9

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1020	1021	1021	1021	1021	1022	1022	1022	1023	1023	1022	1024	1024	1024	1023	1024	1022	1023	1024	1023	1023	1022	1021	1021	1024	1020	1022	
2	1020	1019	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1009	1008	1007	1007	1006	1005	1005	1004	1004	1004	1004	1004	1020	1004	1011
3	1003	1002	1002	1002	1001	1000	1000	1000	999	999	998	998	998	999	996	995	996	995	997	994	995	995	995	995	995	1003	994	998
4	994	995	995	995	995	995	995	995	995	995	996	996	997	997	996	996	996	996	997	996	996	996	996	996	996	997	994	996
5	996	995	995	995	995	995	995	995	995	996	996	996	997	996	997	996	996	997	996	996	996	996	996	995	995	997	995	996
6	995	995	995	995	994	994	994	994	993	993	993	992	992	992	990	990	991	991	991	991	991	991	992	992	992	995	990	992
7	992	992	992	992	991	992	992	993	993	994	994	994	995	996	996	996	996	996	995	995	995	995	996	996	996	996	991	994
8	996	997	997	998	999	1000	1001	1001	1001	1001	1002	1003	1004	1005	1005	1005	1006	1005	1005	1005	1005	1005	1005	1005	1005	1006	996	1003
9	1004	1004	1003	1003	1002	1002	1002	1002	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1002	1002	1002	1002	1004	1001	1002
10	1003	1003	1004	1004	1004	1004	1005	1005	1006	1006	1007	1008	1008	1008	1008	1009	1009	1009	1010	1010	1010	1011	1012	1012	1012	1012	1003	1007
11	1013	1013	1014	1014	1014	1015	1015	1016	1016	1016	1017	1018	1018	1019	1019	1019	1019	1019	1018	1018	1018	1018	1018	1018	1017	1019	1013	1017
12	1017	1016	1015	1014	1013	1012	1011	1010	1010	1009	1008	1007	1007	1006	1005	1004	1005	1004	1003	1003	1003	1003	1003	1003	1003	1017	1003	1008
13	1003	1003	1003	1004	1004	1004	1005	1005	1006	1006	1007	1008	1008	1009	1010	1010	1010	1010	1010	1010	1011	1011	1011	1012	1012	1012	1003	1008
14	1013	1013	1013	1013	1013	1012	1012	1011	1011	1010	1010	1009	1009	1009	1009	1010	1010	1010	1010	1011	1011	1011	1011	1011	1010	1013	1009	1011
15	1010	1009	1007	1006	1005	1006	1004	1004	1002	1001	1001	1001	1000	1000	1000	1000	999	1000	999	999	999	999	999	1000	1000	1010	999	1002
16	1000	1001	1001	1002	1002	1002	1003	1003	1004	1005	1005	1006	1006	1007	1007	1007	1008	1008	1008	1008	1008	1009	1009	1009	1009	1009	1000	1005
17	1009	1009	1009	1009	1008	1008	1007	1007	1006	1006	1005	1005	1004	1002	1003	1002	1001	1000	1000	999	999	998	998	998	998	1009	998	1004
18	997	997	997	996	996	996	996	996	996	996	996	996	996	996	996	996	996	996	996	996	996	996	996	997	997	997	996	996
19	997	997	997	997	997	996	997	997	997	997	998	998	998	998	999	998	999	999	999	999	999	1000	1000	1001	1001	1001	996	998
20	1001	1001	1001	1002	1002	1002	1002	1002	1002	1003	1003	1003	1004	1004	1004	1004	1005	1005	1005	1005	1006	1006	1006	1007	1007	1007	1001	1004
21	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1006	1006	1005	1006	1004	1004	1004	1004	1004	1004	1004	1007	1004	1006
22	1003	1003	1003	1002	1002	1002	1001	1001	1000	999	999	999	998	998	998	997	996	996	996	996	996	996	996	996	996	1003	996	999
23	996	996	996	996	996	996	996	996	996	996	996	997	998	997	999	998	998	999	999	999	999	1000	1000	1001	1001	1001	996	998
24	1001	1002	1002	1002	1003	1003	1003	1004	1004	1005	1004	1005	1003	1006	1008	1006	1005	1007	1007	1007	1008	1008	1009	1009	1009	1009	1001	1005
25	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1008	1008	1007	1007	1007	1006	1005	1005	1004	1003	1002	1001	1001	999	1009	999	1006
26	998	998	997	996	995	993	992	992	991	991	991	991	994	993	995	996	996	997	998	998	999	1000	1000	1000	1000	1000	991	995
27	1000	1000	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1002	1002	1002	1002	1002	1002	1002	1003	1004	1004	1005	1006	1006	1000	1002
28	1007	1008	1009	1009	1010	1011	1011	1012	1013	1013	1014	1014	1015	1015	1015	1016	1016	1016	1016	1016	1016	1016	1017	1017	1017	1017	1007	1013
29	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1016	1017	1015	1015	1016	1016	1015	1016	1016	1016	1016	1016	1016	1017	1015	1016
30	1017	1017	1017	1017	1017	1017	1018	1018	1018	1018	1018	1017	1019	1017	1018	1017	1017	1017	1016	1016	1016	1016	1016	1016	1016	1019	1016	1017
Max.	1020	1021	1021	1021	1021	1022	1022	1022	1023	1023	1022	1024	1024	1024	1023	1024	1022	1023	1024	1023	1023	1022	1021	1021	1021	1024		
Min.	992	992	992	992	991	992	992	992	991	991	991	991	992	990	990	991	991	991	991	991	991	991	992	992	992		990	
Avg.	1005	1005	1005	1005	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1005	1005	1005			1004

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1015	1015	1014	1014	1014	1013	1013	1013	1013	1013	1012	1012	1012	1011	1011	1010	1012	1010	1010	1010	1010	1010	1010	1011	1015	1010	1012	
2	1011	1011	1011	1012	1012	1012	1012	1012	1013	1013	1013	1013	1014	1013	1013	1014	1015	1014	1013	1014	1014	1014	1014	1015	1015	1015	1011	1013
3	1015	1016	1016	1017	1017	1017	1018	1018	1018	1019	1019	1018	1019	1019	1020	1020	1019	1019	1019	1020	1020	1020	1020	1021	1021	1021	1015	1019
4	1021	1021	1022	1022	1022	1022	1022	1022	1022	1022	1022	1021	1022	1022	1021	1021	1021	1020	1020	1020	1020	1019	1019	1020	1022	1019	1021	
5	1019	1019	1019	1018	1018	1017	1016	1016	1016	1016	1015	1014	1014	1014	1013	1013	1013	1011	1011	1010	1009	1008	1007	1006	1005	1019	1005	1013
6	1004	1003	1003	1003	1002	1002	1002	1002	1002	1002	1002	1002	1003	1003	1006	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1006	1002	1003
7	1004	1004	1003	1003	1003	1003	1003	1003	1004	1004	1004	1004	1004	1004	1004	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1004	1003	1003
8	1003	1003	1003	1003	1004	1004	1004	1004	1004	1004	1004	1003	1003	1003	1003	1003	1003	1004	1004	1005	1005	1006	1006	1007	1008	1008	1003	1004
9	1009	1009	1010	1010	1010	1010	1010	1009	1009	1008	1008	1007	1006	1006	1005	1004	1003	1003	1003	1003	1003	1004	1004	1004	1004	1010	1003	1007
10	1004	1004	1004	1005	1005	1006	1006	1006	1006	1006	1007	1007	1007	1007	1007	1008	1008	1008	1009	1009	1010	1010	1010	1011	1012	1012	1004	1007
11	1012	1013	1013	1013	1014	1014	1015	1016	1017	1018	1018	1019	1020	1020	1021	1021	1021	1021	1022	1022	1022	1023	1023	1023	1023	1023	1012	1018
12	1024	1024	1024	1024	1024	1024	1024	1024	1023	1023	1023	1023	1023	1022	1022	1020	1021	1021	1020	1020	1020	1019	1019	1018	1018	1024	1018	1022
13	1017	1017	1016	1015	1014	1014	1013	1012	1012	1011	1011	1010	1009	1007	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1009	1017	1007	1011
14	1008	1009	1008	1008	1008	1008	1008	1008	1008	1009	1009	1009	1009	1009	1009	1008	1008	1008	1007	1007	1007	1006	1006	1005	1005	1009	1005	1008
15	1005	1004	1003	1003	1002	1001	1001	999	999	999	999	999	999	999	999	999	999	998	998	998	998	997	997	997	997	1005	997	1000
16	996	995	995	994	993	992	992	991	991	991	991	990	990	990	990	989	989	989	989	989	989	989	989	990	991	996	989	991
17	993	994	995	997	997	997	998	998	999	999	1001	1001	1002	1002	1003	1003	1004	1004	1004	1005	1005	1006	1007	1007	1007	1007	993	1001
18	1008	1008	1008	1008	1009	1009	1010	1010	1011	1011	1012	1013	1014	1015	1015	1016	1017	1017	1018	1018	1019	1020	1020	1021	1021	1021	1008	1014
19	1022	1022	1023	1023	1024	1024	1024	1024	1025	1025	1026	1026	1027	1027	1027	1028	1028	1028	1028	1028	1028	1029	1029	1029	1029	1029	1022	1026
20	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1029	1029	1028	1029	1027	1027	1027	1027	1026	1027	1026	1025	1025	1025	1030	1025	1028
21	1025	1025	1024	1023	1023	1022	1022	1021	1021	1021	1020	1020	1019	1019	1018	1018	1017	1017	1016	1016	1016	1015	1015	1015	1015	1025	1015	1020
22	1015	1015	1015	1015	1014	1014	1014	1013	1013	1013	1012	1012	1012	1011	1011	1010	1010	1009	1008	1007	1006	1005	1004	1004	1004	1015	1004	1011
23	1003	1002	1001	1000	999	999	998	998	997	997	997	996	997	996	996	996	996	996	996	996	996	996	996	996	996	1003	996	998
24	996	996	996	996	995	995	995	995	995	995	995	995	995	995	994	994	994	993	993	992	992	992	992	993	993	996	992	994
25	993	993	993	993	993	993	993	994	994	994	994	994	993	993	993	994	994	994	994	995	995	995	996	996	996	996	993	994
26	997	997	998	998	998	999	999	999	999	999	999	1000	1000	1000	999	999	999	999	999	998	999	998	998	998	998	1000	997	999
27	998	998	998	997	997	997	997	996	996	996	995	995	995	995	994	994	994	993	994	994	994	994	994	994	994	998	993	995
28	994	994	994	994	995	994	994	994	994	994	993	994	994	995	995	995	995	996	996	996	996	997	997	998	998	998	993	995
29	998	998	999	999	999	999	999	999	1000	1000	1000	1000	1000	1001	1001	1001	1001	1001	1000	1001	1001	1001	1002	1002	1003	1003	998	1000
30	1003	1004	1004	1004	1004	1004	1005	1005	1005	1005	1005	1006	1004	1005	1004	1005	1004	1003	1003	1003	1003	1003	1003	1003	1003	1006	1003	1004
31	1003	1003	1003	1003	1003	1003	1003	1002	1003	1003	1003	1004	1004	1005	1005	1005	1004	1004	1003	1003	1004	1004	1004	1004	1004	1005	1002	1004
Max.	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1029	1029	1028	1029	1028	1028	1028	1028	1028	1028	1029	1029	1029	1029	1030		
Min.	993	993	993	993	993	992	992	991	991	991	991	990	990	990	990	989	989	989	989	989	989	989	989	990	991	989		
Avg.	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007		1008	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1005	1005	1004	1004	1004	1003	1003	1003	1003	1004	1004	1004	1004	1005	1003	1004		
2	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1005	1005	1005	1005	1005	1005	1006	1006	1006	1006	1007	1007	1007	1007	1007	1004	1005	
3	1008	1008	1008	1009	1009	1009	1010	1010	1010	1010	1010	1010	1011	1011	1011	1011	1010	1010	1010	1010	1010	1010	1010	1010	1010	1011	1008	1010	
4	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1009	1008	1008	1008	1008	1007	1008	1008	1008	1008	1008	1010	1007	1009	
5	1008	1008	1009	1009	1009	1009	1009	1009	1009	1009	1009	1010	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1010	1008	1009	
6	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1008	1009	1009	1008	1009	1009	1009	1009	1008	1008	1009	1009	1009	1010	1008	1009	
7	1009	1009	1008	1008	1007	1007	1007	1007	1007	1006	1006	1006	1005	1006	1004	1004	1003	1003	1003	1004	1003	1003	1003	1003	1003	1009	1003	1005	
8	1004	1005	1005	1006	1006	1007	1008	1009	1009	1009	1010	1010	1010	1010	1010	1010	1010	1011	1010	1011	1010	1010	1010	1010	1010	1011	1004	1009	
9	1010	1011	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1009	1008	1008	1007	1006	1007	1006	1006	1005	1005	1005	1005	1005	1011	1005	1008	
10	1005	1005	1004	1004	1004	1004	1004	1003	1003	1003	1002	1003	1002	1001	1001	1001	1001	1001	1002	1001	1000	1000	1000	1001	1001	1005	1000	1002	
11	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1001	1001	1000	1001	
12	1001	1001	1001	1000	1000	1000	1000	1000	1000	1000	1000	1000	1001	1000	1000	999	999	999	999	999	999	999	999	999	999	1001	999	1000	
13	999	999	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1001	1001	1002	1001	1002	1003	1003	1003	1004	1004	1005	1005	1005	1005	999	1001	
14	1005	1006	1006	1007	1007	1008	1009	1009	1009	1009	1009	1010	1010	1010	1009	1010	1010	1010	1010	1010	1010	1010	1010	1011	1011	1011	1005	1009	
15	1012	1012	1013	1013	1014	1014	1015	1015	1015	1015	1016	1016	1016	1016	1015	1015	1015	1016	1015	1015	1015	1015	1014	1014	1014	1016	1012	1015	
16	1014	1014	1014	1014	1013	1013	1012	1012	1012	1011	1011	1010	1010	1009	1009	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1009	1014	1008	1010
17	1009	1010	1011	1011	1011	1012	1012	1012	1013	1013	1013	1013	1013	1013	1014	1014	1014	1014	1015	1015	1016	1016	1017	1018	1018	1009	1013	1013	
18	1019	1019	1019	1020	1020	1020	1021	1021	1020	1021	1020	1021	1020	1020	1019	1018	1018	1018	1017	1016	1016	1015	1015	1015	1015	1021	1015	1019	
19	1016	1016	1016	1017	1017	1018	1018	1018	1018	1018	1018	1019	1019	1018	1018	1018	1017	1017	1017	1017	1017	1017	1017	1017	1018	1019	1016	1017	
20	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1018	1017	1017	1017	1016	1017	1015	1015	1015	1014	1013	1013	1012	1012	1012	1018	1012	1016	
21	1012	1012	1012	1012	1012	1012	1012	1012	1012	1011	1011	1010	1010	1010	1010	1010	1009	1008	1007	1007	1007	1007	1007	1007	1008	1012	1007	1010	
22	1007	1008	1008	1007	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1006	1005	1005	1004	1003	1002	1002	1001	1001	1008	1001	1006	
23	1000	1000	999	999	999	999	999	1000	1001	1002	1003	1004	1005	1005	1006	1006	1006	1007	1007	1007	1007	1008	1008	1008	1008	1008	999	1004	
24	1009	1009	1009	1009	1009	1008	1008	1008	1009	1009	1009	1009	1010	1010	1010	1010	1010	1010	1011	1011	1011	1012	1012	1013	1013	1013	1008	1010	
25	1013	1013	1014	1014	1014	1014	1014	1015	1015	1015	1016	1016	1017	1017	1017	1018	1018	1019	1019	1021	1020	1020	1020	1021	1021	1021	1013	1017	
26	1021	1021	1021	1021	1022	1022	1022	1022	1022	1022	1022	1022	1022	1021	1021	1021	1020	1020	1020	1019	1019	1019	1019	1019	1019	1022	1019	1021	
27	1020	1019	1019	1019	1019	1020	1020	1020	1020	1020	1020	1019	1019	1019	1018	1019	1018	1018	1018	1017	1018	1018	1018	1018	1018	1020	1017	1019	
28	1018	1018	1018	1018	1018	1018	1018	1018	1019	1018	1018	1018	1017	1017	1017	1016	1016	1017	1016	1015	1015	1015	1016	1016	1016	1019	1015	1017	
29	1016	1016	1016	1016	1015	1015	1015	1015	1015	1015	1015	1014	1014	1013	1013	1012	1011	1011	1010	1010	1009	1009	1009	1009	1009	1016	1009	1013	
30	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1008	1009	1009	1008	1007	1008	1008	1008	1008	1008	1008	1008	1009	1007	1009	
Max.	1021	1021	1021	1021	1022	1022	1022	1022	1022	1022	1022	1022	1022	1021	1021	1021	1020	1020	1020	1021	1020	1020	1020	1021	1022				
Min.	999	999	999	999	999	999	999	1000	1000	1000	1000	1000	1000	1000	999	999	999	999	999	999	999	999	999	999		999			
Avg.	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1009	1009	1010			1010	

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

April 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	13	52	122	129	197	302	416	577	556	457	374	251	126	15	1	0	0	577	0	149
2	0	0	0	0	0	0	0	11	119	246	373	478	556	597	599	563	490	387	273	182	26	1	0	0	599	0	204
3	0	0	0	0	0	0	0	13	131	261	386	490	565	607	608	570	497	395	275	148	24	1	0	0	608	0	207
4	0	0	0	0	0	0	0	17	76	221	303	445	583	591	616	570	507	383	265	143	24	2	0	0	616	0	198
5	0	0	0	0	0	0	1	23	84	186	292	420	409	441	666	389	379	375	281	60	24	1	0	0	666	0	168
6	0	0	0	0	0	0	1	17	56	150	246	305	573	607	551	408	548	415	200	94	24	1	0	0	607	0	175
7	0	0	0	0	0	0	1	26	143	264	338	427	544	515	601	477	460	226	134	65	24	1	0	0	601	0	177
8	0	0	0	0	0	0	1	21	132	251	304	251	204	368	332	446	400	213	111	116	38	3	0	0	446	0	133
9	0	0	0	0	0	0	2	20	68	161	319	416	529	547	514	489	502	298	215	145	25	2	0	0	547	0	177
10	0	0	0	0	0	0	2	27	89	156	220	338	538	423	414	369	228	171	107	63	23	2	0	0	538	0	132
11	0	0	0	0	0	0	1	12	36	93	156	213	195	147	253	277	309	178	132	101	32	4	0	0	309	0	89
12	0	0	0	0	0	0	3	34	108	189	427	534	605	642	639	602	522	418	293	172	56	5	0	0	642	0	219
13	0	0	0	0	0	0	4	32	81	133	230	396	456	269	130	216	294	213	138	71	16	2	0	0	456	0	112
14	0	0	0	0	0	0	4	33	112	189	277	268	274	215	196	240	189	129	118	72	26	4	0	0	277	0	98
15	0	0	0	0	0	0	7	29	64	150	145	151	154	152	187	169	131	152	287	96	46	5	0	0	287	0	80
16	0	0	0	0	0	0	4	23	61	121	98	127	108	114	125	103	110	135	110	61	18	3	0	0	135	0	55
17	0	0	0	0	0	0	7	52	106	260	459	555	582	595	486	378	244	255	230	152	61	8	0	0	595	0	185
18	0	0	0	0	0	0	6	49	97	183	280	379	261	274	403	314	243	192	158	146	48	10	0	0	403	0	127
19	0	0	0	0	0	0	7	39	75	80	206	225	328	178	276	308	281	177	94	58	19	4	0	0	328	0	98
20	0	0	0	0	0	1	10	44	94	135	155	180	166	227	314	267	334	232	127	90	36	6	0	0	334	0	101
21	0	0	0	0	0	0	5	26	70	160	236	333	415	401	364	613	460	415	337	211	89	20	1	0	613	0	173
22	0	0	0	0	0	1	13	53	203	227	458	545	512	319	313	491	523	403	247	189	61	18	1	0	545	0	191
23	0	0	0	0	0	1	20	112	240	334	432	459	613	613	586	517	377	331	297	185	66	17	1	0	613	0	217
24	0	0	0	0	0	1	18	92	144	305	408	531	461	483	328	368	322	257	277	145	55	14	1	0	531	0	175
25	0	0	0	0	0	1	11	36	71	125	165	210	215	253	231	205	162	101	96	77	49	16	0	0	253	0	84
26	0	0	0	0	0	0	6	28	68	128	168	174	272	343	267	177	156	100	91	58	15	5	0	0	343	0	86
27	0	0	0	0	0	1	9	25	40	61	99	121	151	160	182	189	174	128	101	83	36	8	1	0	189	0	65
28	0	0	0	0	0	1	11	28	54	99	142	201	329	185	174	108	108	87	53	40	35	9	2	0	329	0	69
29	0	0	0	0	0	2	21	125	262	381	482	571	607	682	717	651	575	494	394	265	141	36	4	0	717	0	267
30	0	0	0	0	0	4	26	120	251	414	482	592	700	738	734	693	622	518	394	270	148	38	4	0	738	0	281
Max.	0	0	0	0	0	4	26	125	262	414	482	592	700	738	734	693	622	518	394	270	148	38	4	0	738		
Min.	0	0	0	0	0	0	0	11	36	61	98	121	108	114	125	103	108	87	53	40	15	1	0	0		0	
Avg.	0	0	0	0	0	0	7	39	106	193	280	351	407	403	413	391	353	272	203	123	43	8	0	0			150

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

May 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	6	36	156	277	402	528	624	700	718	724	694	620	515	390	264	146	41	5	0	724	0	285
2	0	0	0	0	0	7	45	168	281	402	521	620	692	728	721	685	609	530	407	279	150	50	7	0	728	0	287
3	0	0	0	0	0	8	34	157	288	422	542	634	705	736	723	692	630	527	404	279	156	51	6	0	736	0	291
4	0	0	0	0	0	7	43	174	276	408	540	637	709	742	736	698	623	515	375	194	98	42	5	0	742	0	284
5	0	0	0	0	0	3	12	29	49	77	137	144	187	155	190	144	166	137	97	66	26	9	2	0	190	0	68
6	0	0	0	0	0	2	9	17	32	82	133	175	225	462	290	229	327	261	136	98	71	40	5	0	462	0	108
7	0	0	0	0	0	1	9	18	49	59	79	129	107	113	137	109	121	94	62	35	26	8	1	0	137	0	48
8	0	0	0	0	0	3	15	59	133	110	107	88	101	134	163	140	84	56	67	49	28	6	1	0	163	0	56
9	0	0	0	0	1	6	19	43	65	74	113	162	206	155	188	154	146	115	71	55	18	10	2	0	206	0	67
10	0	0	0	0	0	1	13	24	40	72	79	144	126	124	153	152	100	74	54	34	20	8	2	0	153	0	51
11	0	0	0	0	0	4	23	52	163	190	178	151	219	267	192	208	213	197	156	104	66	33	13	1	267	0	101
12	0	0	0	0	1	11	41	73	168	250	414	543	684	501	698	450	349	351	170	91	50	19	8	1	698	0	203
13	0	0	0	0	1	14	62	104	178	163	184	184	193	193	236	153	109	82	119	76	36	26	7	0	236	0	88
14	0	0	0	0	0	7	19	43	33	48	86	82	254	364	224	144	231	323	131	148	175	98	20	1	364	0	101
15	0	0	0	0	2	25	70	128	106	138	247	261	159	197	445	423	322	200	114	127	92	42	20	2	445	0	130
16	0	0	0	0	1	9	26	65	103	140	142	227	276	167	233	175	161	149	113	95	60	15	2	0	276	0	90
17	0	0	0	0	2	10	31	68	62	135	100	172	204	207	246	187	252	199	201	129	65	35	8	1	252	0	96
18	0	0	0	0	1	5	18	34	40	45	77	140	134	130	135	135	86	61	63	55	29	9	4	1	140	0	50
19	0	0	0	0	3	17	36	36	30	36	71	146	162	152	131	119	124	131	284	231	94	56	14	2	284	0	78
20	0	0	0	0	2	16	31	64	100	195	352	571	610	650	761	725	614	428	379	280	152	73	20	4	761	0	251
21	0	0	0	0	2	10	35	76	98	106	131	102	169	188	258	213	89	59	59	35	25	11	3	1	258	0	70
22	0	0	0	0	1	4	8	12	27	43	80	95	106	153	202	271	297	331	382	163	158	79	40	5	382	0	102
23	1	0	0	0	3	15	43	64	58	61	117	149	101	112	141	92	87	77	41	34	33	24	8	1	149	0	52
24	0	0	0	0	2	11	47	76	88	105	129	259	148	305	326	381	347	340	472	327	235	124	31	6	472	0	157
25	1	0	0	1	5	16	53	110	219	457	256	326	535	737	772	733	667	574	463	305	259	134	41	13	772	0	278
26	2	0	0	2	13	32	113	244	383	242	469	708	759	593	542	706	673	576	453	352	231	125	32	6	759	0	302
27	1	0	0	1	6	16	49	83	191	270	252	245	265	250	453	808	701	605	488	365	239	125	36	8	808	0	227
28	1	0	0	2	10	21	131	250	375	500	611	699	768	826	717	842	449	359	418	210	124	63	26	5	842	0	309
29	1	0	0	1	6	21	60	96	142	176	326	320	268	617	721	755	568	514	444	352	220	129	44	9	755	0	241
30	2	0	0	2	9	19	151	262	384	506	615	722	831	779	536	695	631	492	254	289	181	71	28	5	831	0	311
31	2	0	0	0	3	5	14	46	84	109	135	265	406	658	763	612	461	575	460	340	219	105	32	9	763	0	221
Max.	2	0	0	2	13	32	151	262	384	506	615	722	831	826	772	842	701	605	488	365	259	134	44	13	842		
Min.	0	0	0	0	0	1	8	12	27	36	71	82	101	112	131	92	84	56	41	34	18	6	1	0		0	
Avg.	0	0	0	0	2	11	42	91	146	194	250	314	355	391	412	404	350	305	249	176	112	54	15	3			161

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

June 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3	1	1	2	9	18	150	267	390	511	620	713	528	783	799	730	759	454	433	357	125	56	26	12	799	1	323
2	3	1	1	1	7	32	65	110	139	153	271	520	482	476	721	712	402	337	238	103	131	134	33	10	721	1	212
3	3	1	1	2	9	18	148	257	380	496	526	692	772	797	794	680	557	432	338	218	216	76	28	8	797	1	310
4	2	1	1	3	9	17	150	265	260	222	199	343	747	695	485	636	324	174	383	282	86	47	24	9	747	1	224
5	4	1	1	3	16	26	135	152	241	429	636	704	762	791	787	752	686	598	486	347	246	143	48	13	791	1	334
6	4	2	4	7	19	25	138	270	268	502	573	683	756	737	807	760	661	611	488	301	233	140	76	13	807	2	337
7	3	2	3	7	16	39	178	253	333	492	609	699	760	745	522	332	366	567	319	204	147	62	27	12	760	2	279
8	4	1	1	3	6	16	32	47	75	95	118	169	229	246	510	494	482	449	240	293	175	46	15	6	510	1	156
9	2	0	0	1	2	18	37	100	139	260	422	364	282	456	439	406	392	342	415	352	246	133	49	13	456	0	203
10	4	1	2	5	19	29	157	262	372	395	614	649	763	763	721	740	566	450	31	26	45	31	34	11	763	1	279
11	6	2	2	5	11	20	167	262	354	388	611	694	760	797	763	732	241	300	483	362	265	108	53	15	797	2	308
12	5	2	2	5	12	21	168	265	384	501	609	696	758	785	801	753	661	591	476	357	241	142	48	14	801	2	346
13	6	2	2	5	13	22	162	266	387	508	614	696	757	785	783	746	679	587	475	358	241	142	51	15	785	2	346
14	6	2	2	5	8	25	63	129	219	392	628	710	772	795	776	738	693	567	473	303	216	102	34	14	795	2	320
15	5	1	1	2	12	39	95	131	298	511	617	700	773	789	759	684	598	585	477	361	245	143	50	14	789	1	329
16	5	1	1	4	16	47	86	170	304	236	226	214	255	153	249	192	163	75	124	59	42	38	34	7	304	1	112
17	1	1	0	1	9	22	58	55	98	100	156	245	269	395	378	257	160	135	146	99	94	83	35	13	395	0	117
18	3	1	1	3	12	30	60	79	186	416	560	421	510	432	444	317	252	190	120	97	62	65	32	23	560	1	180
19	5	1	1	2	10	27	68	130	176	155	173	384	338	181	156	176	364	211	191	114	90	82	34	9	384	1	128
20	3	1	2	2	4	21	52	77	322	365	595	565	569	555	380	539	374	202	164	111	67	44	15	5	595	1	210
21	2	1	1	1	5	34	102	137	300	311	442	565	632	347	337	235	226	139	129	57	40	24	14	4	632	1	170
22	1	0	0	1	6	13	28	61	126	243	235	229	324	354	248	236	232	144	129	110	74	52	22	6	354	0	120
23	1	0	0	1	2	5	14	43	98	95	90	123	178	149	231	238	444	391	277	190	90	34	15	8	444	0	113
24	2	1	1	2	6	20	58	108	129	169	224	166	189	253	397	427	526	495	348	151	84	48	21	10	526	1	160
25	1	1	0	1	3	15	19	61	117	178	201	231	216	269	243	176	148	144	135	95	74	47	21	7	269	0	100
26	2	1	1	1	4	12	29	55	91	140	200	255	346	484	644	780	625	602	489	372	256	154	56	14	780	1	234
27	6	2	2	5	11	24	194	280	400	523	635	718	782	810	806	766	695	598	484	366	248	149	59	20	810	2	358
28	9	4	3	7	18	37	125	215	332	454	566	665	729	753	751	714	644	558	453	334	225	132	52	17	753	3	325
29	5	1	1	5	16	37	133	227	350	472	581	657	713	734	730	691	384	398	364	268	157	83	41	18	734	1	294
30	3	1	0	1	7	28	59	98	133	215	316	329	379	408	410	427	430	386	308	211	134	73	33	13	430	0	183
Max.	9	4	4	7	19	47	194	280	400	523	636	718	782	810	807	780	759	611	489	372	265	154	76	23	810		
Min.	1	0	0	1	2	5	14	43	75	95	90	123	178	149	156	176	148	75	31	26	40	24	14	4	0		
Avg.	4	1	1	3	10	25	98	161	247	331	429	493	544	557	562	536	458	390	320	229	153	87	36	12			237

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - 2-m Temperature (deg. C)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	14.5	13.6	12.9	11.6	11.9	10.4	10.8	11.7	13.8	15.6	17.1	19.0	20.9	21.4	21.0	21.1	21.1	20.4	19.5	19.1	18.0	16.4	15.6	14.1	21.4	10.4	16.3
2	13.6	12.7	12.2	11.7	12.3	11.5	11.7	12.0	13.5	14.4	16.0	17.7	19.6	20.8	21.7	21.6	21.2	19.8	17.9	16.7	16.2	15.2	14.7	14.6	21.7	11.5	15.8
3	14.1	13.5	12.7	12.5	12.6	12.3	12.4	12.7	13.6	13.6	13.3	12.4	13.6	13.3	13.5	13.1	12.7	12.5	12.7	12.3	12.3	12.3	11.9	11.6	14.1	11.6	12.8
4	11.3	11.2	11.1	10.9	10.8	10.8	10.8	11.0	11.3	11.2	11.2	11.5	11.7	12.4	13.9	13.8	13.2	13.3	13.3	12.2	12.2	13.6	14.6	12.6 #	14.6	10.8	12.1
5	11.0	8.8	7.2	5.6	5.0	5.1	6.9	10.7	13.5	15.2	17.0	18.3	19.2	18.8	19.3	18.5	17.6	18.0	17.2	16.0	15.1	14.2	12.7	11.4	19.3	5.0	13.4
6	9.9	10.2	10.3	10.1	10.0	9.4	9.2	9.5	10.0	11.0	11.9	12.4	12.5	12.7	13.1	13.1	13.2	13.4	11.7	10.6	9.8	9.3	9.3	9.2	13.4	9.2	10.9
7	9.1	9.1	9.0	8.8	8.8	8.9	8.8	8.9	9.2	10.3	11.6	12.6	13.1	13.3	14.1	12.9	11.2	11.8	11.4	11.4	11.4	11.3	11.0	10.2	14.1	8.8	10.8
8	9.5	9.0	8.9	8.8	9.0	9.3	9.7	10.0	10.5	11.2	11.8	13.4	13.9	14.4	15.2	14.8	14.4	14.3	15.0	13.9	12.6	11.9	10.6	10.2	15.2	8.8	11.8
9	9.6	7.7	6.7	6.0	5.2	4.3	5.7	9.1	11.2	13.6	15.7	15.8	15.2	15.1	15.2	15.1	14.8	14.4	13.5	13.5	12.3	11.1	10.2	8.2	15.8	4.3	11.2
10	7.0	6.1	5.4	4.9	4.8	4.9	5.2	6.1	7.2	8.4	10.4	10.3	11.7	12.9	13.6	14.2	13.8	13.1	12.0	11.4	11.0	10.3	9.6	8.2	14.2	4.8	9.3
11	7.8	7.8	7.7	7.7	7.0	5.4	5.1	7.1	10.9	13.8	15.0	15.8	16.1	16.3	17.6	16.8	16.2	17.2	17.7	15.5	13.8	12.6	11.5	10.2	17.7	5.1	12.2
12	9.1	8.5	7.2	6.1	6.4	6.2	6.8	9.4	11.6	14.9	17.7	20.5	22.0	21.8	22.2	23.3	23.1	23.4	20.6	19.9	19.2	19.4	17.8	16.4	23.4	6.1	15.6
13	15.4	13.9	13.3	13.0	12.3	13.1	13.7	14.5	14.1	15.0	16.8	18.6	17.6	17.7	19.0	18.7	16.7	16.3	18.3	18.8	18.5	17.4	16.2	13.0	19.0	12.3	15.9
14	11.3	9.6	8.3	7.7	8.9	8.9	10.9	12.6	14.1	15.5	15.3	17.5	18.1	19.0	18.8	18.7	19.1	19.1	19.3	19.9	19.0	17.5	15.2	13.4	19.9	7.7	14.9
15	13.1	11.3	9.5	7.9	8.2	7.4	9.5	11.0	14.6	17.1	19.3	21.3	22.8	22.7	21.7	21.1	23.4	24.3	22.2	19.1	16.8	14.7	14.6	14.1	24.3	7.4	16.1
16	13.1	12.3	12.6	12.7	12.4	12.2	13.5	14.4	16.8	17.9	18.3	17.8	16.6	17.0	17.6	18.8	18.8	19.1	18.8	18.7	18.2	17.2	16.0	15.2	19.1	12.2	16.1
17	14.4	14.4	15.5	15.5	15.2	14.9	14.6	15.7	16.6	17.9	18.2	20.2	18.7	16.4	17.1	17.4	18.3	18.3	18.6	17.0	16.0	16.3	15.1	14.2	20.2	14.2	16.5
18	13.7	13.0	12.1	12.3	13.1	12.8	14.2	16.0	17.0	17.5	18.7	18.2	17.9	18.0	18.8	19.0	19.0	19.1	19.6	19.6	18.3	17.4	16.1	14.1	19.6	12.1	16.5
19	12.9	11.0	11.8	8.4	6.6	5.5	8.1	13.5	14.8	18.4	20.4	21.2	22.0	22.3	23.1	23.1	22.7	21.6	20.5	19.8	19.0	18.0	17.2	14.8	23.1	5.5	16.5
20	12.0	8.9	6.3	5.3	4.2	4.0	5.1	8.9	10.7	14.9	16.3	17.2	18.2	19.5	19.0	19.4	20.5	20.3	19.6	19.0	19.0	18.5	16.1	12.0	20.5	4.0	14.0
21	10.5	8.8	8.1	7.4	6.4	6.2	8.2	10.6	14.4	18.2	19.2	20.1	20.3	20.6	20.9	21.5	21.3	21.8	21.7	21.0	19.9	18.3	16.2	13.3	21.8	6.2	15.6
22	9.9	9.5	8.8	8.6	8.5	7.8	8.0	12.1	17.1	19.4	20.1	20.7	20.8	18.5	17.6	17.1	15.6	14.7	14.6	13.7	13.3	12.3	10.8	8.8	20.8	7.8	13.7
23	8.4	6.9	5.4	4.7	5.0	5.2	6.5	8.8	12.7	14.6	15.4	16.1	17.1	18.4	20.0	20.6	20.5	21.0	21.3	20.6	19.5	18.1	16.3	15.0	21.3	4.7	14.1
24	14.4	13.6	12.0	11.3	11.8	11.7	13.0	15.1	18.1	19.4	20.5	21.3	21.5	21.7	22.5	23.0	22.9	22.7	22.6	22.4	22.2	21.7	18.5	14.5	23.0	11.3	18.3
25	11.8	10.2	10.6	10.1	11.6	11.8	12.1	13.5	17.7	19.8	20.3	20.9	21.1	20.1	21.1	20.9	20.8	21.6	21.7	21.1	20.6	19.6	16.9	13.7	21.7	10.1	17.1
26	11.7	10.0	10.6	12.3	17.3	17.8	18.4	18.5	18.9	19.2	18.2	16.8	16.6	17.6	17.7	18.1	16.1	15.7	16.0	16.3	16.0	15.6	14.1	13.6	19.2	10.0	15.9
27	13.6	13.7	13.3	13.2	13.4	13.4	13.7	13.6	14.0	14.6	14.7	14.4	15.0	15.3	15.1	15.0	15.8	15.1	15.4	15.4	14.8	13.9	13.3	13.0	15.8	13.0	14.3
28	13.2	13.0	13.4	13.2	12.7	12.8	13.0	13.3	14.1	15.3	15.9	16.3	16.5	17.6	18.4	15.0	15.1	15.6	16.5	18.4	18.1	16.0	15.4	14.7	18.4	12.7	15.1
29	13.8	13.3	13.2	13.1	12.5	12.4	13.2	13.3	14.7	16.7	17.5	17.5	19.8	20.7	19.6	20.6	20.5	19.2	20.2	20.3	20.2	19.4	17.6	15.2	20.7	12.4	16.9
30	13.6	12.1	10.3	9.4	9.3	10.0	10.3	11.6	13.0	13.6	14.1	13.6	13.7	14.7	15.3	16.4	16.3	17.4	16.6	15.5	15.5	14.9	13.8	13.3	17.4	9.3	13.5
31	12.8	12.4	12.9	13.6	13.5	13.6	13.4	13.8	14.5	14.5	14.5	15.0	14.8	15.4	15.6	16.1	16.0	16.1	15.2	14.9	14.2	13.5	13.1	13.0	16.1	12.4	14.3
Max.	15.4	14.4	15.5	15.5	17.3	17.8	18.4	18.5	18.9	19.8	20.5	21.3	22.8	22.7	23.1	23.3	23.4	24.3	22.6	22.4	22.2	21.7	18.5	16.4	24.3		
Min.	7.0	6.1	5.4	4.7	4.2	4.0	5.1	6.1	7.2	8.4	10.4	10.3	11.7	12.4	13.1	12.9	11.2	11.8	11.4	10.6	9.8	9.3	9.3	8.2		4.0	
Avg.	11.8	10.8	10.3	9.8	9.9	9.7	10.4	11.9	13.7	15.2	16.2	16.9	17.4	17.6	18.0	18.0	17.8	17.8	17.4	16.9	16.2	15.4	14.2	12.8			14.4

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - 2-m Temperature (deg. C)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.8	12.5	12.3	11.8	11.5	11.5	11.5	11.8	12.0	12.4	13.3	13.8	14.7	14.7	14.5	14.5	14.2	13.9	13.6	13.3	12.7	12.3	12.0	11.7	14.7	11.5	12.9
2	11.8	11.9	11.8	11.7	11.4	11.1	10.8	11.1	11.2	11.3	12.0	12.2	12.1	12.2	12.5	12.8	13.2	13.9	13.4	13.4	13.0	12.9	12.7	13.0	13.9	10.8	12.2
3	12.5	12.6	12.4	13.0	13.3	13.2	13.6	13.8	14.1	14.1	13.8	12.6	12.1	12.1	12.6	12.7	13.0	13.2	13.1	13.8	13.4	12.1	11.9	11.6	14.1	11.6	12.9
4	11.2	11.3	11.3	11.3	11.1	11.2	11.4	11.7	12.2	12.9	13.1	13.2	13.5	13.8	14.3	14.7	14.9	14.4	14.6	14.0	13.8	12.9	11.9	10.6	14.9	10.6	12.7
5	10.2	9.5	9.4	9.1	8.6	8.9	8.7	9.2	11.1	14.9	16.1	17.7	18.6	18.3	15.7	15.5	15.9	17.4	18.4	17.3	16.1	14.6	11.8	10.1	18.6	8.6	13.5
6	7.7	6.2	5.7	4.9	4.3	4.2	4.8	6.1	8.5	12.5	13.2	13.5	13.4	13.8	14.6	14.7	13.7	14.4	14.1	13.4	13.4	13.5	14.1	14.9	14.9	4.2	10.8
7	15.0	14.2	13.4	13.0	12.6	12.0	11.9	11.8	12.1	12.3	12.2	12.1	12.0	12.1	12.0	12.1	12.1	12.1	12.1	12.0	11.9	11.9	12.1	12.2	15.0	11.8	12.4
8	12.3	12.6	13.3	13.3	13.2	13.3	13.4	13.5	13.4	13.4	13.4	13.2	12.7	12.5	12.3	12.0	11.9	11.8	11.6	11.6	11.6	11.6	11.3	11.1	13.5	11.1	12.5
9	11.1	10.9	10.8	10.8	11.1	11.1	11.1	11.3	11.5	11.7	12.0	12.6	13.2	13.0	13.2	13.0	13.9	14.5	13.8	13.3	12.9	12.6	12.1	11.0	14.5	10.8	12.2
10	10.6	10.2	10.0	9.7	9.7	9.6	9.6	10.1	11.4	12.9	14.2	15.3	16.4	17.6	18.9	17.9	18.1	17.7	17.3	16.5	15.3	15.5	12.9	12.6	18.9	9.6	13.8
11	11.1	10.6	11.0	11.4	11.2	10.7	10.9	11.1	12.3	14.4	16.9	18.4	19.1	18.3	18.2	17.6	15.0	14.7	14.7	14.8	14.8	14.5	14.2	13.9	19.1	10.6	14.1
12	13.7	13.8	14.0	14.3	14.0	13.3	12.6	12.6	12.4	12.6	12.8	13.0	13.1	13.1	13.1	13.6	14.0	14.1	14.2	14.2	13.6	13.6	13.5	13.4	14.3	12.4	13.4
13	13.2	13.1	12.9	12.8	12.9	13.1	13.5	13.7	14.1	15.3	15.8	15.6	16.6	16.6	16.0	15.3	14.7	14.5	14.6	14.5	14.4	14.5	14.7	14.5	16.6	12.8	14.4
14	14.3	14.3	14.5	14.6	14.6	14.8	14.5	13.9	14.3	14.7	14.6	14.1	14.1	14.3	14.5	14.6	14.6	14.7	14.8	14.9	14.7	14.8	15.0	15.1	15.1	13.9	14.5
15	15.1	15.5	15.6	15.8	16.0	16.0	16.1	16.0	16.0	16.2	16.6	17.6	18.2	17.4	17.1	17.4	17.6	16.2	16.8	15.8	15.4	14.8	14.4	13.7	18.2	13.7	16.1
16	12.9	12.4	12.1	11.6	11.3	10.9	10.3	10.6	11.1	11.8	12.7	13.9	15.0	16.5	18.5	20.2	20.6	19.5	18.7	17.6	17.0	14.6	14.0	13.9	20.6	10.3	14.5
17	13.7	13.9	13.7	13.0	12.3	12.2	12.4	13.0	14.2	15.8	16.8	17.2	18.9	18.3	18.4	18.5	17.6	16.8	16.3	15.4	14.2	12.7	10.1	8.9	18.9	8.9	14.8
18	7.8	7.4	6.4	7.7	7.9	8.6	9.0	10.6	13.9	17.0	17.6	19.3	20.9	22.4	22.9	23.2	22.0	20.1	19.3	17.9	16.9	15.2	14.0	13.6	23.2	6.4	15.1
19	12.9	12.5	12.0	11.6	10.7	10.9	11.6	13.4	15.3	17.6	18.8	19.0	19.8	23.7	25.4	26.0	27.1	27.0	26.5	24.4	23.1	20.6	17.6	15.9	27.1	10.7	18.5
20	13.8	13.0	12.6	12.7	12.1	12.7	12.8	13.8	16.1	20.3	24.6	27.2	27.0	26.0	26.7	27.2	27.2	27.0	27.9	26.5	24.7	22.2	19.3	17.4	27.9	12.1	20.4
21	15.8	15.4	15.2	15.1	14.4	13.8	13.5	13.8	13.3	15.4	17.8	20.4	22.1	22.6	22.6	22.4	22.1	22.1	20.9	20.4	19.6	19.3	18.2	16.6	22.6	13.3	18.0
22	14.4	17.5	18.2	17.3	16.0	15.4	14.6	14.8	14.9	16.3	21.0	22.9	23.1	22.9	22.8	22.1	22.3	22.5	22.3	20.6	18.3	16.2	14.3	12.8	23.1	12.8	18.5
23	12.1	12.2	12.4	11.5	12.5	12.3	10.4	11.0	11.6	13.2	16.2	19.4	21.9	22.4	21.9	22.5	22.3	21.9	21.5	20.9	17.4	15.7	14.8	13.3	22.5	10.4	16.3
24	11.9	11.2	11.0	10.4	10.6	10.9	11.2	10.1	12.9	16.0	19.3	22.1	23.2	24.3	25.6	25.1	23.0	22.1	21.7	20.7	18.4	16.1	14.3	13.8	25.6	10.1	16.9
25	12.8	12.2	11.7	11.2	10.8	10.6	10.2	10.7	11.2	14.2	17.6	20.4	21.5	22.7	21.8	21.1	19.9	19.0	18.3	16.6	14.9	12.3	11.5	10.9	22.7	10.2	15.2
26	9.4	7.5	6.3	6.3	6.1	5.8	5.7	6.4	8.8	10.0	12.2	13.8	15.3	16.6	17.4	17.8	18.1	18.4	18.2	16.3	13.6	9.6	8.1	8.7	18.4	5.7	11.5
27	5.5	3.7	3.1	2.7	1.9	1.7	1.7	1.1	4.1	8.2	12.3	15.5	16.7	17.0	16.9	16.9	16.6	16.5	16.4	14.8	11.5	8.0	5.8	3.9	17.0	1.1	9.3
28	3.0	1.6	1.7	1.2	0.7	0.0	0.3	-0.3	2.0	6.1	11.9	14.3	15.3	15.8	16.0	15.7	14.7	13.9	13.1	11.9	10.7	10.1	9.8	9.9	16.0	-0.3	8.3
29	10.1	10.0	9.8	9.4	9.2	9.0	8.9	9.2	9.7	9.8	10.2	10.7	10.7	11.2	11.2	11.4	11.7	11.8	11.5	11.1	10.7	10.3	9.9	9.6	11.8	8.9	10.3
30	9.6	9.8	9.8	9.5	9.6	9.4	9.0	9.2	9.4	9.8	10.5	11.0	11.0	11.9	12.0	12.2	12.7	12.4	11.9	11.5	11.3	10.9	10.4	10.6	12.7	9.0	10.6
31	10.1	8.0	6.6	6.4	7.0	6.4	6.3	7.1	7.8	9.7	11.7	13.1	13.8	14.3	13.6	10.7	10.3	11.7	12.2	12.5	11.8	10.7	9.7	8.9	14.3	6.3	10.0
Max.	15.8	17.5	18.2	17.3	16.0	16.0	16.1	16.0	16.1	20.3	24.6	27.2	27.0	26.0	26.7	27.2	27.2	27.0	27.9	26.5	24.7	22.2	19.3	17.4	27.9		
Min.	3.0	1.6	1.7	1.2	0.7	0.0	0.3	-0.3	2.0	6.1	10.2	10.7	10.7	11.2	11.2	10.7	10.3	11.7	11.5	11.1	10.7	8.0	5.8	3.9		-0.3	
Avg.	11.6	11.2	11.0	10.8	10.6	10.5	10.4	10.7	11.7	13.3	14.9	16.0	16.6	17.0	17.2	17.1	16.9	16.8	16.6	15.9	14.9	13.8	12.8	12.2			13.8

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

Rock Creek - 2 -m Temperature (deg. C)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	9.0	8.5	7.7	8.2	7.5	6.2	5.1	5.0	7.5	10.0	10.6	12.0	13.3	13.1	13.4	13.0	12.3	11.2	11.0	10.2	8.9	7.7	7.1	6.2	13.4	5.0	9.4
2	5.1	3.7	1.7	1.2	1.8	3.1	2.3	2.7	4.7	5.9	7.2	8.4	8.4	8.2	7.4	5.2	4.3	5.2	6.8	7.1	5.0	2.8	2.7	2.9	8.4	1.2	4.7
3	2.3	1.4	0.0	-0.9	-1.4	-1.8	-2.1	-2.4	-0.4	2.3	6.7	9.5	10.3	10.6	10.9	11.1	12.0	10.9	9.3	7.9	6.7	6.2	6.0	5.4	12.0	-2.4	5.0
4	4.8	5.4	4.7	4.0	3.7	4.0	4.1	4.3	4.9	5.7	6.2	6.6	7.2	7.7	8.6	9.1	9.4	9.8	9.2	9.0	8.8	8.5	8.3	8.4	9.8	3.7	6.8
5	8.2	8.4	8.5	8.5	7.9	7.9	8.3	8.2	9.0	10.0	10.2	10.8	10.9	11.2	12.1	12.9	12.8	12.9	12.9	12.2	11.5	10.6	10.4	10.4	12.9	7.9	10.3
6	10.1	9.8	9.8	9.7	10.3	10.3	10.3	10.8	11.2	11.3	11.9	12.0	12.3	12.7	13.0	13.3	13.4	12.6	12.3	12.5	11.3	10.6	10.0	9.1	13.4	9.1	11.3
7	9.5	9.7	10.5	10.9	11.1	10.7	10.7	10.3	9.8	11.2	13.7	14.2	14.4	14.9	15.2	15.4	15.1	14.3	13.8	13.0	12.3	11.9	10.2	9.2	15.4	9.2	12.2
8	8.7	8.5	9.0	9.1	8.9	9.3	10.4	9.9	10.9	11.1	12.5	13.8	14.5	15.6	17.7	17.8	17.6	17.2	15.7	14.1	10.7	8.2	6.9	6.9	17.8	6.9	11.9
9	6.8	8.1	10.1	8.1	7.2	6.4	6.4	6.6	6.9	8.4	9.6	10.8	13.2	13.5	13.3	13.0	13.7	13.5	13.1	12.6	10.8	8.5	6.5	3.8	13.7	3.8	9.6
10	2.6	2.5	3.6	2.5	1.1	0.9	1.0	0.8	2.5	6.3	11.1	13.0	14.4	13.9	14.9	14.8	15.2	14.1	13.9	12.6	9.2	8.5	7.7	7.2	15.2	0.8	8.1
11	5.9	5.0	3.8	3.6	6.2	5.6	5.1	4.5	5.5	7.2	8.3	9.4	10.3	10.7	10.3	10.2	9.9	9.3	8.5	6.9	5.0	4.1	2.8	2.6	10.7	2.6	6.7
12	1.8	2.7	3.2	3.8	3.6	2.0	1.7	1.6	2.5	6.0	7.7	7.5	8.0	8.5	8.0	8.2	8.3	6.0	5.0	4.2	3.7	3.5	4.1	3.1	8.5	1.6	4.8
13	2.6	3.3	3.1	2.8	2.6	1.5	1.1	0.9	1.9	4.5	6.8	7.7	7.3	6.2	6.6	5.6	4.8	4.3	4.4	4.5	4.5	3.9	3.0	2.1	7.7	0.9	4.0
14	0.7	1.2	0.2	0.8	1.4	2.4	2.5	3.0	2.8	4.0	6.0	7.4	8.8	10.0	9.6	9.2	9.8	9.6	9.0	7.6	6.6	5.4	4.8	5.3	10.0	0.2	5.3
15	4.8	4.4	2.8	3.4	2.9	3.1	3.7	3.4	4.2	5.5	7.1	8.2	9.2	9.5	9.4	9.4	9.1	8.8	8.5	7.5	6.5	5.5	5.6	5.5	9.5	2.8	6.2
16	5.4	5.2	4.2	2.8	0.1	-1.1	-1.1	-1.6	-1.8	0.7	5.5	8.5	10.1	8.7	9.8	8.5	8.1	8.1	7.4	6.9	5.5	4.5	2.5	1.2	10.1	-1.8	4.5
17	0.6	0.3	1.0	1.1	2.0	2.8	2.7	3.3	4.3	4.5	5.3	5.4	5.5	4.6	4.5	4.3	4.3	5.3	6.0	5.5	2.4	1.4	-0.5	-0.6	6.0	-0.6	3.2
18	-0.2	-0.1	2.5	3.8	3.5	3.3	3.2	3.0	3.0	3.7	4.6	4.6	4.9	5.4	5.7	5.8	5.8	5.8	5.9	4.7	2.4	2.5	2.5	1.3	5.9	-0.2	3.6
19	1.9	1.9	1.5	0.5	2.2	0.9	1.0	1.2	1.0	1.4	2.8	4.7	5.9	6.6	7.3	8.7	8.6	8.3	7.2	4.5	1.3	-0.4	-2.0	-2.0	8.7	-2.0	3.1
20	-1.9	0.3	-1.3	0.0	-0.3	-1.4	0.8	1.5	2.3	2.0	4.1	5.3	7.4	8.5	9.1	10.3	8.9	8.4	6.9	5.0	2.2	1.6	-0.6	-1.5	10.3	-1.9	3.2
21	-1.4	-0.9	0.1	3.3	4.5	3.9	3.9	4.1	4.1	4.4	4.6	5.5	7.1	7.9	8.3	8.2	8.0	7.6	7.1	6.4	5.0	2.7	1.1	0.6	8.3	-1.4	4.4
22	0.2	0.0	0.4	1.0	0.0	1.9	0.9	-0.9	-0.3	3.5	4.6	5.0	5.7	5.6	5.0	4.6	4.4	4.1	3.4	1.8	1.1	1.2	1.0	1.2	5.7	-0.9	2.3
23	1.0	-0.3	0.2	-0.3	-0.2	-0.1	-1.0	-1.0	-1.7	-0.1	3.3	5.4	5.6	6.3	6.1	6.2	6.2	5.1	4.1	1.9	0.9	0.4	-0.6	-0.8	6.3	-1.7	1.9
24	0.3	0.5	0.5	-0.4	-0.1	0.3	0.5	0.9	0.6	1.7	2.8	3.6	4.0	4.1	4.6	4.6	4.5	4.1	3.0	2.1	1.4	1.2	1.2	0.8	4.6	-0.4	2.0
25	0.2	-0.7	-1.2	-1.0	-0.3	-0.2	-2.1	-2.6	-3.1	-1.4	1.6	4.3	5.4	4.4	5.6	4.2	3.8	3.0	2.4	1.5	0.5	-0.2	-0.5	-0.3	5.6	-3.1	1.0
26	-0.2	-0.4	-0.6	-0.9	-1.1	-1.4	-2.1	-3.1	-4.0	-4.7	-0.3	1.0	1.6	2.2	1.5	1.4	1.8	0.4	0.1	-1.7	-3.3	-4.7	-4.5	-4.4	2.2	-4.7	-1.1
27	-4.3	-4.5	-5.3	-5.2	-5.5	-5.4	-5.4	-5.1	-6.6	-5.4	-2.9	-1.1	0.3	1.2	2.6	1.7	1.1	1.3	0.9	-1.3	-2.2	-3.9	-4.8	-6.4	2.6	-6.6	-2.8
28	-7.5	-7.4	-7.6	-7.2	-4.0	-4.2	-5.8	-5.3	-2.8	0.6	2.4	3.9	5.4	5.8	6.2	6.0	5.3	4.5	3.2	1.1	0.7	-0.1	-1.0	-3.4	6.2	-7.6	-0.5
29	-4.4	-4.7	-6.1	-5.9	-5.0	-5.9	-7.0	-6.5	-4.8	-2.3	0.5	1.8	2.7	3.0	3.4	3.3	2.1	1.1	0.4	-0.5	-0.7	-0.6	-0.8	-0.7	3.4	-7.0	-1.6
30	-0.6	-0.9	-0.7	-0.7	-0.6	-0.8	-1.3	-2.6	-3.2	-2.0	0.3	1.7	2.2	2.4	2.4	2.2	2.2	2.0	0.8	-0.1	-0.8	-0.1	0.6	0.9	2.4	-3.2	0.1
Max.	10.1	9.8	10.5	10.9	11.1	10.7	10.7	10.8	11.2	11.3	13.7	14.2	14.5	15.6	17.7	17.8	17.6	17.2	15.7	14.1	12.3	11.9	10.4	10.4	17.8		
Min.	-7.5	-7.4	-7.6	-7.2	-5.5	-5.9	-7.0	-6.5	-6.6	-5.4	-2.9	-1.1	0.3	1.2	1.5	1.4	1.1	0.4	0.1	-1.7	-3.3	-4.7	-4.8	-6.4		-7.6	
Avg.	2.4	2.4	2.2	2.2	2.3	2.1	1.9	1.8	2.4	3.9	5.8	7.0	7.9	8.1	8.4	8.3	8.1	7.6	7.1	6.0	4.6	3.7	3.0	2.5			4.7

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - 10-m Temperature (deg. C)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	15.2	14.7	13.7	12.4	12.4	11.0	11.1	12.0	13.5	14.3	15.8	17.4	18.9	19.4	19.3	19.4	19.6	18.8	18.1	17.9	16.9	16.2	16.2	14.4	19.6	11.0	15.8
2	14.5	13.3	12.8	12.8	13.2	12.4	12.3	12.3	13.8	13.8	14.9	16.2	17.8	18.8	19.4	19.7	19.6	18.6	16.9	15.7	15.3	14.5	14.0	13.6	19.7	12.3	15.2
3	13.2	12.6	12.0	12.0	12.0	11.6	11.6	11.7	12.2	11.8	11.6	10.6	11.3	11.0	11.0	10.9	10.7	10.7	11.0	11.0	11.2	11.4	11.2	11.0	13.2	10.6	11.5
4	10.8	10.8	10.6	10.4	10.0	10.1	10.2	10.3	10.5	10.3	10.2	10.3	10.4	10.9	11.9	11.9	11.5	11.8	12.1	11.1	11.4	12.5	13.2	12.4	13.2	10.0	11.1
5	11.7	9.0	8.3	6.5	6.2	5.9	7.1	9.7	11.8	13.4	14.7	15.9	16.6	16.3	17.1	16.5	15.8	16.3	15.5	14.5	14.3	13.3	12.1	11.1	17.1	5.9	12.5
6	10.1	10.1	9.8	9.5	9.4	8.8	8.6	8.8	9.2	9.4	10.2	10.6	10.7	10.6	11.0	11.0	10.8	11.0	10.0	9.4	8.9	8.7	8.8	8.8	11.0	8.6	9.8
7	8.8	8.9	8.7	8.4	8.4	8.4	8.3	8.4	8.8	9.6	10.9	11.4	11.9	12.2	13.0	12.0	10.7	11.1	10.4	10.5	10.5	10.5	10.2	9.6	13.0	8.3	10.1
8	9.1	8.6	8.5	8.5	8.8	9.0	9.1	9.4	9.9	10.3	10.8	12.0	12.6	12.9	13.4	12.8	13.0	13.2	13.8	12.7	11.8	11.3	10.3	10.3	13.8	8.5	10.9
9	9.6	8.8	7.4	6.8	5.8	4.6	5.2	7.4	9.3	11.2	13.2	13.6	13.3	13.2	13.4	13.6	13.3	12.9	12.3	12.2	11.2	10.1	9.3	8.1	13.6	4.6	10.2
10	7.3	6.3	4.8	4.3	4.4	4.2	4.1	5.0	5.8	7.1	8.9	9.0	9.7	10.7	11.2	11.8	11.8	11.3	10.5	10.1	9.9	9.4	8.9	8.2	11.8	4.1	8.1
11	7.7	7.3	7.1	7.0	6.1	4.9	4.8	5.9	9.5	12.6	13.5	14.2	14.5	14.8	15.7	15.1	14.9	16.0	16.0	14.4	13.0	11.9	11.2	10.8	16.0	4.8	11.2
12	9.5	9.0	7.5	6.3	7.2	7.0	7.0	8.8	10.7	13.0	15.0	17.1	18.5	19.0	19.6	20.5	20.8	21.1	19.3	18.8	18.2	18.0	17.5	17.2	21.1	6.3	14.4
13	16.0	14.2	14.2	13.5	13.1	13.9	14.1	13.4	14.1	14.6	16.1	17.4	16.4	16.3	17.2	17.0	15.6	14.8	16.0	16.7	16.7	16.0	15.1	13.9	17.4	13.1	15.3
14	12.1	10.7	9.3	8.6	9.8	10.2	11.2	11.9	13.7	14.5	14.2	15.7	16.3	16.9	16.7	16.5	16.8	16.8	16.9	17.4	17.2	16.4	14.9	13.9	17.4	8.6	14.1
15	13.4	12.3	10.0	9.1	9.1	8.5	10.3	11.3	13.8	16.2	17.3	18.4	19.7	20.1	19.6	19.4	20.6	21.8	20.8	18.4	16.5	15.2	14.4	13.9	21.8	8.5	15.4
16	13.1	12.8	12.8	13.1	12.0	12.3	13.4	14.2	16.0	16.8	17.2	16.9	16.0	16.4	17.0	17.4	17.3	17.2	17.1	17.2	17.1	16.8	15.8	14.9	17.4	12.0	15.4
17	14.4	15.1	15.5	15.4	15.1	14.9	14.6	15.1	15.6	16.4	16.8	17.7	17.2	16.0	16.0	16.1	16.9	17.2	17.3	16.0	15.5	15.4	14.6	14.1	17.7	14.1	15.8
18	13.5	13.4	12.0	12.7	13.3	13.1	14.5	15.6	16.1	16.3	17.0	17.0	16.8	17.0	17.4	17.8	17.8	18.1	18.5	18.5	17.5	16.7	15.6	14.3	18.5	12.0	15.9
19	13.2	12.2	12.6	9.2	8.1	7.7	11.2	12.5	13.1	16.0	17.9	18.9	19.5	20.0	20.6	21.0	21.0	20.2	19.3	18.9	18.2	17.4	17.0	15.6	21.0	7.7	15.9
20	12.9	9.1	7.6	6.8	5.3	5.4	5.5	7.7	9.3	12.1	14.0	14.7	15.6	16.8	17.2	17.5	18.4	18.1	17.7	17.4	17.5	17.0	15.0	12.6	18.4	5.3	13.0
21	11.3	10.1	8.9	8.8	6.9	7.8	9.1	10.0	13.2	16.1	16.9	17.5	17.7	17.8	18.1	18.8	19.1	19.7	19.7	19.2	18.5	17.3	15.9	13.7	19.7	6.9	14.7
22	10.7	11.1	10.2	10.5	10.2	9.4	9.4	12.4	16.5	18.3	18.9	19.2	18.6	16.0	15.0	14.8	13.8	13.0	13.0	12.5	12.2	11.5	10.4	8.9	19.2	8.9	13.2
23	8.8	6.8	5.9	5.4	6.1	5.2	6.3	8.8	11.9	13.0	13.8	14.5	15.3	16.4	17.9	18.5	18.9	19.2	19.3	19.1	18.6	17.5	16.4	15.5	19.3	5.2	13.3
24	14.4	13.2	12.2	12.0	12.2	12.6	13.2	15.1	17.2	18.2	19.0	19.3	19.3	19.3	19.9	20.6	20.6	20.8	20.9	20.7	20.2	19.6	17.8	15.3	20.9	12.0	17.2
25	12.9	10.6	12.1	11.3	13.4	12.8	12.3	13.4	18.1	19.2	19.5	19.4	19.5	19.1	19.6	19.2	19.5	20.2	20.0	19.8	19.7	18.9	16.9	14.2	20.2	10.6	16.7
26	11.9	9.9	11.1	14.9	18.1	18.3	18.7	18.6	18.6	18.7	16.9	15.6	15.3	15.6	15.9	16.1	14.9	14.5	15.2	15.4	15.2	14.9	13.9	13.7	18.7	9.9	15.5
27	13.7	13.7	13.3	13.2	13.4	13.4	13.7	13.5	13.8	14.2	14.3	14.1	14.6	14.7	14.6	14.5	15.2	14.7	15.0	15.0	14.3	13.7	13.8	13.6	15.2	13.2	14.1
28	13.0	13.4	13.7	13.3	12.7	12.9	12.9	13.1	13.8	14.5	15.1	15.5	15.4	15.9	16.1	14.0	14.4	14.9	15.5	16.5	16.3	15.7	15.4	14.9	16.5	12.7	14.5
29	14.2	13.1	13.5	13.1	12.8	12.5	13.1	12.9	14.1	15.6	16.1	16.3	17.3	17.8	17.7	18.3	18.4	17.3	18.0	18.1	18.2	17.9	16.6	15.4	18.4	12.5	15.8
30	13.7	12.7	10.3	10.0	10.0	10.3	10.2	11.6	12.3	12.5	12.7	12.4	12.6	13.6	14.0	14.6	14.7	15.1	14.8	14.5	14.5	14.2	13.9	13.8	15.1	10.0	12.9
31	13.3	12.9	13.3	13.6	13.2	13.2	13.0	13.4	13.7	13.6	13.7	13.9	13.8	14.0	14.2	14.4	14.6	14.3	14.1	13.9	13.5	13.0	12.6	12.6	14.6	12.6	13.6
Max.	16.0	15.1	15.5	15.4	18.1	18.3	18.7	18.6	18.6	19.2	19.5	19.4	19.7	20.1	20.6	21.0	21.0	21.8	20.9	20.7	20.2	19.6	17.8	17.2	21.8		
Min.	7.3	6.3	4.8	4.3	4.4	4.2	4.1	5.0	5.8	7.1	8.9	9.0	9.7	10.6	11.0	10.9	10.7	10.7	10.0	9.4	8.9	8.7	8.8	8.1		4.1	
Avg.	12.1	11.2	10.6	10.3	10.3	10.1	10.5	11.4	12.9	14.0	14.7	15.2	15.6	15.8	16.1	16.2	16.2	16.2	16.0	15.6	15.2	14.6	13.8	12.9			13.6

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - 10-m Temperature (deg. C)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.5	12.3	12.0	11.6	11.2	11.3	11.3	11.4	11.5	11.8	12.2	12.6	13.0	12.9	13.1	13.1	13.0	12.8	12.7	12.4	12.0	11.7	11.5	11.4	13.1	11.2	12.1
2	11.6	11.6	11.5	11.2	10.8	10.5	10.4	10.4	10.6	10.6	11.2	11.2	11.3	11.5	11.6	11.7	12.2	12.9	12.7	12.8	12.6	12.6	12.5	12.9	12.9	10.4	11.6
3	12.4	12.5	12.3	12.9	13.2	13.1	13.5	13.7	13.8	13.8	13.3	11.8	11.4	11.6	12.0	12.0	12.4	12.5	12.4	13.0	12.4	11.6	11.6	11.2	13.8	11.2	12.5
4	11.0	11.1	11.0	11.1	11.1	10.9	11.0	11.3	11.7	12.2	12.4	12.3	12.5	12.8	13.1	13.3	13.4	13.2	13.2	12.9	12.7	12.3	12.0	11.2	13.4	10.9	12.1
5	10.4	9.7	9.4	8.9	8.8	9.1	8.1	9.0	10.5	13.0	13.8	14.7	15.5	15.7	14.6	14.9	14.8	15.8	16.4	15.8	14.9	13.4	11.8	10.4	16.4	8.1	12.5
6	7.7	7.0	6.8	5.8	4.9	4.4	4.9	5.8	8.3	11.4	11.9	12.1	12.0	12.1	12.9	13.0	12.8	13.3	13.4	13.1	13.1	13.3	14.0	14.8	14.8	4.4	10.4
7	14.7	13.9	13.2	12.8	12.4	11.7	11.5	11.6	11.8	11.9	12.0	11.8	11.8	11.8	11.7	11.7	11.8	11.7	11.6	11.6	11.5	11.6	11.7	11.9	14.7	11.5	12.1
8	12.0	12.4	13.2	13.1	13.0	13.1	13.2	13.3	13.3	13.2	13.2	12.9	12.4	12.2	12.0	11.6	11.6	11.4	11.3	11.4	11.3	11.3	11.0	10.9	13.3	10.9	12.3
9	10.9	10.7	10.4	10.6	10.8	10.8	10.8	11.0	11.2	11.4	11.6	12.0	12.4	12.2	12.3	12.3	12.7	13.0	12.7	12.4	12.1	11.9	11.7	11.6	13.0	10.4	11.6
10	10.9	10.0	9.8	9.6	9.4	9.4	9.5	9.8	11.2	12.3	13.3	14.1	14.6	15.1	15.7	15.8	16.0	15.8	15.8	15.4	14.6	14.5	13.6	13.3	16.0	9.4	12.9
11	10.6	10.6	11.7	10.9	11.1	10.8	10.7	10.9	12.1	14.2	15.6	16.4	17.0	16.7	16.4	16.0	14.2	14.0	14.0	14.3	14.3	14.1	13.7	13.6	17.0	10.6	13.5
12	13.5	13.7	13.7	14.3	13.9	13.1	12.5	12.4	12.1	12.4	12.5	12.7	12.7	12.8	12.9	13.3	13.9	14.0	14.0	13.9	13.2	13.3	13.2	13.1	14.3	12.1	13.2
13	12.8	12.9	12.6	12.6	12.7	13.0	13.1	13.2	13.6	14.4	15.1	15.0	15.8	15.8	15.4	14.9	14.4	14.2	14.3	14.3	14.3	14.4	14.5	14.2	15.8	12.6	14.1
14	14.1	14.2	14.5	14.6	14.6	14.8	14.5	13.8	14.3	14.6	14.5	13.9	13.9	14.0	14.2	14.3	14.3	14.4	14.5	14.6	14.5	14.7	15.0	15.1	15.1	13.8	14.4
15	15.0	15.4	15.5	15.8	15.9	16.0	16.1	15.9	15.8	16.0	16.2	17.0	17.5	16.7	16.3	16.5	16.7	15.5	16.0	15.0	14.5	14.1	13.7	13.0	17.5	13.0	15.7
16	12.3	12.0	11.6	11.3	11.0	10.5	10.2	10.3	10.5	11.1	11.6	12.5	13.5	14.6	15.8	17.2	18.3	17.9	17.2	16.4	16.1	15.1	14.5	13.7	18.3	10.2	13.5
17	14.0	13.7	13.4	13.6	12.4	12.3	12.3	12.7	13.3	14.5	15.2	15.3	16.2	16.1	16.3	16.3	15.7	15.1	14.6	14.0	13.1	12.2	11.0	10.1	16.3	10.1	13.9
18	8.3	8.0	7.2	8.8	8.6	9.4	9.8	11.2	14.6	16.5	16.7	17.9	19.3	20.5	21.2	21.5	20.2	18.1	17.3	16.0	15.4	14.2	13.2	12.9	21.5	7.2	14.4
19	12.3	12.0	11.5	11.0	10.9	11.5	11.8	14.3	16.1	17.5	19.0	18.2	18.8	21.3	22.8	23.9	25.2	25.6	25.1	23.9	22.9	20.6	18.0	16.0	25.6	10.9	17.9
20	14.7	14.0	14.1	13.9	14.3	14.5	14.4	15.1	15.7	19.6	22.5	24.1	24.4	24.0	24.3	25.0	25.3	25.6	26.3	25.5	24.3	22.2	19.8	18.3	26.3	13.9	20.1
21	16.8	16.1	16.3	16.2	15.8	14.9	15.3	15.0	14.2	15.8	17.3	19.7	20.9	21.6	21.7	21.4	21.0	21.1	20.1	20.0	19.5	19.5	18.7	16.3	21.7	14.2	18.1
22	14.2	19.3	18.8	18.1	16.7	16.1	15.8	14.8	15.1	16.8	20.6	21.6	21.9	21.6	21.4	21.1	21.3	21.3	20.7	19.6	19.0	17.9	14.5	14.5	21.9	14.2	18.4
23	13.2	13.3	13.8	13.0	14.3	13.2	11.2	12.5	12.1	13.4	15.7	18.1	19.8	20.1	20.0	20.5	20.3	20.3	20.2	19.7	17.2	16.5	16.2	13.9	20.5	11.2	16.2
24	13.1	13.1	12.5	11.4	12.6	11.5	12.8	10.9	13.9	16.3	19.0	21.0	21.6	22.6	23.0	22.7	21.5	20.9	20.5	20.0	19.1	16.8	15.3	14.9	23.0	10.9	17.0
25	14.0	13.4	12.5	12.3	12.1	11.9	11.6	12.1	11.9	14.6	17.4	19.1	20.0	20.6	19.9	19.4	18.5	17.8	17.3	15.9	14.5	12.6	12.1	11.2	20.6	11.2	15.1
26	10.3	9.0	7.8	7.8	7.4	7.0	6.6	7.2	8.7	9.4	11.2	12.4	13.4	14.1	14.7	15.4	16.0	16.2	16.0	15.1	13.3	10.6	9.7	9.3	16.2	6.6	11.2
27	5.9	5.1	4.6	4.3	3.1	3.2	3.2	2.5	3.9	7.2	10.7	12.8	13.8	14.2	14.4	14.6	14.8	14.9	14.8	13.7	12.5	10.7	7.7	4.6	14.9	2.5	9.0
28	4.9	3.3	4.2	2.4	2.4	2.6	2.2	1.3	2.0	5.5	10.1	12.2	13.2	13.7	13.9	13.9	13.0	12.4	11.8	10.9	10.0	9.6	9.3	9.4	13.9	1.3	8.1
29	9.7	9.7	9.3	9.0	8.7	8.7	8.8	8.9	9.2	9.4	9.6	9.8	10.0	10.3	10.3	10.6	10.8	11.0	10.9	10.4	10.1	9.6	9.4	9.2	11.0	8.7	9.7
30	9.4	9.5	9.1	9.1	9.4	8.9	8.7	9.0	9.0	9.3	9.8	10.1	10.2	11.1	11.3	11.5	11.8	11.6	11.2	11.0	10.7	10.5	10.5	10.5	11.8	8.7	10.1
31	10.0	9.6	7.9	6.9	6.9	6.9	6.5	7.0	7.4	9.3	10.7	11.5	12.2	12.7	12.2	9.9	9.6	10.9	11.4	11.7	11.4	10.7	9.5	9.4	12.7	6.5	9.7
Max.	16.8	19.3	18.8	18.1	16.7	16.1	16.1	15.9	16.1	19.6	22.5	24.1	24.4	24.0	24.3	25.0	25.3	25.6	26.3	25.5	24.3	22.2	19.8	18.3	26.3		
Min.	4.9	3.3	4.2	2.4	2.4	2.6	2.2	1.3	2.0	5.5	9.6	9.8	10.0	10.3	10.3	9.9	9.6	10.9	10.9	10.4	10.0	9.6	7.7	4.6		1.3	
Avg.	11.7	11.6	11.4	11.1	11.0	10.8	10.7	10.9	11.6	12.9	14.1	14.7	15.3	15.6	15.7	15.8	15.7	15.6	15.5	15.0	14.4	13.7	12.9	12.3			13.3

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100%

Rock Creek - 10-m Temperature (deg. C)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	9.2	8.6	7.6	8.8	8.3	7.2	6.3	5.4	7.7	9.5	9.9	10.8	11.4	11.7	11.8	11.8	11.1	10.4	10.3	9.5	8.4	7.4	6.9	6.1	11.8	5.4	9.0
2	5.0	4.2	2.2	1.9	2.4	3.3	2.7	2.7	4.6	5.2	5.9	6.6	6.7	6.9	6.3	4.5	3.8	4.5	5.7	6.1	4.7	3.2	3.7	3.7	6.9	1.9	4.4
3	3.3	2.8	0.8	0.1	-0.3	-1.1	-0.5	-1.9	-0.5	0.6	4.9	6.7	7.5	8.1	8.4	9.0	9.8	9.5	8.6	7.4	6.4	6.0	5.8	5.6	9.8	-1.9	4.5
4	5.0	5.2	4.3	3.5	3.9	3.8	3.8	3.9	4.4	5.0	5.6	6.0	6.4	7.1	7.7	8.3	8.9	9.2	8.8	8.7	8.6	8.3	8.1	8.2	9.2	3.5	6.4
5	7.9	8.1	8.2	8.2	7.7	7.8	7.9	7.8	8.6	9.1	9.5	10.0	10.3	10.6	11.4	12.0	11.9	11.9	12.0	11.5	11.1	10.5	10.3	10.3	12.0	7.7	9.8
6	10.0	10.1	9.7	9.7	10.4	10.1	10.3	10.7	10.9	11.0	11.6	11.7	12.0	12.3	12.5	12.7	12.8	12.3	12.1	12.0	11.1	10.7	9.8	9.3	12.8	9.3	11.1
7	9.5	10.1	10.6	11.0	11.0	10.8	10.8	10.5	10.2	10.3	12.4	13.3	13.5	14.0	14.1	14.2	14.0	13.4	13.2	12.9	13.0	11.8	10.2	9.6	14.2	9.5	11.8
8	8.7	8.9	10.2	8.7	9.4	9.9	10.7	10.2	10.9	10.8	12.2	13.0	13.5	14.4	15.5	15.9	15.8	15.7	14.9	14.0	12.9	9.7	7.6	7.7	15.9	7.6	11.7
9	7.6	9.9	10.2	8.5	7.6	7.2	7.3	7.4	7.6	8.3	10.2	11.3	12.7	12.9	12.8	12.7	13.1	13.0	12.7	12.3	10.7	8.7	6.3	4.0	13.1	4.0	9.8
10	2.8	2.7	4.1	3.7	2.8	2.9	2.3	2.4	3.6	6.2	9.8	11.5	12.5	12.6	12.9	13.2	13.4	13.1	12.9	11.8	9.9	8.8	7.9	7.5	13.4	2.3	8.0
11	6.4	6.1	4.6	5.3	6.7	5.8	5.3	4.9	5.5	6.8	7.6	8.0	8.5	8.7	8.6	8.7	8.5	8.1	7.5	6.1	5.0	4.1	3.8	3.6	8.7	3.6	6.4
12	3.8	3.8	4.1	4.4	3.9	3.2	2.8	2.3	3.0	5.3	6.2	6.2	6.7	7.0	6.8	7.2	7.1	5.5	4.8	4.3	3.9	4.1	4.5	3.5	7.2	2.3	4.8
13	3.4	3.7	4.0	3.7	3.5	2.7	3.1	2.7	2.8	4.3	5.7	6.2	5.7	5.6	5.8	4.9	4.4	4.0	4.2	4.3	4.4	3.7	3.0	2.0	6.2	2.0	4.1
14	0.9	1.1	0.4	1.2	2.1	2.7	3.2	3.8	2.7	3.9	5.0	6.1	7.1	7.9	8.3	8.1	8.3	8.3	8.1	7.5	6.7	5.4	5.1	5.3	8.3	0.4	5.0
15	5.3	5.0	3.8	4.3	3.0	3.1	3.6	3.3	4.1	5.1	6.5	7.0	7.5	7.7	7.9	8.0	8.0	8.0	7.7	7.2	6.4	5.5	5.6	5.3	8.0	3.0	5.8
16	5.4	5.3	4.6	2.9	0.5	-0.2	-0.1	-0.2	-1.5	0.1	4.0	6.1	6.9	6.9	7.6	7.3	7.3	7.2	6.7	6.4	5.4	4.8	3.5	1.3	7.6	-1.5	4.1
17	1.0	0.2	1.3	1.4	2.4	3.0	2.6	3.7	4.2	4.7	5.1	5.2	5.1	4.4	4.3	4.0	4.0	4.8	5.7	5.3	4.0	2.4	0.2	0.3	5.7	0.2	3.3
18	0.5	0.3	3.5	3.9	3.6	3.4	3.3	3.0	3.0	3.3	3.9	3.9	4.1	4.5	4.7	4.9	4.8	4.9	4.9	4.4	3.4	2.6	2.2	1.2	4.9	0.3	3.4
19	2.1	1.9	1.5	1.2	2.1	0.5	1.1	1.4	0.6	1.3	2.5	4.1	5.1	5.6	6.1	6.9	7.1	6.8	6.0	4.3	2.9	0.2	-0.6	-0.7	7.1	-0.7	2.9
20	0.3	1.4	0.2	1.8	1.4	0.5	1.9	2.6	2.8	2.2	2.9	4.9	6.0	6.7	7.0	7.7	7.3	7.3	5.8	5.2	3.7	2.5	0.3	-0.6	7.7	-0.6	3.4
21	-0.9	-0.6	1.7	4.8	4.9	4.6	4.4	4.5	4.3	4.2	3.9	4.7	5.7	6.4	6.8	6.9	6.9	6.7	6.2	5.8	4.7	3.2	1.9	1.4	6.9	-0.9	4.3
22	1.2	1.0	1.3	1.6	0.9	2.3	1.7	0.4	1.6	3.0	3.8	4.0	4.3	4.4	3.9	3.8	3.5	3.0	2.3	1.5	1.4	1.2	1.2	1.3	4.4	0.4	2.3
23	1.2	0.5	1.2	1.2	1.5	1.1	0.0	0.0	0.1	-0.7	1.6	3.3	4.1	4.6	4.7	4.9	4.8	4.0	3.4	1.7	1.0	0.7	-0.3	0.0	4.9	-0.7	1.9
24	0.2	0.3	0.3	0.4	0.8	1.0	0.9	1.2	0.9	1.6	2.0	2.5	2.9	2.9	3.2	3.3	3.2	2.9	2.1	1.8	1.3	1.2	1.3	0.4	3.3	0.2	1.6
25	0.0	-0.4	-0.7	-0.5	0.0	0.0	-1.2	-0.9	-1.0	-2.0	-0.3	1.5	2.2	2.3	2.8	2.6	2.6	1.9	1.4	0.8	-0.2	-0.7	-0.8	-0.4	2.8	-2.0	0.4
26	-0.4	-0.8	-0.9	-1.4	-1.6	-1.9	-2.1	-2.7	-3.5	-3.6	-1.5	-0.5	-0.1	0.3	0.1	0.2	0.2	-0.5	-0.8	-1.8	-3.1	-3.9	-4.1	-3.7	0.3	-4.1	-1.6
27	-3.6	-3.9	-4.1	-3.9	-4.0	-4.6	-5.2	-4.6	-5.5	-5.7	-4.2	-2.2	-1.3	-0.6	0.3	0.3	-0.3	0.0	-0.2	-1.1	-1.5	-2.4	-3.4	-5.0	0.3	-5.7	-2.8
28	-6.9	-6.0	-6.4	-6.0	-2.2	-2.7	-5.2	-3.9	-0.9	0.7	1.8	2.5	3.5	4.0	4.3	4.2	3.9	3.5	2.4	1.4	0.8	0.5	-0.8	-3.2	4.3	-6.9	-0.4
29	-3.9	-4.3	-5.5	-4.6	-3.9	-5.0	-5.6	-5.4	-3.5	-1.9	0.1	0.8	1.1	1.3	1.9	1.8	1.3	0.7	-0.1	-0.8	-0.9	-0.8	-1.1	-0.9	1.9	-5.6	-1.6
30	-0.8	-1.0	-0.9	-0.9	-0.7	-1.0	-1.3	-1.9	-2.3	-1.9	-0.7	0.4	0.8	1.1	1.5	1.6	1.5	0.9	0.3	0.0	0.2	0.4	0.7	0.2	1.6	-2.3	-0.2
Max.	10.0	10.1	10.6	11.0	11.0	10.8	10.8	10.7	10.9	11.0	12.4	13.3	13.5	14.4	15.5	15.9	15.8	15.7	14.9	14.0	13.0	11.8	10.3	10.3	15.9		
Min.	-6.9	-6.0	-6.4	-6.0	-4.0	-5.0	-5.6	-5.4	-5.5	-5.7	-4.2	-2.2	-1.3	-0.6	0.1	0.2	-0.3	-0.5	-0.8	-1.8	-3.1	-3.9	-4.1	-5.0	-6.9		
Avg.	2.8	2.8	2.7	2.8	2.9	2.7	2.5	2.4	2.8	3.6	4.9	5.9	6.4	6.7	7.0	7.1	7.0	6.7	6.3	5.7	4.9	4.0	3.3	2.8			4.4

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Delta T (deg. C)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.8	1.1	0.8	0.8	0.5	0.6	0.3	0.2	-0.3	-1.2	-1.3	-1.6	-2.0	-2.0	-1.8	-1.7	-1.5	-1.7	-1.4	-1.2	-1.1	-0.2	0.6	0.3	1.1	-2.0	-0.5
2	0.9	0.6	0.6	1.1	0.9	0.8	0.6	0.3	0.3	-0.6	-1.2	-1.5	-1.8	-2.0	-2.3	-1.8	-1.6	-1.3	-1.0	-1.0	-0.9	-0.7	-0.7	-0.9	1.1	-2.3	-0.6
3	-0.9	-0.9	-0.7	-0.5	-0.7	-0.7	-0.8	-1.0	-1.4	-1.9	-1.7	-1.9	-2.3	-2.3	-2.5	-2.3	-2.1	-1.9	-1.7	-1.3	-1.1	-0.9	-0.7	-0.5	-0.5	-2.5	-1.4
4	-0.5	-0.4	-0.5	-0.5	-0.8	-0.7	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-2.0	-2.0	-1.7	-1.5	-1.3	-1.0	-0.8	-1.1	-1.4	-0.2	-0.2	-2.0	-1.0
5	0.7	0.3	1.1	0.9	1.2	0.9	0.2	-1.0	-1.7	-1.8	-2.3	-2.4	-2.5	-2.5	-2.2	-2.0	-1.8	-1.7	-1.7	-1.4	-0.8	-1.0	-0.6	-0.4	1.2	-2.5	-0.9
6	0.3	-0.1	-0.5	-0.6	-0.7	-0.6	-0.6	-0.7	-0.8	-1.6	-1.7	-1.8	-1.8	-2.1	-2.1	-2.1	-2.4	-2.3	-1.6	-1.1	-0.8	-0.6	-0.5	-0.3	0.3	-2.4	-1.1
7	-0.3	-0.2	-0.2	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.7	-1.2	-1.2	-1.1	-1.1	-0.9	-0.5	-0.7	-0.9	-0.9	-0.9	-0.8	-0.9	-0.5	-0.2	-1.2	-0.7
8	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.6	-0.6	-0.6	-0.9	-1.0	-1.4	-1.4	-1.5	-1.8	-2.0	-1.4	-1.2	-1.3	-1.2	-0.7	-0.6	-0.4	0.1	0.1	-2.0	-0.9
9	0.0	1.1	0.7	0.9	0.6	0.3	-0.5	-1.7	-2.0	-2.4	-2.5	-2.1	-1.9	-1.9	-1.9	-1.5	-1.5	-1.5	-1.2	-1.3	-1.1	-1.0	-0.8	-0.1	1.1	-2.5	-1.0
10	0.3	0.2	-0.6	-0.6	-0.5	-0.7	-1.0	-1.1	-1.4	-1.3	-1.6	-1.4	-2.0	-2.2	-2.4	-2.4	-2.0	-1.8	-1.5	-1.2	-1.1	-0.8	-0.6	0.0	0.3	-2.4	-1.2
11	-0.2	-0.5	-0.6	-0.7	-0.9	-0.5	-0.3	-1.1	-1.4	-1.2	-1.5	-1.5	-1.6	-1.6	-1.9	-1.7	-1.4	-1.2	-1.6	-1.1	-0.8	-0.7	-0.3	0.5	0.5	-1.9	-1.0
12	0.3	0.6	0.3	0.2	0.9	0.9	0.2	-0.6	-0.9	-2.0	-2.7	-3.4	-3.5	-2.8	-2.6	-2.8	-2.2	-2.3	-1.3	-1.2	-1.0	-1.3	-0.3	0.8	0.9	-3.5	-1.1
13	0.6	0.3	0.9	0.5	0.8	0.7	0.4	-1.1	0.0	-0.4	-0.8	-1.2	-1.2	-1.4	-1.8	-1.8	-1.1	-1.4	-2.3	-2.1	-1.8	-1.4	-1.1	0.8	0.9	-2.3	-0.7
14	0.9	1.1	1.0	0.9	0.8	1.3	0.3	-0.7	-0.5	-1.0	-1.1	-1.8	-1.8	-2.2	-2.1	-2.2	-2.3	-2.2	-2.4	-2.6	-1.7	-1.1	-0.4	0.5	1.3	-2.6	-0.8
15	0.3	1.0	0.6	1.2	0.9	1.1	0.8	0.3	-0.8	-0.9	-2.0	-2.9	-3.2	-2.6	-2.2	-1.7	-2.8	-2.5	-1.4	-0.8	-0.3	0.6	-0.2	-0.2	1.2	-3.2	-0.7
16	0.1	0.5	0.2	0.4	-0.5	0.1	-0.1	-0.1	-0.8	-1.1	-1.1	-0.9	-0.6	-0.6	-0.7	-1.4	-1.5	-1.9	-1.7	-1.5	-1.1	-0.4	-0.3	-0.3	0.5	-1.9	-0.6
17	0.0	0.6	0.0	-0.1	-0.1	0.0	0.0	-0.6	-1.0	-1.4	-1.4	-2.5	-1.4	-0.4	-1.0	-1.3	-1.4	-1.1	-1.3	-1.0	-0.6	-0.8	-0.5	-0.1	0.6	-2.5	-0.7
18	-0.2	0.5	-0.1	0.3	0.2	0.2	0.4	-0.4	-0.8	-1.2	-1.7	-1.3	-1.1	-1.0	-1.4	-1.2	-1.1	-1.0	-1.1	-1.1	-0.8	-0.6	-0.4	0.1	0.5	-1.7	-0.6
19	0.3	1.2	0.8	0.8	1.5	2.2	3.1	-1.0	-1.7	-2.4	-2.5	-2.3	-2.5	-2.3	-2.4	-2.1	-1.7	-1.5	-1.1	-0.9	-0.8	-0.6	-0.2	0.8	3.1	-2.5	-0.6
20	0.9	0.2	1.3	1.5	1.0	1.5	0.4	-1.2	-1.4	-2.7	-2.4	-2.5	-2.5	-2.7	-1.8	-2.0	-2.2	-2.1	-1.9	-1.6	-1.5	-1.5	-1.1	0.6	1.5	-2.7	-1.0
21	0.8	1.4	0.8	1.4	0.5	1.5	0.9	-0.6	-1.2	-2.1	-2.3	-2.6	-2.6	-2.7	-2.8	-2.7	-2.2	-2.1	-1.9	-1.7	-1.4	-1.0	-0.3	0.4	1.5	-2.8	-0.9
22	0.8	1.5	1.3	1.9	1.7	1.5	1.4	0.2	-0.6	-1.1	-1.2	-1.6	-2.2	-2.5	-2.6	-2.3	-1.8	-1.6	-1.6	-1.3	-1.1	-0.7	-0.4	0.1	1.9	-2.6	-0.5
23	0.4	-0.1	0.5	0.7	1.1	0.0	-0.2	0.0	-0.8	-1.5	-1.5	-1.6	-1.8	-2.0	-2.0	-2.1	-1.7	-1.8	-1.9	-1.4	-0.9	-0.6	0.0	0.5	1.1	-2.1	-0.8
24	-0.1	-0.4	0.1	0.7	0.4	0.9	0.2	-0.1	-0.9	-1.2	-1.5	-1.9	-2.2	-2.4	-2.6	-2.4	-2.3	-1.9	-1.7	-1.7	-2.0	-2.1	-0.7	0.8	0.9	-2.6	-1.0
25	1.1	0.4	1.6	1.2	1.8	1.0	0.2	-0.1	0.4	-0.6	-0.8	-1.4	-1.7	-1.0	-1.5	-1.7	-1.3	-1.5	-1.7	-1.3	-0.9	-0.7	0.0	0.6	1.8	-1.7	-0.3
26	0.2	-0.1	0.4	2.7	0.8	0.5	0.3	0.1	-0.3	-0.5	-1.3	-1.2	-1.3	-1.9	-1.7	-2.0	-1.1	-1.2	-0.8	-0.8	-0.8	-0.7	-0.3	0.1	2.7	-2.0	-0.5
27	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.2	-0.2	-0.4	-0.4	-0.3	-0.4	-0.6	-0.5	-0.4	-0.5	-0.3	-0.3	-0.4	-0.4	-0.2	0.5	0.6	0.6	-0.6	-0.2
28	-0.2	0.4	0.3	0.1	0.0	0.1	-0.1	-0.2	-0.3	-0.8	-0.8	-0.8	-1.1	-1.7	-2.4	-0.9	-0.7	-0.7	-1.0	-1.9	-1.8	-0.2	0.0	0.3	0.4	-2.4	-0.6
29	0.5	-0.2	0.3	0.0	0.3	0.1	-0.1	-0.4	-0.6	-1.1	-1.4	-1.2	-2.5	-2.9	-1.8	-2.3	-2.2	-1.9	-2.2	-2.2	-2.0	-1.5	-0.9	0.2	0.5	-2.9	-1.1
30	0.1	0.5	0.0	0.6	0.7	0.3	-0.1	0.0	-0.7	-1.1	-1.3	-1.2	-1.1	-1.1	-1.3	-1.8	-1.6	-2.2	-1.8	-0.9	-1.0	-0.7	0.2	0.5	0.7	-2.2	-0.6
31	0.5	0.5	0.5	-0.1	-0.3	-0.4	-0.4	-0.4	-0.7	-0.9	-0.9	-1.1	-1.0	-1.4	-1.4	-1.6	-1.4	-1.8	-1.1	-1.0	-0.7	-0.5	-0.5	-0.4	0.5	-1.8	-0.7
Max.	1.1	1.5	1.6	2.7	1.8	2.2	3.1	0.3	0.4	-0.4	-0.4	-0.3	-0.4	-0.4	-0.5	-0.4	-0.5	-0.3	-0.3	-0.4	-0.3	0.6	0.6	0.8	3.1		
Min.	-0.9	-0.9	-0.7	-0.7	-0.9	-0.7	-1.0	-1.7	-2.0	-2.7	-2.7	-3.4	-3.5	-2.9	-2.8	-2.8	-2.8	-2.5	-2.4	-2.6	-2.0	-2.1	-1.4	-0.9		-3.5	
Avg.	0.3	0.3	0.3	0.5	0.4	0.4	0.1	-0.5	-0.8	-1.3	-1.5	-1.7	-1.8	-1.8	-1.9	-1.8	-1.6	-1.6	-1.5	-1.3	-1.1	-0.8	-0.4	0.1			-0.8

Total Hours in Month 744 **Hours Data Available** 744 **Data Recovery** 100%

Rock Creek - Delta T (deg. C)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.3	-0.2	-0.3	-0.2	-0.3	-0.2	-0.2	-0.4	-0.4	-0.6	-1.1	-1.2	-1.7	-1.7	-1.4	-1.4	-1.2	-1.0	-0.9	-0.9	-0.7	-0.7	-0.5	-0.2	-0.2	-1.7	-0.7
2	-0.2	-0.3	-0.3	-0.5	-0.5	-0.5	-0.4	-0.8	-0.7	-0.7	-0.8	-1.1	-0.8	-0.7	-0.8	-1.1	-1.0	-1.0	-0.7	-0.6	-0.4	-0.3	-0.2	-0.1	-0.1	-1.1	-0.6
3	-0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.6	-0.7	-0.7	-0.5	-0.7	-0.7	-0.6	-0.7	-0.6	-0.9	-1.0	-0.5	-0.4	-0.4	0.0	-1.0	-0.4
4	-0.2	-0.2	-0.2	-0.2	-0.1	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-0.9	-1.0	-1.2	-1.3	-1.4	-1.3	-1.4	-1.1	-1.1	-0.6	0.0	0.6	0.6	-1.4	-0.7
5	0.2	0.2	0.1	-0.3	0.2	0.2	-0.6	-0.2	-0.6	-1.9	-2.2	-3.0	-3.1	-2.7	-1.1	-0.6	-1.1	-1.6	-1.9	-1.5	-1.2	-1.2	0.0	0.3	0.3	-3.1	-1.0
6	-0.1	0.8	1.1	0.9	0.6	0.3	0.1	-0.3	-0.2	-1.1	-1.3	-1.4	-1.4	-1.7	-1.7	-1.6	-0.9	-1.0	-0.7	-0.4	-0.3	-0.3	-0.1	-0.1	1.1	-1.7	-0.4
7	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.2	-0.4	-0.3
8	-0.3	-0.2	-0.2	-0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1	-0.3	-0.2
9	-0.2	-0.2	-0.4	-0.2	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.4	-0.6	-0.8	-0.8	-0.9	-0.7	-1.1	-1.4	-1.1	-0.9	-0.8	-0.7	-0.4	0.6	0.6	-1.4	-0.5
10	0.3	-0.2	-0.2	-0.1	-0.3	-0.2	-0.1	-0.3	-0.3	-0.7	-0.9	-1.3	-1.8	-2.5	-3.2	-2.1	-2.1	-1.9	-1.5	-1.1	-0.7	-1.0	0.7	0.8	0.8	-3.2	-0.9
11	-0.4	0.0	0.7	-0.5	-0.1	0.1	-0.2	-0.2	-0.2	-0.2	-1.3	-2.0	-2.1	-1.7	-1.8	-1.6	-0.8	-0.7	-0.7	-0.5	-0.5	-0.3	-0.5	-0.3	0.7	-2.1	-0.7
12	-0.2	-0.1	-0.3	0.0	-0.1	-0.2	-0.1	-0.1	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.4	-0.3	-0.3	-0.4	0.0	-0.4	-0.2
13	-0.4	-0.2	-0.2	-0.2	-0.2	-0.1	-0.4	-0.5	-0.6	-0.8	-0.7	-0.7	-0.8	-0.8	-0.5	-0.4	-0.4	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-0.2	-0.1	-0.8	-0.4
14	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.3	-0.2	-0.1	0.0	0.0	0.0	-0.3	-0.1
15	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.6	-0.7	-0.6	-0.8	-0.9	-0.9	-0.7	-0.8	-0.8	-0.8	-0.7	-0.7	-0.7	0.0	-0.9	-0.5
16	-0.6	-0.4	-0.5	-0.3	-0.3	-0.4	-0.2	-0.3	-0.5	-0.7	-1.0	-1.4	-1.4	-1.9	-2.6	-3.0	-2.3	-1.7	-1.5	-1.1	-0.8	0.6	0.4	-0.2	0.6	-3.0	-0.9
17	0.3	-0.2	-0.3	0.5	0.1	0.1	-0.2	-0.3	-0.9	-1.3	-1.5	-2.0	-2.7	-2.2	-2.2	-2.2	-1.8	-1.6	-1.7	-1.4	-1.1	-0.5	0.9	1.2	1.2	-2.7	-0.9
18	0.5	0.6	0.7	1.0	0.8	0.7	0.8	0.6	0.8	-0.5	-0.9	-1.4	-1.6	-1.9	-1.7	-1.7	-1.8	-2.0	-2.0	-2.0	-1.6	-1.0	-0.8	-0.7	1.0	-2.0	-0.6
19	-0.6	-0.6	-0.5	-0.5	0.2	0.6	0.3	0.9	0.9	0.0	0.1	-0.8	-1.0	-2.4	-2.6	-2.1	-1.9	-1.4	-1.4	-0.5	-0.3	0.0	0.4	0.1	0.9	-2.6	-0.6
20	0.8	1.1	1.6	1.2	2.2	1.8	1.5	1.4	-0.4	-0.7	-2.1	-3.0	-2.6	-2.0	-2.4	-2.2	-1.9	-1.4	-1.6	-1.1	-0.4	0.0	0.5	0.9	2.2	-3.0	-0.4
21	0.9	0.7	1.1	1.1	1.4	1.1	1.7	1.2	0.9	0.4	-0.5	-0.7	-1.2	-1.0	-0.9	-1.0	-1.0	-1.0	-0.8	-0.5	0.0	0.2	0.5	-0.3	1.7	-1.2	0.1
22	-0.2	1.8	0.7	0.8	0.7	0.8	1.2	0.0	0.2	0.4	-0.4	-1.4	-1.2	-1.3	-1.4	-1.0	-0.9	-1.1	-1.6	-1.0	0.7	1.8	0.2	1.7	1.8	-1.6	0.0
23	1.1	1.1	1.5	1.5	1.8	0.9	0.8	1.5	0.6	0.2	-0.5	-1.3	-2.1	-2.3	-1.9	-2.1	-2.0	-1.6	-1.4	-1.2	-0.3	0.8	1.4	0.6	1.8	-2.3	-0.1
24	1.2	1.8	1.5	1.0	2.0	0.6	1.6	0.9	1.0	0.4	-0.3	-1.2	-1.5	-1.7	-2.6	-2.4	-1.5	-1.2	-1.2	-0.7	0.7	0.7	1.0	1.1	2.0	-2.6	0.1
25	1.2	1.2	0.8	1.1	1.3	1.3	1.4	1.4	0.7	0.4	-0.2	-1.3	-1.5	-2.1	-1.9	-1.7	-1.4	-1.1	-1.0	-0.7	-0.4	0.3	0.7	0.3	1.4	-2.1	0.0
26	0.9	1.5	1.5	1.6	1.3	1.2	0.9	0.8	-0.1	-0.6	-0.9	-1.4	-1.8	-2.5	-2.7	-2.5	-2.1	-2.2	-2.2	-1.2	-0.3	1.0	1.7	0.6	1.7	-2.7	-0.3
27	0.4	1.4	1.5	1.6	1.2	1.4	1.5	1.4	-0.2	-1.0	-1.6	-2.8	-2.9	-2.8	-2.6	-2.3	-1.8	-1.7	-1.6	-1.1	1.0	2.7	2.0	0.8	2.7	-2.9	-0.2
28	1.9	1.7	2.5	1.2	1.8	2.7	1.9	1.6	0.1	-0.6	-1.8	-2.1	-2.1	-2.2	-2.1	-1.8	-1.7	-1.5	-1.3	-1.1	-0.7	-0.6	-0.5	-0.5	2.7	-2.2	-0.2
29	-0.4	-0.3	-0.4	-0.4	-0.5	-0.3	-0.1	-0.3	-0.5	-0.4	-0.6	-0.8	-0.7	-1.0	-0.9	-0.8	-0.9	-0.9	-0.7	-0.6	-0.7	-0.7	-0.5	-0.4	-0.1	-1.0	-0.6
30	-0.3	-0.3	-0.7	-0.4	-0.2	-0.6	-0.3	-0.2	-0.4	-0.5	-0.7	-1.0	-0.7	-0.8	-0.7	-0.6	-0.9	-0.8	-0.7	-0.5	-0.6	-0.5	0.0	-0.1	0.0	-1.0	-0.5
31	-0.1	1.6	1.3	0.5	-0.2	0.5	0.2	-0.1	-0.4	-0.4	-1.1	-1.6	-1.6	-1.6	-1.4	-0.8	-0.7	-0.8	-0.8	-0.8	-0.3	0.0	-0.2	0.5	1.6	-1.6	-0.3
Max.	1.9	1.8	2.5	1.6	2.2	2.7	1.9	1.6	1.0	0.4	0.1	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	1.0	2.7	2.0	1.7	2.7		
Min.	-0.6	-0.6	-0.7	-0.5	-0.5	-0.6	-0.6	-0.8	-0.9	-1.9	-2.2	-3.0	-3.1	-2.8	-3.2	-3.0	-2.3	-2.2	-2.2	-2.0	-1.6	-1.2	-0.8	-0.7		-3.2	
Avg.	0.2	0.4	0.4	0.3	0.4	0.3	0.3	0.2	-0.1	-0.4	-0.8	-1.2	-1.4	-1.5	-1.5	-1.4	-1.2	-1.1	-1.1	-0.8	-0.4	-0.1	0.1	0.1			-0.4

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

Rock Creek - Delta T (deg. C)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.2	0.0	-0.1	0.6	0.8	1.0	1.2	0.4	0.1	-0.4	-0.6	-1.2	-1.9	-1.4	-1.6	-1.2	-1.2	-0.8	-0.7	-0.7	-0.5	-0.3	-0.2	-0.1	1.2	-1.9	-0.4
2	-0.1	0.5	0.6	0.7	0.6	0.2	0.3	0.0	-0.1	-0.8	-1.3	-1.8	-1.6	-1.3	-1.2	-0.7	-0.5	-0.7	-1.1	-1.1	-0.3	0.5	0.9	0.8	0.9	-1.8	-0.3
3	1.0	1.3	0.9	0.9	1.1	0.7	1.5	0.5	-0.1	-1.6	-1.9	-2.8	-2.8	-2.5	-2.5	-2.2	-2.2	-1.4	-0.7	-0.6	-0.3	-0.2	-0.2	0.2	1.5	-2.8	-0.6
4	0.2	-0.2	-0.4	-0.4	0.1	-0.3	-0.4	-0.4	-0.5	-0.7	-0.6	-0.6	-0.7	-0.6	-0.9	-0.8	-0.5	-0.6	-0.5	-0.3	-0.3	-0.2	-0.2	-0.2	0.2	-0.9	-0.4
5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.4	-0.4	-0.5	-0.9	-0.7	-0.8	-0.6	-0.6	-0.7	-0.9	-0.9	-0.9	-0.9	-0.7	-0.4	-0.1	-0.1	-0.2	-0.1	-0.9	-0.5
6	-0.1	0.2	-0.1	0.0	0.1	-0.2	0.0	0.0	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.6	-0.5	-0.3	-0.2	-0.5	-0.2	0.1	-0.1	0.2	0.2	-0.6	-0.2
7	0.1	0.4	0.1	0.2	-0.2	0.1	0.1	0.1	0.4	-0.9	-1.3	-0.8	-0.8	-0.9	-1.1	-1.2	-1.1	-0.8	-0.6	-0.2	0.7	-0.1	0.0	0.3	0.7	-1.3	-0.3
8	-0.1	0.4	1.2	-0.3	0.5	0.6	0.2	0.2	0.1	-0.3	-0.2	-0.8	-1.0	-1.2	-2.2	-1.8	-1.8	-1.5	-0.8	-0.1	2.2	1.5	0.7	0.9	2.2	-2.2	-0.2
9	0.8	1.8	0.0	0.4	0.4	0.8	0.9	0.8	0.6	-0.1	0.6	0.5	-0.5	-0.6	-0.5	-0.3	-0.5	-0.5	-0.4	-0.3	0.0	0.2	-0.3	0.2	1.8	-0.6	0.2
10	0.3	0.2	0.5	1.1	1.7	2.0	1.3	1.6	1.0	-0.1	-1.2	-1.5	-1.8	-1.2	-2.0	-1.6	-1.8	-1.0	-1.0	-0.8	0.6	0.4	0.2	0.2	2.0	-2.0	-0.1
11	0.5	1.1	0.8	1.8	0.5	0.2	0.2	0.4	0.1	-0.4	-0.7	-1.5	-1.8	-2.0	-1.6	-1.5	-1.4	-1.2	-1.0	-0.7	0.1	0.0	0.9	1.0	1.8	-2.0	-0.3
12	2.1	1.1	0.9	0.6	0.4	1.2	1.1	0.8	0.6	-0.7	-1.4	-1.3	-1.3	-1.5	-1.1	-1.0	-1.2	-0.5	-0.2	0.1	0.2	0.7	0.4	0.4	2.1	-1.5	0.0
13	0.8	0.4	0.9	0.9	0.9	1.2	1.9	1.7	0.9	-0.2	-1.2	-1.5	-1.6	-0.7	-0.9	-0.7	-0.4	-0.3	-0.2	-0.2	-0.1	-0.2	0.0	-0.1	1.9	-1.6	0.1
14	0.3	-0.1	0.2	0.4	0.7	0.3	0.7	0.8	-0.1	-0.2	-1.1	-1.3	-1.7	-2.1	-1.4	-1.1	-1.5	-1.3	-0.9	-0.1	0.2	0.0	0.3	0.0	0.8	-2.1	-0.4
15	0.5	0.7	1.0	0.9	0.2	0.0	-0.1	-0.1	-0.1	-0.4	-0.6	-1.1	-1.7	-1.8	-1.5	-1.4	-1.1	-0.8	-0.8	-0.3	-0.1	0.0	0.0	-0.2	1.0	-1.8	-0.4
16	-0.1	0.1	0.4	0.1	0.4	0.9	1.0	1.4	0.3	-0.6	-1.5	-2.4	-3.2	-1.7	-2.2	-1.3	-0.9	-0.8	-0.7	-0.6	-0.1	0.4	1.0	0.1	1.4	-3.2	-0.4
17	0.3	-0.1	0.3	0.4	0.4	0.2	-0.1	0.4	-0.1	0.1	-0.2	-0.3	-0.4	-0.2	-0.2	-0.3	-0.2	-0.6	-0.3	-0.2	1.6	1.0	0.7	0.9	1.6	-0.6	0.1
18	0.7	0.4	0.9	0.1	0.1	0.1	0.0	0.0	0.0	-0.4	-0.7	-0.6	-0.8	-0.8	-1.0	-0.9	-1.0	-0.9	-0.9	-0.2	1.0	0.1	-0.4	-0.1	1.0	-1.0	-0.2
19	0.2	-0.1	0.1	0.7	-0.1	-0.4	0.0	0.3	-0.3	0.0	-0.4	-0.6	-0.8	-1.0	-1.2	-1.7	-1.5	-1.5	-1.2	-0.1	1.6	0.6	1.4	1.3	1.6	-1.7	-0.2
20	2.2	1.1	1.6	1.7	1.7	2.0	1.2	1.1	0.5	0.1	-1.2	-0.5	-1.3	-1.8	-2.1	-2.6	-1.5	-1.1	-1.1	0.2	1.4	0.9	0.9	0.9	2.2	-2.6	0.2
21	0.4	0.3	1.5	1.5	0.4	0.7	0.5	0.4	0.2	-0.1	-0.7	-0.8	-1.4	-1.5	-1.5	-1.3	-1.0	-0.9	-0.8	-0.6	-0.4	0.4	0.8	0.7	1.5	-1.5	-0.1
22	0.9	1.0	1.0	0.6	0.9	0.3	0.8	1.4	1.9	-0.4	-0.8	-1.0	-1.4	-1.2	-1.1	-0.8	-0.9	-1.1	-1.2	-0.3	0.3	0.0	0.2	0.2	1.9	-1.4	0.0
23	0.3	0.8	1.0	1.5	1.7	1.1	1.0	1.1	1.8	-0.6	-1.7	-2.1	-1.5	-1.7	-1.4	-1.3	-1.4	-1.1	-0.7	-0.1	0.1	0.2	0.3	0.8	1.8	-2.1	-0.1
24	0.0	-0.3	-0.2	0.8	0.8	0.6	0.4	0.3	0.3	0.0	-0.8	-1.1	-1.1	-1.2	-1.4	-1.3	-1.3	-1.2	-0.9	-0.3	-0.1	0.0	0.1	-0.4	0.8	-1.4	-0.3
25	-0.2	0.3	0.6	0.6	0.2	0.2	0.9	1.7	2.1	-0.6	-2.0	-2.8	-3.1	-2.0	-2.9	-1.6	-1.3	-1.1	-1.0	-0.7	-0.6	-0.6	-0.3	-0.2	2.1	-3.1	-0.6
26	-0.2	-0.4	-0.3	-0.5	-0.5	-0.5	0.0	0.5	0.5	1.1	-1.3	-1.5	-1.7	-1.9	-1.4	-1.2	-1.6	-0.9	-0.9	-0.2	0.2	0.8	0.4	0.6	1.1	-1.9	-0.4
27	0.7	0.7	1.2	1.3	1.5	0.8	0.2	0.5	1.1	-0.2	-1.3	-1.1	-1.6	-1.8	-2.3	-1.4	-1.3	-1.3	-1.1	0.2	0.8	1.4	1.3	1.3	1.5	-2.3	0.0
28	0.6	1.4	1.2	1.3	1.8	1.6	0.6	1.4	1.9	0.1	-0.6	-1.4	-1.9	-1.8	-1.9	-1.8	-1.4	-0.9	-0.8	0.3	0.2	0.6	0.2	0.2	1.9	-1.9	0.0
29	0.5	0.4	0.6	1.3	1.1	0.9	1.4	1.1	1.4	0.4	-0.4	-1.1	-1.6	-1.7	-1.5	-1.5	-0.8	-0.5	-0.4	-0.3	-0.2	-0.2	-0.3	-0.2	1.4	-1.7	-0.1
30	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1	-0.1	0.6	0.9	0.1	-1.0	-1.3	-1.4	-1.3	-0.8	-0.6	-0.7	-1.1	-0.5	0.1	1.0	0.4	0.1	-0.7	1.0	-1.4	-0.3
Max.	2.2	1.8	1.6	1.8	1.8	2.0	1.9	1.7	2.1	1.1	0.6	0.5	-0.4	-0.2	-0.2	-0.3	-0.2	-0.3	-0.2	0.3	2.2	1.5	1.4	1.3	2.2		
Min.	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.4	-0.4	-0.5	-1.6	-2.0	-2.8	-3.2	-2.5	-2.9	-2.6	-2.2	-1.5	-1.2	-1.1	-0.6	-0.6	-0.4	-0.7		-3.2	
Avg.	0.4	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.5	-0.3	-0.9	-1.2	-1.5	-1.4	-1.4	-1.2	-1.1	-0.9	-0.7	-0.3	0.3	0.3	0.3	0.3			-0.2

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100%

Rock Creek - Backup Temperature (deg. C)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	14.0	13.1	12.4	11.2	11.4	10.2	10.6	11.7	13.9	15.7	17.4	19.5	21.4	22.0	21.7	21.7	21.7	20.9	19.8	19.2	17.8	16.1	15.2	13.6	22.0	10.2	16.3
2	13.1	12.2	11.7	11.2	11.7	11.1	11.3	11.8	13.3	14.6	16.3	18.2	20.1	21.4	22.4	22.3	21.8	20.2	18.1	16.9	16.3	15.2	14.5	14.3	22.4	11.1	15.8
3	13.7	13.1	12.4	12.1	12.2	12.0	12.1	12.6	13.8	13.9	13.8	13.0	14.5	14.2	14.4	14.1	13.5	13.2	13.4	12.5	12.3	12.3	11.7	11.3	14.5	11.3	13.0
4	11.0	10.9	10.8	10.6	10.4	10.5	10.6	10.8	11.1	11.1	11.1	11.6	11.8	12.7	14.7	14.7	14.0	14.0	13.8	12.4	12.3	13.9	14.8	12.4	14.8	10.4	12.2
5	10.6	8.4	6.8	5.2	4.5	4.6	6.7	10.8	13.7	15.5	17.4	18.7	19.7	19.4	19.9	18.9	18.3	18.6	17.7	16.4	15.4	14.5	12.9	11.3	19.9	4.5	13.6
6	9.6	10.0	10.0	9.8	9.7	9.2	8.9	9.3	9.9	11.4	12.4	13.0	13.0	13.5	13.9	14.0	14.2	14.3	12.0	10.6	9.6	9.0	9.0	8.8	14.3	8.8	11.0
7	8.7	8.8	8.6	8.5	8.5	8.5	8.5	8.6	9.0	10.2	11.6	12.8	13.4	13.6	14.2	13.0	11.2	11.5	11.2	11.3	11.3	11.2	10.9	9.9	14.2	8.5	10.6
8	9.3	8.7	8.6	8.6	8.8	9.0	9.4	9.9	10.4	11.2	11.9	13.7	14.1	14.5	15.8	15.9	15.0	14.8	15.6	14.5	12.6	11.9	10.5	10.0	15.9	8.6	11.8
9	9.4	7.5	6.2	5.5	4.8	3.9	5.4	9.2	11.5	14.1	16.6	16.7	16.1	16.0	16.1	15.8	15.7	15.3	14.0	14.2	12.9	11.5	10.3	8.1	16.7	3.9	11.5
10	6.5	5.8	5.0	4.5	4.5	4.6	5.0	6.0	7.4	8.6	10.8	10.7	12.4	13.9	14.7	15.4	14.9	14.0	12.7	11.9	11.4	10.5	9.6	8.0	15.4	4.5	9.5
11	7.6	7.4	7.4	7.4	6.6	5.0	4.9	7.2	11.3	14.2	15.5	16.3	16.7	17.0	18.4	17.4	16.8	17.8	18.3	15.8	13.9	12.6	11.4	10.0	18.4	4.9	12.4
12	8.7	8.0	6.6	5.6	5.8	5.7	6.7	9.6	11.7	15.3	18.4	21.2	22.9	22.6	23.1	24.4	24.1	24.2	20.8	20.0	19.3	19.5	17.7	16.2	24.4	5.6	15.7
13	15.0	13.5	12.8	12.5	11.9	12.6	13.3	14.2	13.9	15.0	17.2	19.0	17.8	18.0	19.5	19.3	16.8	16.6	18.8	19.3	18.9	17.6	16.3	12.9	19.5	11.9	15.9
14	10.9	9.1	7.7	7.2	8.4	8.6	10.6	12.5	13.9	15.5	15.4	18.0	18.6	19.7	19.6	19.6	20.0	20.0	20.1	20.7	19.5	17.8	15.4	13.3	20.7	7.2	15.1
15	12.8	10.9	9.0	7.3	7.6	7.0	9.2	10.8	14.6	17.4	19.6	21.9	23.6	23.5	22.3	21.4	24.6	25.3	22.6	19.0	16.9	14.5	14.4	13.8	25.3	7.0	16.2
16	12.7	11.9	12.2	12.3	12.0	11.8	13.1	14.3	16.9	18.2	18.6	18.1	16.8	17.2	17.9	19.4	19.6	19.9	19.3	18.9	18.2	17.0	15.8	14.8	19.9	11.8	16.1
17	14.1	14.0	15.1	15.2	14.9	14.6	14.4	15.6	16.7	18.0	18.2	20.4	18.9	16.5	17.2	17.9	18.7	18.6	18.9	17.1	16.0	16.4	14.9	14.0	20.4	14.0	16.5
18	13.4	12.7	11.8	12.0	12.8	12.5	13.9	15.9	17.0	17.6	18.9	18.4	18.1	18.2	19.2	19.3	19.2	19.3	19.9	20.1	18.5	17.5	16.1	14.0	20.1	11.8	16.5
19	12.6	10.6	11.4	7.9	6.2	4.9	7.7	13.2	14.9	18.9	20.9	21.8	22.5	22.9	23.7	23.7	23.3	22.0	20.7	20.0	19.1	18.1	17.0	14.5	23.7	4.9	16.6
20	11.6	8.6	5.8	4.8	3.8	3.5	4.7	8.9	11.0	15.3	16.6	17.8	19.0	20.5	19.8	20.4	21.7	21.3	20.5	19.8	19.7	18.8	16.3	11.9	21.7	3.5	14.3
21	10.0	8.3	7.6	7.0	6.0	5.7	7.7	10.6	14.5	18.6	19.9	20.9	21.1	21.5	21.9	22.7	22.4	22.8	22.5	21.7	20.6	18.8	16.1	12.8	22.8	5.7	15.9
22	9.3	8.9	8.2	8.0	8.0	7.4	7.7	12.0	17.1	19.8	20.6	21.4	21.7	19.4	18.8	18.2	16.5	15.6	15.3	14.4	13.7	12.5	10.8	8.6	21.7	7.4	13.9
23	8.0	6.3	4.9	4.1	4.5	4.9	6.4	8.7	12.7	14.6	15.4	16.1	17.4	18.8	21.0	21.7	21.6	22.0	22.1	21.3	19.8	18.2	16.2	14.6	22.1	4.1	14.2
24	14.1	13.1	11.6	10.9	11.4	11.4	12.7	15.0	18.3	19.8	21.1	22.1	22.4	22.6	23.5	24.0	24.1	23.7	23.6	23.2	22.6	21.7	18.3	14.0	24.1	10.9	18.5
25	11.4	9.7	10.0	9.6	11.1	11.5	11.9	13.5	17.5	19.9	20.6	21.6	21.9	20.5	21.9	21.7	21.4	22.5	22.6	21.9	21.1	20.0	16.9	13.2	22.6	9.6	17.2
26	11.2	9.6	10.3	11.9	17.0	17.6	18.2	18.3	18.8	19.3	18.7	17.2	17.1	17.9	18.1	18.5	16.3	15.9	16.1	16.2	15.9	15.4	14.0	13.2	19.3	9.6	15.9
27	13.3	13.5	13.1	12.9	13.2	13.1	13.4	13.5	13.9	14.6	14.7	14.4	15.0	15.5	15.2	15.1	16.0	15.2	15.4	15.4	14.7	13.7	13.1	12.7	16.0	12.7	14.2
28	12.8	12.6	13.0	12.9	12.4	12.5	12.7	13.1	13.9	15.3	16.1	16.5	16.6	17.9	18.5	15.0	15.0	15.8	16.8	19.2	18.3	15.8	15.0	14.3	19.2	12.4	15.1
29	13.5	12.8	12.8	12.6	12.0	12.0	12.8	13.2	14.8	16.9	17.6	17.8	20.7	21.6	20.2	21.5	21.3	19.6	20.7	20.7	20.5	19.5	17.3	14.9	21.6	12.0	17.0
30	13.1	11.6	9.9	9.0	8.9	9.6	10.0	11.4	12.9	13.6	13.9	13.5	13.6	14.7	15.3	16.7	16.4	18.0	16.9	15.5	15.5	14.9	13.5	12.9	18.0	8.9	13.4
31	12.3	12.0	12.4	13.2	13.2	13.2	13.1	13.5	14.3	14.4	14.4	15.0	14.8	15.6	15.8	16.3	16.2	16.3	15.2	14.9	14.0	13.3	12.7	12.6	16.3	12.0	14.1
Max.	15.0	14.0	15.1	15.2	17.0	17.6	18.2	18.3	18.8	19.9	21.1	22.1	23.6	23.5	23.7	24.4	24.6	25.3	23.6	23.2	22.6	21.7	18.3	16.2	25.3		
Min.	6.5	5.8	4.9	4.1	3.8	3.5	4.7	6.0	7.4	8.6	10.8	10.7	11.8	12.7	13.9	13.0	11.2	11.5	11.2	10.6	9.6	9.0	9.0	8.0		3.5	
Avg.	11.4	10.4	9.9	9.4	9.5	9.3	10.1	11.8	13.7	15.4	16.5	17.3	17.9	18.2	18.7	18.7	18.5	18.4	17.9	17.3	16.4	15.5	14.1	12.5			14.5

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Backup Temperature (deg. C)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.5	12.2	11.9	11.4	11.2	11.1	11.2	11.5	11.8	12.3	13.3	13.8	14.9	14.7	14.6	14.6	14.2	13.8	13.5	13.1	12.5	12.0	11.6	11.4	14.9	11.1	12.7
2	11.4	11.5	11.5	11.4	11.0	10.8	10.5	10.9	11.1	11.1	11.9	12.3	12.3	12.2	12.5	12.9	13.3	14.2	13.4	13.4	13.0	12.7	12.5	12.8	14.2	10.5	12.1
3	12.3	12.4	12.2	12.7	13.1	13.0	13.4	13.6	13.9	13.9	13.7	12.6	12.1	12.1	12.7	12.7	13.0	13.2	13.0	13.9	13.4	11.9	11.7	11.3	13.9	11.3	12.8
4	10.9	11.0	11.0	11.0	10.9	10.9	11.1	11.5	12.1	12.9	13.2	13.2	13.6	13.9	14.6	15.1	15.2	14.6	14.8	14.0	13.7	12.8	11.7	10.4	15.2	10.4	12.7
5	9.8	9.1	8.9	8.7	8.2	8.4	8.3	9.1	11.2	15.0	16.2	18.2	19.3	18.5	15.6	15.5	15.9	18.1	18.7	17.3	16.2	14.7	11.5	9.9	19.3	8.2	13.4
6	7.3	5.7	5.3	4.4	3.8	3.7	4.2	5.9	8.6	12.7	13.4	13.8	13.7	14.2	15.2	15.0	13.8	14.6	14.1	13.4	13.3	13.4	13.9	14.7	15.2	3.7	10.8
7	14.8	13.9	13.2	12.8	12.4	11.8	11.6	11.6	11.9	12.1	12.0	11.9	11.9	11.9	11.9	11.9	12.0	11.9	11.9	11.9	11.7	11.6	11.8	11.9	14.8	11.6	12.2
8	12.0	12.3	13.1	13.0	13.0	13.0	13.1	13.2	13.1	13.2	13.1	13.0	12.5	12.3	12.1	11.8	11.7	11.6	11.4	11.4	11.4	11.3	11.0	10.8	13.2	10.8	12.3
9	10.8	10.7	10.6	10.5	10.8	10.8	10.8	11.0	11.3	11.6	11.8	12.6	13.2	13.0	13.2	13.0	14.1	14.7	13.9	13.3	12.7	12.3	11.8	10.7	14.7	10.5	12.0
10	10.2	9.8	9.6	9.3	9.3	9.2	9.3	9.8	11.3	12.8	14.3	15.4	16.7	17.9	19.4	18.5	18.9	18.3	17.6	16.6	15.3	15.5	12.6	12.2	19.4	9.2	13.7
11	10.7	10.3	10.6	11.0	10.8	10.3	10.5	10.9	12.3	14.4	17.1	18.8	19.9	18.8	18.5	17.8	15.0	14.5	14.5	14.6	14.5	14.2	13.9	13.5	19.9	10.3	14.1
12	13.4	13.5	13.6	14.1	13.8	13.1	12.4	12.4	12.2	12.5	12.7	12.9	13.0	13.0	13.0	13.4	13.9	14.0	14.0	14.0	13.4	13.4	13.3	13.1	14.1	12.2	13.2
13	12.9	12.8	12.5	12.5	12.6	12.8	13.2	13.4	14.0	15.3	15.9	15.8	16.9	16.9	16.1	15.3	14.7	14.5	14.5	14.3	14.2	14.3	14.5	14.2	16.9	12.5	14.3
14	14.1	14.1	14.3	14.4	14.4	14.6	14.3	13.7	14.1	14.5	14.5	14.0	14.0	14.2	14.4	14.5	14.5	14.5	14.6	14.8	14.6	14.5	14.7	14.9	14.9	13.7	14.4
15	14.9	15.2	15.4	15.6	15.8	15.8	16.0	15.9	15.8	16.0	16.5	17.6	18.4	17.4	17.2	17.5	17.7	16.2	16.8	15.6	15.1	14.6	14.1	13.4	18.4	13.4	16.0
16	12.7	12.2	11.8	11.3	11.0	10.6	10.1	10.4	10.9	11.7	12.7	14.0	15.1	16.7	19.0	20.7	21.5	20.1	19.2	17.7	16.8	14.4	13.7	13.4	21.5	10.1	14.5
17	13.3	13.5	13.3	12.6	11.8	11.8	12.0	12.7	14.1	15.8	16.9	17.6	19.5	19.1	19.3	19.4	18.4	17.6	16.9	15.9	14.5	12.8	9.8	8.5	19.5	8.5	14.9
18	7.4	6.9	6.0	7.3	7.4	8.2	8.6	10.2	13.6	17.1	17.8	19.9	21.5	23.2	23.7	24.0	22.7	20.9	19.9	18.6	17.2	15.2	13.8	13.4	24.0	6.0	15.2
19	12.6	12.2	11.8	11.3	10.4	10.5	11.2	13.1	15.1	17.5	18.6	19.2	20.1	24.3	26.0	26.5	27.7	27.5	26.9	24.5	23.2	20.4	17.2	15.5	27.7	10.4	18.5
20	13.4	12.4	12.0	12.1	11.6	12.1	12.2	13.4	16.0	20.5	24.8	27.5	27.6	26.7	27.6	28.1	28.0	27.8	28.2	26.6	24.8	21.8	18.8	17.0	28.2	11.6	20.5
21	15.3	14.9	14.6	14.6	13.9	13.2	13.0	13.3	13.1	15.4	18.1	20.7	22.6	23.1	23.1	22.9	22.5	22.4	21.1	20.5	19.4	19.0	17.9	16.2	23.1	13.0	17.9
22	14.0	17.3	17.8	16.8	15.6	15.0	14.2	14.5	14.7	16.3	21.0	23.2	23.5	23.6	23.5	22.6	22.8	22.9	22.5	20.8	18.2	15.9	13.8	12.3	23.6	12.3	18.4
23	11.6	11.6	11.8	11.1	12.0	11.9	9.8	10.4	11.3	13.3	16.6	19.7	22.3	22.9	22.5	23.1	22.9	22.4	22.0	21.0	17.5	15.4	14.4	12.9	23.1	9.8	16.3
24	11.4	10.6	10.4	9.8	10.1	10.4	10.7	9.7	12.7	15.9	19.3	22.3	23.5	25.0	26.2	25.7	23.6	22.6	22.0	20.9	18.2	15.7	14.0	13.2	26.2	9.7	16.8
25	12.3	11.6	11.1	10.7	10.2	10.0	9.6	10.2	10.9	14.0	17.7	20.6	21.7	23.0	22.0	21.4	20.3	19.2	18.6	16.7	15.0	12.1	11.2	10.6	23.0	9.6	15.0
26	9.1	7.1	5.7	5.7	5.6	5.2	5.4	6.0	8.4	9.9	12.4	14.1	15.7	17.1	18.1	18.6	19.0	19.2	18.7	16.7	13.7	9.2	7.5	8.1	19.2	5.2	11.5
27	5.1	3.3	2.7	2.2	1.4	1.3	1.2	0.7	3.7	8.2	12.7	15.8	17.3	17.6	17.8	17.7	17.3	17.1	16.6	15.1	11.6	7.7	5.2	3.2	17.8	0.7	9.3
28	2.3	1.0	1.0	0.5	0.0	-0.7	-0.5	-0.9	1.6	6.3	12.2	14.8	15.9	16.4	16.6	16.3	15.2	14.3	13.5	12.1	10.4	9.8	9.4	9.5	16.6	-0.9	8.2
29	9.7	9.7	9.4	9.0	8.9	8.6	8.6	8.8	9.3	9.5	10.0	10.4	10.5	11.1	11.0	11.3	11.5	11.6	11.3	10.7	10.4	10.0	9.6	9.3	11.6	8.6	10.0
30	9.3	9.4	9.5	9.2	9.2	9.1	8.7	8.8	9.1	9.6	10.3	10.8	10.8	11.8	11.9	12.1	12.6	12.2	11.6	11.2	10.9	10.6	10.1	10.2	12.6	8.7	10.4
31	9.6	7.7	6.1	6.0	6.6	6.0	5.9	6.7	7.7	9.8	11.8	13.1	13.9	14.7	13.8	10.6	10.2	11.8	12.2	12.4	11.5	10.4	9.3	8.6	14.7	5.9	9.8
Max.	15.3	17.3	17.8	16.8	15.8	15.8	16.0	15.9	16.0	20.5	24.8	27.5	27.6	26.7	27.6	28.1	28.0	27.8	28.2	26.6	24.8	21.8	18.8	17.0	28.2		
Min.	2.3	1.0	1.0	0.5	0.0	-0.7	-0.5	-0.9	1.6	6.3	10.0	10.4	10.5	11.1	11.0	10.6	10.2	11.6	11.3	10.7	10.4	7.7	5.2	3.2		-0.9	
Avg.	11.2	10.8	10.6	10.4	10.2	10.1	10.0	10.4	11.5	13.3	14.9	16.1	16.9	17.3	17.5	17.4	17.2	17.0	16.7	15.9	14.8	13.5	12.5	11.8			13.7

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Backup Temperature (deg. C)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	8.6	8.1	7.2	7.7	7.1	5.7	4.6	4.6	7.3	9.8	10.4	12.0	13.4	13.2	13.3	13.1	12.1	11.1	10.8	10.0	8.7	7.4	6.8	5.9	13.4	4.6	9.1
2	4.8	3.3	1.2	0.8	1.4	2.8	2.0	2.4	4.4	5.9	7.3	8.5	8.4	8.1	7.3	5.0	4.2	5.2	7.0	7.2	4.9	2.4	2.3	2.6	8.5	0.8	4.6
3	1.9	1.1	-0.5	-1.3	-1.9	-2.4	-2.5	-3.0	-1.0	2.2	6.9	9.8	10.9	11.3	11.3	11.8	12.5	11.0	9.2	7.7	6.4	5.9	5.6	5.1	12.5	-3.0	4.9
4	4.4	5.0	4.3	3.7	3.4	3.7	3.8	4.0	4.6	5.5	6.0	6.5	7.0	7.5	8.4	8.9	9.3	9.7	9.1	8.8	8.6	8.3	8.1	8.1	9.7	3.4	6.5
5	7.9	8.0	8.2	8.1	7.6	7.6	7.9	7.8	8.8	9.7	10.1	10.9	11.0	11.2	12.2	13.1	13.0	12.9	12.9	12.1	11.2	10.3	10.1	10.1	13.1	7.6	10.1
6	9.8	9.5	9.4	9.3	9.9	10.0	9.9	10.5	11.0	11.1	11.8	12.0	12.3	12.7	13.1	13.5	13.4	12.6	12.2	12.5	11.0	10.2	9.5	8.7	13.5	8.7	11.1
7	9.1	9.3	10.1	10.4	10.7	10.2	10.3	10.0	9.4	10.9	13.8	14.3	14.6	15.2	15.5	15.9	15.5	14.3	13.6	12.8	12.0	11.4	9.7	8.8	15.9	8.8	12.0
8	8.3	8.1	8.6	8.6	8.4	8.8	10.0	9.5	10.5	10.8	12.2	13.7	14.4	15.7	18.7	18.7	18.5	18.0	15.9	14.1	10.6	7.7	6.4	6.3	18.7	6.3	11.8
9	6.4	7.7	9.8	7.7	6.7	5.8	5.9	6.1	6.6	8.1	9.3	10.5	13.2	13.4	13.2	12.9	13.5	13.3	12.9	12.3	10.3	8.0	6.1	3.4	13.5	3.4	9.3
10	2.2	2.1	3.2	1.9	0.6	0.4	0.5	0.3	2.0	6.0	11.0	13.2	14.7	14.0	15.1	14.9	15.3	14.1	14.0	12.6	8.9	8.2	7.4	6.9	15.3	0.3	7.9
11	5.4	4.5	3.4	3.2	5.8	5.3	4.7	4.2	5.1	7.0	8.3	9.7	10.6	11.0	10.7	10.7	10.3	9.5	8.6	6.7	4.7	3.8	2.4	2.2	11.0	2.2	6.6
12	1.4	2.3	2.8	3.4	3.1	1.6	1.3	1.1	2.0	5.7	7.6	7.5	8.1	8.7	8.1	8.4	8.4	6.0	4.9	3.9	3.3	3.1	3.7	2.7	8.7	1.1	4.5
13	2.2	2.9	2.7	2.4	2.1	1.1	0.7	0.5	1.4	4.1	6.6	7.6	7.3	6.2	6.7	5.6	4.6	4.1	4.1	4.2	4.2	3.6	2.6	1.7	7.6	0.5	3.7
14	0.3	0.7	-0.3	0.3	0.9	2.1	2.1	2.7	2.4	3.8	5.9	7.6	9.1	10.4	10.2	9.7	10.2	9.8	9.0	7.3	6.3	5.1	4.5	5.0	10.4	-0.3	5.2
15	4.5	4.0	2.3	2.9	2.4	2.6	3.2	3.0	3.9	5.2	7.1	8.2	9.4	9.7	9.4	9.5	9.0	8.6	8.2	7.4	6.2	5.2	5.2	5.1	9.7	2.3	5.9
16	5.0	4.8	3.8	2.2	-0.4	-1.6	-1.7	-2.1	-2.3	0.4	5.5	8.4	10.3	8.7	10.2	8.5	8.0	8.0	7.4	6.9	5.3	4.0	2.1	0.7	10.3	-2.3	4.3
17	0.1	-0.1	0.7	0.7	1.6	2.3	2.3	2.9	4.0	4.3	5.1	5.3	5.4	4.4	4.3	4.1	3.9	5.4	6.0	5.5	2.2	1.0	-1.1	-1.2	6.0	-1.2	2.9
18	-0.6	-0.5	2.1	3.5	3.2	3.0	2.9	2.7	2.7	3.5	4.6	4.6	5.0	5.5	5.9	5.8	5.9	5.8	5.9	4.6	2.1	2.1	2.0	0.9	5.9	-0.6	3.5
19	1.5	1.5	1.0	0.1	1.9	0.5	0.6	0.8	0.6	1.1	2.6	4.6	5.8	6.6	7.3	9.0	9.0	8.5	7.2	4.3	0.8	-0.8	-2.5	-2.4	9.0	-2.5	2.9
20	-2.3	-0.2	-1.8	-0.4	-0.8	-1.9	0.4	1.1	1.8	1.5	3.8	5.4	7.5	8.8	9.4	10.8	8.7	8.3	6.8	4.7	1.8	1.0	-1.2	-2.0	10.8	-2.3	3.0
21	-1.8	-1.3	-0.4	3.0	4.1	3.6	3.6	3.8	3.8	4.1	4.5	5.5	7.2	8.0	8.6	8.5	8.2	7.7	7.2	6.3	4.7	2.3	0.8	0.3	8.6	-1.8	4.3
22	-0.1	-0.4	0.0	0.6	-0.4	1.5	0.5	-1.4	-0.8	3.2	4.5	5.0	5.8	5.8	5.0	4.6	4.4	4.3	3.4	1.5	0.8	0.9	0.7	0.9	5.8	-1.4	2.1
23	0.6	-0.7	-0.3	-0.8	-0.6	-0.5	-1.5	-1.6	-2.2	-0.4	3.2	5.3	5.7	6.4	6.1	6.4	6.3	5.2	4.0	1.6	0.5	0.1	-0.9	-1.2	6.4	-2.2	1.7
24	-0.1	0.2	0.0	-0.8	-0.5	-0.1	0.0	0.6	0.4	1.7	3.0	3.8	4.1	4.1	4.6	4.9	4.7	4.2	3.0	1.8	1.1	0.8	0.8	0.3	4.9	-0.8	1.8
25	-0.1	-1.0	-1.6	-1.4	-0.7	-0.6	-2.5	-3.0	-3.5	-1.7	1.5	4.3	5.5	4.6	5.9	4.1	3.7	2.8	2.1	1.1	0.1	-0.6	-0.9	-0.6	5.9	-3.5	0.7
26	-0.6	-0.8	-0.9	-1.2	-1.5	-1.8	-2.3	-3.5	-4.4	-4.8	0.3	1.4	2.1	2.6	1.5	1.6	1.8	0.5	0.0	-2.0	-3.8	-5.1	-4.9	-4.7	2.6	-5.1	-1.3
27	-4.7	-4.9	-5.7	-5.6	-5.9	-5.9	-5.8	-5.6	-6.9	-5.8	-3.1	-1.1	0.3	1.4	3.1	1.7	1.1	1.4	0.7	-1.6	-2.6	-4.3	-5.1	-6.9	3.1	-6.9	-3.0
28	-7.9	-8.0	-8.0	-7.7	-4.7	-4.8	-6.4	-6.0	-3.4	0.2	2.1	3.8	5.4	5.9	6.4	6.4	5.7	4.6	3.2	0.8	0.4	-0.5	-1.5	-3.8	6.4	-8.0	-0.7
29	-4.9	-5.2	-6.4	-6.4	-5.5	-6.3	-7.5	-7.0	-5.3	-2.7	0.3	1.7	2.6	3.1	3.6	3.5	2.1	1.0	0.2	-0.8	-0.9	-0.8	-1.1	-1.0	3.6	-7.5	-1.8
30	-0.9	-1.2	-1.0	-1.0	-0.9	-1.2	-1.6	-2.9	-3.5	-2.4	0.1	1.5	2.2	2.5	2.3	2.0	2.2	1.9	0.6	-0.5	-1.2	-0.5	0.1	0.4	2.5	-3.5	-0.1
Max.	9.8	9.5	10.1	10.4	10.7	10.2	10.3	10.5	11.0	11.1	13.8	14.3	14.7	15.7	18.7	18.7	18.5	18.0	15.9	14.1	12.0	11.4	10.1	10.1	18.7		
Min.	-7.9	-8.0	-8.0	-7.7	-5.9	-6.3	-7.5	-7.0	-6.9	-5.8	-3.1	-1.1	0.3	1.4	1.5	1.6	1.1	0.5	0.0	-2.0	-3.8	-5.1	-5.1	-6.9		-8.0	
Avg.	2.0	2.0	1.8	1.8	1.9	1.7	1.5	1.4	2.0	3.6	5.7	7.1	8.0	8.2	8.6	8.4	8.2	7.7	7.0	5.8	4.3	3.3	2.6	2.1			4.4

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Wind Speed (m/s)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.0	1.2	0.9	1.2	1.1	1.1	0.7	0.7	0.6	1.0	1.4	0.7	1.2	2.1	2.0	2.0	1.7	2.0	1.3	0.7	0.7	0.9	0.9	0.7	2.1	0.6	1.2
2	0.8	0.9	0.9	1.0	0.8	1.1	0.8	0.6	0.9	0.8	0.9	0.8	1.1	1.3	1.6	2.5	3.4	3.8	3.8	2.8	2.2	2.3	2.0	1.3	3.8	0.6	1.6
3	0.9	1.2	1.2	0.8	1.3	1.5	1.0	1.4	1.1	3.2	3.6	4.0	4.1	4.5	4.8	4.6	4.2	3.9	3.6	3.3	2.6	2.5	2.3	2.3	4.8	0.8	2.7
4	1.9	2.0	1.9	1.6	1.3	1.7	2.0	1.8	1.8	2.7	2.9	2.2	2.2	2.5	3.8	5.2	5.4	5.0	5.4	4.6	3.2	1.8	1.3	5.0	5.4	1.3	2.9
5	5.1	1.3	1.4	1.1	1.0	1.1	1.0	1.2	2.8	3.8	3.0	3.9	4.3	4.8	5.6	4.8	6.8	6.0	5.3	6.2	5.7	4.8	4.1	2.9	6.8	1.0	3.7
6	3.7	3.9	2.9	2.1	2.2	3.4	2.9	3.0	3.3	3.9	4.7	4.1	4.6	6.3	5.3	5.3	4.4	4.8	4.8	4.2	4.0	3.2	2.9	4.7	6.3	2.1	3.9
7	3.4	4.4	4.1	2.8	1.6	1.9	2.8	2.4	1.8	2.6	3.1	4.1	5.3	6.3	5.4	5.8	4.7	2.5	3.8	3.8	2.6	2.4	2.5	2.6	6.3	1.6	3.4
8	2.8	2.9	3.3	3.1	2.6	1.4	1.4	2.4	1.8	2.9	2.0	1.8	3.8	3.1	2.2	5.5	5.0	5.5	5.1	4.5	2.8	2.6	3.1	2.8	5.5	1.4	3.1
9	3.3	2.8	0.9	0.5	0.8	0.5	0.7	0.8	1.3	1.5	2.4	4.2	5.3	6.2	6.3	6.2	6.2	6.1	5.4	5.0	4.3	3.9	2.5	2.1	6.3	0.5	3.3
10	0.6	0.7	0.6	1.0	0.6	0.6	0.6	0.9	1.5	1.9	3.0	3.4	3.6	4.4	4.4	4.2	4.7	5.8	5.1	4.9	4.3	4.1	3.5	3.5	5.8	0.6	2.8
11	2.7	1.8	2.1	1.1	1.0	1.7	0.7	0.6	2.4	5.1	5.4	5.9	5.9	5.3	6.2	6.4	5.1	4.7	6.3	5.0	3.6	2.6	2.0	1.7	6.4	0.6	3.6
12	0.6	0.7	0.6	0.9	0.9	1.0	0.7	0.8	1.1	2.0	1.6	1.5	2.2	3.4	3.3	3.4	3.8	3.5	4.0	2.7	2.3	2.2	1.2	0.9	4.0	0.6	1.9
13	0.9	0.7	0.8	1.1	1.0	1.0	1.6	0.8	1.1	0.8	1.2	3.7	4.3	3.4	4.1	4.7	4.6	1.8	1.4	1.9	2.6	2.6	1.3	0.9	4.7	0.7	2.0
14	1.1	0.7	0.7	1.2	0.8	0.9	1.0	1.1	1.3	1.3	2.1	2.9	3.6	3.9	4.4	4.1	3.7	3.7	3.1	1.8	3.3	3.0	2.7	2.9	4.4	0.7	2.3
15	1.7	1.6	0.9	0.7	1.1	0.9	1.0	1.2	1.0	1.5	1.9	1.4	2.4	3.5	3.0	1.9	1.6	2.2	4.1	2.8	3.7	2.1	2.0	1.3	4.1	0.7	1.9
16	1.1	1.0	0.7	1.3	0.9	1.6	1.2	0.9	2.8	3.1	3.4	3.4	3.5	3.4	4.4	5.4	4.9	4.2	3.2	2.1	1.5	1.7	1.2	1.3	5.4	0.7	2.4
17	3.3	1.8	2.7	3.5	2.9	2.9	1.1	1.2	1.3	1.2	1.2	1.3	3.0	3.6	1.7	2.3	3.1	3.8	5.5	5.6	6.2	6.2	4.3	3.6	6.2	1.1	3.1
18	4.3	5.0	4.7	4.4	4.2	3.5	2.9	4.2	4.5	4.1	2.9	4.7	5.4	6.2	5.8	5.6	5.9	6.0	6.7	6.5	4.7	5.4	6.1	6.5	6.7	2.9	5.0
19	5.3	4.5	5.6	2.4	1.7	0.9	1.9	0.9	1.1	1.0	2.8	3.7	4.0	4.6	4.7	5.5	7.3	8.0	8.1	7.8	7.2	4.7	4.2	4.3	8.1	0.9	4.3
20	2.1	1.6	1.0	0.9	1.2	1.2	1.1	1.1	1.7	1.0	1.0	1.7	2.1	2.7	3.9	3.5	3.7	3.9	3.9	3.1	2.3	1.7	1.6	1.5	3.9	0.9	2.1
21	1.2	1.0	1.3	1.2	1.6	1.0	0.6	0.8	1.4	1.7	2.8	3.0	3.7	3.7	3.4	3.3	3.7	3.4	3.4	2.9	2.6	2.2	1.2	1.5	3.7	0.6	2.2
22	0.6	0.6	0.6	0.8	0.7	1.1	1.2	1.1	2.0	5.0	5.4	4.7	5.0	4.6	4.0	4.5	5.9	5.2	4.9	4.8	4.3	4.5	4.3	3.2	5.9	0.6	3.3
23	2.3	1.6	1.3	0.7	1.1	0.9	0.8	0.8	2.9	1.2	1.2	1.2	1.4	2.1	3.6	4.1	4.3	3.9	3.5	4.3	3.5	3.2	3.6	2.6	4.3	0.7	2.3
24	2.0	1.1	1.1	1.6	1.4	1.3	1.4	2.4	4.3	4.0	4.3	4.2	5.0	4.6	4.7	4.4	4.2	3.7	3.1	2.7	1.5	0.9	1.6	0.8	5.0	0.8	2.8
25	1.4	1.4	1.0	1.3	1.9	1.3	1.2	1.0	3.9	6.7	6.3	4.8	4.8	5.2	4.8	4.3	4.4	4.5	3.4	3.7	3.1	2.7	2.7	2.3	6.7	1.0	3.3
26	2.7	2.6	1.8	2.8	5.9	6.8	6.5	6.6	5.8	6.2	5.6	4.4	3.7	1.9	2.4	1.9	2.9	1.2	1.8	1.2	1.2	1.9	2.4	1.7	6.8	1.2	3.4
27	1.6	5.4	5.9	5.0	5.6	5.0	4.2	5.1	5.5	4.2	2.8	4.0	2.4	3.2	3.7	3.3	4.1	4.6	4.3	3.2	1.8	2.5	2.5	2.7	5.9	1.6	3.9
28	2.2	2.3	2.6	2.1	3.4	3.0	2.3	3.7	2.3	2.8	4.5	3.8	2.3	1.5	2.0	2.7	0.9	0.9	0.7	1.1	2.0	1.9	0.7	0.8	4.5	0.7	2.2
29	0.7	0.5	0.8	0.8	0.7	0.6	0.9	0.6	0.6	0.8	1.8	3.2	3.8	3.4	3.7	4.7	4.3	3.3	2.8	3.2	3.0	3.3	2.6	1.9	4.7	0.5	2.2
30	2.0	2.0	1.5	1.5	1.9	2.6	1.0	0.7	1.1	1.5	2.7	2.9	2.2	3.1	3.2	3.8	4.1	3.9	4.8	4.7	3.8	4.5	3.7	2.1	4.8	0.7	2.7
31	1.1	2.2	3.1	3.7	2.8	2.2	2.7	3.0	3.6	4.4	4.5	5.3	5.4	6.0	6.3	6.2	5.4	4.9	5.0	4.8	4.8	5.6	3.3	3.2	6.3	1.1	4.2
Max.	5.3	5.4	5.9	5.0	5.9	6.8	6.5	6.6	5.8	6.7	6.3	5.9	5.9	6.3	6.3	6.4	7.3	8.0	8.1	7.8	7.2	6.2	6.1	6.5	8.1		
Min.	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.8	0.9	0.7	1.1	1.3	1.6	1.9	0.9	0.9	0.7	0.7	0.7	0.9	0.7	0.7		0.5	
Avg.	2.1	2.0	1.9	1.7	1.8	1.8	1.6	1.7	2.2	2.7	3.0	3.3	3.6	3.9	4.0	4.3	4.3	4.1	4.1	3.7	3.3	3.0	2.6	2.4			2.9

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Wind Speed (m/s)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.6	4.4	3.6	1.8	2.6	4.2	3.5	3.0	4.0	4.6	4.7	3.9	4.3	4.0	4.4	4.3	4.3	4.5	4.1	4.2	3.9	3.3	2.8	2.4	4.7	1.8	3.7
2	2.2	2.1	2.5	3.0	3.1	2.4	2.5	1.8	2.4	2.1	2.3	3.3	4.5	4.4	3.1	2.4	2.3	2.9	3.5	3.6	4.4	5.1	6.1	6.8	6.8	1.8	3.3
3	7.1	7.6	6.0	6.1	5.7	5.9	5.9	5.5	5.6	5.8	4.7	4.6	5.0	4.5	4.6	4.4	4.8	5.0	4.5	4.6	3.6	2.8	2.9	2.9	7.6	2.8	5.0
4	2.4	2.6	2.4	1.8	2.4	2.9	1.6	2.3	2.1	2.7	2.6	2.7	3.8	3.2	3.1	3.9	4.1	3.3	2.7	2.2	1.4	1.5	1.9	1.7	4.1	1.4	2.6
5	0.9	0.6	0.5	0.7	0.4	0.6	0.7	0.5	0.6	1.0	1.0	1.3	1.6	3.0	3.9	2.8	1.8	2.5	3.4	3.7	3.9	3.5	4.2	4.3	4.3	0.4	2.0
6	2.0	1.3	1.1	1.3	1.1	0.7	1.0	0.9	0.5	1.3	2.3	3.2	4.1	3.1	3.1	2.9	3.6	3.3	3.4	3.6	6.3	5.3	6.9	7.4	7.4	0.5	2.9
7	5.5	4.7	4.3	4.7	5.1	5.0	5.0	4.8	4.2	4.4	5.9	6.4	4.8	5.7	5.7	4.4	4.8	4.1	4.1	4.1	4.6	3.9	4.0	4.2	6.4	3.9	4.8
8	3.6	3.5	6.5	6.8	6.0	5.7	5.3	6.4	6.8	6.6	7.6	8.6	7.6	7.4	7.3	6.9	6.9	6.8	5.9	5.1	4.6	4.1	3.9	3.3	8.6	3.3	6.0
9	3.8	3.2	3.8	3.7	3.8	3.5	4.0	4.6	5.2	5.5	5.8	6.2	5.7	5.1	4.8	5.1	4.4	4.2	3.6	2.5	1.9	1.1	0.9	1.0	6.2	0.9	3.9
10	0.7	0.5	0.7	1.2	1.4	1.5	1.0	1.8	1.3	3.3	2.7	2.9	1.6	1.3	1.4	3.2	3.2	3.8	2.2	3.0	2.7	1.7	3.3	4.5	4.5	0.5	2.1
11	2.6	3.5	3.9	1.7	1.7	1.7	1.0	0.9	0.8	1.7	1.5	1.7	2.5	3.5	2.8	2.8	2.4	0.7	0.5	0.8	1.7	1.0	1.1	1.7	3.9	0.5	1.8
12	1.0	1.1	1.6	6.7	8.2	4.9	6.4	7.0	6.2	5.6	5.8	4.8	4.8	4.3	3.7	4.8	7.1	6.5	5.7	5.1	2.7	3.5	2.6	1.9	8.2	1.0	4.7
13	2.0	1.6	1.2	1.1	1.0	1.5	1.9	1.5	1.1	1.9	2.7	3.3	4.0	4.0	4.4	3.7	4.6	5.0	4.3	4.3	4.8	5.0	4.8	4.6	5.0	1.0	3.1
14	5.2	4.7	5.5	6.4	6.8	7.3	7.2	7.3	7.7	7.5	7.1	7.3	7.5	7.4	7.4	6.2	6.3	5.7	5.6	5.2	5.7	5.5	5.4	6.1	7.7	4.7	6.4
15	6.9	6.9	6.6	6.7	7.4	8.2	7.8	7.5	7.4	7.1	5.8	5.5	5.5	5.4	4.1	4.3	4.9	2.9	3.7	3.2	1.5	1.8	1.5	2.4	8.2	1.5	5.2
16	2.6	3.0	2.4	3.3	3.2	3.5	3.9	3.3	3.5	3.6	3.4	2.9	2.5	1.8	1.5	1.2	2.4	2.7	3.1	2.7	0.9	1.9	1.2	1.2	3.9	0.9	2.6
17	0.9	1.6	1.1	0.9	0.9	0.8	1.0	0.9	0.5	0.8	2.7	1.6	2.1	4.4	4.2	4.1	4.6	4.0	4.0	3.6	3.2	1.9	1.3	1.1	4.6	0.5	2.2
18	1.4	1.1	1.0	0.8	1.2	1.1	1.3	1.3	3.8	6.7	5.0	4.8	4.7	3.8	4.6	4.7	5.2	3.3	3.9	2.6	2.0	2.3	1.8	1.7	6.7	0.8	2.9
19	1.7	1.6	1.1	0.9	1.2	1.0	1.4	2.6	6.7	4.6	3.2	3.6	3.0	1.5	3.0	3.3	3.8	5.0	4.7	8.2	7.2	5.0	4.1	2.8	8.2	0.9	3.4
20	0.8	0.8	0.8	0.7	0.6	0.5	0.7	0.9	0.7	0.7	0.8	1.2	3.5	3.9	3.2	3.1	3.3	3.0	3.3	4.0	3.2	1.6	1.2	1.5	4.0	0.5	1.8
21	0.8	0.8	0.8	0.9	0.8	0.6	0.9	1.2	0.8	0.9	0.8	2.2	3.0	5.2	5.5	3.9	3.4	2.6	3.0	2.8	2.8	3.2	3.5	2.4	5.5	0.6	2.2
22	1.4	3.7	2.0	1.1	0.9	2.0	3.5	4.4	2.9	2.3	2.0	1.9	3.7	2.9	3.5	4.5	3.4	1.8	1.4	1.7	1.3	1.2	1.1	0.8	4.5	0.8	2.3
23	0.7	0.6	0.8	1.0	1.9	1.2	0.6	0.8	0.7	0.5	0.6	1.6	1.3	2.7	2.8	2.3	2.3	2.2	1.8	1.3	2.9	1.4	1.4	0.9	2.9	0.5	1.4
24	0.6	0.7	0.7	0.9	1.1	1.3	1.8	1.7	1.6	3.2	4.2	2.3	3.1	2.6	1.5	2.9	3.7	3.0	2.0	1.3	1.4	1.4	1.9	0.9	4.2	0.6	1.9
25	1.1	0.9	1.0	1.1	1.1	0.9	0.8	0.9	1.6	3.3	2.5	3.2	5.0	4.6	6.4	6.8	7.9	8.0	7.4	7.8	6.9	6.0	6.0	5.0	8.0	0.8	4.0
26	3.1	1.9	1.1	1.4	1.5	1.8	4.0	2.9	2.9	2.7	4.8	4.6	4.2	3.0	2.8	2.7	2.9	1.8	2.7	4.3	4.5	2.8	4.2	4.1	4.8	1.1	3.0
27	1.5	1.3	1.5	1.3	1.4	1.4	1.1	1.0	1.2	1.2	0.5	0.9	2.0	3.1	3.0	3.1	3.7	3.3	2.4	2.5	2.3	1.3	0.7	0.8	3.7	0.5	1.8
28	0.6	0.5	0.9	0.6	0.7	0.7	0.7	0.6	0.6	0.5	1.7	3.4	4.1	4.5	5.4	5.9	6.4	5.6	6.1	3.8	2.7	2.4	2.2	1.5	6.4	0.5	2.6
29	1.6	2.1	2.3	1.8	1.4	1.6	1.6	1.0	1.1	2.4	1.1	1.7	2.7	2.4	2.7	3.0	2.7	2.9	3.0	2.6	1.8	1.6	1.5	1.9	3.0	1.0	2.0
30	1.0	1.2	1.2	1.3	0.9	2.4	2.2	2.5	2.4	2.7	2.7	2.2	1.9	3.7	4.2	4.4	4.5	4.1	4.1	3.6	2.5	2.3	3.4	2.7	4.5	0.9	2.7
31	1.6	1.4	1.5	1.3	0.9	0.8	0.8	1.2	0.6	0.8	0.9	1.3	2.1	2.9	2.6	2.0	1.4	0.9	0.8	1.0	1.2	1.3	1.0	1.3	2.9	0.6	1.3
Max.	7.1	7.6	6.6	6.8	8.2	8.2	7.8	7.5	7.7	7.5	7.6	8.6	7.6	7.4	7.4	6.9	7.9	8.0	7.4	8.2	7.2	6.0	6.9	7.4	8.6		
Min.	0.6	0.5	0.5	0.6	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.9	1.3	1.3	1.4	1.2	1.4	0.7	0.5	0.8	0.9	1.0	0.7	0.8		0.4	
Avg.	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.7	2.8	3.2	3.2	3.4	3.7	3.8	3.9	3.9	4.1	3.7	3.6	3.5	3.3	2.8	2.9	2.8			3.1

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

Rock Creek - Wind Speed (m/s)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.1	0.9	0.6	3.5	2.4	0.9	1.1	0.9	2.6	4.3	3.1	3.5	1.9	2.7	2.0	2.4	2.2	3.1	4.3	4.8	4.1	4.0	4.5	3.5	4.8	0.6	2.7
2	5.0	3.1	1.9	2.0	4.0	5.0	3.2	2.6	3.9	3.2	2.4	2.3	1.9	2.1	3.4	4.2	4.9	4.1	3.6	4.8	5.5	2.9	3.9	5.2	5.5	1.9	3.5
3	3.4	3.3	1.4	1.4	1.0	0.8	1.3	0.5	0.7	0.5	0.8	1.6	2.3	2.7	2.1	3.3	3.1	4.8	4.5	4.9	4.6	3.2	2.3	1.6	4.9	0.5	2.3
4	2.1	2.7	1.6	0.9	1.0	1.0	0.8	0.9	0.9	2.5	2.5	2.9	2.4	2.1	2.1	2.3	2.1	3.7	3.7	4.2	4.1	4.3	4.4	4.5	4.5	0.8	2.5
5	1.8	1.8	3.1	2.8	2.4	2.0	2.7	2.6	1.8	1.7	2.6	4.8	5.5	5.1	4.0	4.1	4.1	3.4	3.3	2.2	2.0	2.8	3.4	3.5	5.5	1.7	3.1
6	3.8	3.5	1.6	1.1	3.1	2.9	2.7	3.8	3.7	4.5	6.3	7.4	7.7	7.5	7.5	7.1	6.8	6.1	5.3	4.2	2.9	2.1	2.3	2.2	7.7	1.1	4.4
7	1.4	3.1	1.7	1.7	1.5	2.4	2.2	2.6	3.3	2.3	3.9	5.8	5.9	5.5	5.0	4.6	3.5	2.3	2.1	2.5	2.4	1.8	2.2	1.3	5.9	1.3	3.0
8	1.5	1.3	1.9	1.9	1.1	2.7	4.7	2.8	3.1	1.4	2.1	2.9	1.9	2.0	3.0	4.1	4.9	5.2	4.0	2.8	2.4	1.1	0.8	1.0	5.2	0.8	2.5
9	1.0	2.7	3.7	1.3	1.2	0.9	0.8	1.0	0.9	1.0	3.9	5.0	4.8	4.5	4.6	5.2	5.2	4.1	4.1	3.3	2.7	1.5	2.7	2.7	5.2	0.8	2.9
10	3.9	2.6	2.7	1.1	1.0	0.8	1.1	1.0	1.1	1.5	3.0	3.7	3.6	3.8	2.5	0.9	1.6	2.6	3.8	4.3	4.6	6.4	6.8	6.1	6.8	0.8	2.9
11	4.1	4.3	4.0	5.0	4.4	4.0	5.3	5.3	6.0	6.8	6.8	6.2	5.2	5.5	5.9	5.9	7.2	7.2	6.9	4.7	6.0	5.3	3.7	2.9	7.2	2.9	5.4
12	4.6	4.1	3.9	3.5	3.8	1.7	2.3	2.9	2.9	3.9	4.8	6.2	5.9	6.5	6.7	7.9	8.0	7.4	9.8	7.1	3.8	3.4	3.2	2.3	9.8	1.7	4.9
13	3.5	3.2	1.5	1.1	2.0	1.6	1.9	1.2	1.9	2.9	4.2	5.0	5.1	6.0	7.2	6.1	4.4	2.9	2.9	4.3	3.0	3.1	2.2	1.1	7.2	1.1	3.3
14	1.5	1.4	2.0	2.6	3.8	5.6	5.6	4.9	2.4	3.7	3.9	4.7	4.3	4.4	5.7	5.8	4.1	4.1	3.3	3.9	4.5	5.2	5.4	4.6	5.8	1.4	4.1
15	4.8	5.1	3.1	3.6	1.8	1.0	1.1	1.3	2.1	2.4	3.0	2.6	1.7	1.8	2.1	1.8	2.9	1.8	1.6	3.0	3.3	4.1	4.1	4.0	5.1	1.0	2.7
16	2.9	3.4	2.9	2.4	1.8	1.1	0.9	1.1	0.9	0.9	1.1	2.2	1.8	1.5	2.6	3.9	2.9	3.2	3.3	3.1	3.5	0.9	1.2	0.8	3.9	0.8	2.1
17	0.8	2.1	1.5	1.6	1.4	1.2	1.0	1.8	5.8	4.0	3.4	6.4	7.0	6.5	4.3	3.1	2.1	2.2	2.6	2.9	4.3	2.2	0.9	0.7	7.0	0.7	2.9
18	1.4	1.2	3.9	5.9	5.8	5.7	5.3	4.9	4.3	3.6	4.3	4.6	4.1	3.7	3.4	3.0	2.4	2.1	2.1	2.2	2.1	1.9	2.0	2.2	5.9	1.2	3.4
19	2.0	1.4	3.4	2.4	4.4	1.6	3.2	2.7	1.3	2.4	2.8	2.8	5.5	6.0	5.3	5.2	5.3	5.2	4.9	3.6	2.7	2.0	2.9	3.8	6.0	1.3	3.4
20	4.2	4.4	4.4	4.2	4.2	3.8	4.5	3.9	3.5	3.2	1.4	1.7	3.0	3.2	2.9	2.1	2.3	1.7	2.4	1.4	1.2	1.6	0.4	0.6	4.5	0.4	2.8
21	0.8	0.8	1.3	3.5	4.3	4.5	4.9	4.4	4.9	6.3	5.6	6.2	6.4	6.6	6.7	7.0	7.3	6.6	5.5	5.0	3.6	3.1	4.1	4.6	7.3	0.8	4.7
22	4.2	3.8	5.2	4.5	2.7	7.2	3.2	1.1	2.6	4.7	6.7	7.7	7.2	7.8	7.4	7.1	7.4	6.1	5.0	3.6	5.0	6.3	8.3	8.2	8.3	1.1	5.5
23	3.7	3.2	3.1	1.3	4.0	3.7	2.6	2.6	0.9	0.9	1.3	2.5	4.5	5.1	7.1	6.5	6.1	7.0	6.5	6.0	4.0	3.7	2.7	2.0	7.1	0.9	3.8
24	4.4	2.9	1.2	1.5	1.3	1.0	1.5	4.3	5.3	5.1	5.1	6.1	6.5	6.7	6.3	7.1	6.6	5.8	5.3	3.9	4.4	3.5	3.1	1.8	7.1	1.0	4.2
25	3.0	1.7	2.4	2.1	0.9	1.3	1.4	0.9	1.7	1.0	0.9	1.4	2.1	2.6	2.3	2.4	1.5	2.6	1.5	1.8	2.4	2.2	2.6	4.2	4.2	0.9	2.0
26	4.3	3.5	4.7	2.9	2.6	2.6	3.6	4.5	2.8	2.3	3.1	4.1	5.1	4.9	5.0	3.8	5.0	6.1	4.7	3.7	2.6	1.5	2.8	2.5	6.1	1.5	3.7
27	1.7	1.4	1.3	1.6	2.3	1.4	1.5	1.8	1.4	0.9	1.1	1.1	1.1	1.1	1.7	2.2	2.3	1.0	2.5	4.3	4.4	2.9	1.8	1.2	4.4	0.9	1.8
28	1.2	1.1	1.2	1.0	2.0	1.3	0.9	1.1	1.6	3.9	4.0	4.2	3.0	3.8	4.2	3.9	4.6	5.6	5.0	5.1	5.6	5.0	3.1	1.3	5.6	0.9	3.1
29	1.4	2.2	2.8	1.6	1.6	1.3	1.1	1.9	4.9	4.8	5.5	5.4	5.1	5.1	5.9	7.3	6.6	6.8	6.3	6.8	8.8	7.5	4.9	5.2	8.8	1.1	4.6
30	5.8	5.9	5.0	7.1	8.7	7.2	7.1	4.8	2.2	1.4	2.8	5.4	6.1	5.1	4.5	6.1	5.4	4.5	3.3	1.7	1.8	1.7	1.3	1.1	8.7	1.1	4.4
Max.	5.8	5.9	5.2	7.1	8.7	7.2	7.1	5.3	6.0	6.8	6.8	7.7	7.7	7.8	7.5	7.9	8.0	7.4	9.8	7.1	8.8	7.5	8.3	8.2	9.8		
Min.	0.8	0.8	0.6	0.9	0.9	0.8	0.8	0.5	0.7	0.5	0.8	1.1	1.1	1.1	1.7	0.9	1.5	1.0	1.5	1.4	1.2	0.9	0.4	0.6		0.4	
Avg.	2.8	2.7	2.6	2.6	2.7	2.6	2.7	2.5	2.7	2.9	3.4	4.2	4.3	4.4	4.4	4.5	4.4	4.3	4.1	3.9	3.7	3.2	3.1	2.9			3.4

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.6	2.2	1.8	2.1	1.8	1.9	1.4	1.5	1.5	1.6	2.1	1.4	2.1	3.6	2.7	2.7	2.8	2.9	2.1	1.5	1.5	1.8	2.0	1.6	3.6	1.4	2.0
2	1.6	2.5	1.7	2.1	2.7	2.2	1.9	1.3	1.9	1.9	2.1	1.7	2.0	2.3	2.9	3.8	5.0	5.4	5.4	4.4	3.5	3.2	3.3	1.9	5.4	1.3	2.8
3	1.8	2.4	2.3	1.3	2.6	2.9	2.1	2.1	2.5	5.3	6.3	5.8	6.2	7.0	7.9	8.0	7.9	6.5	6.2	5.6	5.5	4.4	3.9	4.5	8.0	1.3	4.6
4	3.4	4.0	3.5	2.5	2.3	3.2	3.2	2.9	3.0	4.5	4.7	4.5	4.0	4.5	7.0	7.6	8.4	7.9	7.8	6.7	5.2	4.1	4.9	6.9	8.4	2.3	4.9
5	6.9	3.3	3.4	2.2	2.3	2.7	3.0	3.6	5.0	6.9	6.0	7.0	8.1	8.6	10.0	9.7	11.5	12.0	8.1	11.7	8.1	7.6	6.4	4.8	12.0	2.2	6.6
6	5.8	5.6	4.4	4.4	4.1	5.0	5.0	4.9	5.0	5.8	7.5	7.6	8.7	10.5	8.7	9.0	7.6	8.0	7.5	6.7	6.0	6.0	6.8	7.2	10.5	4.1	6.6
7	5.9	7.3	10.0	6.9	3.7	5.3	6.6	6.7	4.9	6.0	8.2	7.6	8.3	9.0	8.6	8.4	8.4	4.6	6.6	7.3	5.3	5.3	5.0	4.8	10.0	3.7	6.7
8	3.7	4.0	4.3	4.2	3.6	2.4	2.4	3.5	3.2	5.5	4.4	4.8	7.6	6.1	6.4	14.1	8.5	8.8	8.4	9.2	5.0	3.9	4.0	4.2	14.1	2.4	5.5
9	4.7	4.0	2.5	1.2	1.8	1.1	1.4	1.9	2.1	2.9	5.1	6.5	7.8	8.4	8.6	9.0	9.3	8.6	8.6	6.7	6.3	5.7	4.1	3.6	9.3	1.1	5.1
10	1.1	1.3	1.3	1.8	1.2	1.1	1.4	2.2	2.9	3.4	5.1	5.6	6.1	6.5	7.0	6.4	7.6	8.4	7.4	7.6	6.1	6.5	4.5	4.6	8.4	1.1	4.5
11	4.3	3.5	3.4	2.6	1.8	3.4	1.5	1.4	4.9	7.1	8.1	7.8	8.1	7.5	9.2	8.7	8.2	8.6	8.4	7.3	5.5	4.1	2.8	2.6	9.2	1.4	5.5
12	1.3	1.6	1.2	2.0	1.9	2.3	1.6	1.7	2.9	3.7	3.1	4.1	5.1	5.9	5.8	6.0	6.6	6.1	6.2	4.4	3.8	3.8	2.0	1.8	6.6	1.2	3.5
13	1.9	1.9	1.6	2.7	1.9	2.1	2.5	1.7	3.1	2.3	4.4	6.5	6.0	5.6	7.9	7.6	6.7	5.2	2.9	3.8	4.6	4.4	2.6	1.7	7.9	1.6	3.8
14	2.3	1.9	1.7	2.6	1.4	2.1	2.1	2.2	2.2	3.2	3.5	6.8	5.9	7.3	7.0	7.0	7.1	6.3	7.3	3.6	5.5	4.6	4.1	3.9	7.3	1.4	4.2
15	3.0	2.7	2.2	1.7	3.2	1.7	2.5	3.0	2.1	3.3	3.8	3.2	5.2	6.3	6.7	3.7	4.1	5.0	7.5	5.3	6.0	3.8	4.2	2.5	7.5	1.7	3.9
16	2.9	2.1	1.7	3.1	2.2	3.0	2.2	2.8	4.6	5.3	5.5	5.6	6.1	5.3	7.9	8.6	8.4	6.8	5.2	3.7	3.2	3.5	2.4	3.6	8.6	1.7	4.4
17	4.6	4.3	5.8	6.0	5.3	4.3	2.7	2.6	2.1	2.2	2.1	2.6	6.7	5.6	3.6	3.6	5.2	5.8	7.9	8.1	9.4	9.9	8.9	5.6	9.9	2.1	5.2
18	5.8	6.0	6.8	5.8	5.2	4.8	4.6	5.7	7.2	6.7	4.7	6.5	7.8	8.4	9.1	8.6	8.6	9.1	9.6	9.6	7.4	7.4	8.8	8.8	9.6	4.6	7.2
19	8.9	7.4	7.5	5.0	3.8	3.0	3.8	1.8	1.8	2.5	5.7	7.5	8.1	8.0	8.7	9.9	11.2	12.2	12.2	11.7	11.2	11.1	8.4	8.0	12.2	1.8	7.5
20	5.1	5.2	2.0	1.8	2.5	2.4	2.0	2.1	2.6	2.1	2.3	3.0	4.1	5.1	6.2	5.3	5.6	6.1	5.8	5.2	3.7	2.4	2.5	3.8	6.2	1.8	3.7
21	2.8	2.5	3.0	3.1	3.7	3.3	1.3	1.8	2.1	3.9	5.0	6.8	6.7	6.1	6.7	5.6	6.2	5.6	5.6	4.2	3.5	3.1	2.5	3.0	6.8	1.3	4.1
22	1.3	1.5	1.3	1.7	1.3	2.9	2.6	3.4	6.1	9.1	8.1	8.8	7.5	8.0	6.2	6.9	8.9	8.4	7.8	7.9	6.6	6.8	6.8	4.3	9.1	1.3	5.6
23	3.8	3.7	2.2	2.1	2.9	1.9	2.5	2.0	4.9	2.5	2.3	2.9	3.1	4.4	6.5	7.6	6.8	6.8	6.6	6.7	5.1	5.0	5.2	4.7	7.6	1.9	4.3
24	3.7	2.3	2.4	3.6	3.3	3.4	2.9	6.0	6.8	6.8	7.2	7.3	8.2	7.6	7.8	7.8	7.3	7.3	6.0	5.2	3.2	1.9	2.4	2.2	8.2	1.9	5.1
25	3.7	3.7	2.6	3.3	5.5	4.2	2.9	2.0	8.8	9.8	10.1	7.9	7.2	7.6	7.8	7.4	8.2	7.8	6.9	6.0	5.7	3.6	4.3	5.1	10.1	2.0	5.9
26	5.4	4.6	3.4	6.7	9.2	12.3	10.0	10.9	10.0	10.0	8.8	6.8	6.2	3.1	4.4	3.5	5.1	2.6	2.8	3.0	2.1	4.2	4.4	3.9	12.3	2.1	6.0
27	5.6	8.6	9.1	7.7	8.3	8.6	8.9	7.7	8.7	6.4	5.9	7.0	4.8	5.6	6.1	9.3	7.4	9.0	6.6	5.9	5.7	5.0	4.1	4.7	9.3	4.1	6.9
28	5.1	5.2	4.9	4.4	5.0	4.9	4.2	5.7	5.7	6.2	6.5	5.8	4.2	4.9	5.7	5.2	1.7	2.3	1.2	2.8	3.7	2.7	1.4	1.5	6.5	1.2	4.2
29	1.6	0.9	1.3	1.8	1.4	1.3	1.8	1.2	1.0	1.8	3.7	5.0	6.5	6.7	6.6	8.3	7.6	5.2	5.0	5.2	4.9	5.1	4.5	4.0	8.3	0.9	3.9
30	4.3	3.7	2.9	3.2	4.7	4.7	2.6	1.9	3.2	3.0	4.5	4.7	4.6	5.3	5.3	6.4	7.3	6.8	6.9	7.6	6.6	6.5	5.2	4.5	7.6	1.9	4.9
31	3.3	4.9	5.1	6.3	5.5	4.6	4.4	6.2	5.7	6.6	7.6	8.0	8.9	8.4	9.2	9.6	8.4	9.6	8.1	7.8	8.9	9.7	6.0	6.2	9.7	3.3	7.0
Max.	8.9	8.6	10.0	7.7	9.2	12.3	10.0	10.9	10.0	10.0	10.1	8.8	8.9	10.5	10.0	14.1	11.5	12.2	12.2	11.7	11.2	11.1	8.9	8.8	14.1		
Min.	1.1	0.9	1.2	1.2	1.2	1.1	1.3	1.2	1.0	1.6	2.1	1.4	2.0	2.3	2.7	2.7	1.7	2.3	1.2	1.5	1.5	1.8	1.4	1.5		0.9	
Avg.	3.8	3.7	3.5	3.4	3.4	3.5	3.2	3.4	4.1	4.8	5.3	5.7	6.2	6.4	6.9	7.3	7.2	7.0	6.6	6.2	5.4	5.1	4.5	4.2			5.0

Total Hours in Month

744

Hours Data Available

744

Data Recovery 100%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	7.3	8.5	6.8	5.4	5.4	7.4	7.3	5.9	7.0	7.6	8.4	7.4	8.4	8.2	7.6	7.6	7.7	7.5	7.3	7.1	7.5	5.4	4.7	3.6	8.5	3.6	7.0
2	4.2	4.0	4.2	4.8	4.8	4.0	5.1	4.0	4.5	4.1	4.2	5.9	6.9	7.1	4.9	4.2	3.9	6.0	6.0	5.4	7.6	8.6	9.8	10.3	10.3	3.9	5.6
3	10.0	11.1	8.9	11.3	9.2	9.0	9.0	8.6	9.1	9.4	9.2	6.8	7.2	7.3	7.2	7.3	7.2	7.5	7.6	7.2	6.7	6.4	4.4	4.7	11.3	4.4	8.0
4	4.2	4.9	4.1	3.3	3.1	4.4	3.7	3.6	3.9	4.3	4.2	4.8	5.3	4.7	5.3	6.4	6.3	5.2	4.6	3.3	2.6	2.1	2.8	2.8	6.4	2.1	4.2
5	2.0	1.2	1.0	1.4	0.8	1.1	1.7	1.1	1.3	2.7	2.2	3.1	3.4	5.5	5.7	4.4	4.0	5.3	5.8	5.9	6.0	6.0	5.9	5.5	6.0	0.8	3.5
6	5.0	2.8	2.2	2.8	3.7	1.5	1.8	1.7	1.0	3.0	4.1	6.5	6.6	5.1	5.2	5.4	6.0	4.9	5.0	6.3	10.3	9.9	11.7	11.9	11.9	1.0	5.2
7	9.6	8.1	7.6	7.6	9.0	7.9	8.9	7.8	7.7	8.0	10.5	10.5	8.2	9.1	8.9	6.7	8.8	6.9	6.6	7.2	7.4	7.0	7.0	7.0	10.5	6.6	8.1
8	6.2	9.9	10.6	10.3	9.5	8.6	9.4	10.2	12.0	11.4	13.8	14.0	13.0	12.5	11.6	11.0	10.7	11.1	10.0	8.9	7.1	7.0	7.7	6.6	14.0	6.2	10.1
9	6.4	5.3	9.4	6.3	6.1	6.2	6.3	7.3	9.2	8.4	9.3	9.2	9.2	8.0	8.2	7.4	7.3	7.0	5.5	4.7	3.2	2.3	1.7	1.6	9.4	1.6	6.5
10	1.7	1.1	1.3	2.8	2.4	3.6	2.1	3.6	3.0	6.1	5.2	4.9	3.4	2.7	3.3	6.6	5.4	5.7	5.1	4.7	4.3	3.2	5.5	6.0	6.6	1.1	3.9
11	4.4	4.8	5.3	3.2	4.2	2.8	2.0	1.9	1.8	3.7	3.4	3.5	4.5	5.9	5.0	4.4	4.8	1.2	1.2	2.0	3.0	2.6	2.1	3.0	5.9	1.2	3.4
12	2.4	2.7	6.6	13.6	16.5	11.7	10.5	10.8	10.8	9.9	10.7	8.2	8.1	7.7	6.5	8.6	12.3	10.3	10.0	9.3	6.4	7.0	5.2	3.1	16.5	2.4	8.7
13	2.9	2.2	2.4	2.0	2.1	4.1	3.0	2.3	2.2	2.9	5.1	5.4	5.9	6.6	6.7	6.1	7.1	7.2	6.8	6.3	7.9	8.8	8.2	7.6	8.8	2.0	5.1
14	9.2	7.5	9.7	9.9	9.7	10.6	10.5	10.9	11.3	11.5	10.9	12.3	11.8	10.8	11.1	10.8	10.3	9.6	8.3	7.9	9.0	7.7	7.8	8.4	12.3	7.5	9.9
15	10.0	10.0	9.0	9.8	11.1	11.5	12.1	11.3	10.8	10.1	9.3	8.2	8.4	8.4	7.3	6.7	8.1	6.3	5.5	5.3	2.5	2.6	2.3	3.9	12.1	2.3	7.9
16	3.7	4.4	3.7	4.8	4.6	6.7	6.5	5.5	5.3	5.2	5.5	4.8	4.0	3.3	3.5	2.9	8.0	5.0	4.9	4.3	2.2	2.8	2.2	1.8	8.0	1.8	4.4
17	1.5	2.7	2.7	1.6	1.8	1.6	1.6	1.6	1.1	2.0	4.9	4.0	5.5	6.7	6.5	6.7	6.8	6.6	5.6	5.6	4.7	4.1	2.3	2.0	6.8	1.1	3.7
18	2.6	2.6	2.1	1.9	2.7	2.8	3.5	2.5	9.9	9.6	8.4	7.6	7.0	6.5	7.9	8.6	8.0	6.1	5.8	4.5	3.2	4.0	2.9	2.6	9.9	1.9	5.1
19	2.8	2.9	2.5	1.9	2.2	2.0	3.6	5.5	8.7	7.4	6.3	8.0	5.7	3.2	5.7	5.9	7.7	7.5	8.8	12.7	11.0	8.3	6.5	6.1	12.7	1.9	5.9
20	2.1	2.3	1.9	1.9	1.6	1.0	1.6	1.8	1.8	1.9	1.8	2.9	6.0	6.0	4.7	4.9	5.2	4.5	6.7	5.9	5.2	3.1	3.0	3.2	6.7	1.0	3.4
21	2.4	2.0	2.0	2.1	1.7	1.2	2.1	2.5	1.5	1.6	1.3	5.0	5.3	8.6	9.4	6.0	5.6	5.3	5.8	5.5	4.0	4.4	4.7	3.6	9.4	1.2	3.9
22	4.9	7.3	4.9	2.5	2.0	4.4	5.9	6.0	5.7	5.2	4.9	4.8	7.0	5.2	6.1	6.6	5.5	3.2	2.5	2.2	2.0	2.2	3.4	2.7	7.3	2.0	4.5
23	1.7	2.1	1.6	1.8	4.3	4.2	1.3	1.6	1.4	0.9	1.4	3.7	2.5	4.4	4.4	3.4	3.6	3.6	3.0	3.5	4.4	3.1	2.5	2.1	4.4	0.9	2.8
24	1.8	1.5	1.2	2.1	2.6	3.0	4.9	4.5	3.7	5.7	6.3	6.0	5.7	5.0	3.8	5.9	5.0	4.3	3.0	2.1	2.8	3.5	4.2	2.3	6.3	1.2	3.8
25	2.8	2.4	3.0	3.3	3.1	2.0	1.7	2.4	4.6	5.2	5.2	8.2	8.7	7.7	10.0	10.5	13.7	13.6	13.7	12.6	12.5	11.4	11.0	11.4	13.7	1.7	7.5
26	7.4	4.1	3.1	3.4	3.5	6.2	6.8	7.1	5.6	5.9	7.2	7.2	7.6	6.4	7.2	6.2	7.1	4.3	4.8	7.0	6.1	5.3	6.0	6.7	7.6	3.1	5.9
27	3.9	4.2	4.4	3.0	3.1	3.1	3.1	2.3	3.5	2.1	1.0	2.8	4.1	5.2	5.1	5.6	5.6	5.4	3.7	3.8	3.3	2.9	2.1	1.7	5.6	1.0	3.5
28	1.6	0.9	2.1	1.2	1.7	1.5	1.6	1.6	1.3	1.1	3.2	6.6	6.6	7.3	7.7	8.1	9.2	8.4	9.9	8.3	6.8	5.1	4.6	2.5	9.9	0.9	4.5
29	3.8	3.7	4.2	2.9	2.3	2.9	4.3	1.7	2.8	3.8	2.7	3.7	4.0	3.9	4.2	5.2	4.8	4.7	4.9	4.4	3.6	2.6	2.2	2.9	5.2	1.7	3.6
30	2.9	2.5	2.6	2.9	1.5	5.0	5.5	5.5	5.4	5.1	5.4	4.8	4.4	7.2	6.9	7.2	6.8	6.2	6.2	6.5	5.0	4.0	6.0	4.9	7.2	1.5	5.0
31	3.9	2.9	2.4	2.5	2.5	1.4	1.9	2.5	1.3	2.0	1.6	2.6	4.1	5.2	4.4	5.2	2.4	1.8	1.9	1.6	1.9	2.4	2.6	2.8	5.2	1.3	2.6
Max.	10.0	11.1	10.6	13.6	16.5	11.7	12.1	11.3	12.0	11.5	13.8	14.0	13.0	12.5	11.6	11.0	13.7	13.6	13.7	12.7	12.5	11.4	11.7	11.9	16.5		
Min.	1.5	0.9	1.0	1.2	0.8	1.0	1.3	1.1	1.0	0.9	1.0	2.6	2.5	2.7	3.3	2.9	2.4	1.2	1.2	1.6	1.9	2.1	1.7	1.6		0.8	
Avg.	4.4	4.3	4.3	4.3	4.5	4.6	4.8	4.7	5.1	5.4	5.7	6.2	6.4	6.5	6.5	6.5	6.9	6.2	6.0	5.9	5.5	5.0	4.9	4.7			5.4

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.9	1.8	1.4	6.1	4.3	2.2	2.8	2.2	6.4	6.5	4.8	5.6	4.8	4.4	4.2	4.6	3.9	5.7	6.5	7.7	6.4	6.0	6.4	6.8	7.7	1.4	4.8
2	6.9	7.0	4.5	5.2	6.3	6.0	5.2	4.5	6.0	4.5	4.2	4.2	3.8	4.6	6.2	7.5	7.9	6.1	6.2	7.1	8.1	5.8	8.5	7.6	8.5	3.8	6.0
3	6.0	5.9	4.2	3.4	2.0	2.0	2.8	1.1	1.9	1.1	1.9	4.2	5.4	7.2	5.1	5.9	9.1	8.9	8.0	8.7	8.0	6.1	5.0	2.6	9.1	1.1	4.8
4	4.0	4.9	3.6	1.4	2.0	2.5	2.8	1.9	2.1	4.4	4.4	4.5	3.9	4.0	4.0	4.5	4.6	5.5	5.8	6.8	6.6	6.8	7.7	7.7	7.7	1.4	4.4
5	6.5	5.6	5.1	5.4	4.4	3.9	4.7	4.5	4.5	4.0	6.1	8.5	8.2	7.8	6.7	6.1	6.6	6.2	4.7	3.8	2.8	3.8	5.8	5.3	8.5	2.8	5.4
6	5.5	5.8	4.7	2.3	5.3	5.5	5.6	5.5	5.7	8.0	10.6	11.0	11.2	10.6	10.8	10.5	10.3	8.9	8.7	7.5	5.9	3.9	4.8	5.8	11.2	2.3	7.3
7	2.7	6.5	4.8	4.1	4.5	5.0	3.8	4.0	4.6	4.4	8.9	9.0	8.6	8.6	7.5	6.8	6.0	3.8	4.3	3.9	3.6	3.4	4.6	3.1	9.0	3.1	5.4
8	3.0	2.6	5.5	5.1	2.7	5.9	6.6	5.9	5.7	3.0	3.9	4.4	2.9	5.7	5.9	8.5	7.4	7.6	6.5	3.8	4.0	2.0	1.7	2.7	8.5	1.7	4.8
9	2.6	6.3	6.1	2.8	2.8	2.1	1.9	2.5	1.5	2.3	7.7	7.1	7.4	6.6	6.9	7.6	7.9	6.0	6.8	5.7	4.3	3.8	5.2	6.3	7.9	1.5	5.1
10	6.3	4.8	6.1	2.8	2.8	2.2	3.4	3.7	3.6	4.2	5.7	5.8	5.9	5.9	6.1	2.2	4.6	6.1	5.9	7.1	7.6	8.8	9.4	9.2	9.4	2.2	5.4
11	7.3	7.5	6.1	6.4	6.6	7.0	8.6	6.8	9.1	10.7	11.0	9.2	8.1	8.3	9.5	10.8	11.3	11.3	10.7	7.4	9.4	9.3	5.1	5.0	11.3	5.0	8.5
12	6.3	6.2	8.9	7.1	8.2	3.2	4.2	4.4	5.7	7.1	8.8	10.1	10.1	11.2	11.9	12.2	14.5	12.7	15.9	14.5	8.4	5.7	8.6	6.3	15.9	3.2	9.0
13	7.6	6.6	2.8	2.9	3.6	4.0	3.1	2.7	4.0	6.2	8.0	9.2	11.1	11.5	12.0	11.5	10.9	6.7	6.3	7.5	6.0	6.2	4.4	2.6	12.0	2.6	6.5
14	3.4	2.9	5.4	5.0	7.3	7.2	6.9	6.8	6.6	7.1	6.4	7.1	7.5	8.1	8.7	8.6	7.9	8.1	7.1	6.7	6.2	7.1	7.2	6.4	8.7	2.9	6.9
15	6.0	6.1	4.7	4.7	4.0	2.4	2.3	2.8	3.7	4.1	5.1	4.5	3.2	4.7	4.5	3.4	5.2	4.3	3.1	5.1	5.3	5.5	5.5	5.5	6.1	2.3	4.3
16	5.2	4.8	4.3	4.7	4.5	2.4	2.4	3.8	2.1	2.0	3.7	3.5	3.6	4.3	7.9	7.1	4.6	5.1	5.6	5.1	5.1	1.7	2.2	2.4	7.9	1.7	4.0
17	2.9	4.1	3.0	3.7	3.5	2.2	2.6	5.7	12.3	8.8	7.5	11.1	10.3	12.3	6.8	5.3	5.0	3.9	4.4	4.4	4.9	4.7	2.5	1.8	12.3	1.8	5.7
18	2.9	3.0	7.6	8.3	8.7	9.2	7.8	7.6	7.4	7.5	7.1	7.1	6.4	5.8	5.6	5.2	4.2	3.4	3.8	2.9	3.2	3.7	3.7	4.0	9.2	2.9	5.8
19	4.2	4.4	5.9	6.6	6.5	4.4	5.0	5.4	2.5	4.5	4.5	7.3	7.8	9.2	8.1	8.8	8.1	8.1	7.4	6.0	3.7	4.1	5.2	5.3	9.2	2.5	6.0
20	5.9	6.0	6.0	5.2	6.3	5.2	5.8	5.1	5.2	4.8	3.9	4.6	5.1	5.2	5.2	6.9	4.3	4.4	4.7	2.3	2.7	3.1	0.7	1.3	6.9	0.7	4.5
21	1.9	1.9	3.3	6.3	6.9	6.9	7.8	7.3	8.1	10.3	9.7	9.1	10.6	10.9	10.6	10.9	12.0	12.1	9.7	9.5	6.9	5.0	5.7	7.3	12.1	1.9	8.2
22	6.3	5.2	9.7	8.4	7.2	12.9	6.7	3.0	5.8	6.7	11.4	12.3	11.5	12.6	12.3	11.5	11.3	12.2	10.8	7.8	11.8	12.0	15.3	17.3	17.3	3.0	10.2
23	9.4	5.7	8.2	3.0	5.8	6.6	6.3	6.2	2.1	2.1	2.4	7.5	8.6	10.6	11.4	11.1	9.9	11.3	10.7	12.0	7.4	6.9	5.2	4.2	12.0	2.1	7.2
24	10.7	6.7	2.3	3.5	2.5	2.6	3.3	8.3	10.4	10.0	10.6	9.2	10.8	10.4	9.5	11.2	10.2	9.2	9.1	7.0	7.5	6.0	6.3	5.5	11.2	2.3	7.5
25	6.8	3.1	5.2	4.1	2.0	2.5	3.2	2.2	2.4	2.1	1.8	3.2	4.7	4.6	5.4	5.0	4.2	5.2	3.9	3.7	3.7	4.0	4.4	8.2	8.2	1.8	3.9
26	8.4	8.0	8.8	6.6	4.9	4.3	4.7	6.4	5.3	3.9	5.1	7.5	8.5	8.1	7.4	6.0	7.9	9.5	7.7	5.9	4.8	3.9	5.5	6.0	9.5	3.9	6.4
27	4.0	2.9	3.0	3.7	4.5	3.5	4.1	3.1	3.0	2.1	1.9	2.0	2.3	2.9	3.6	4.3	4.5	2.7	3.9	5.6	6.4	4.2	4.4	3.8	6.4	1.9	3.6
28	2.6	2.7	3.1	3.2	3.2	3.1	2.6	2.9	4.7	6.9	8.6	7.3	5.2	7.4	7.5	6.3	7.2	8.3	7.5	7.6	7.8	7.0	6.4	3.5	8.6	2.6	5.7
29	4.1	4.5	5.1	4.1	4.8	3.4	2.9	5.6	6.6	6.3	11.6	8.7	8.8	8.1	9.4	12.1	10.2	10.8	12.3	11.8	13.2	12.0	7.5	9.6	13.2	2.9	8.2
30	9.4	9.8	9.5	12.2	13.1	11.5	10.9	6.7	7.8	3.5	6.0	8.7	9.5	8.9	8.4	9.7	8.6	8.3	6.6	3.7	3.1	3.1	3.1	2.9	13.1	2.9	7.6
Max.	10.7	9.8	9.7	12.2	13.1	12.9	10.9	8.3	12.3	10.7	11.6	12.3	11.5	12.6	12.3	12.2	14.5	12.7	15.9	14.5	13.2	12.0	15.3	17.3	17.3		
Min.	1.9	1.8	1.4	1.4	2.0	2.0	1.9	1.1	1.5	1.1	1.8	2.0	2.3	2.9	3.6	2.2	3.9	2.7	3.1	2.3	2.7	1.7	0.7	1.3		0.7	
Avg.	5.3	5.1	5.3	4.9	5.0	4.7	4.7	4.6	5.2	5.3	6.4	7.1	7.2	7.7	7.6	7.7	7.7	7.4	7.1	6.6	6.2	5.5	5.6	5.5			6.1

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - Wind Direction (degrees)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	225.4	165.7	319.1	155.5	148.0	0.8	336.1	152.7	169.1	172.8	176.1	179.7	185.7	184.8	171.8	174.4	166.7	180.7	179.7	173.5	158.7	89.9	33.3	209.5
2	21.9	65.5	240.7	41.6	340.4	17.8	153.1	6.6	174.6	46.2	201.4	139.4	172.9	185.9	185.5	183.3	188.6	197.1	198.8	184.6	185.0	158.0	171.6	167.4
3	249.3	172.5	160.2	3.5	40.3	14.5	65.1	272.2	265.2	210.9	191.5	192.8	191.2	192.1	196.2	185.2	186.0	184.9	188.9	182.6	182.5	156.6	149.8	157.1
4	162.6	141.0	146.0	161.7	152.1	151.1	114.4	115.7	185.6	190.7	194.3	191.5	182.3	196.5	183.8	184.5	185.2	175.9	179.4	165.7	142.0	150.9	346.9	14.1
5	13.9	48.1	8.1	350.2	82.0	10.0	156.8	312.9	350.5	329.0	316.6	298.4	282.5	274.9	273.6	285.3	214.6	248.0	227.0	206.5	194.9	192.2	190.0	171.9
6	174.5	158.2	166.6	177.3	166.5	190.9	203.4	209.9	208.8	202.1	193.0	183.9	192.7	193.6	194.1	203.4	200.4	211.7	202.8	212.4	219.4	217.1	225.9	245.7
7	252.2	254.1	256.0	252.2	21.0	12.8	60.2	48.9	172.1	142.0	240.9	202.9	203.1	194.0	206.2	205.9	199.8	244.0	335.0	319.0	291.7	181.3	20.7	70.3
8	123.6	130.2	139.2	130.5	118.1	100.5	137.9	134.3	201.2	217.1	209.5	144.5	251.1	289.3	305.4	168.0	189.3	181.7	194.8	185.7	121.2	131.9	129.9	106.1
9	131.4	130.7	1.6	188.4	334.0	305.1	87.9	155.9	155.8	158.4	160.8	167.3	159.3	149.1	148.2	161.1	149.7	152.8	155.2	149.4	156.8	150.7	163.0	158.5
10	130.1	139.8	325.0	131.2	337.3	310.6	147.1	215.6	156.4	146.1	182.7	171.4	179.3	174.8	174.9	182.4	182.4	182.4	171.9	168.7	161.3	154.4	141.3	130.3
11	123.1	143.5	149.3	174.4	114.2	352.5	4.4	218.2	161.0	201.0	197.8	197.0	197.7	190.2	194.5	197.9	182.6	174.1	199.8	182.9	180.4	156.1	150.7	130.1
12	59.0	10.4	17.0	341.1	188.1	132.1	334.0	296.5	343.8	327.9	266.7	195.0	218.4	208.1	211.6	203.9	208.2	216.3	201.6	200.0	205.0	216.1	130.6	94.8
13	25.8	157.0	1.6	13.8	359.7	17.9	7.2	303.9	356.2	227.0	284.9	172.0	189.0	190.9	194.5	198.1	194.9	195.0	221.4	176.4	203.8	204.1	158.6	89.3
14	358.8	0.6	356.5	156.3	118.7	12.1	11.2	159.7	159.4	175.6	175.0	188.0	207.0	199.8	188.7	197.2	202.7	202.1	211.9	211.1	200.8	197.3	135.9	118.2
15	117.5	123.0	350.0	147.1	347.6	349.8	347.6	12.7	296.6	309.8	317.3	314.1	199.4	206.9	201.0	202.9	340.1	151.1	177.7	197.0	160.9	46.1	360.0	31.3
16	4.8	29.1	20.1	356.7	328.8	326.2	351.2	296.6	108.3	133.2	126.8	127.2	98.7	120.4	145.9	173.5	175.1	190.0	198.1	189.6	148.7	34.1	173.8	7.5
17	329.3	38.7	91.3	90.9	87.3	87.9	334.6	326.7	298.6	294.9	270.6	311.0	88.2	96.6	271.1	336.2	333.2	319.3	305.5	311.0	310.4	309.9	322.3	343.9
18	348.2	341.4	338.7	341.1	341.5	339.2	4.0	5.6	13.9	10.8	15.0	12.8	0.0	355.6	350.6	356.3	357.1	356.7	356.3	356.0	6.8	10.8	14.8	17.6
19	6.7	359.1	13.2	337.5	338.4	328.8	4.8	103.1	185.1	168.4	351.8	339.9	305.5	311.1	307.5	311.9	300.6	296.7	302.7	307.2	308.2	345.5	339.9	342.3
20	9.9	171.9	80.5	36.5	164.4	270.8	147.2	71.7	158.9	173.2	183.9	178.3	163.7	169.1	162.3	173.7	186.3	188.7	186.1	176.8	177.9	194.4	164.4	15.4
21	359.3	310.2	337.4	350.4	338.0	343.9	8.7	338.0	322.3	129.3	189.4	196.3	203.9	198.6	198.4	192.0	192.9	191.8	187.4	177.2	161.5	139.6	13.8	26.1
22	167.1	354.8	356.9	18.9	73.8	344.5	345.3	304.7	144.9	103.6	108.1	152.9	187.6	180.6	174.2	177.6	172.4	167.1	168.2	167.2	163.1	161.5	146.7	124.2
23	123.6	130.8	16.2	113.9	4.0	328.6	348.4	316.9	331.1	329.2	288.7	122.5	105.3	174.6	148.9	166.7	161.0	169.3	182.0	172.4	134.5	100.3	87.7	359.7
24	332.5	310.4	325.0	321.5	331.5	323.1	322.1	46.0	106.5	128.9	171.6	180.5	195.2	195.8	198.8	199.8	191.7	170.6	129.5	159.9	212.6	303.7	15.9	7.1
25	321.0	317.7	240.8	1.9	2.5	343.0	337.6	297.3	80.0	80.6	95.3	150.8	164.2	176.4	163.2	177.1	153.5	134.2	152.8	112.6	91.3	72.1	26.7	345.2
26	350.3	349.8	313.5	15.7	29.2	30.6	35.8	37.6	47.7	76.1	169.5	183.8	183.8	198.9	200.2	196.4	189.6	251.3	323.9	353.4	139.8	112.2	77.3	31.5
27	29.8	73.6	74.0	73.2	76.8	66.8	54.5	76.7	75.3	76.3	76.4	72.0	64.1	79.9	133.3	161.3	142.0	116.6	123.1	114.2	60.7	33.3	40.8	28.9
28	2.5	59.3	48.5	24.2	357.4	3.5	358.4	343.6	53.9	60.2	78.9	79.4	24.6	343.1	218.3	169.5	69.8	56.2	307.8	257.2	312.7	15.8	126.4	154.8
29	49.5	336.5	354.7	30.2	45.8	354.1	97.1	340.8	276.5	259.5	186.7	183.6	195.2	209.7	216.5	204.7	231.5	333.4	322.4	320.9	310.1	306.0	332.2	56.7
30	353.0	357.6	157.8	23.6	69.2	338.1	225.8	258.9	142.9	275.0	260.3	264.3	270.7	237.4	238.7	231.3	233.5	228.1	227.7	220.1	214.8	218.7	222.9	215.6
31	219.4	220.2	227.8	236.7	227.0	200.5	219.4	231.8	232.0	240.3	246.3	229.6	226.9	231.0	230.8	237.4	231.4	255.0	240.7	250.6	249.9	240.9	246.0	260.0

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Wind Direction (degrees)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	290.6	284.9	277.6	266.7	286.8	287.0	290.6	286.6	274.5	288.3	281.7	272.4	290.0	273.3	291.1	287.5	302.0	285.5	283.3	258.8	241.5	244.3	278.1	308.1
2	276.7	254.9	249.2	237.4	236.4	222.5	235.2	189.6	217.4	205.0	210.5	199.7	199.3	204.5	199.0	183.1	152.9	164.2	147.3	140.1	95.4	82.4	81.3	78.6
3	89.9	97.8	94.9	111.4	131.4	129.6	139.3	142.8	148.9	157.3	185.5	204.6	211.8	216.9	218.8	218.4	217.0	211.5	213.4	228.5	225.0	216.7	194.5	194.3
4	163.0	183.9	178.4	157.3	133.3	139.8	164.7	158.2	180.6	191.1	179.5	193.5	196.0	193.8	186.5	187.2	197.3	199.1	203.7	199.4	200.5	175.6	140.7	49.9
5	19.8	19.9	325.8	157.7	79.0	41.3	187.0	221.4	244.7	302.1	291.2	166.9	216.9	305.8	10.2	3.4	232.1	297.2	297.8	302.1	316.3	330.7	7.5	358.8
6	332.3	97.0	120.1	119.8	189.0	259.6	340.2	346.7	347.1	168.7	176.0	184.8	189.3	189.1	178.4	184.5	161.2	159.0	137.0	108.4	89.6	106.5	117.1	137.3
7	167.6	183.1	183.4	177.8	174.8	185.4	189.3	183.4	180.7	191.8	184.5	184.0	187.9	191.8	187.5	194.1	191.5	190.5	182.2	176.1	175.8	175.7	180.9	176.6
8	167.2	143.6	164.0	165.6	163.9	155.7	154.4	165.6	164.7	171.3	172.6	186.2	188.5	185.7	187.3	188.6	190.1	203.9	201.6	199.3	197.2	195.6	203.9	197.8
9	194.9	194.5	189.4	187.4	193.8	199.4	196.0	194.2	195.3	199.6	209.4	203.3	208.0	202.6	206.7	204.0	208.4	211.6	194.0	180.0	190.6	181.1	144.5	69.1
10	15.1	321.1	117.2	329.5	1.0	139.8	349.9	345.9	345.8	346.2	340.7	15.6	36.6	356.7	25.9	195.1	192.3	204.7	196.2	177.2	123.5	354.7	8.2	350.0
11	317.4	319.6	332.2	339.3	357.4	10.4	357.0	335.9	324.8	346.5	339.4	31.2	144.9	182.0	208.1	196.4	174.1	102.3	147.5	41.6	319.9	263.2	282.0	339.0
12	350.9	22.9	336.3	107.4	141.7	161.4	163.9	161.8	169.5	169.9	173.8	171.1	170.3	165.3	138.2	127.2	144.0	148.1	148.9	153.9	151.9	156.3	154.4	148.1
13	149.0	106.8	316.1	322.2	343.7	89.7	136.9	124.0	308.0	322.2	102.5	108.6	101.6	117.0	122.1	130.1	117.4	111.9	104.4	110.1	103.3	99.7	140.0	155.3
14	156.9	150.6	139.0	119.4	115.3	110.3	108.7	111.6	110.5	122.8	131.7	143.8	143.7	145.7	147.0	149.2	146.5	144.9	138.6	143.7	143.1	136.4	129.0	113.9
15	112.9	106.4	98.7	94.7	98.6	93.8	99.6	105.1	99.7	98.5	106.2	110.0	144.4	164.6	176.6	174.5	167.0	188.1	184.8	204.1	189.3	177.0	174.9	197.6
16	172.1	160.5	86.9	7.2	353.5	332.3	317.4	327.8	335.6	335.1	341.6	340.1	337.9	328.2	329.7	346.9	126.3	163.1	184.3	186.0	185.4	131.4	113.3	0.2
17	351.9	350.2	351.9	91.3	165.1	75.1	13.8	48.4	330.0	228.7	195.7	190.8	169.2	186.9	180.4	182.8	184.5	171.0	183.7	182.4	188.7	162.5	117.0	17.4
18	3.2	1.8	347.5	346.0	353.3	340.6	298.1	336.2	73.8	95.7	128.9	99.4	92.0	128.7	133.7	167.0	191.9	197.8	197.1	180.2	178.9	167.9	148.2	116.3
19	13.4	139.6	107.9	155.0	156.4	138.7	171.7	3.1	324.1	312.4	337.4	148.0	129.3	7.4	350.1	343.8	352.2	0.7	43.5	48.9	24.0	8.6	329.3	358.2
20	21.4	12.7	45.4	17.7	63.4	11.8	72.4	12.1	297.3	302.2	259.1	187.4	187.0	180.7	182.9	181.4	170.7	157.9	293.9	325.5	355.4	355.1	333.3	137.4
21	354.8	169.4	220.1	344.7	4.6	163.0	3.6	3.2	147.9	170.7	347.6	66.7	92.2	93.3	111.7	125.1	116.2	115.5	99.8	85.6	52.9	37.6	31.3	340.0
22	312.1	24.8	5.5	22.8	327.2	12.3	344.3	334.2	330.1	337.9	29.8	358.8	85.8	145.1	137.4	115.6	120.4	137.3	181.1	158.1	140.1	27.2	336.9	19.4
23	212.7	215.1	350.4	37.7	5.2	36.7	331.3	9.5	36.7	49.0	279.7	219.1	213.5	195.8	193.5	196.0	188.9	176.8	172.7	235.7	148.2	38.2	0.9	150.6
24	357.0	26.7	156.7	214.2	108.0	324.3	1.1	338.1	0.1	325.4	355.0	319.2	340.5	93.4	1.8	208.8	184.3	176.1	168.6	135.7	49.4	350.4	10.7	264.1
25	344.9	116.1	11.0	355.4	65.4	350.9	9.1	8.6	354.0	339.8	330.7	355.9	32.7	35.2	33.5	25.5	27.7	23.9	19.5	19.3	8.4	21.3	17.3	17.4
26	38.8	355.2	312.3	323.4	6.0	32.3	7.4	2.4	1.3	339.1	9.0	11.7	12.4	345.4	342.6	16.0	28.7	21.2	2.0	10.0	15.4	3.8	359.2	5.6
27	270.1	280.5	23.0	343.6	36.2	348.0	50.9	11.7	331.7	339.6	305.6	248.9	183.6	203.7	196.0	199.2	204.2	205.3	236.2	165.8	126.1	73.0	32.5	125.4
28	27.7	187.3	12.0	15.4	3.3	354.4	61.4	70.0	338.4	281.3	197.4	183.5	199.7	201.9	202.5	203.2	205.0	201.7	199.7	224.7	231.8	275.7	325.8	340.5
29	333.7	281.1	303.3	275.4	261.5	266.0	293.9	350.9	348.5	297.7	331.3	280.0	287.9	278.0	277.8	289.8	286.3	275.1	285.1	276.8	246.9	155.0	174.3	136.7
30	352.8	270.1	172.3	248.6	354.7	253.7	256.4	281.9	263.7	270.3	277.5	263.7	262.0	229.9	233.4	228.8	239.4	224.8	230.3	251.4	244.1	218.6	241.4	250.6
31	264.5	117.2	93.1	13.1	34.2	359.3	14.2	352.5	315.8	308.7	274.3	182.4	198.0	182.7	219.2	197.7	330.4	213.8	110.6	179.1	72.4	12.5	358.6	85.5

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Wind Direction (degrees)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	7.2	15.7	303.7	6.0	352.1	56.9	9.5	231.0	356.1	1.2	349.1	9.2	7.8	21.3	16.0	67.0	13.9	52.1	17.2	12.6	6.1	8.1	3.6	359.9
2	356.3	11.6	1.5	359.3	342.5	342.2	350.1	335.1	1.0	1.2	3.5	350.9	27.0	356.6	348.5	349.3	0.3	359.5	355.1	339.5	357.4	319.7	17.5	33.8
3	13.4	16.8	14.8	2.0	332.5	45.0	356.7	51.2	115.4	170.2	289.1	195.4	193.7	191.1	191.6	196.7	244.2	302.5	305.0	304.1	317.6	317.7	1.0	104.1
4	35.1	355.1	6.5	166.8	359.5	162.4	95.4	156.3	71.8	355.9	357.7	359.4	348.0	352.6	354.8	20.6	47.0	100.6	95.1	87.0	81.2	87.7	89.6	88.2
5	67.3	55.5	357.1	339.4	307.2	347.3	2.1	343.3	3.3	337.8	76.9	94.7	97.8	105.5	105.5	144.5	178.6	193.5	192.5	165.6	107.5	89.5	98.9	90.0
6	89.7	102.1	39.1	334.6	92.0	90.5	93.4	86.5	89.3	97.6	118.1	120.6	120.5	120.1	112.9	113.7	117.2	114.9	114.8	96.9	59.6	36.9	2.1	325.2
7	339.1	334.6	351.2	58.2	51.8	43.1	33.1	14.7	358.8	338.2	61.6	92.6	113.5	115.9	124.9	116.2	118.8	122.6	73.3	106.8	81.0	18.4	339.5	340.3
8	327.3	326.9	355.9	346.4	34.7	1.6	354.1	342.2	357.8	333.0	0.7	351.4	357.5	9.9	95.0	138.5	131.7	127.6	134.2	120.9	100.2	1.4	338.6	306.3
9	260.6	338.8	3.6	2.7	334.2	352.0	338.6	38.1	323.1	4.5	3.8	1.1	12.4	359.9	10.6	15.3	23.5	9.3	8.1	349.4	335.9	348.8	349.3	317.6
10	326.5	334.9	339.5	359.1	19.7	54.6	347.1	347.7	10.7	357.5	357.1	1.3	2.3	7.6	348.6	237.0	288.7	75.6	53.0	14.6	17.5	15.9	12.5	12.8
11	352.0	353.5	338.4	332.8	358.3	355.3	7.8	8.4	10.6	9.1	6.4	10.3	1.2	341.8	347.8	347.5	342.7	341.2	340.3	336.0	355.3	355.5	8.7	5.8
12	8.4	345.0	331.0	320.0	330.2	14.4	347.2	346.1	346.5	330.5	330.9	318.3	324.0	309.5	318.2	293.3	303.9	319.5	313.9	315.9	359.9	10.5	2.8	14.2
13	327.4	321.2	319.8	315.4	339.1	338.5	350.7	78.2	107.6	349.1	313.4	317.8	298.7	307.5	294.9	307.0	308.4	315.7	315.9	323.3	340.8	348.0	347.3	356.7
14	347.8	16.5	356.6	346.2	6.0	10.7	13.1	22.5	8.7	15.2	13.7	12.1	10.9	43.0	82.3	70.1	52.3	45.1	39.3	30.1	19.4	12.5	15.1	11.4
15	14.3	13.1	11.7	8.9	10.4	203.2	357.5	15.0	0.1	333.7	353.1	2.7	12.8	227.0	236.5	217.4	200.2	235.9	208.5	81.2	37.0	7.6	10.0	3.4
16	4.7	1.1	356.4	21.7	322.4	317.5	350.9	9.9	333.5	182.4	305.5	326.9	306.9	174.9	202.2	218.9	208.9	156.8	112.7	105.7	93.8	356.9	356.5	333.8
17	50.7	328.9	335.7	319.3	321.5	346.2	308.6	76.8	94.5	93.3	105.4	124.3	107.3	119.1	92.2	4.1	335.5	337.6	136.8	102.6	87.3	57.7	303.0	317.5
18	345.1	324.9	52.5	74.0	72.5	64.5	60.7	55.7	49.7	60.1	83.5	82.1	82.4	93.7	87.6	83.9	94.2	66.5	80.0	79.9	44.1	10.5	7.6	321.6
19	343.1	342.5	346.2	351.1	14.1	269.7	343.8	329.0	324.7	300.7	329.0	353.6	18.0	21.2	23.1	0.7	353.8	17.1	17.1	6.4	16.5	355.7	345.8	339.5
20	352.3	358.0	344.4	0.8	357.7	351.9	349.1	355.2	357.2	345.8	283.1	333.3	346.8	8.5	15.8	4.7	27.2	296.1	188.0	119.1	33.7	11.9	108.2	352.7
21	332.7	335.5	9.2	35.3	38.1	32.2	29.0	29.4	26.9	25.5	12.5	17.2	20.4	23.8	19.3	11.0	14.2	8.8	11.6	10.0	12.1	22.9	15.9	17.5
22	26.4	37.3	18.5	28.6	343.1	357.2	347.3	314.8	6.5	355.2	345.5	343.9	340.8	339.6	335.2	328.9	318.3	323.2	325.5	333.5	316.1	303.0	301.7	306.0
23	335.7	6.1	340.1	316.3	359.1	7.3	1.4	51.3	113.8	124.9	142.9	306.6	340.3	316.3	308.4	303.3	313.4	330.3	331.6	316.6	323.1	321.9	337.9	355.0
24	307.1	324.7	347.9	74.2	9.5	354.8	345.6	356.1	353.0	345.5	326.1	326.2	327.1	325.9	321.8	342.9	330.5	337.3	335.9	312.3	331.1	328.3	329.2	351.1
25	321.4	68.2	46.6	8.8	343.6	26.2	31.1	46.3	32.4	4.8	185.0	13.0	4.0	2.1	293.9	303.7	232.9	237.5	240.8	355.2	345.0	331.0	331.9	31.5
26	22.4	7.0	10.3	354.0	339.7	354.9	6.2	8.1	337.3	322.0	355.2	316.1	334.6	327.4	320.4	310.5	301.4	315.3	329.8	334.7	336.2	346.0	326.9	329.2
27	340.3	310.7	165.2	289.3	3.0	3.6	354.4	353.7	28.3	356.5	9.7	191.1	248.9	136.7	135.0	194.8	195.6	286.4	333.8	6.3	5.8	341.9	348.1	56.3
28	171.9	135.8	8.7	271.1	12.9	40.9	199.8	149.1	114.7	338.1	316.1	314.1	333.2	338.9	337.7	347.0	355.3	351.5	1.0	14.6	13.3	10.0	356.9	277.8
29	261.1	342.6	320.4	289.3	316.4	165.5	274.6	333.0	348.1	358.5	18.2	24.3	29.4	26.7	15.1	17.4	11.3	8.1	2.0	7.4	5.8	4.2	355.8	353.9
30	0.5	1.7	356.3	353.3	342.9	331.1	341.6	4.9	42.3	99.4	277.4	306.6	322.8	338.5	326.6	297.0	302.4	281.4	292.6	355.3	84.3	87.0	142.3	4.4

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - Wind Sigma

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	62.0	41.6	49.5	34.4	35.5	65.2	60.4	60.4	51.5	19.6	13.2	66.3	24.1	11.6	11.3	11.7	13.8	10.1	14.9	23.6	43.9	60.4	27.7	45.7	66.3	10.1	35.8
2	60.2	63.5	49.9	62.5	62.3	49.6	46.2	44.8	54.7	32.1	52.8	48.8	23.3	21.6	18.4	10.7	10.0	8.2	9.1	10.3	9.7	10.0	8.3	25.5	63.5	8.2	33.0
3	41.0	48.9	28.1	37.1	18.2	17.5	36.3	14.9	54.8	11.5	10.8	11.5	11.8	13.6	13.2	14.5	13.1	18.1	17.5	16.3	13.7	15.2	11.8	9.7	54.8	9.7	20.8
4	8.5	10.3	11.4	27.3	14.2	12.8	12.1	13.7	18.7	10.1	11.7	19.9	15.2	20.2	16.1	12.9	11.1	10.0	10.1	8.9	10.1	22.8	59.4	6.8	59.4	6.8	15.6
5	6.8	61.4	59.3	42.0	72.1	69.0	74.8	81.1	11.4	14.4	33.2	21.9	15.0	28.7	19.5	15.8	18.1	16.4	18.4	8.2	7.4	9.1	12.9	20.0	81.1	6.8	30.7
6	11.7	8.7	14.0	13.6	9.8	7.9	15.7	10.7	13.0	11.5	14.4	16.7	15.9	11.1	11.6	14.5	14.7	15.8	13.3	12.2	9.3	10.8	10.9	8.0	16.7	7.9	12.3
7	8.9	9.6	21.3	24.8	62.2	68.0	27.1	26.2	38.2	29.4	23.1	14.1	9.1	8.5	12.8	8.0	31.9	28.3	11.6	25.3	29.2	34.9	25.4	32.7	68.0	8.0	25.4
8	11.3	6.4	6.2	8.5	7.1	43.3	21.6	7.9	31.1	18.2	35.4	51.9	44.6	24.8	72.7	28.6	14.6	9.4	21.0	18.9	13.7	16.2	12.1	13.1	72.7	6.2	22.4
9	12.9	9.4	51.1	79.9	43.7	61.6	45.9	38.6	21.7	23.9	20.0	12.1	9.9	9.3	9.5	10.0	10.3	9.0	8.9	8.8	8.9	8.3	8.9	14.2	79.9	8.3	22.4
10	49.8	44.0	47.8	37.0	42.2	46.6	53.1	48.5	26.6	21.1	16.1	17.0	14.9	13.3	14.1	13.6	12.8	10.9	11.7	11.4	9.9	10.1	8.8	7.0	53.1	7.0	24.5
11	11.0	18.2	14.1	28.2	42.1	25.5	64.1	59.0	23.0	9.1	9.0	8.7	8.7	9.7	9.4	8.6	10.3	16.2	8.5	8.6	12.2	12.3	6.0	19.8	64.1	6.0	18.4
12	58.9	37.8	51.9	54.0	54.6	50.6	34.6	42.6	28.2	13.5	43.9	41.7	31.3	14.7	14.8	17.3	14.3	17.9	8.2	12.3	13.5	9.3	22.2	22.8	58.9	8.2	29.6
13	36.8	65.2	37.4	49.2	40.6	33.1	16.1	46.1	37.7	51.7	44.9	20.2	9.4	12.5	15.6	13.2	10.4	51.5	61.8	37.4	17.4	12.7	13.4	41.9	65.2	9.4	32.3
14	21.5	55.2	25.5	64.2	47.6	39.5	44.0	15.9	20.7	18.3	13.6	22.2	17.2	15.8	13.4	20.0	20.9	16.5	18.3	41.5	15.5	9.5	13.5	8.3	64.2	8.3	24.9
15	24.3	46.2	57.2	64.0	55.3	31.6	43.3	41.7	30.7	16.0	22.6	51.0	39.6	19.9	20.6	23.8	66.3	32.0	12.5	12.4	12.6	42.2	22.1	36.9	66.3	12.4	34.4
16	36.8	36.3	41.6	33.5	55.1	22.3	26.2	43.4	14.1	14.7	10.8	12.0	16.3	11.4	11.4	13.2	14.7	13.5	14.1	21.7	27.2	32.0	55.2	28.3	55.2	10.8	25.2
17	8.9	27.4	23.7	8.7	12.1	42.9	26.5	46.6	23.4	21.6	21.4	50.8	17.5	12.2	22.9	14.0	13.0	12.1	8.5	9.3	8.4	10.2	12.1	11.0	50.8	8.4	19.4
18	7.0	3.5	6.8	6.1	5.6	7.0	11.0	7.0	7.9	8.8	15.1	8.8	8.0	8.9	8.5	10.4	9.4	9.7	8.6	8.4	7.7	6.9	6.6	5.7	15.1	3.5	8.1
19	12.6	11.6	6.9	38.0	54.3	66.7	30.2	59.5	36.7	43.2	22.4	21.4	17.5	16.1	18.1	17.4	11.3	9.9	8.9	8.2	8.3	20.7	18.9	10.4	66.7	6.9	23.7
20	44.7	45.4	57.4	53.7	59.9	57.0	42.0	31.7	19.9	56.9	42.3	27.0	21.2	22.6	13.3	13.6	15.0	12.1	13.4	12.0	17.8	9.7	15.9	46.5	59.9	9.7	31.3
21	68.8	82.7	54.2	27.4	42.6	63.5	58.9	47.1	16.1	54.6	19.2	22.4	16.2	15.0	18.1	19.4	14.6	16.1	13.7	11.4	10.0	8.4	26.6	31.5	82.7	8.4	31.6
22	62.7	42.0	57.6	51.9	76.9	49.3	55.6	60.3	50.1	11.7	12.5	12.7	11.8	13.0	12.4	12.7	11.3	13.8	13.0	10.7	11.2	9.4	8.0	8.6	76.9	8.0	28.3
23	23.6	37.0	41.8	73.4	52.2	35.9	54.1	42.9	15.8	31.1	48.7	35.8	42.4	25.6	19.9	15.7	13.7	14.3	17.2	11.3	13.1	8.9	5.8	17.2	73.4	5.8	29.0
24	35.9	37.3	32.9	44.3	38.6	61.4	38.0	40.4	8.9	14.0	12.4	15.6	12.7	15.1	15.6	17.4	21.9	20.5	21.2	20.9	30.5	29.7	18.3	54.8	61.4	8.9	27.4
25	64.9	42.5	66.9	59.9	71.3	62.1	54.9	34.4	32.0	7.8	10.0	13.1	10.5	9.0	12.7	13.7	14.8	18.2	18.8	13.5	10.7	6.0	12.2	16.7	71.3	6.0	28.2
26	25.4	18.6	14.3	28.6	7.8	8.6	9.4	10.1	9.3	9.6	25.4	11.4	12.3	30.6	18.0	23.7	9.3	23.5	10.3	32.3	43.2	10.1	10.6	36.6	43.2	7.8	18.3
27	30.8	7.6	6.8	8.1	7.4	8.3	10.4	9.8	7.3	9.5	13.0	8.3	13.8	13.1	19.7	14.9	13.1	12.6	9.3	9.6	25.4	16.2	10.6	10.8	30.8	6.8	12.3
28	36.0	41.4	11.1	18.6	7.8	10.0	15.2	7.3	25.1	17.4	8.9	9.1	19.1	50.6	54.3	14.5	43.6	27.0	48.3	51.7	46.1	9.9	55.9	16.0	55.9	7.3	26.9
29	49.0	32.0	46.3	43.0	61.2	54.4	43.9	29.6	21.4	28.6	14.0	11.7	18.3	19.0	15.6	14.2	23.1	12.5	25.3	12.7	13.0	10.6	15.5	49.0	61.2	10.6	27.7
30	32.6	27.7	42.9	34.5	44.1	45.7	62.6	63.5	54.4	21.7	15.7	13.9	20.5	17.1	13.0	14.8	12.6	16.2	10.2	9.5	10.8	7.0	5.9	12.0	63.5	5.9	25.4
31	49.0	14.0	10.2	12.2	12.6	16.0	13.2	12.6	10.6	10.2	12.7	9.4	11.0	11.1	10.2	11.5	12.6	13.8	13.4	13.8	12.1	11.2	11.6	19.6	49.0	9.4	13.9
Max.	68.8	82.7	66.9	79.9	76.9	69.0	74.8	81.1	54.8	56.9	52.8	66.3	44.6	50.6	72.7	28.6	66.3	51.5	61.8	51.7	46.1	60.4	59.4	54.8	82.7		
Min.	6.8	3.5	6.2	6.1	5.6	7.0	9.4	7.0	7.3	7.8	8.9	8.3	8.0	8.5	8.5	8.0	9.3	8.2	8.2	8.2	7.4	6.0	5.8	5.7		3.5	
Avg.	32.7	33.3	33.7	37.7	39.3	39.8	37.0	35.4	26.3	21.3	21.6	22.8	18.0	16.9	18.0	15.0	17.0	16.6	16.1	16.5	16.8	15.8	17.8	22.2			24.7

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Wind Sigma

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	21.4	15.3	15.6	36.2	18.4	10.3	15.1	17.4	12.6	12.6	14.3	17.4	16.1	19.5	15.1	17.5	14.5	15.3	16.3	13.9	11.2	22.2	13.2	11.3	36.2	10.3	15.9
2	15.2	10.8	15.1	10.8	11.2	13.9	8.3	18.5	12.9	16.7	14.6	11.3	9.8	11.2	11.0	13.8	14.8	14.0	9.9	8.9	12.7	9.3	8.8	8.1	18.5	8.1	12.1
3	7.1	7.1	7.0	8.8	7.8	7.2	7.3	7.3	7.8	8.1	14.7	10.5	9.0	8.6	10.2	9.6	9.7	9.6	9.0	9.7	9.8	12.6	10.7	9.5	14.7	7.0	9.1
4	13.9	11.1	14.8	20.2	8.0	8.7	14.5	10.3	9.5	10.3	10.1	13.0	9.0	11.2	14.8	11.3	11.0	13.0	13.0	11.8	9.5	9.8	11.6	18.6	20.2	8.0	12.0
5	35.4	31.5	47.9	53.3	49.9	35.3	29.3	66.3	58.4	44.4	50.7	55.7	43.5	34.5	8.1	11.9	21.1	45.7	14.4	12.5	8.9	10.7	10.7	8.4	66.3	8.1	32.8
6	41.3	48.2	57.5	52.0	49.3	69.0	50.9	34.5	64.3	36.0	17.3	15.9	14.3	19.7	23.2	16.6	10.2	14.9	9.5	15.4	8.4	13.0	8.8	7.4	69.0	7.4	29.1
7	8.1	10.2	10.3	9.1	8.7	8.5	9.1	8.3	8.4	8.7	9.9	8.7	8.2	8.5	8.9	9.1	9.0	8.6	8.4	8.3	8.4	8.9	9.1	8.2	10.3	8.1	8.8
8	9.2	8.5	8.6	8.1	8.2	7.8	8.7	8.6	9.2	8.8	8.7	8.5	8.8	8.1	8.5	8.5	8.5	8.8	9.1	8.7	8.5	8.7	9.8	10.7	10.7	7.8	8.7
9	8.7	11.6	11.8	9.7	9.0	9.0	8.7	8.7	8.6	9.3	9.1	9.2	10.6	8.8	10.5	9.6	11.8	14.5	9.8	11.4	9.7	21.5	18.6	32.7	32.7	8.6	11.8
10	14.2	58.2	63.0	54.6	28.4	53.8	47.6	19.6	42.2	15.3	23.9	10.9	46.5	45.7	70.6	51.6	17.0	20.8	35.7	10.6	10.7	39.7	22.8	21.0	70.6	10.6	34.3
11	10.0	7.7	15.2	33.3	61.5	28.7	51.6	46.3	37.6	25.5	29.5	38.4	29.2	13.5	16.5	11.1	10.3	34.8	62.1	58.0	14.7	52.8	24.1	22.2	62.1	7.7	30.6
12	44.7	36.1	34.3	9.5	10.3	8.8	8.3	8.6	9.4	9.1	9.6	9.2	8.8	9.7	8.7	7.6	8.0	8.1	8.5	9.1	9.2	10.7	10.2	7.4	44.7	7.4	12.7
13	7.8	19.4	49.9	23.1	42.9	32.5	7.8	9.2	25.3	26.1	20.2	10.6	10.6	10.4	10.3	9.7	8.0	7.3	8.4	7.9	8.2	7.2	8.0	8.2	49.9	7.2	15.8
14	8.9	8.5	8.2	7.6	6.9	6.7	7.4	7.2	7.1	7.5	7.9	8.3	8.3	7.9	7.8	8.6	8.2	8.1	7.3	7.9	7.3	6.4	6.4	6.5	8.9	6.4	7.6
15	6.4	6.3	6.4	6.5	6.5	6.9	7.1	7.3	6.6	7.1	8.1	8.8	9.8	9.7	9.9	10.7	11.2	10.5	11.4	8.6	10.1	8.3	6.7	7.6	11.4	6.3	8.3
16	7.9	8.4	14.5	11.0	10.3	9.2	9.4	9.3	9.9	9.6	11.9	14.0	16.0	27.2	40.9	69.7	50.9	19.7	12.2	10.5	15.3	11.0	47.2	40.1	69.7	7.9	20.3
17	16.3	15.8	34.9	24.6	41.4	38.7	36.5	47.5	40.3	30.6	13.8	36.0	47.7	13.2	14.6	13.9	13.4	13.4	11.6	10.2	9.2	11.1	33.7	21.4	47.7	9.2	24.6
18	45.3	38.2	53.2	55.0	52.9	34.3	73.6	44.3	57.7	8.0	11.0	13.3	10.4	19.2	14.7	15.1	12.9	14.9	10.1	14.6	17.4	11.4	10.9	14.4	73.6	8.0	27.2
19	16.4	31.2	52.4	52.1	40.3	50.4	45.2	66.2	4.6	11.8	38.7	14.5	15.2	50.1	20.5	16.8	16.7	10.7	15.1	8.4	8.1	38.7	18.7	25.8	66.2	4.6	27.8
20	52.2	63.4	49.4	66.6	57.5	46.1	68.9	47.1	66.3	52.5	35.1	46.9	14.4	11.3	12.1	13.5	11.8	13.5	35.4	9.2	8.7	28.8	38.7	48.0	68.9	8.7	37.4
21	55.8	67.8	76.7	66.6	48.0	67.3	37.4	42.0	55.4	56.2	38.3	19.5	16.6	11.5	9.4	11.7	12.9	18.6	11.3	9.4	7.4	6.6	5.0	17.1	76.7	5.0	32.0
22	28.2	27.5	44.4	48.2	37.2	22.5	22.9	7.3	21.9	22.0	47.7	64.2	16.2	15.2	14.8	11.3	11.1	15.3	15.6	9.0	9.2	19.4	74.9	68.4	74.9	7.3	28.1
23	69.7	71.7	71.1	66.2	36.1	72.2	52.2	61.3	56.0	54.7	62.4	36.3	30.4	14.6	12.9	12.5	14.1	13.9	24.3	24.9	7.0	43.0	21.5	59.5	72.2	7.0	41.2
24	66.6	63.5	64.6	49.0	45.2	36.0	51.8	38.7	51.1	24.2	8.0	27.9	13.5	44.1	41.8	38.7	10.6	9.6	8.8	11.1	44.6	27.9	38.1	61.2	66.6	8.0	36.5
25	60.3	68.9	57.4	63.7	63.3	57.6	57.0	57.7	39.2	9.3	23.3	31.3	11.1	12.9	9.8	9.8	14.1	9.8	10.7	9.2	8.4	7.2	7.3	17.4	68.9	7.2	29.9
26	41.0	31.7	46.6	35.1	47.6	59.3	46.4	54.5	17.6	22.4	7.9	11.9	15.4	22.3	37.5	39.7	42.2	47.7	16.8	6.8	4.7	13.4	9.0	15.7	59.3	4.7	28.9
27	77.0	64.2	63.5	62.2	65.1	53.2	54.5	69.2	59.2	26.0	68.5	63.2	25.0	18.2	17.2	15.4	12.6	13.8	14.4	11.1	8.1	37.2	51.6	59.4	77.0	8.1	42.1
28	66.3	70.0	43.5	60.2	52.2	26.0	57.6	78.3	39.7	60.5	28.5	13.0	14.0	12.1	10.2	10.7	9.8	9.3	7.8	21.0	27.2	17.9	11.5	14.5	78.3	7.8	31.7
29	22.4	10.8	9.7	15.3	19.4	12.7	21.9	21.4	23.7	10.1	42.6	31.7	15.4	21.1	19.1	13.3	14.0	15.2	10.0	12.5	20.3	19.3	20.5	35.7	42.6	9.7	19.1
30	43.7	21.2	19.8	17.6	35.8	21.7	33.9	23.4	25.9	14.9	15.7	19.2	37.9	15.0	14.8	10.9	10.6	11.0	9.5	12.6	14.8	11.8	12.9	15.2	43.7	9.5	19.6
31	44.5	31.3	33.6	38.8	64.6	56.9	49.6	27.2	29.8	32.0	44.1	21.4	27.4	15.3	16.4	33.7	43.6	36.6	57.3	20.3	24.0	33.6	55.2	34.3	64.6	15.3	36.3
Max.	77.0	71.7	76.7	66.6	65.1	72.2	73.6	78.3	66.3	60.5	68.5	64.2	47.7	50.1	70.6	69.7	50.9	47.7	62.1	58.0	44.6	52.8	74.9	68.4	78.3		
Min.	6.4	6.3	6.4	6.5	6.5	6.7	7.1	7.2	4.6	7.1	7.9	8.3	8.2	7.9	7.8	7.6	8.0	7.3	7.3	6.8	4.7	6.4	5.0	6.5		4.6	
Avg.	31.1	31.5	35.5	34.7	33.7	31.3	32.3	31.4	29.6	22.3	24.1	22.6	18.4	17.7	17.4	17.5	15.3	16.3	16.2	13.0	12.3	18.4	20.5	23.7			23.6

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Wind Sigma

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	18.8	35.2	56.6	14.5	35.2	71.8	57.7	62.7	38.0	7.3	10.3	11.9	31.0	16.0	33.6	30.4	42.2	14.6	8.2	7.8	6.8	6.0	6.2	9.8	71.8	6.0	26.4
2	7.4	39.3	36.0	40.1	11.8	3.1	21.4	12.1	9.3	8.9	15.9	16.0	24.2	20.6	14.9	11.1	8.6	11.5	9.8	7.9	6.8	32.0	23.7	8.0	40.1	3.1	16.7
3	29.9	19.6	46.0	60.6	69.8	59.4	45.2	67.4	61.1	60.8	30.2	40.5	29.4	24.6	22.7	22.8	32.1	16.0	10.1	10.6	11.0	13.1	36.7	27.2	69.8	10.1	35.3
4	20.8	22.5	44.0	33.0	32.7	43.0	63.7	68.4	40.1	39.2	14.4	9.4	12.6	31.2	15.9	28.1	41.3	10.5	8.7	8.4	8.9	8.6	10.1	10.3	68.4	8.4	26.1
5	53.1	54.0	11.0	19.4	24.1	43.8	12.3	13.4	47.9	74.3	50.3	10.4	8.6	9.1	11.1	13.7	10.9	11.6	8.8	10.8	9.5	5.2	9.3	7.7	74.3	5.2	22.1
6	8.2	6.6	41.5	40.5	12.1	28.3	19.1	8.1	8.9	8.6	7.9	7.7	7.7	8.0	7.6	8.8	8.6	8.2	8.5	11.0	19.4	18.7	26.9	48.1	48.1	6.6	15.8
7	37.4	21.8	49.5	45.2	61.6	32.1	16.0	11.8	9.8	28.3	43.6	9.2	9.3	10.3	10.1	10.0	11.9	13.9	42.4	18.3	7.4	27.4	24.7	50.3	61.6	7.4	25.1
8	37.5	35.6	58.7	41.3	52.8	29.3	7.1	55.6	45.2	39.5	43.5	8.8	16.9	48.0	31.4	18.5	11.7	11.4	10.8	7.6	25.5	25.8	47.9	43.3	58.7	7.1	31.4
9	74.6	65.7	17.2	33.4	34.7	54.4	50.6	53.5	27.2	56.1	20.8	9.1	7.2	7.1	8.3	7.9	7.0	7.0	9.3	6.2	10.6	38.6	20.4	24.9	74.6	6.2	27.1
10	21.4	36.5	58.0	54.2	67.7	58.0	70.6	66.9	75.7	39.0	21.8	10.4	13.7	11.2	17.4	64.7	61.5	25.0	10.8	9.9	4.6	4.8	5.6	8.8	75.7	4.6	34.1
11	13.8	12.5	11.2	10.4	9.9	12.6	7.5	4.6	5.9	7.6	8.5	10.3	12.4	13.4	15.5	13.0	11.9	9.5	9.4	9.3	6.9	8.6	9.4	11.3	15.5	4.6	10.2
12	6.4	8.7	10.5	14.3	10.3	21.9	16.6	11.6	11.7	12.1	12.4	12.2	13.4	13.1	16.7	11.4	10.5	11.6	9.0	11.2	18.6	17.7	20.9	38.0	38.0	6.4	14.2
13	14.9	14.1	29.3	27.8	18.8	42.3	22.8	46.1	38.5	18.6	11.6	11.5	11.8	12.4	10.9	11.4	13.8	16.6	18.2	10.6	16.3	20.4	22.5	56.7	56.7	10.6	21.6
14	44.3	53.5	38.8	44.6	22.4	5.4	3.7	4.5	41.3	34.2	10.1	9.3	13.3	17.0	11.7	12.6	14.4	18.7	19.3	8.4	6.3	5.6	4.9	5.2	53.5	3.7	18.7
15	4.5	3.5	9.3	6.9	39.9	43.1	48.2	32.1	23.3	25.8	12.2	11.9	41.3	45.9	36.6	33.3	13.0	18.3	21.7	12.0	8.6	5.4	5.9	8.0	48.2	3.5	21.3
16	10.7	5.6	9.6	27.8	46.6	70.8	70.8	60.1	75.3	60.8	60.3	23.8	48.2	38.6	26.4	15.5	14.5	12.0	11.8	8.1	18.6	28.1	22.1	68.4	75.3	5.6	34.8
17	53.9	16.0	30.1	21.8	55.2	40.1	57.2	40.4	9.2	10.2	21.3	9.3	7.4	9.8	11.3	14.7	38.5	23.8	25.7	7.7	2.4	31.1	44.9	65.4	65.4	2.4	27.0
18	28.6	26.8	36.2	7.0	7.7	7.9	8.1	8.2	10.0	12.0	11.1	9.9	11.0	13.5	14.9	16.3	14.2	16.7	23.4	10.3	24.8	14.2	23.3	21.6	36.2	7.0	15.7
19	41.8	53.7	31.0	31.4	31.7	52.8	16.1	13.6	25.4	30.9	10.0	15.3	9.0	10.2	10.4	14.9	12.8	11.7	11.0	7.0	14.0	18.5	14.7	8.0	53.7	7.0	20.7
20	6.6	7.8	8.1	6.4	8.0	12.2	6.8	5.9	7.1	9.9	38.3	29.7	15.1	14.1	18.0	55.5	21.8	28.8	11.7	15.5	67.5	26.9	57.8	65.0	67.5	5.9	22.7
21	48.0	40.3	49.2	7.7	8.5	8.4	7.6	9.5	9.6	8.9	9.7	9.7	10.0	11.2	9.7	11.5	10.8	8.8	8.9	9.0	9.4	5.9	5.6	6.7	49.2	5.6	13.5
22	7.5	6.9	7.4	12.1	51.7	8.7	11.2	77.0	20.1	7.7	11.7	10.1	11.3	11.0	11.1	11.1	10.0	13.2	14.2	16.2	12.6	10.8	9.9	9.2	77.0	6.9	15.5
23	16.0	15.7	14.5	42.7	7.3	6.8	36.2	30.3	54.5	59.2	24.4	38.6	13.9	16.6	14.2	12.3	11.7	10.1	10.3	8.9	10.0	9.3	15.0	32.3	59.2	6.8	21.3
24	13.3	13.6	37.7	33.0	16.0	30.7	22.7	12.4	9.5	11.1	9.4	8.5	9.5	10.7	11.0	10.4	10.3	12.3	11.1	10.4	9.1	10.5	13.0	28.1	37.7	8.5	15.2
25	22.5	34.1	20.0	16.7	43.3	33.5	28.3	50.3	12.4	24.3	40.9	39.9	42.8	19.8	37.8	18.9	25.1	18.1	28.9	10.7	10.2	15.1	15.9	20.5	50.3	10.2	26.2
26	13.8	18.2	11.1	13.5	12.7	7.2	4.6	4.4	12.9	16.9	12.2	19.6	10.1	12.7	10.9	13.1	10.5	9.3	10.9	8.9	16.5	27.8	12.6	11.9	27.8	4.4	12.6
27	21.6	54.4	48.2	34.6	14.3	58.1	35.7	29.4	50.9	46.9	30.1	38.9	40.8	48.0	24.7	21.6	17.6	38.3	7.9	7.1	8.6	9.6	53.7	50.0	58.1	7.1	33.0
28	52.8	61.8	52.3	63.2	17.2	55.5	42.9	37.6	36.8	14.2	15.7	11.7	21.9	17.8	16.3	14.4	11.2	8.1	7.6	4.9	6.7	5.6	18.4	54.0	63.2	4.9	27.0
29	63.7	29.9	41.4	30.5	67.3	67.2	52.2	42.3	8.9	8.6	9.7	9.6	10.6	12.4	10.0	10.5	8.1	9.0	9.9	8.5	6.7	7.2	7.9	7.8	67.3	6.7	22.5
30	8.3	7.1	7.2	7.2	7.0	8.5	7.8	7.4	61.0	51.6	37.2	10.2	11.6	15.5	15.3	11.7	12.6	12.5	14.8	19.7	23.2	27.1	63.7	27.4	63.7	7.0	19.8
Max.	74.6	65.7	58.7	63.2	69.8	71.8	70.8	77.0	75.7	74.3	60.3	40.5	48.2	48.0	37.8	64.7	61.5	38.3	42.4	19.7	67.5	38.6	63.7	68.4	77.0		
Min.	4.5	3.5	7.2	6.4	7.0	3.1	3.7	4.4	5.9	7.3	7.9	7.7	7.2	7.1	7.6	7.9	7.0	7.0	7.6	4.9	2.4	4.8	4.9	5.2		2.4	
Avg.	26.7	27.4	30.7	28.1	29.9	33.9	29.0	31.6	29.6	27.8	21.9	15.8	17.5	18.3	16.9	18.3	17.6	14.6	13.8	10.1	13.6	16.2	21.8	27.8			22.4

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	85.9	87.4	88.1	89.9	88.9	89.5	91.1	89.5	85.9	80.9	72.8	65.6	61.9	60.6	60.1	60.0	60.8	63.9	66.8	70.9	77.4	84.4	86.3	92.3	92.3	60.0	77.5
2	93.6	93.6	95.0	95.6	95.8	95.0	94.8	94.1	93.0	89.8	85.1	77.1	70.5	66.9	63.8	62.1	63.9	68.5	73.7	76.6	80.9	86.0	90.1	92.0	95.8	62.1	83.2
3	93.8	94.7	94.8	96.3	95.9	94.3	93.2	90.0	81.4	80.2	78.9	79.3	70.4	72.3	68.4	68.6	70.7	72.0	71.5	75.2	76.1	75.7	79.3	80.9	96.3	68.4	81.4
4	83.0	84.2	86.0	87.5	89.8	89.9	90.6	91.9	92.5	91.4	89.8	86.5	84.8	81.5	72.2	70.2	72.1	72.9	75.1	80.8	82.7	76.7	72.7	76.9	92.5	70.2	82.6
5	79.4	84.8	89.0	91.5	93.7	94.9	92.1	79.0	64.8	59.2	54.1	49.1	48.5	50.3	49.9	53.3	58.4	55.1	60.0	66.9	70.9	74.6	80.4	85.1	94.9	48.5	70.2
6	94.7	95.9	96.2	95.7	95.6	95.9	96.0	93.5	87.6	77.4	72.7	70.2	70.2	67.5	66.2	66.0	64.1	64.0	72.6	80.1	86.5	91.1	93.5	93.7	96.2	64.0	82.8
7	93.4	91.8	90.8	92.4	93.2	93.0	93.4	93.9	93.3	87.3	81.2	78.0	76.5	75.9	74.6	81.0	87.8	85.7	84.9	83.7	83.0	83.6	84.8	88.6	93.9	74.6	86.3
8	91.3	93.6	94.9	95.4	95.1	94.5	93.9	92.8	90.9	88.2	84.8	76.3	76.3	74.1	69.4	66.6	70.4	71.2	67.6	69.1	75.9	76.6	79.5	79.5	95.4	66.6	82.0
9	80.2	86.0	85.6	88.2	90.4	91.4	90.4	75.7	70.7	63.1	58.6	61.1	63.3	63.3	62.7	63.9	63.8	65.3	69.8	69.4	74.0	78.9	83.2	89.0	91.4	58.6	74.5
10	93.9	95.2	95.9	96.1	96.7	96.9	96.2	94.2	91.5	89.1	82.4	83.6	75.2	69.3	66.8	63.5	65.5	69.5	73.7	77.0	79.7	84.3	87.8	93.3	96.9	63.5	84.1
11	94.6	95.7	96.2	96.6	95.0	95.1	95.9	93.4	82.5	68.3	64.1	60.8	59.9	58.7	52.8	55.6	55.6	51.3	50.8	62.0	70.3	77.6	84.1	88.5	96.6	50.8	75.2
12	91.8	92.8	93.8	94.8	95.4	94.1	93.2	89.0	80.6	59.6	49.7	35.1	30.9	34.1	28.8	27.0	27.5	31.9	45.3	49.2	54.0	50.6	56.6	60.6	95.4	27.0	61.1
13	65.2	70.9	72.9	68.3	75.7	72.7	74.1	78.4	88.0	81.5	73.9	72.4	74.1	70.2	62.9	64.8	75.4	78.0	65.9	64.0	66.2	71.4	76.1	86.1	88.0	62.9	72.9
14	91.0	94.6	95.0	96.3	97.1	97.4	97.5	94.0	91.8	84.1	87.0	71.0	63.7	57.2	60.2	60.8	56.0	54.5	54.0	49.9	54.7	61.8	72.9	81.6	97.5	49.9	76.0
15	83.8	87.8	89.9	94.0	94.6	95.1	96.4	93.3	82.1	70.7	58.2	50.5	45.3	46.5	49.0	50.8	39.7	34.8	45.2	57.0	74.6	86.8	89.2	90.3	96.4	34.8	71.1
16	91.5	90.9	91.0	91.2	91.6	93.7	92.1	91.1	84.5	73.7	68.4	71.9	82.7	81.0	76.8	68.3	67.2	64.7	66.9	69.5	72.6	77.8	85.4	91.6	93.7	64.7	80.7
17	93.5	92.9	90.8	91.6	91.6	91.4	92.4	89.4	84.1	74.0	72.0	62.2	70.2	85.4	83.7	80.3	76.7	74.6	71.9	76.7	78.2	74.8	80.2	83.7	93.5	62.2	81.8
18	86.5	89.7	92.3	93.3	92.1	93.8	89.8	78.6	72.9	70.9	65.7	66.9	67.6	65.6	62.6	61.6	60.6	58.6	53.9	50.5	54.4	57.6	57.6	56.7	93.8	50.5	70.8
19	62.6	71.6	60.3	70.1	70.3	73.3	64.9	50.8	50.9	37.8	33.8	31.6	31.5	33.4	33.8	34.4	38.0	40.9	41.2	31.4	33.5	35.1	32.9	40.6	73.3	31.4	46.0
20	49.3	63.7	75.1	79.3	82.2	87.7	85.1	69.4	69.4	55.6	51.1	54.6	51.3	50.7	55.7	51.6	45.6	49.5	50.7	48.1	48.6	56.3	72.8	87.0	87.7	45.6	62.1
21	88.1	90.1	90.4	91.5	92.0	94.9	93.2	83.9	74.3	56.1	52.6	51.0	51.4	50.2	50.0	45.9	45.1	42.7	43.1	45.4	50.7	60.1	68.7	75.1	94.9	42.7	66.1
22	87.1	86.8	87.5	86.7	84.9	88.0	91.4	81.7	65.7	63.9	67.5	65.7	63.8	69.4	67.7	66.9	69.8	72.2	71.0	71.5	73.6	78.3	85.0	91.3	91.4	63.8	76.6
23	93.4	93.7	94.8	96.4	97.1	97.2	97.4	97.6	86.1	76.9	74.3	72.9	69.2	65.6	57.2	55.7	54.3	49.2	50.4	55.2	60.5	71.3	79.4	84.3	97.6	49.2	76.2
24	84.5	87.3	90.9	94.1	94.0	95.0	93.1	88.0	76.4	66.0	54.5	49.7	51.1	51.6	47.5	45.1	42.7	42.4	37.1	41.1	47.9	53.1	61.4	68.9	95.0	37.1	65.1
25	78.5	86.3	82.4	82.2	75.4	73.6	78.1	77.3	66.2	64.6	71.7	57.7	50.4	53.2	48.0	49.1	50.5	40.6	39.1	40.3	44.6	50.0	58.5	70.1	86.3	39.1	62.0
26	76.9	82.0	80.8	74.0	51.7	50.2	50.7	51.2	51.3	53.2	66.8	71.5	68.4	63.6	65.4	64.6	77.6	82.1	83.0	80.9	84.4	87.0	88.3	90.5	90.5	50.2	70.7
27	90.4	87.6	89.7	89.4	89.0	89.4	87.9	90.7	89.6	87.4	86.4	88.2	86.4	83.8	86.7	87.5	81.0	85.4	82.0	78.0	83.5	89.5	89.5	90.6	90.7	78.0	87.1
28	89.8	90.6	88.3	89.2	90.7	89.6	90.1	89.6	87.8	82.5	80.3	77.6	76.9	71.4	68.9	88.4	89.7	85.5	83.2	71.2	73.7	84.1	86.8	88.7	90.7	68.9	83.9
29	90.9	92.9	93.6	93.3	94.6	95.2	93.7	93.8	90.8	80.7	80.1	78.4	62.3	57.8	62.1	58.0	57.4	69.9	62.4	62.0	64.7	66.9	75.6	83.8	95.2	57.4	77.5
30	88.3	92.2	92.4	95.6	96.5	97.0	96.9	95.4	87.7	81.0	79.9	82.5	83.2	77.8	74.3	68.9	70.4	65.4	68.7	74.7	77.2	81.2	87.8	91.8	97.0	65.4	83.6
31	93.8	95.1	95.4	92.2	91.9	90.9	91.0	88.7	84.5	83.5	82.2	79.4	80.1	76.4	75.6	73.4	73.6	72.5	76.1	76.8	80.6	82.8	86.1	87.0	95.4	72.5	83.7
Max.	94.7	95.9	96.2	96.6	97.1	97.4	97.5	97.6	93.3	91.4	89.8	88.2	86.4	85.4	86.7	88.4	89.7	85.7	84.9	83.7	86.5	91.1	93.5	93.7	97.6		
Min.	49.3	63.7	60.3	68.3	51.7	50.2	50.7	50.8	50.9	37.8	33.8	31.6	30.9	33.4	28.8	27.0	27.5	31.9	37.1	31.4	33.5	35.1	32.9	40.6		27.0	
Avg.	85.8	88.5	89.0	90.0	89.6	90.0	89.6	85.8	80.6	73.5	70.3	67.0	65.1	64.0	62.1	61.7	62.3	62.4	63.1	64.7	68.9	73.1	77.8	82.6			75.2

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	87.2	86.6	88.3	91.5	92.8	93.1	92.0	90.2	87.9	85.1	79.8	76.8	72.6	73.0	74.5	74.4	75.9	76.7	78.5	80.1	81.1	83.1	84.0	85.8	93.1	72.6	83.0	
2	84.8	84.7	85.0	86.8	88.8	89.5	92.4	91.8	91.7	92.6	89.0	89.2	87.5	81.4	80.6	79.7	78.6	73.6	79.7	80.1	83.2	82.5	84.4	84.0	92.6	73.6	85.1	
3	89.3	91.7	93.1	94.7	93.0	94.7	95.1	95.1	94.6	94.7	94.1	92.5	90.9	84.7	79.9	81.7	82.4	82.0	84.9	78.9	81.6	91.7	94.0	93.8	95.1	78.9	89.5	
4	93.6	93.0	93.2	92.4	92.7	94.7	95.8	95.3	93.2	87.6	83.8	85.4	82.6	78.9	74.8	72.4	71.9	74.0	72.4	75.9	77.5	83.7	86.6	89.9	95.8	71.9	85.1	
5	91.2	93.3	94.4	94.2	95.3	96.1	94.9	95.0	90.5	71.4	64.8	57.4	53.3	57.6	73.3	74.0	73.4	62.6	54.7	58.0	62.4	67.7	78.5	83.7	96.1	53.3	76.6	
6	89.0	93.0	93.2	94.4	95.4	96.1	96.3	94.9	91.4	76.3	71.7	70.8	71.0	67.9	65.3	66.4	72.5	71.4	75.1	82.6	82.9	83.7	85.8	84.9	96.3	65.3	82.2	
7	86.5	80.7	84.0	81.6	87.0	95.0	96.0	95.8	95.9	95.5	94.8	94.7	95.2	94.7	94.7	94.8	94.1	94.5	95.0	95.7	96.0	96.5	97.0	97.0	97.0	80.7	93.0	
8	97.0	97.0	96.7	96.5	96.7	96.7	96.7	96.6	96.1	96.3	96.3	96.2	96.1	96.0	95.8	96.1	96.1	94.1	92.0	91.2	91.2	92.1	92.2	91.3	97.0	91.2	95.1	
9	89.4	90.1	92.9	95.5	94.6	94.2	93.7	93.1	91.7	91.1	89.8	82.9	78.2	77.7	78.9	77.8	72.1	65.6	73.1	77.1	81.1	83.6	86.4	89.3	95.5	65.6	85.0	
10	90.8	91.4	91.7	92.4	92.4	91.7	91.8	91.9	84.5	73.7	64.2	55.7	50.8	47.4	44.3	49.6	49.4	52.5	56.3	63.1	69.6	69.4	75.9	74.5	92.4	44.3	71.5	
11	83.1	85.4	83.3	82.6	85.1	86.7	87.2	88.9	85.0	77.6	66.2	60.6	56.9	64.1	66.1	72.9	90.3	90.7	91.7	93.5	93.7	94.7	95.7	96.3	96.3	56.9	82.4	
12	96.6	96.9	96.7	94.3	93.4	94.4	94.5	94.5	95.2	95.8	94.6	93.7	93.4	93.6	93.6	93.8	94.1	94.2	94.6	94.3	95.1	95.8	95.7	95.6	96.9	93.4	94.8	
13	95.7	95.8	96.4	97.0	97.2	97.4	96.5	95.9	93.9	91.2	85.4	85.9	81.5	80.7	84.9	90.0	90.7	92.2	92.3	93.5	94.1	94.9	95.2	95.9	97.4	80.7	92.3	
14	96.0	95.9	94.9	94.2	92.4	90.7	89.9	90.4	87.9	86.0	86.8	92.0	93.6	93.6	93.6	93.6	93.7	93.6	94.0	94.2	94.8	94.1	92.1	90.9	96.0	86.0	92.5	
15	91.5	90.5	90.8	89.5	87.8	88.2	87.5	89.1	90.8	89.3	88.0	82.8	76.6	77.2	77.3	76.0	74.4	85.1	79.8	84.2	86.6	89.1	92.0	94.7	94.7	74.4	85.8	
16	95.2	95.2	94.7	93.7	92.5	93.1	93.4	91.6	89.3	87.0	84.4	80.6	79.0	72.7	64.5	58.1	53.2	61.8	65.4	70.7	74.6	84.0	87.3	89.1	95.2	53.2	81.3	
17	90.4	90.7	91.7	91.8	94.5	95.7	95.2	94.4	89.8	82.0	74.9	70.9	62.2	62.1	62.5	61.7	63.9	64.4	66.5	70.6	76.2	82.2	89.5	94.0	95.7	61.7	79.9	
18	93.8	95.8	96.4	97.4	97.5	97.4	97.5	96.1	91.3	83.3	83.4	74.2	68.2	57.9	54.7	51.3	56.6	66.2	71.6	76.1	81.3	89.2	94.0	95.1	97.5	51.3	81.9	
19	95.9	96.7	96.3	96.1	95.7	97.0	97.0	96.4	88.1	77.6	72.7	76.1	70.0	53.9	49.4	47.5	43.7	44.5	43.8	49.0	51.5	63.1	75.1	80.7	97.0	43.7	73.2	
20	87.7	90.3	92.7	91.9	94.7	93.3	92.9	90.3	84.8	74.3	56.4	47.5	45.9	46.6	45.4	44.0	45.7	47.6	45.2	48.5	56.1	68.7	78.0	83.2	94.7	44.0	68.8	
21	89.4	89.5	91.9	91.4	93.1	92.4	95.5	93.4	92.2	91.4	85.0	71.3	61.5	60.1	60.3	60.6	62.7	64.1	68.8	73.4	78.3	80.4	83.2	87.7	95.5	60.1	79.9	
22	94.0	83.2	79.1	82.7	87.4	88.6	91.1	88.5	88.9	84.6	61.8	51.4	47.3	47.7	48.4	47.4	47.2	48.8	55.5	65.7	70.8	77.0	85.2	90.4	94.0	47.2	71.4	
23	91.9	92.0	89.8	90.1	89.1	85.1	91.5	92.8	89.6	89.5	83.3	69.9	53.6	52.6	54.7	53.6	56.2	58.7	61.5	67.6	80.4	87.5	87.8	89.1	92.8	52.6	77.4	
24	92.1	93.9	93.9	93.7	95.4	93.4	91.0	90.9	82.5	73.5	59.2	49.9	45.0	38.4	34.3	39.0	45.9	48.3	50.2	59.7	67.1	75.5	83.8	84.5	95.4	34.3	70.0	
25	85.6	88.3	87.7	89.4	90.9	91.3	91.8	90.7	90.1	82.6	63.5	42.6	32.0	29.5	32.0	37.2	37.1	36.8	32.2	38.0	43.6	50.0	51.9	54.7	91.8	29.5	61.2	
26	60.7	69.7	77.8	77.7	77.3	78.5	77.7	75.5	66.9	63.6	50.6	42.8	34.8	30.3	28.6	27.1	25.2	24.9	26.8	37.5	47.8	62.8	73.4	70.7	78.5	24.9	54.5	
27	80.8	86.1	88.5	89.3	90.7	91.1	91.2	92.8	84.7	75.7	52.9	39.2	35.5	35.7	34.3	33.8	34.8	34.5	35.0	48.8	64.9	67.7	76.4	83.5	92.8	33.8	64.5	
28	85.8	89.9	90.7	87.8	91.4	95.2	97.0	97.2	95.1	83.4	70.9	63.7	60.0	58.8	60.2	61.2	66.0	66.0	69.2	72.8	80.8	83.3	86.7	87.8	97.2	58.8	79.2	
29	87.2	87.2	87.7	88.9	90.5	90.2	88.6	86.2	85.5	84.2	81.6	80.8	81.0	78.5	80.0	78.9	77.0	76.6	78.8	81.7	83.0	84.0	86.2	87.5	90.5	76.6	83.8	
30	88.5	88.5	88.9	91.4	91.6	92.3	90.1	86.9	86.6	84.6	80.7	78.7	84.6	79.5	82.2	81.7	76.0	78.6	82.2	83.5	85.4	86.1	85.8	84.3	92.3	76.0	84.9	
31	86.4	89.6	93.1	93.9	93.8	93.1	94.6	94.8	93.9	89.3	80.2	74.9	70.4	65.3	71.4	83.8	89.4	84.6	80.1	78.9	85.1	86.8	88.4	89.2	94.8	65.3	85.5	
Max.	97.0	97.0	96.7	97.4	97.5	97.4	97.5	97.2	96.1	96.3	96.3	96.2	96.1	96.0	95.8	96.1	96.1	94.5	95.0	95.7	96.0	96.5	97.0	97.0	97.5			
Min.	60.7	69.7	77.8	77.7	77.3	78.5	77.7	75.5	66.9	63.6	50.6	39.2	32.0	29.5	28.6	27.1	25.2	24.9	26.8	37.5	43.6	50.0	51.9	54.7		24.9		
Avg.	89.3	90.1	90.8	91.1	92.0	92.5	92.8	92.2	89.3	84.2	77.1	72.0	68.1	65.7	65.8	66.5	67.4	68.0	69.2	73.1	77.4	81.6	85.4	87.1			80.4	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	89.5	90.4	92.9	91.7	86.6	89.1	87.9	91.2	88.9	81.5	80.5	71.0	63.4	64.6	62.7	65.3	71.2	73.6	68.5	67.1	70.2	73.0	74.0	77.5	92.9	62.7	78.0
2	80.7	83.8	90.1	92.3	90.9	84.1	87.3	87.9	75.6	68.4	61.6	53.8	54.9	56.9	59.7	81.5	85.7	82.2	71.4	67.7	77.0	86.5	85.2	81.0	92.3	53.8	76.9
3	82.2	84.7	90.1	91.3	91.8	91.2	93.2	91.2	88.6	79.9	65.6	52.3	52.1	50.9	49.8	47.3	40.1	49.7	58.7	66.3	73.1	74.0	74.2	76.1	93.2	40.1	71.4
4	80.4	76.5	80.6	85.6	89.0	92.1	92.7	93.3	91.9	88.2	87.7	86.4	87.3	86.9	84.1	83.9	84.6	82.8	86.5	87.3	88.2	88.5	87.1	83.4	93.3	76.5	86.5
5	85.4	82.8	84.2	85.2	89.1	90.9	90.3	92.0	89.4	86.0	87.4	85.5	87.0	89.1	85.6	78.3	75.7	74.6	71.9	77.9	83.8	88.5	89.7	90.9	92.0	71.9	85.1
6	91.2	91.8	92.4	93.8	91.8	90.5	91.6	89.8	89.6	89.9	87.7	83.4	77.8	74.7	73.8	68.7	67.8	69.6	67.8	68.1	73.7	76.7	78.5	82.3	93.8	67.8	81.8
7	80.6	80.3	77.8	74.7	71.9	72.4	69.7	70.0	69.5	62.6	43.5	36.8	37.4	34.1	34.3	31.9	33.4	43.0	49.0	51.6	48.8	52.5	63.7	68.8	80.6	31.9	56.6
8	73.1	73.4	67.7	69.3	69.6	66.7	59.7	63.5	57.6	60.4	53.9	46.3	46.1	39.1	32.5	33.9	32.6	33.1	37.3	46.7	60.0	69.2	73.6	78.3	78.3	32.5	56.0
9	82.2	77.8	67.6	76.0	79.8	79.0	81.4	82.9	83.5	81.3	82.1	73.7	62.4	61.6	59.8	59.8	52.9	54.8	59.8	61.4	74.6	77.3	80.0	86.7	86.7	52.9	72.4
10	91.2	92.5	89.4	89.7	93.9	95.0	93.2	94.0	90.5	79.8	60.2	50.5	43.5	44.0	38.4	37.8	38.3	43.0	41.6	47.6	62.5	62.8	64.3	65.7	95.0	37.8	67.1
11	71.0	75.4	78.7	82.6	70.8	74.6	78.4	79.4	75.1	66.2	56.9	53.1	49.1	43.5	44.6	45.1	44.4	46.2	48.8	57.9	64.6	71.9	75.2	74.9	82.6	43.5	63.7
12	75.1	70.9	70.9	68.4	70.7	78.1	81.7	82.5	79.1	64.6	56.2	59.4	56.3	56.2	60.1	59.8	62.7	82.4	85.7	86.7	86.4	83.6	77.8	81.4	86.7	56.2	72.4
13	86.8	86.9	85.0	84.6	84.0	84.0	85.1	84.6	81.7	72.3	63.0	58.3	67.4	73.7	74.0	81.6	83.9	85.1	86.6	83.9	83.2	85.1	89.1	90.6	90.6	58.3	80.9
14	93.3	95.0	93.8	93.8	91.1	84.3	83.4	79.2	79.0	74.4	67.1	59.2	53.3	49.5	48.3	50.9	47.6	47.2	50.3	57.5	63.1	68.4	71.5	70.3	95.0	47.2	69.6
15	71.1	72.7	78.8	77.2	81.0	81.7	78.8	80.6	78.6	72.4	59.4	51.8	39.7	40.4	42.5	44.1	49.9	50.6	54.1	57.5	57.7	63.4	63.3	64.7	81.7	39.7	63.0
16	65.5	67.9	73.5	77.3	87.3	92.5	92.7	92.9	92.3	86.3	69.0	55.3	47.2	52.5	47.6	54.9	56.0	55.7	63.2	65.4	74.7	76.7	83.3	88.2	92.9	47.2	71.6
17	91.8	92.1	91.9	94.8	93.9	91.5	90.6	88.3	85.4	84.0	86.8	86.5	84.5	86.0	88.9	90.8	91.7	87.9	75.7	72.1	78.1	80.8	90.6	90.4	94.8	72.1	87.3
18	85.4	82.5	71.3	67.8	69.0	67.7	67.1	68.4	69.3	66.1	61.1	61.9	60.7	57.3	53.9	51.6	53.0	54.1	52.8	57.7	67.7	69.9	69.8	78.4	85.4	51.6	65.2
19	70.8	70.8	72.6	78.2	66.6	75.9	74.3	73.3	76.5	74.8	66.8	56.2	50.9	47.0	44.8	41.5	39.9	43.9	47.3	58.5	73.0	78.8	87.3	88.4	88.4	39.9	64.9
20	89.9	81.8	86.5	84.2	83.0	88.6	82.0	80.4	77.0	79.2	74.1	67.1	54.4	46.9	41.5	33.2	38.1	41.0	53.1	60.6	70.0	73.9	83.3	88.1	89.9	33.2	69.1
21	89.7	88.8	85.6	68.0	56.2	52.2	56.4	56.0	59.7	59.4	61.1	56.6	49.5	41.7	40.2	40.1	43.2	44.1	44.1	48.6	59.5	69.1	75.8	75.8	89.7	40.1	59.2
22	74.1	73.8	71.4	67.4	71.4	65.3	68.8	76.7	81.0	73.2	67.0	60.6	49.5	43.2	51.2	50.1	50.9	53.3	56.5	58.0	65.3	79.1	87.2	86.9	87.2	43.2	65.9
23	84.3	77.7	73.8	76.9	77.5	79.5	82.5	78.0	80.4	73.0	60.6	54.2	54.1	49.7	50.5	50.3	54.1	56.5	57.3	69.8	77.4	78.9	84.8	83.3	84.8	49.7	69.4
24	92.6	95.8	96.0	95.1	95.0	94.2	94.3	91.7	85.7	76.9	71.2	64.7	63.0	64.0	61.5	60.7	60.1	62.0	66.3	65.3	64.9	63.9	65.4	72.7	96.0	60.1	76.0
25	75.6	78.5	83.0	78.5	72.8	69.9	78.8	80.3	82.4	77.1	65.1	50.9	43.6	44.8	41.3	47.1	48.7	62.1	65.7	70.7	80.6	90.5	90.8	86.9	90.8	41.3	69.4
26	84.1	86.6	86.2	89.8	90.6	91.8	89.8	87.7	86.1	87.5	66.4	62.7	57.7	54.5	56.6	54.0	55.3	63.3	58.5	62.9	71.0	75.1	80.4	83.3	91.8	54.0	74.2
27	77.7	83.8	85.2	87.5	87.5	89.3	88.4	86.2	86.7	83.0	76.7	75.6	75.5	71.9	62.1	67.6	72.6	71.5	70.1	75.1	74.5	78.8	79.4	85.2	89.3	62.1	78.8
28	85.1	88.4	86.6	88.8	93.9	93.1	91.4	94.9	95.1	84.8	76.5	70.4	57.1	48.8	44.7	45.0	44.4	49.6	55.5	67.7	72.8	74.1	78.1	86.4	95.1	44.4	73.9
29	92.2	91.7	92.9	93.6	89.2	86.5	90.2	88.3	85.6	75.7	60.1	53.2	49.3	47.0	42.8	40.5	43.2	49.6	56.8	63.2	64.4	62.4	64.8	65.8	93.6	40.5	68.7
30	65.6	67.7	65.5	63.7	63.7	65.0	65.2	70.5	72.2	68.6	59.5	56.9	54.9	54.7	60.0	64.0	61.3	59.8	66.3	73.4	79.5	79.6	79.6	79.9	79.9	54.7	66.5
Max.	93.3	95.8	96.0	95.1	95.0	95.0	94.3	94.9	95.1	89.9	87.7	86.5	87.3	89.1	88.9	90.8	91.7	87.9	86.6	87.3	88.2	90.5	90.8	90.9	96.0		
Min.	65.5	67.7	65.5	63.7	56.2	52.2	56.4	56.0	57.6	59.4	43.5	36.8	37.4	34.1	32.5	31.9	32.6	33.1	37.3	46.7	48.8	52.5	63.3	64.7		31.9	
Avg.	81.9	82.1	82.1	82.3	81.7	81.9	82.2	82.5	81.1	75.9	67.8	61.8	57.6	55.8	54.6	55.4	56.1	59.1	60.9	65.1	71.3	75.1	78.3	80.4			71.4

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1007	1006	1006	1006	1006	1005	1005	1005	1005	1005	1008	1005	1007
2	1005	1005	1005	1004	1004	1004	1004	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1004	1004	1004	1005	1003	1004
3	1004	1005	1005	1005	1005	1005	1006	1006	1006	1006	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1004	1006
4	1007	1006	1006	1006	1006	1006	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1004	1004	1005	1005	1005	1005	1005	1005	1004	1005
5	1006	1006	1006	1006	1006	1007	1007	1007	1007	1008	1008	1008	1007	1008	1008	1009	1009	1009	1010	1010	1010	1010	1010	1011	1011	1011	1008
6	1011	1011	1012	1012	1012	1012	1012	1013	1013	1013	1013	1014	1013	1013	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1013
7	1014	1014	1014	1014	1015	1015	1015	1016	1016	1016	1016	1016	1017	1017	1017	1017	1018	1018	1018	1018	1018	1018	1018	1018	1019	1019	1017
8	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1020	1019	1018	1019	1017	1018	1017	1017	1017	1017	1020	1019
9	1017	1017	1017	1017	1017	1017	1016	1016	1016	1016	1016	1016	1015	1015	1015	1014	1014	1014	1014	1013	1013	1013	1013	1013	1013	1017	1015
10	1013	1013	1013	1012	1012	1012	1012	1012	1011	1011	1011	1011	1011	1011	1011	1010	1009	1010	1009	1009	1009	1009	1009	1009	1009	1013	1011
11	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1010	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1010	1009
12	1009	1008	1008	1008	1007	1008	1007	1008	1007	1007	1006	1006	1006	1005	1004	1004	1004	1004	1004	1003	1003	1004	1003	1003	1003	1009	1006
13	1003	1003	1003	1003	1003	1003	1003	1004	1004	1004	1004	1004	1004	1005	1005	1005	1005	1005	1005	1005	1005	1006	1006	1006	1006	1006	1004
14	1006	1007	1006	1006	1007	1007	1007	1007	1008	1008	1008	1008	1009	1010	1009	1008	1009	1008	1008	1008	1008	1008	1008	1009	1009	1010	1008
15	1009	1009	1009	1009	1008	1009	1008	1008	1008	1008	1008	1008	1007	1008	1006	1007	1007	1006	1005	1005	1005	1006	1005	1005	1005	1009	1007
16	1005	1005	1005	1004	1004	1004	1004	1003	1003	1003	1003	1002	1002	1002	1002	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1005	1003
17	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1002	1002	1002	1002	1002	1002	1002	1002	1003	1003	1003	1004	1004	1004	1002
18	1004	1004	1004	1005	1005	1005	1005	1005	1005	1005	1005	1005	1006	1006	1005	1006	1006	1006	1006	1006	1006	1006	1006	1006	1007	1007	1005
19	1007	1007	1007	1007	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1006	1006	1006	1006	1006	1007	1006	1006	1007	1007	1007	1008	1007
20	1008	1008	1008	1008	1008	1008	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1008	1008	1008	1008	1008	1008	1008	1009	1009	1009	1008
21	1009	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1009	1008	1008	1008	1008	1008	1008	1009	1010	1009
22	1009	1008	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1007	1008	1009	1008	1008	1008	1008	1008	1008	1008	1009	1009	1009	1009	1008
23	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1008	1008	1008	1008	1008	1007	1007	1007	1007	1007	1010	1009
24	1007	1007	1007	1007	1006	1006	1006	1006	1006	1006	1006	1006	1006	1005	1005	1005	1005	1005	1004	1004	1004	1004	1004	1005	1005	1007	1005
25	1005	1004	1004	1005	1004	1004	1005	1005	1005	1005	1005	1006	1006	1005	1005	1006	1005	1005	1005	1005	1004	1004	1004	1004	1004	1006	1005
26	1004	1004	1003	1002	1002	1001	1001	1000	1000	1000	1000	1000	1000	999	998	998	998	997	996	996	996	995	995	995	995	1004	999
27	995	995	994	994	994	993	993	993	993	993	993	994	993	994	994	994	993	994	994	994	994	995	995	995	995	995	994
28	995	995	995	995	995	996	996	996	996	996	996	997	997	997	998	998	998	998	998	999	999	999	999	1000	1000	1000	997
29	1001	1001	1001	1001	1002	1002	1002	1002	1003	1003	1003	1004	1004	1004	1004	1005	1004	1004	1004	1004	1004	1005	1005	1006	1006	1006	1003
30	1006	1007	1007	1007	1008	1008	1008	1008	1009	1009	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009
31	1010	1010	1010	1010	1010	1010	1010	1010	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1012	1012	1012	1012	1011
Max.	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1020	1019	1018	1019	1018	1018	1018	1018	1018	1018	1019	1020	
Min.	995	995	994	994	994	993	993	993	993	993	993	994	993	994	994	994	993	994	994	994	994	995	995	995	995	993	
Avg.	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1006	1007	1007	1007	1007		1007

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1012	1013	1013	1013	1013	1013	1014	1014	1015	1015	1015	1016	1016	1016	1016	1016	1016	1016	1016	1017	1017	1017	1017	1017	1017	1012	1015	
2	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1016	1016	1016	1015	1014	1014	1013	1013	1012	1011	1010	1010	1017	1010	1015	
3	1009	1008	1008	1007	1006	1006	1005	1005	1004	1004	1005	1005	1005	1005	1006	1006	1006	1006	1006	1007	1007	1007	1008	1008	1009	1009	1006	
4	1009	1009	1009	1009	1009	1009	1009	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1009	1009	1009	1009	1009	1010	1010	1010	1010	
5	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1009	1010	1010	1010	1010	1010	1009	1009	1009	1010	1010	1010	1010	1010	1010	1010	
6	1010	1010	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1010	1010	1010	1010	1009	1009	1008	1007	1007	1007	1007	1007	1011	1010	
7	1007	1007	1007	1006	1006	1007	1007	1007	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1006	1007	1007	1007	1007	1007	1006	
8	1006	1006	1005	1005	1005	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1005	1005	1005	1006	1007	1007	1008	1008	1009	1009	1009	1006	
9	1010	1010	1011	1011	1012	1012	1012	1013	1013	1014	1015	1015	1015	1016	1016	1016	1016	1016	1016	1016	1016	1017	1017	1017	1017	1010	1014	
10	1017	1017	1017	1016	1016	1016	1016	1016	1016	1016	1015	1015	1015	1014	1013	1014	1013	1012	1012	1012	1012	1011	1011	1011	1010	1017	1010	
11	1010	1010	1010	1010	1010	1010	1009	1009	1009	1009	1009	1009	1009	1008	1008	1008	1008	1008	1007	1007	1006	1006	1006	1006	1010	1006	1008	
12	1006	1005	1004	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1002	1002	1001	1000	999	998	998	998	998	998	998	998	1006	998	
13	998	998	998	998	998	999	999	1000	1000	1001	1002	1003	1003	1004	1005	1005	1006	1006	1007	1007	1007	1008	1009	1010	1010	998	1003	
14	1010	1011	1011	1012	1012	1012	1013	1013	1013	1014	1014	1015	1015	1015	1016	1016	1016	1016	1016	1016	1016	1016	1016	1017	1017	1017	1010	
15	1016	1016	1016	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1016	1016	1016	1016	1015	
16	1016	1016	1016	1017	1017	1017	1017	1017	1017	1017	1017	1016	1016	1016	1014	1014	1014	1013	1013	1013	1012	1012	1012	1012	1012	1017	1012	
17	1012	1012	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1012	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1012	1011	
18	1011	1011	1011	1011	1011	1010	1010	1010	1010	1011	1011	1011	1011	1010	1010	1011	1011	1011	1011	1011	1011	1011	1012	1012	1012	1012	1010	
19	1012	1012	1012	1011	1011	1011	1010	1010	1010	1009	1010	1010	1010	1010	1009	1008	1008	1007	1007	1007	1007	1008	1008	1008	1009	1012	1007	
20	1008	1008	1008	1008	1008	1008	1009	1009	1009	1009	1008	1008	1009	1008	1007	1007	1009	1009	1008	1008	1008	1008	1009	1009	1009	1009	1007	1008
21	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1008	1008	1008	1007	1007	1006	1006	1006	1005	1005	1004	1004	1004	1003	1009	1003	1007	
22	1003	1003	1002	1002	1001	1001	1000	1000	1000	999	999	999	998	998	998	997	997	996	996	996	996	996	996	996	996	1003	996	
23	996	996	996	995	995	995	995	995	995	995	995	995	994	995	995	995	994	994	994	995	995	996	996	996	996	996	995	
24	997	997	996	997	997	997	997	997	997	998	998	998	998	998	998	999	999	999	999	1000	1000	1000	1001	1001	1001	996	998	
25	1001	1001	1002	1002	1002	1002	1002	1002	1003	1003	1003	1003	1004	1002	1003	1004	1003	1004	1004	1005	1005	1006	1006	1006	1006	1006	1001	
26	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1006	1006	1006	1005	1005	1005	1005	1005	1005	1005	1005	1005	1007	1005	
27	1005	1005	1005	1005	1005	1006	1006	1006	1006	1006	1006	1006	1007	1006	1007	1007	1007	1006	1007	1007	1007	1008	1008	1008	1009	1009	1005	
28	1009	1009	1009	1009	1009	1009	1010	1010	1010	1010	1011	1009	1011	1010	1010	1009	1010	1009	1009	1009	1009	1010	1010	1010	1010	1011	1009	
29	1010	1010	1010	1010	1010	1010	1010	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1012	1012	1012	1012	1011	
30	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	1012	1011	1011	1011	1011	1010	1010	1010	1010	1011	1011	1010	1010	1010	1010	1012	1010	
31	1010	1010	1010	1010	1010	1009	1009	1009	1008	1008	1008	1008	1007	1007	1007	1006	1005	1006	1005	1005	1005	1005	1005	1004	1004	1010	1004	
Max.	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1016	1016	1016	1016	1016	1016	1016	1017	1017	1017	1017	1017	1017			
Min.	996	996	996	995	995	995	995	995	995	995	995	995	994	995	995	995	994	994	994	995	995	996	996	996		994		
Avg.	1009	1009	1008	1008	1008	1008	1008	1008	1008	1008	1008	1009	1009	1009	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008		1008	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1004	1004	1004	1004	1003	1004	1004	1004	1004	1004	1004	1005	1005	1004	1005	1005	1005	1005	1006	1006	1006	1006	1007	1007	1007	1003	1005
2	1007	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1009	1008	1009	1007	1010	1009	1009	1010	1010	1011	1011	1007	1008
3	1011	1011	1012	1012	1013	1013	1013	1014	1014	1014	1013	1014	1014	1012	1016	1011	1013	1014	1014	1014	1015	1015	1015	1015	1015	1011	1013
4	1015	1015	1015	1015	1015	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014
5	1014	1014	1014	1014	1014	1014	1014	1014	1014	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015	1016	1016	1016	1016	1016	1014	1015
6	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1018	1018	1019	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017
7	1017	1017	1017	1017	1017	1017	1017	1016	1016	1016	1015	1015	1016	1015	1015	1015	1015	1014	1014	1014	1014	1014	1014	1014	1014	1014	1015
8	1014	1014	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1011	1011	1011	1011	1011	1010	1010	1010	1010	1010	1010	1010	1010	1012
9	1009	1009	1008	1008	1008	1008	1007	1007	1007	1007	1007	1006	1006	1006	1006	1005	1005	1004	1004	1004	1004	1004	1004	1004	1004	1004	1006
10	1004	1004	1003	1003	1003	1002	1002	1002	1002	1002	1002	998	1000	1000	1000	999	999	998	998	998	998	998	998	998	998	998	998
11	998	997	997	997	997	996	996	996	996	997	997	998	996	996	996	996	996	996	997	997	997	998	998	998	998	996	997
12	999	999	999	999	1000	1000	1000	1001	1001	1001	999	1001	1002	1002	1001	1001	1001	1001	1001	1002	1002	1002	1002	1002	1002	1002	1001
13	1002	1002	1002	1002	1002	1002	1002	1002	1002	1003	1003	1002	1000	1005	1003	1003	1002	1003	1002	1002	1002	1002	1002	1002	1003	1000	1002
14	1003	1003	1003	1004	1004	1004	1004	1005	1005	1005	1005	1005	1005	1006	1005	1005	1005	1005	1005	1005	1006	1006	1006	1006	1006	1003	1005
15	1007	1007	1007	1007	1007	1008	1008	1008	1009	1009	1009	1009	1009	1010	1010	1010	1010	1011	1011	1011	1012	1012	1013	1013	1013	1007	1009
16	1014	1014	1014	1015	1015	1016	1016	1016	1016	1017	1017	1017	1017	1017	1017	1017	1018	1017	1017	1017	1017	1017	1017	1017	1017	1014	1016
17	1017	1017	1017	1017	1016	1016	1016	1016	1016	1015	1016	1015	1015	1016	1015	1015	1014	1014	1013	1013	1012	1012	1011	1011	1011	1011	1015
18	1010	1010	1009	1008	1008	1007	1007	1006	1006	1005	1005	1005	1004	1004	1003	1003	1003	1002	1002	1002	1002	1001	1001	1001	1001	1001	1005
19	1000	1000	1000	999	999	998	998	998	998	997	997	996	996	996	993	990	994	994	994	994	994	994	994	994	994	990	996
20	994	994	994	994	994	993	993	993	993	993	993	992	992	992	992	991	990	991	990	990	990	989	989	989	989	989	992
21	988	988	987	987	987	986	986	986	986	986	986	984	986	986	986	986	986	986	986	986	986	987	988	988	988	988	987
22	988	989	989	990	990	990	991	991	991	991	993	989	993	993	998	995	993	994	994	994	994	994	994	993	993	988	992
23	994	994	995	995	996	996	996	996	996	997	996	999	996	997	997	997	996	996	996	996	996	997	997	997	996	994	996
24	996	996	996	997	997	997	998	998	999	999	1000	998	1002	1000	1000	1001	1001	1001	1002	1002	1002	1003	1003	1003	1003	996	1000
25	1003	1003	1003	1004	1003	1003	1003	1003	1003	1003	1003	1002	1001	1002	1002	1001	1001	1000	1000	1000	999	999	999	998	998	998	1002
26	998	998	997	997	997	997	996	996	996	996	995	996	997	996	995	994	996	996	996	996	996	997	997	997	997	994	996
27	997	997	998	998	998	998	999	999	999	1000	1000	1001	1001	1001	1001	1002	1002	1002	1003	1004	1005	1005	1006	1007	1007	997	1001
28	1008	1008	1008	1009	1009	1009	1010	1011	1011	1012	1013	1013	1014	1013	1015	1013	1014	1014	1014	1015	1015	1015	1015	1015	1015	1008	1012
29	1015	1015	1015	1015	1014	1014	1014	1013	1013	1012	1012	1012	1012	1011	1013	1008	1007	1007	1006	1006	1006	1006	1006	1006	1006	1006	1011
30	1006	1006	1006	1005	1006	1006	1007	1008	1008	1009	1010	1011	1009	1011	1011	1012	1012	1013	1013	1013	1014	1014	1014	1014	1014	1005	1010
Max.	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1018	1018	1019	1017	1018	1017	1017	1017	1017	1017	1017	1017	1017	1019	
Min.	988	988	987	987	987	986	986	986	986	986	986	984	986	986	986	986	986	986	986	986	987	988	988	988	988	984	
Avg.	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005		1005

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Solar (Watts/m²)

July 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3	1	1	2	12	36	65	98	139	188	243	276	309	335	321	294	256	219	159	105	69	41	21	8	335	1	133
2	2	1	0	1	6	19	35	57	88	131	202	267	301	343	366	374	354	243	154	146	120	73	29	8	374	0	138
3	1	0	0	1	5	18	41	96	255	297	375	428	710	620	729	688	451	426	367	166	96	72	15	6	729	0	244
4	1	0	0	0	3	9	23	40	56	63	117	160	139	290	552	651	550	433	362	170	128	171	68	11	651	0	166
5	4	1	1	3	9	18	159	260	372	494	606	683	752	765	770	560	685	567	393	322	195	149	53	12	770	1	326
6	4	1	0	1	4	11	27	58	159	387	491	504	438	732	699	704	660	635	286	108	41	12	7	3	732	0	249
7	1	0	0	0	2	3	10	14	44	131	187	260	349	371	255	183	109	44	101	110	125	56	48	8	371	0	100
8	2	0	0	1	3	11	40	64	105	161	203	257	305	273	493	759	422	362	440	240	120	38	27	9	759	0	181
9	3	1	1	2	8	21	122	201	301	448	592	675	706	768	732	620	657	565	372	333	227	133	45	12	768	1	314
10	3	1	0	1	6	15	79	105	171	203	273	277	589	719	757	741	658	554	377	327	204	130	46	14	757	0	260
11	3	0	0	1	6	18	92	218	378	498	599	549	599	593	676	594	449	481	443	237	136	65	30	9	676	0	278
12	2	0	0	3	10	27	106	200	237	417	620	668	744	659	712	743	651	492	191	151	134	129	30	9	744	0	289
13	1	0	0	1	2	15	40	54	44	103	246	322	205	316	421	416	168	238	333	248	190	120	40	11	421	0	147
14	2	0	0	1	6	13	69	110	61	164	169	413	471	600	570	597	587	558	441	325	208	128	33	12	600	0	231
15	2	0	0	1	10	29	51	141	204	298	370	561	684	641	415	284	645	522	200	70	44	40	52	10	684	0	220
16	1	0	0	0	5	13	41	108	246	289	281	250	199	232	363	572	585	502	323	168	97	25	11	3	585	0	180
17	0	0	0	0	2	13	61	122	207	220	217	390	176	219	237	416	387	304	438	222	151	189	53	11	438	0	168
18	1	0	0	0	3	25	88	126	249	295	273	254	278	355	454	329	333	317	370	339	150	108	53	15	454	0	184
19	3	0	0	1	7	20	104	209	343	475	583	668	730	744	771	679	727	559	441	331	216	115	29	5	771	0	323
20	1	0	0	0	3	14	88	212	294	412	301	405	498	616	465	611	655	559	446	325	210	110	29	7	655	0	261
21	1	0	0	1	5	16	92	211	329	452	561	647	713	744	741	708	645	552	401	305	204	106	25	6	744	0	311
22	1	0	0	0	5	18	77	188	310	429	514	560	682	654	723	686	625	550	419	305	199	102	28	6	723	0	295
23	1	0	0	0	3	17	34	61	292	179	161	129	277	343	706	628	619	541	424	312	147	62	13	5	706	0	206
24	0	0	0	0	3	17	46	172	323	390	562	656	727	761	807	781	676	531	425	310	198	97	25	5	807	0	313
25	0	0	0	0	2	16	61	98	138	284	355	529	545	328	587	495	448	529	417	308	196	99	23	4	587	0	228
26	0	0	0	0	2	20	56	69	214	223	388	287	356	306	334	305	179	190	165	110	78	38	5	1	388	0	139
27	0	0	0	0	1	7	30	60	110	154	145	141	175	202	240	212	296	147	168	127	47	27	18	7	296	0	96
28	0	0	0	0	1	5	23	56	117	190	325	210	203	333	229	101	123	163	216	370	111	46	12	2	370	0	118
29	0	0	0	0	1	8	39	80	125	197	152	322	822	723	582	678	627	379	379	332	249	170	59	4	822	0	247
30	0	0	0	0	1	11	29	78	97	129	156	144	144	176	230	389	277	563	336	175	129	90	14	1	563	0	132
31	0	0	0	0	0	6	31	57	103	137	148	219	228	372	438	448	382	329	200	145	74	36	4	0			
Max.	4	1	1	3	12	36	159	260	378	498	620	683	822	768	807	781	727	635	446	370	249	189	68	15	822		
Min.	0	0	0	0	0	3	10	14	44	63	117	129	139	176	229	101	109	44	101	70	41	12	4	0	0		
Avg.	1	0	0	1	4	16	60	117	197	272	336	391	453	488	528	524	480	421	329	234	145	90	30	7			215

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m²)

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	4	23	41	75	159	260	287	453	330	279	265	213	159	133	106	72	20	5	1	453	0	120
2	0	0	0	0	0	4	23	42	65	59	150	199	234	174	154	142	170	173	87	85	57	23	3	0	234	0	77
3	0	0	0	0	0	2	10	28	53	53	94	144	192	208	200	154	181	150	141	197	105	22	6	0	208	0	81
4	0	0	0	0	0	1	7	23	85	142	152	166	201	219	279	344	323	235	203	108	81	40	10	1	344	0	109
5	0	0	0	0	0	4	27	64	168	323	351	411	558	391	114	170	157	455	357	212	167	75	11	1	558	0	167
6	0	0	0	0	1	9	39	150	200	211	172	257	296	335	374	254	177	225	90	72	68	17	4	0	374	0	123
7	0	0	0	0	0	0	4	9	25	40	61	73	41	75	86	73	71	63	47	44	27	7	1	0	86	0	31
8	0	0	0	0	0	1	10	14	16	23	41	86	73	63	68	86	91	107	84	53	34	7	1	0	107	0	36
9	0	0	0	0	0	1	8	38	45	73	126	202	254	189	198	165	330	321	172	88	54	27	7	0	330	0	96
10	0	0	0	0	0	1	11	40	82	138	225	237	299	365	440	415	530	356	255	111	94	65	12	0	530	0	153
11	0	0	0	0	0	1	14	40	79	144	250	387	433	341	328	199	78	62	61	53	43	4	0	0	433	0	105
12	0	0	0	0	0	0	6	25	37	56	82	83	101	80	66	86	79	64	58	41	19	7	1	0	101	0	37
13	0	0	0	0	0	0	8	31	102	235	164	190	324	235	186	146	119	105	77	33	12	7	1	0	324	0	82
14	0	0	0	0	0	0	3	15	43	46	45	63	77	96	131	98	68	51	54	53	17	6	0	0	131	0	36
15	0	0	0	0	0	1	9	16	29	41	104	190	275	178	186	215	209	125	123	46	18	6	1	0	275	0	74
16	0	0	0	0	0	0	7	49	63	147	207	258	253	319	490	470	462	313	256	141	55	12	2	0	490	0	146
17	0	0	0	0	0	1	23	55	94	156	234	295	528	621	626	599	544	436	326	215	108	29	2	0	626	0	204
18	0	0	0	0	0	1	14	41	184	288	336	552	598	627	623	579	508	414	322	241	94	19	1	0	627	0	227
19	0	0	0	0	0	1	12	69	89	172	71	240	327	505	583	494	514	411	302	194	90	16	1	0	583	0	170
20	0	0	0	0	0	0	12	73	180	298	405	492	559	593	592	554	475	385	278	178	77	17	1	0	593	0	215
21	0	0	0	0	0	0	9	35	80	133	186	263	352	384	363	315	264	190	136	89	41	6	0	0	384	0	119
22	0	0	0	0	0	0	6	35	82	154	238	317	352	361	369	338	290	229	160	94	41	10	0	0	369	0	128
23	0	0	0	0	0	0	6	35	83	150	241	326	387	412	414	378	328	276	195	92	45	7	0	0	414	0	141
24	0	0	0	0	0	0	7	41	105	195	281	363	425	469	470	419	359	271	181	96	40	7	0	0	470	0	155
25	0	0	0	0	0	0	5	33	91	171	294	400	556	589	577	541	494	405	299	184	67	6	0	0	589	0	196
26	0	0	0	0	0	0	6	51	133	211	374	473	558	566	579	547	492	398	278	161	53	7	0	0	579	0	204
27	0	0	0	0	0	0	5	61	194	298	374	458	537	586	570	537	436	351	225	135	46	6	0	0	586	0	201
28	0	0	0	0	0	0	5	58	202	311	416	508	574	605	596	548	475	382	268	150	31	3	0	0	605	0	214
29	0	0	0	0	0	0	1	8	19	35	54	58	85	114	89	111	108	84	49	15	9	1	0	0	114	0	35
30	0	0	0	0	0	0	1	8	18	80	102	102	104	121	148	159	135	94	35	30	9	1	0	0	159	0	48
31	0	0	0	0	0	0	2	20	80	135	138	193	205	324	170	91	136	143	104	76	19	1	0	0	324	0	77
Max.	0	0	0	0	1	9	39	150	202	323	416	552	598	627	626	599	544	455	357	241	167	75	12	1	627		
Min.	0	0	0	0	0	0	1	8	16	23	41	58	41	63	66	73	68	51	35	15	9	1	0	0		0	
Avg.	0	0	0	0	0	1	10	40	90	151	201	267	329	338	334	306	284	240	173	109	55	15	2	0			123

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	2	57	81	87	124	336	217	226	167	168	76	92	88	62	23	2	0	0	336	0	75
2	0	0	0	0	0	0	2	19	65	144	236	268	188	144	121	89	112	234	218	139	25	2	0	0	268	0	84
3	0	0	0	0	0	0	2	39	170	291	395	429	512	552	357	537	428	258	123	49	12	0	0	0	552	0	173
4	0	0	0	0	0	0	0	10	38	78	90	91	81	102	108	78	106	92	46	33	11	1	0	0	108	0	40
5	0	0	0	0	0	0	1	7	88	96	174	223	235	208	245	280	217	192	129	54	13	0	0	0	280	0	90
6	0	0	0	0	0	0	0	15	66	73	148	142	214	213	272	264	221	91	96	86	15	0	0	0	272	0	80
7	0	0	0	0	0	0	1	25	76	259	393	305	349	356	350	359	259	120	73	34	7	0	0	0	393	0	124
8	0	0	0	0	0	0	0	7	37	63	91	153	144	264	600	548	553	452	140	55	11	0	0	0	600	0	130
9	0	0	0	0	0	0	0	7	22	51	44	130	230	146	99	144	149	81	67	34	13	0	0	0	230	0	51
10	0	0	0	0	0	0	0	10	130	244	353	442	435	278	327	222	224	131	176	76	7	0	0	0	442	0	127
11	0	0	0	0	0	0	0	7	120	170	323	451	513	525	467	484	412	307	185	62	7	0	0	0	525	0	168
12	0	0	0	0	0	0	0	8	116	248	386	363	411	501	376	474	381	255	137	17	5	0	0	0	501	0	153
13	0	0	0	0	0	0	0	10	100	239	367	416	368	268	411	272	95	51	49	22	5	0	0	0	416	0	111
14	0	0	0	0	0	0	0	8	75	193	305	409	503	547	530	379	394	233	100	37	5	0	0	0	547	0	155
15	0	0	0	0	0	0	0	9	40	94	150	216	242	222	172	165	111	75	38	20	2	0	0	0	242	0	65
16	0	0	0	0	0	0	0	5	61	216	322	441	420	168	444	138	95	94	79	34	5	0	0	0	444	0	105
17	0	0	0	0	0	0	0	3	17	57	56	119	159	56	57	55	27	204	109	48	2	0	0	0	204	0	40
18	0	0	0	0	0	0	0	3	38	134	197	171	199	203	205	167	139	123	111	27	1	0	0	0	205	0	72
19	0	0	0	0	0	0	0	1	17	46	86	146	203	269	349	444	357	297	136	28	1	0	0	0	444	0	99
20	0	0	0	0	0	0	0	2	23	65	101	172	256	339	371	404	127	143	54	16	1	0	0	0	404	0	86
21	0	0	0	0	0	0	0	1	22	88	185	332	467	495	474	427	325	216	134	23	0	0	0	0	495	0	133
22	0	0	0	0	0	0	0	3	55	207	267	399	456	462	233	212	210	264	161	18	1	0	0	0	462	0	123
23	0	0	0	0	0	0	0	2	47	185	292	321	442	471	458	449	329	239	95	12	1	0	0	0	471	0	139
24	0	0	0	0	0	0	0	1	44	193	296	378	424	446	457	436	334	248	118	14	0	0	0	0	457	0	141
25	0	0	0	0	0	0	0	1	36	172	278	373	414	322	425	176	126	79	52	5	0	0	0	0	425	0	102
26	0	0	0	0	0	0	0	1	10	93	329	331	434	485	278	341	298	235	97	11	0	0	0	0	485	0	123
27	0	0	0	0	0	0	0	1	28	149	169	180	183	258	304	147	152	137	63	7	0	0	0	0	304	0	74
28	0	0	0	0	0	0	0	1	28	154	250	380	388	369	422	383	290	191	77	6	0	0	0	0	422	0	122
29	0	0	0	0	0	0	0	0	16	154	261	351	409	437	453	412	198	71	30	6	0	0	0	0	453	0	117
30	0	0	0	0	0	0	0	0	7	139	255	344	403	284	141	120	198	159	52	5	0	0	0	0	403	0	88
Max.	0	0	0	0	0	0	2	57	170	291	395	451	513	552	600	548	553	452	218	139	25	2	0	0	600		
Min.	0	0	0	0	0	0	0	0	7	46	44	91	81	56	57	55	27	51	30	5	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	9	56	146	231	294	330	320	322	292	231	179	101	35	6	0	0	0			106

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Precipitation

August 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Total	
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										
21																										
22																										
23												0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
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	0.00
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	0.00
26	0	0	0	0	0	0	0	0	0	0	0	0.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0.97
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	0.00
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	0.00
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	0.00
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	0.00
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.13	0.01	0	0	0	0	0	0	0	0	0.15
Total Hours in Month				744	Hours Data Available						205	Data Recovery			28%			Total Precipitation (inches) =						1.12		

Rock Creek - Precipitation

September 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Total	
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	0.00	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0.01	0	0	0	0	0	0	0	0	0.03
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	0.00
4	0	0	0	0	0	0.01	0.02	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.05
5	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0.03
6	0	0	0	0	0	0.03	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04
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	0.00
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	0.00
9	0	0	0	0	0	0	0	0	0	0	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02
10	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
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	0.00
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03	0.03	0	0	0	0	0	0	0.06
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0.02
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0.01
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	0.00
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	0.00
17	0	0	0.01	0	0	0	0	0	0.02	0.01	0.05	0.01	0	0.07	0.1	0.04	0.07	0	0	0	0	0	0	0	0	0.38
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	0.00
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	0.00
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	0.00
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	0.00
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	0.00
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0.95	1.4	0.41	0.95	0	0	0	0.01	0	0	0	0	3.72
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0.05	0	0	0.01	0	0	0	0	0	0	0	0	0.06
25	0	0	0	0	0	0	0	0	0	0	0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0.06
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	0.00
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	0.00
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	0.00
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	0.00
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	0.00

Total Hours in Month 720 **Hours Data Available** 716 **Data Recovery** 99% **Total Precipitation (inches) =** 4.49

Rock Creek - 2-m Temperature (deg. C)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.3	0.1	-0.2	-0.5	-0.3	-0.1	0.4	0.9	0.7	1.9	2.9	3.7	4.6	4.6	4.4	4.4	4.2	4.1	4.0	3.7	3.6	3.4	3.2	2.8	4.6	-0.5	2.4
2	2.2	2.1	2.3	1.6	1.5	1.4	0.8	-0.2	-1.0	-1.1	1.4	4.5	7.3	9.0	9.5	7.8	7.4	6.6	4.4	1.7	0.0	-1.4	-2.2	-2.1	9.5	-2.2	2.6
3	-2.8	-3.1	-4.1	-4.1	-5.6	-5.8	-6.0	-6.9	-6.8	-6.8	-3.7	-0.3	2.1	2.3	3.1	3.1	2.0	2.7	2.3	2.3	2.1	2.4	3.1	2.8	3.1	-6.9	-1.1
4	2.7	3.6	3.7	3.7	3.8	3.7	3.8	3.9	4.3	4.5	4.8	5.1	6.2	7.1	8.0	8.9	9.1	8.3	7.8	7.4	7.2	6.5	6.4	5.8	9.1	2.7	5.7
5	5.3	4.1	3.3	2.0	1.4	2.2	1.5	0.2	0.4	0.9	5.6	8.6	9.9	9.4	10.6	11.6	10.9	8.3	7.1	5.5	4.9	4.3	3.5	3.5	11.6	0.2	5.2
6	2.5	1.1	0.9	0.6	0.4	0.8	0.6	1.1	1.4	0.5	1.8	4.5	7.5	8.6	9.0	8.9	8.0	7.5	5.4	4.4	2.5	1.0	-0.1	-0.3	9.0	-0.3	3.3
7	1.1	1.3	1.0	1.2	1.3	1.3	1.2	1.2	1.3	1.4	1.8	2.4	4.8	5.5	5.6	6.2	5.9	4.8	3.9	3.3	2.8	2.5	2.2	1.9	6.2	1.0	2.7
8	2.1	2.1	2.3	2.4	2.5	2.2	2.3	2.6	2.9	3.2	3.7	4.0	4.4	4.6	4.7	4.6	4.4	4.3	3.8	3.6	3.6	3.8	3.9	3.6	4.7	2.1	3.4
9	3.4	2.8	2.7	2.8	2.8	3.2	3.2	2.8	3.2	3.4	3.8	4.8	5.4	5.7	5.6	6.1	5.9	5.3	5.0	4.4	4.2	4.1	4.2	4.5	6.1	2.7	4.1
10	4.4	3.7	3.8	3.9	3.9	3.8	3.9	4.2	4.6	5.2	6.2	6.2	6.0	5.9	5.9	6.1	5.9	5.9	5.5	5.7	5.7	5.6	5.4	5.3	6.2	3.7	5.1
11	5.4	5.7	5.6	5.5	5.5	5.3	5.2	5.2	4.7	5.1	6.3	7.6	8.2	7.9	8.2	8.1	8.3	8.1	6.7	6.1	5.3	4.3	4.2	4.5	8.3	4.2	6.1
12	2.8	2.5	2.2	3.1	4.2	5.2	5.2	5.7	4.1	5.6	4.8	5.4	6.3	6.1	6.1	5.2	2.9	2.1	1.3	0.7	1.0	1.1	0.8	1.1	6.3	0.7	3.6
13	1.3	1.2	1.0	1.1	1.1	0.9	0.9	0.9	0.6	0.7	1.2	2.1	2.9	3.7	4.0	4.2	4.2	4.2	3.7	3.3	2.9	2.9	2.8	2.8	4.2	0.6	2.3
14	2.5	2.5	2.8	2.8	2.0	1.6	0.8	1.2	1.1	1.4	1.9	2.8	3.7	3.8	4.5	5.3	5.3	5.4	5.3	5.2	5.0	4.7	4.3	4.1	5.4	0.8	3.3
15	4.0	3.9	4.0	4.0	3.7	3.8	3.8	3.9	4.1	3.9	4.0	3.9	3.7	4.1	4.2	4.4	4.6	5.3	5.1	4.5	4.1	4.2	3.3	2.5	5.3	2.5	4.0
16	2.4	2.3	2.4	2.4	3.2	3.0	3.5	3.6	3.5	3.5	3.6	4.5	6.4	6.2	6.0	6.0	5.5	4.7	4.8	4.5	4.4	4.5	4.7	4.9	6.4	2.3	4.2
17	4.6	4.6	3.9	4.0	3.6	3.6	3.3	3.1	2.7	3.6	4.0	3.9	4.3	4.4	4.1	4.0	4.2	3.8	3.4	3.3	3.0	2.8	2.8	2.7	4.6	2.7	3.7
18	2.7	2.9	3.0	3.2	3.2	3.2	3.3	3.3	3.0	2.5	2.0	1.7	1.6	2.0	2.5	3.6	4.8	6.4	7.2	6.5	6.1	5.8	5.8	5.1	7.2	1.6	3.8
19	5.8	5.2	4.9	4.8	4.6	4.4	4.2	4.5	4.7	5.1	5.3	5.5	5.7	5.8	5.1	5.2	4.5	3.5	4.5	4.0	4.2	3.4	3.5	3.1	5.8	3.1	4.6
20	3.5	2.6	2.9	2.4	2.2	2.4	2.3	2.1	2.6	2.7	3.0	3.5	4.0	4.8	4.8	3.1	2.2	1.8	1.7	1.4	1.0	0.4	0.5	0.7	4.8	0.4	2.4
21	0.6	0.1	0.1	-0.3	-0.3	-0.1	0.0	-0.3	-0.2	-0.3	0.2	1.2	1.2	1.2	0.8	0.6	0.3	0.4	0.4	0.2	0.4	0.5	0.4	0.6	1.2	-0.3	0.3
22	0.8	1.0	1.7	1.8	1.6	1.7	1.6	1.7	2.1	2.1	2.5	2.5	2.4	2.5	2.8	3.0	3.1	3.0	2.6	2.2	2.5	2.5	2.5	2.5	3.1	0.8	2.2
23	2.5	2.4	2.2	2.1	1.8	1.9	1.9	2.1	1.9	2.0	2.1	2.5	3.0	3.3	3.4	3.3	3.3	3.1	2.7	2.4	2.8	2.4	2.1	1.6	3.4	1.6	2.5
24	1.3	1.1	0.9	0.9	0.8	0.4	0.2	0.4	0.0	0.5	1.1	1.6	1.1	1.8	1.5	0.6	1.3	0.6	-0.1	-0.5	-1.2	-2.1	-2.5	-2.2	1.8	-2.5	0.3
25	-0.9	-1.3	-3.2	-5.1	-5.5	-6.0	-6.3	-6.2	-5.0	-3.5	-2.3	-1.7	-1.2	-0.9	-1.2	-1.9	-2.2	-2.3	-2.5	-2.5	-2.8	-3.3	-4.1	-4.2	-0.9	-6.3	-3.2
26	-4.3	-4.0	-3.4	-2.8	-2.1	-1.4	-0.8	-0.3	0.5	1.1	1.3	2.1	2.4	2.7	2.9	2.9	3.0	2.9	2.9	3.0	2.7	2.7	2.5	2.5	3.0	-4.3	0.8
27	2.3	2.3	1.9	2.1	2.2	1.4	1.1	1.0	1.1	1.5	1.8	2.0	2.3	2.2	2.1	2.3	2.2	1.8	1.5	1.4	1.4	1.3	1.2	1.1	2.3	1.0	1.7
28	1.3	0.9	0.8	0.9	0.2	-0.5	-1.2	-1.4	-1.1	-0.2	0.1	0.2	0.5	0.9	0.5	-0.3	-0.8	-0.8	-1.5	-1.8	-2.1	-2.4	-2.6	-2.8	1.3	-2.8	-0.6
29	-3.3	-3.3	-3.6	-4.0	-4.3	-4.4	-4.1	-3.9	-4.0	-3.8	-3.3	-3.1	-3.2	-3.0	-3.0	-3.8	-5.0	-6.1	-6.7	-7.3	-7.3	-7.6	-7.7	-7.8	-3.0	-7.8	-4.7
30	-7.9	-8.0	-8.0	-8.0	-8.0	-8.1	-8.0	-8.1	-7.9	-8.5	-8.7	-7.1	-4.7	-3.7	-4.5	-4.7	-5.3	-7.1	-7.6	-8.9	-9.5	-7.8	-8.8	-9.9	-3.7	-9.9	-7.4
31	-12.2	-10.6	-12.7	-13.4	-13.3	-13.5	-13.9	-14.0	-11.6	-10.1	-9.3	-7.1	-6.6	-5.5	-4.9	-4.7	-5.8	-7.1	-7.6	-8.9	-9.5	-9.2	-9.7	-10.5	-4.7	-14.0	-9.5
Max.	5.8	5.7	5.6	5.5	5.5	5.3	5.2	5.7	4.7	5.6	6.3	8.6	9.9	9.4	10.6	11.6	10.9	8.3	7.8	7.4	7.2	6.5	6.4	5.8	11.6		
Min.	-12.2	-10.6	-12.7	-13.4	-13.3	-13.5	-13.9	-14.0	-11.6	-10.1	-9.3	-7.1	-6.6	-5.5	-4.9	-4.7	-5.8	-7.1	-7.6	-8.9	-9.5	-9.2	-9.7	-10.5		-14.0	
Avg.	1.2	1.0	0.8	0.7	0.6	0.6	0.5	0.5	0.6	0.9	1.6	2.5	3.3	3.6	3.8	3.7	3.4	3.0	2.5	2.0	1.7	1.4	1.1	1.0			1.7

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - 2-m Temperature (deg. C)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-11.3	-12.2	-13.7	-14.0	-13.3	-13.9	-14.3	-12.9	-11.0	-12.2	-11.7	-10.3	-8.3	-7.6	-6.9	-6.5	-6.3	-7.1	-7.6	-7.9	-8.8	-8.9	-9.0	-9.1	-6.3	-14.3	-10.2
2	-9.0	-8.9	-8.7	-8.4	-8.1	-7.9	-7.9	-8.0	-8.0	-8.0	-8.3	-8.3	-7.4	-6.8	-6.7	-6.8	-7.1	-7.8	-8.6	-9.5	-9.5	-10.6	-11.1	-11.1	-6.7	-11.1	-8.4
3	-11.2	-11.2	-11.1	-11.0	-11.4	-11.5	-10.4	-9.9	-9.7	-10.2	-10.2	-9.0	-8.5	-8.3	-8.2	-8.7	-9.5	-9.8	-10.1	-9.9	-9.2	-8.8	-8.7	-10.1	-8.2	-11.5	-9.9
4	-10.6	-10.6	-10.2	-10.9	-10.9	-11.2	-11.1	-11.0	-10.6	-10.1	-8.5	-6.1	-5.4	-4.8	-4.7	-5.2	-6.1	-6.8	-7.1	-6.7	-7.1	-7.5	-7.1	-7.5	-4.7	-11.2	-8.2
5	-7.6	-8.1	-8.8	-10.0	-10.4	-10.2	-11.4	-12.7	-13.1	-14.0	-14.6	-11.0	-8.7	-6.8	-6.0	-7.2	-9.9	-11.4	-12.6	-13.3	-13.1	-13.8	-13.6	-14.0	-6.0	-14.6	-10.9
6	-13.7	-12.9	-12.0	-11.0	-10.7	-10.9	-10.9	-9.5	-7.6	-8.3	-8.3	-7.8	-7.5	-6.5	-5.8	-6.5	-6.4	-8.6	-7.6	-7.1	-7.5	-7.7	-7.5	-8.0	-5.8	-13.7	-8.8
7	-8.5	-8.7	-8.6	-8.5	-8.8	-9.3	-9.7	-9.7	-9.9	-9.7	-9.0	-8.5	-8.4	-7.4	-7.2	-7.5	-7.3	-7.5	-7.7	-8.1	-8.3	-8.3	-8.6	-9.0	-7.2	-9.9	-8.5
8	-8.5	-8.2	-8.7	-8.7	-8.8	-9.3	-8.8	-8.4	-9.9	-10.8	-11.0	-9.4	-7.0	-5.3	-4.8	-5.1	-7.1	-10.2	-11.8	-13.0	-13.0	-13.7	-13.0	-13.7	-4.8	-13.7	-9.5
9	-15.4	-14.6	-14.6	-15.1	-14.4	-15.9	-13.7	-13.3	-11.6	-9.7	-8.8	-8.1	-7.6	-6.6	-6.7	-7.0	-7.9	-9.5	-9.9	-11.2	-12.6	-13.0	-12.0	-11.7	-6.6	-15.9	-11.3
10	-11.5	-11.1	-8.6	-7.5	-8.0	-8.0	-7.7	-6.9	-6.5	-6.0	-6.2	-5.4	-4.6	-2.9	-1.9	-2.1	-3.3	-5.1	-5.6	-5.2	-4.6	-4.1	-4.3	-4.5	-1.9	-11.5	-5.9
11	-4.7	-4.8	-5.1	-5.0	-4.9	-5.0	-4.9	-4.9	-4.8	-4.9	-4.9	-4.7	-4.0	-3.2	-2.3	-2.0	-2.7	-4.2	-5.1	-5.6	-5.2	-4.6	-4.5	-4.4	-2.0	-5.6	-4.4
12	-4.3	-4.1	-4.0	-3.6	-3.4	-3.5	-3.6	-3.7	-3.4	-3.4	-3.0	-2.4	-2.0	-2.2	-1.8	-1.9	-2.0	-2.2	-2.2	-2.6	-3.0	-3.2	-3.1	-2.9	-1.8	-4.3	-3.0
13	-2.8	-3.0	-2.4	-2.3	-2.3	-2.5	-2.7	-2.7	-2.8	-2.8	-2.5	-2.3	-1.8	-1.3	-1.1	-1.4	-1.4	-1.5	-1.7	-2.3	-2.1	-1.9	-1.6	-1.9	-1.1	-3.0	-2.1
14	-1.9	-1.8	-2.2	-2.6	-2.7	-2.7	-2.3	-1.7	-1.2	-0.6	-0.3	0.0	0.0	0.5	0.7	0.7	0.9	1.2	1.4	1.6	1.3	1.4	1.4	1.3	1.6	-2.7	-0.3
15	1.2	0.5	-1.3	-1.9	-2.7	-3.2	-3.6	-4.2	-4.6	-4.8	-4.9	-4.8	-4.4	-4.0	-3.9	-3.9	-5.0	-4.2	-4.0	-4.9	-5.0	-4.4	-3.6	-3.0	1.2	-5.0	-3.5
16	-3.3	-3.4	-3.7	-3.5	-3.4	-4.4	-4.7	-4.3	-4.3	-3.8	-3.9	-4.7	-4.7	-4.1	-3.4	-4.0	-4.9	-4.8	-4.8	-5.0	-5.1	-5.0	-5.1	-5.6	-3.3	-5.6	-4.3
17	-6.3	-5.9	-6.0	-5.7	-5.4	-4.9	-4.1	-3.8	-3.5	-3.2	-3.2	-3.2	-3.2	-3.2	-2.9	-2.7	-3.1	-4.3	-5.1	-5.6	-6.0	-6.0	-5.9	-5.5	-2.7	-6.3	-4.5
18	-5.3	-5.2	-5.2	-5.4	-5.1	-5.0	-4.6	-4.2	-3.7	-3.3	-3.0	-2.8	-2.7	-2.7	-2.6	-2.4	-2.3	-2.0	-1.7	-1.7	-2.1	-2.0	-1.8	-1.9	-1.7	-5.4	-3.3
19	-1.6	-1.2	-0.8	-0.8	-1.3	-1.8	-1.8	-0.9	-0.2	-0.4	0.3	0.9	0.8	-0.6	-0.7	-0.8	-1.5	-1.6	-1.5	-1.2	-0.7	0.1	0.6	0.7	0.9	-1.8	-0.7
20	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.3	0.4	0.4	0.4	0.4	0.6	0.8	0.8	0.6	0.4	0.4	0.6	0.7	0.5	0.5	0.5	0.9	0.3	0.6
21	0.8	0.8	0.6	0.4	0.3	0.5	0.4	0.3	-0.5	-0.7	-0.8	-1.0	-0.6	-0.6	-0.6	-0.7	-0.7	-0.9	-1.0	-0.6	-0.1	0.3	0.6	1.1	1.1	-1.0	-0.1
22	1.2	1.1	0.9	0.7	0.8	0.7	0.6	0.2	0.0	-0.3	-0.7	-0.7	-0.6	-0.3	-0.3	-0.7	-1.2	-1.4	-1.4	-1.5	-1.0	-0.9	-1.7	-0.7	1.2	-1.7	-0.3
23	0.2	-0.1	-0.1	-0.2	0.7	1.2	2.1	3.2	3.1	2.6	1.9	1.8	1.3	-0.3	-0.3	-0.1	-0.9	-2.3	-1.3	-1.2	-2.1	-3.2	-4.4	-5.3	3.2	-5.3	-0.2
24	-6.7	-6.1	-6.4	-5.8	-6.9	-5.9	-4.9	-1.7	-0.6	0.7	1.2	0.9	0.3	0.3	0.2	-0.7	-1.5	-1.6	-3.1	-3.0	-3.9	-3.8	-5.6	-6.5	1.2	-6.9	-3.0
25	-8.5	-9.6	-9.6	-9.8	-10.0	-10.2	-10.7	-12.0	-11.4	-11.5	-13.7	-13.8	-11.7	-11.8	-11.0	-8.5	-7.8	-7.5	-7.6	-7.5	-7.2	-6.7	-5.6	-5.5	-5.5	-13.8	-9.6
26	-5.6	-5.6	-5.6	-5.6	-5.5	-5.5	-6.1	-6.6	-7.1	-7.7	-7.9	-7.5	-7.0	-6.2	-5.2	-3.3	-3.3	-3.6	-3.7	-3.6	-3.3	-2.9	-3.1	-3.2	-2.9	-7.9	-5.2
27	-3.0	-3.0	-2.8	-2.0	-2.1	-2.1	-1.3	-0.4	-0.3	0.4	0.5	-0.4	-0.8	-0.6	-0.9	-1.3	-1.4	-1.3	-1.3	-1.1	-1.2	-1.3	-1.3	-0.8	0.5	-3.0	-1.2
28	-0.6	-0.7	-1.0	-1.0	-0.8	-0.6	-0.6	-0.4	-0.4	-0.5	-0.6	-0.5	0.1	-0.2	-0.4	-1.1	-1.6	-1.9	-1.9	-2.0	-2.1	-2.2	-2.3	-2.2	0.1	-2.3	-1.1
29	-2.1	-1.9	-2.1	-2.2	-2.2	-3.3	-3.4	-5.1	-4.5	-4.4	-4.7	-5.1	-4.1	-3.2	-2.3	-1.6	-1.3	-1.3	-0.5	0.2	0.3	0.0	0.0	0.1	0.3	-5.1	-2.3
30	-0.7	-1.1	-0.7	-0.2	-0.1	0.0	-0.1	0.1	0.3	0.2	0.1	0.0	0.1	0.0	-0.2	-0.4	-0.5	-0.7	-0.8	-1.0	-1.0	-1.0	-0.9	-0.9	0.3	-1.1	-0.4
Max.	1.2	1.1	0.9	0.8	0.8	1.2	2.1	3.2	3.1	2.6	1.9	1.8	1.3	0.6	0.8	0.8	0.9	1.2	1.4	1.6	1.3	1.4	1.4	1.3	3.2		
Min.	-15.4	-14.6	-14.6	-15.1	-14.4	-15.9	-14.3	-13.3	-13.1	-14.0	-14.6	-13.8	-11.7	-11.8	-11.0	-8.7	-9.9	-11.4	-12.6	-13.3	-13.1	-13.8	-13.6	-14.0		-15.9	
Avg.	-5.4	-5.4	-5.4	-5.4	-5.4	-5.5	-5.4	-5.2	-4.9	-4.9	-4.9	-4.5	-3.9	-3.5	-3.2	-3.3	-3.8	-4.3	-4.5	-4.7	-4.8	-4.8	-4.7	-4.8			-4.7

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - 2 -m Temperature (deg. C)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	-1.1	-1.1	-1.2	-1.3	-1.2	-1.2	-1.4	-1.6	-1.4	-1.5	-1.6	-1.6	-1.4	-1.3	-1.4	-1.4	-2.0	-2.5	-2.7	-2.9	-2.9	-3.7	-4.8	-5.3	-1.1	-5.3	-2.0	
2	-6.5	-7.7	-7.6	-7.4	-7.9	-8.3	-8.8	-8.2	-9.2	-9.4	-8.9	-7.7	-7.6	-7.2	-6.9	-6.8	-5.6	-5.6	-5.5	-4.7	-4.7	-5.0	-5.1	-5.0	-4.7	-9.4	-7.0	
3	-4.7	-4.7	-4.8	-5.0	-5.2	-5.3	-5.3	-5.4	-5.5	-5.5	-5.6	-5.8	-6.0	-5.9	-5.9	-6.2	-6.4	-6.7	-7.2	-7.9	-8.3	-9.3	-10.3	-11.7	-4.7	-11.7	-6.4	
4	-12.1	-14.0	-13.7	-12.9	-13.1	-11.6	-9.8	-9.8	-9.1	-7.7	-7.1	-7.1	-7.1	-7.3	-7.1	-7.8	-8.7	-9.6	-10.7	-10.3	-10.0	-9.3	-9.6	-9.6	-7.1	-14.0	-9.8	
5	-9.0	-8.4	-8.8	-9.2	-9.7	-9.6	-11.4	-12.8	-14.4	-13.4	-12.0	-13.4	-14.5	-14.3	-13.4	-13.7	-14.0	-13.2	-14.6	-15.5	-15.6	-16.8	-15.7	-16.1	-8.4	-16.8	-12.9	
6	-15.6	-15.8	-15.5	-16.2	-13.1	-14.6	-12.8	-11.7	-11.7	-11.8	-11.8	-9.6	-9.1	-9.9	-10.4	-10.1	-10.3	-10.5	-10.5	-10.7	-10.8	-10.4	-10.9	-10.9	-9.1	-16.2	-11.8	
7	-10.3	-10.2	-10.1	-10.3	-9.9	-9.6	-9.2	-9.3	-9.1	-8.6	-8.8	-8.8	-7.9	-7.7	-7.6	-7.9	-8.5	-8.9	-9.1	-9.3	-9.5	-9.4	-8.9	-8.9	-7.6	-10.3	-9.1	
8	-8.6	-8.6	-8.8	-9.5	-9.8	-9.7	-9.5	-9.6	-9.5	-9.5	-9.5	-9.5	-9.8	-10.0	-10.4	-10.4	-10.1	-10.1	-9.8	-10.0	-9.9	-10.2	-10.6	-10.4	-10.7	-8.6	-10.7	-9.8
9	-10.7	-11.1	-10.8	-10.9	-10.9	-10.8	-10.8	-10.7	-10.6	-10.8	-10.3	-10.5	-10.7	-10.3	-10.0	-10.2	-10.9	-11.8	-12.2	-12.9	-13.6	-13.4	-12.7	-12.6	-10.0	-13.6	-11.3	
10	-13.0	-13.5	-13.7	-13.0	-12.4	-12.6	-12.6	-13.0	-12.9	-13.1	-13.5	-13.4	-13.1	-13.1	-13.3	-13.7	-14.1	-14.3	-15.6	-16.2	-16.4	-15.5	-14.4	-13.9	-12.4	-16.4	-13.8	
11	-12.0	-10.3	-9.5	-7.9	-6.7	-6.4	-5.9	-6.7	-5.6	-6.1	-6.2	-5.9	-5.5	-5.3	-4.6	-4.9	-4.5	-4.6	-4.8	-5.0	-5.5	-5.8	-6.0	-6.8	-4.5	-12.0	-6.3	
12	-7.1	-7.5	-7.5	-7.7	-8.0	-7.8	-8.5	-7.9	-8.9	-9.8	-10.3	-9.9	-8.6	-8.5	-8.1	-7.3	-7.9	-10.0	-10.3	-10.0	-9.2	-10.1	-9.4	-9.4	-7.1	-10.3	-8.7	
13	-8.6	-8.8	-8.6	-8.0	-8.1	-8.3	-8.4	-8.3	-7.7	-8.0	-8.5	-8.8	-8.0	-8.2	-9.1	-9.8	-10.0	-10.4	-11.7	-12.4	-12.7	-13.5	-13.8	-13.3	-7.7	-13.8	-9.7	
14	-12.2	-12.3	-13.0	-13.3	-14.2	-13.7	-14.2	-15.5	-15.1	-14.9	-15.0	-14.3	-15.0	-14.1	-13.4	-13.5	-13.8	-13.7	-13.1	-14.6	-15.2	-16.3	-15.6	-16.1	-12.2	-16.3	-14.2	
15	-17.5	-16.0	-14.7	-14.1	-14.0	-14.3	-10.9	-11.2	-11.5	-10.7	-12.0	-12.6	-10.6	-10.2	-9.0	-7.7	-6.7	-7.0	-6.2	-6.1	-6.4	-5.6	-4.6	-4.3	-4.3	-17.5	-10.1	
16	-5.4	-5.8	-6.7	-6.7	-6.6	-6.2	-5.5	-6.1	-5.4	-4.6	-4.2	-3.8	-3.4	-3.1	-2.9	-2.6	-2.7	-2.4	-2.5	-2.0	-2.0	-1.5	-1.9	-2.0	-1.5	-6.7	-4.0	
17	-2.8	-3.7	-4.5	-4.8	-5.3	-5.5	-5.6	-5.5	-5.7	-5.4	-4.8	-4.7	-5.0	-5.1	-4.9	-4.5	-4.2	-4.1	-4.0	-3.7	-3.5	-3.2	-3.0	-3.0	-2.8	-5.7	-4.4	
18	-3.1	-3.2	-3.0	-3.1	-3.5	-3.8	-3.9	-3.9	-4.2	-4.3	-4.3	-4.3	-4.0	-4.3	-4.3	-4.4	-4.6	-4.8	-4.9	-4.8	-4.8	-5.0	-5.3	-5.0	-3.0	-5.3	-4.2	
19	-5.2	-5.0	-5.9	-6.1	-5.8	-6.3	-5.7	-6.0	-7.0	-8.0	-8.6	-8.9	-9.8	-10.3	-10.5	-11.0	-11.1	-11.3	-11.4	-11.7	-11.8	-11.9	-11.9	-11.7	-5.0	-11.9	-8.9	
20	-11.7	-12.1	-12.3	-12.5	-12.7	-12.7	-13.0	-13.3	-13.6	-15.7	-16.6	-18.2	-20.2	-19.8	-17.7	-17.5	-19.1	-19.9	-21.9	-22.3	-22.9	-22.8	-23.1	-23.0	-11.7	-23.1	-17.3	
21	-23.5	-23.8	-25.5	-24.9	-25.0	-26.8	-26.7	-28.2	-28.2	-27.5	-28.4	-28.4	-28.1	-28.0	-28.3	-28.5	-28.3	-29.3	-28.1	-26.6	-27.6	-27.1	-27.3	-27.9	-23.5	-29.3	-27.2	
22	-26.2	-26.9	-24.0	-24.6	-24.9	-24.6	-24.9	-23.9	-24.3	-24.1	-25.5	-25.0	-25.4	-25.1	-25.5	-25.6	-25.7	-25.9	-26.2	-26.2	-26.2	-25.8	-25.6	-25.3	-23.9	-26.9	-25.3	
23	-26.3	-26.0	-25.1	-24.6	-24.2	-24.1	-24.3	-23.7	-22.9	-22.2	-22.5	-21.8	-21.8	-20.9	-20.2	-20.8	-20.9	-21.2	-22.6	-24.4	-25.1	-25.9	-26.1	-24.7	-20.2	-26.3	-23.4	
24	-23.6	-23.3	-23.7	-23.8	-23.2	-24.1	-22.6	-23.7	-22.4	-21.7	-21.6	-19.7	-18.6	-18.4	-17.1	-16.0	-15.1	-14.7	-15.3	-15.6	-15.0	-14.8	-14.7	-14.6	-14.6	-24.1	-19.3	
25	-14.3	-13.2	-12.4	-11.4	-10.2	-8.7	-8.2	-7.3	-6.5	-6.3	-5.4	-3.9	-3.2	-2.1	-1.9	-1.1	-0.5	-0.9	-1.0	-1.0	-0.6	-0.8	-1.7	-1.7	-0.5	-14.3	-5.2	
26	-1.2	-1.0	-0.9	-0.7	-0.8	-1.0	-1.0	-1.0	-1.6	-1.7	-1.6	-1.4	-1.5	-1.8	-2.0	-2.3	-2.3	-2.3	-2.7	-3.0	-3.2	-3.2	-3.1	-3.5	-0.7	-3.5	-1.9	
27	-3.3	-3.4	-3.5	-3.7	-3.4	-3.6	-3.8	-3.5	-3.7	-3.6	-3.4	-3.5	-4.1	-4.6	-4.4	-5.8	-6.9	-7.2	-7.9	-8.7	-9.1	-9.3	-8.9	-9.6	-3.3	-9.6	-5.4	
28	-9.5	-10.8	-11.0	-11.2	-12.2	-13.1	-15.1	-15.6	-16.6	-16.4	-15.7							-11.3	-11.4	-11.8	-11.5	-11.5	-11.3	-11.3	-9.5	-16.6	-12.6	
29	-11.0	-10.8	-10.5	-10.6	-10.1	-9.3	-9.0	-8.6	-8.3	-8.2	-7.8	-7.4	-7.2	-7.2	-6.3	-6.4	-5.3	-5.6	-6.3	-6.6	-6.6	-6.6	-7.0	-7.0	-5.3	-11.0	-7.9	
30	-6.7	-6.7	-7.3	-7.3	-7.1	-6.9	-6.5	-6.9	-6.7	-5.9	-4.9	-4.5	-5.0	-4.6	-2.7	-1.2	-0.4	-1.2	-1.4	-1.3	-1.6	-2.0	-2.7	-2.9	-0.4	-7.3	-4.3	
31	-2.5	-2.7	-3.0	-2.7	-2.5	-2.6	-2.1	-2.1	-2.1	-1.7	-1.3	-1.1	-1.1	-1.3	-1.5	-1.5	-1.5	-1.5	-1.6	-1.3	-0.7	-0.4	0.0	0.4	0.4	-3.0	-1.6	
Max.	-1.1	-1.0	-0.9	-0.7	-0.8	-1.0	-1.0	-1.0	-1.4	-1.5	-1.3	-1.1	-1.1	-1.3	-1.4	-1.1	-0.4	-0.9	-1.0	-1.0	-0.6	-0.4	0.0	0.4	0.4			
Min.	-26.3	-26.9	-25.5	-24.9	-25.0	-26.8	-26.7	-28.2	-28.2	-27.5	-28.4	-28.4	-28.1	-28.0	-28.3	-28.5	-28.3	-29.3	-28.1	-26.6	-27.6	-27.1	-27.3	-27.9		-29.3		
Avg.	-10.5	-10.6	-10.6	-10.5	-10.4	-10.4	-10.2	-10.4	-10.4	-10.3	-10.2	-9.9	-9.8	-9.7	-9.4	-9.3	-9.4	-9.7	-10.1	-10.3	-10.4	-10.5	-10.5	-10.6			-10.2	

Total Hours in Month

744

Hours Data Available

738

Data Recovery

99%

Rock Creek - 10-m Temperature (deg. C)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.3	-0.1	-0.8	-0.8	-0.7	-0.1	0.2	0.8	0.9	2.1	2.3	3.3	4.2	4.2	4.1	4.0	3.8	3.7	3.6	3.2	3.2	3.1	2.9	2.7	4.2	-0.8	2.2
2	2.4	2.4	2.5	1.5	1.6	1.7	1.1	0.1	-0.6	-0.8	0.4	2.9	5.0	6.3	6.8	6.0	5.7	5.4	3.8	2.2	0.7	-0.7	-1.4	-1.2	6.8	-1.4	2.2
3	-1.5	-1.6	-2.2	-2.0	-3.8	-3.6	-4.2	-5.3	-5.4	-5.6	-3.8	-0.8	0.5	1.1	1.8	2.0	1.4	2.1	1.9	1.7	1.7	2.3	3.0	2.4	3.0	-5.6	-0.7
4	2.6	3.5	3.6	3.6	3.8	3.6	3.7	3.8	4.2	4.2	4.2	4.6	5.6	6.3	7.1	7.9	7.9	7.6	7.6	7.4	7.2	6.6	6.4	6.4	7.9	3.5	5.5
5	5.4	4.0	3.8	2.7	2.3	3.6	2.2	1.3	1.6	1.6	4.7	7.0	8.0	7.5	8.4	9.4	9.3	7.5	6.8	6.2	5.6	4.7	3.9	4.7	9.4	1.3	5.1
6	3.1	1.8	2.2	1.9	1.4	1.1	1.3	2.1	1.8	1.1	1.5	3.4	5.7	6.7	7.4	7.6	6.9	6.6	5.6	4.9	2.6	1.4	0.2	0.1	7.6	0.1	3.3
7	1.0	0.9	0.6	0.9	1.0	1.1	1.1	1.0	1.2	1.0	1.3	1.7	2.8	3.1	3.7	4.2	4.1	3.6	3.2	2.7	2.4	2.0	1.7	1.4	4.2	0.6	2.0
8	1.6	1.7	1.9	2.0	2.2	1.8	2.1	2.3	2.7	3.0	3.5	3.7	3.9	4.1	4.2	4.2	4.1	4.0	3.6	3.5	3.5	3.6	3.7	3.4	4.2	1.7	3.2
9	3.3	2.8	2.8	2.9	2.9	3.2	3.1	2.8	3.2	3.2	3.6	4.4	4.9	5.2	5.1	5.7	5.5	5.1	4.8	4.1	4.1	4.0	4.1	4.4	5.7	2.8	4.0
10	4.2	3.5	3.6	3.9	3.9	3.7	3.8	4.1	4.6	5.1	6.0	6.0	5.8	5.7	5.7	6.0	5.8	5.8	5.5	5.7	5.8	5.7	5.5	5.4	6.0	3.5	5.1
11	5.4	5.6	5.5	5.3	5.3	5.1	5.1	4.9	4.6	4.9	5.7	6.7	7.3	7.1	7.4	7.6	7.8	7.8	7.0	6.6	5.5	4.6	4.7	4.9	7.8	4.6	6.0
12	2.9	2.4	2.7	3.3	4.6	5.5	5.4	5.7	4.0	5.7	4.6	5.3	5.9	5.4	5.3	4.6	2.6	1.9	0.8	0.4	0.9	0.9	0.5	1.0	5.9	0.4	3.5
13	0.9	0.7	0.8	0.7	0.6	0.6	0.8	0.7	0.3	0.4	0.9	1.5	2.5	3.1	3.3	3.4	3.6	3.5	3.2	2.9	2.6	2.6	2.4	2.3	3.6	0.3	1.9
14	2.2	2.3	2.3	2.3	1.6	1.6	1.1	1.3	1.1	1.4	1.8	2.5	3.4	3.5	4.2	5.0	5.1	5.3	5.2	5.2	5.0	4.6	4.3	4.1	5.3	1.1	3.2
15	3.9	3.9	3.9	3.9	3.7	3.7	3.7	3.8	4.0	3.8	3.9	3.8	3.6	3.9	4.1	4.2	4.4	5.2	5.0	4.3	3.9	4.0	3.5	3.0	5.2	3.0	4.0
16	3.1	3.1	3.6	3.4	3.7	3.3	3.7	3.5	3.7	3.8	3.9	4.0	4.8	5.2	5.3	5.4	5.0	4.6	4.9	4.8	4.3	4.3	4.6	4.8	5.4	3.1	4.2
17	4.6	4.4	4.1	4.1	3.9	3.5	3.3	2.9	2.9	3.6	3.8	3.7	4.0	4.0	3.8	3.7	3.8	3.6	3.3	3.1	2.9	2.6	2.6	2.5	4.4	2.5	3.5
18	2.5	2.7	2.8	2.9	3.0	3.0	3.2	3.2	2.9	2.5	2.0	1.7	1.5	2.2	2.7	3.7	4.9	6.4	7.2	6.5	6.1	5.9	5.9	5.1	7.2	1.5	3.8
19	5.8	5.1	5.0	4.7	4.7	4.5	4.3	4.6	4.8	5.2	5.3	5.4	5.5	5.6	4.8	5.0	4.3	3.4	4.3	3.9	4.1	3.4	3.5	3.0	5.6	3.0	4.5
20	3.4	2.8	3.0	2.4	2.3	2.5	2.2	2.3	2.6	2.7	3.0	3.3	3.7	4.2	4.1	2.6	1.9	1.7	1.7	1.5	1.1	0.3	0.4	0.7	4.2	0.3	2.3
21	0.5	0.0	-0.2	-0.5	-0.5	-0.1	0.0	-0.3	-0.3	-0.5	0.0	0.9	0.8	0.7	0.5	0.3	0.0	0.2	0.2	0.0	0.5	0.6	0.0	0.4	0.9	-0.5	0.1
22	0.5	1.1	1.7	1.7	1.5	1.6	1.5	1.7	2.1	2.0	2.4	2.0	1.9	2.0	2.3	2.5	2.5	2.6	2.4	2.2	2.4	2.3	2.3	2.3	2.6	1.1	2.0
23	2.2	1.9	2.0	1.8	1.7	1.9	1.8	1.8	1.6	1.6	1.8	2.1	2.5	2.7	2.7	2.7	3.1	2.9	2.8	2.4	2.9	2.2	2.0	1.6	3.1	1.6	2.2
24	1.4	1.3	1.1	0.9	0.8	0.4	0.2	0.5	0.3	0.7	1.0	1.1	0.7	1.1	0.8	0.2	1.0	0.4	0.0	-0.4	-1.0	-1.3	-1.2	-1.6	1.3	-1.6	0.3
25	-0.6	-1.1	-2.4	-3.9	-3.7	-5.0	-4.6	-4.9	-4.2	-3.0	-2.3	-1.8	-1.4	-1.1	-1.4	-2.1	-2.3	-2.4	-2.6	-2.6	-3.0	-3.4	-4.2	-4.3	-1.1	-5.0	-2.9
26	-4.4	-4.1	-3.6	-2.9	-2.2	-1.6	-1.0	-0.5	0.3	1.0	1.1	2.0	2.4	2.6	2.7	2.7	2.8	2.8	2.8	2.9	2.6	2.5	2.3	2.3	2.9	-4.1	0.9
27	2.1	2.2	1.8	2.0	2.0	1.3	1.0	1.0	1.1	1.5	1.7	1.9	2.0	1.8	1.7	1.9	1.9	1.7	1.5	1.4	1.4	1.3	1.3	1.4	2.2	1.0	1.6
28	1.5	1.1	1.2	1.2	0.3	-0.2	-0.5	-0.9	-0.6	0.0	0.1	0.0	0.2	0.4	0.1	-0.6	-1.0	-1.0	-1.6	-1.8	-2.2	-2.4	-2.7	-2.8	1.2	-2.8	-0.6
29	-3.3	-3.3	-3.7	-4.0	-4.2	-4.2	-4.0	-3.9	-4.0	-3.9	-3.6	-3.5	-3.6	-3.5	-3.6	-4.3	-5.5	-6.4	-6.8	-7.4	-7.5	-7.7	-7.8	-7.9	-3.3	-7.9	-5.0
30	-8.0	-8.1	-8.1	-8.1	-8.1	-8.2	-8.0	-8.1	-7.8	-8.1	-8.4	-7.6	-5.9	-5.0	-5.6	-5.8	-5.8	-6.9	-7.1	-8.4	-8.7	-7.7	-9.2	-9.6	-5.0	-9.6	-7.6
31	-11.1	-9.5	-12.1	-12.3	-12.7	-12.0	-13.2	-13.0	-10.1	-10.0	-8.1	-7.2	-6.8	-6.1	-5.7	-5.8	-6.5	-6.7	-7.7	-8.6	-9.1	-8.7	-9.6	-9.8	-5.7	-13.2	-9.2
Max.	5.8	5.6	5.5	5.3	5.3	5.5	5.4	5.7	4.8	5.7	6.0	7.0	8.0	7.5	8.4	9.4	9.3	7.8	7.6	7.4	7.2	6.6	6.4	6.4	9.4		
Min.	-11.1	-9.5	-12.1	-12.3	-12.7	-12.0	-13.2	-13.0	-10.1	-10.0	-8.4	-7.6	-6.8	-6.1	-5.7	-5.8	-6.5	-6.9	-7.7	-8.6	-9.1	-8.7	-9.6	-9.8		-13.2	
Avg.	1.2	1.1	0.9	0.8	0.7	0.7	0.7	0.6	0.8	1.0	1.4	2.1	2.6	2.9	3.0	3.0	2.8	2.6	2.3	2.0	1.7	1.4	1.1	1.1			1.6

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - 10-m Temperature (deg. C)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-10.7	-11.3	-13.1	-13.1	-12.2	-13.2	-13.0	-12.3	-9.8	-12.2	-11.2	-9.4	-8.7	-8.1	-7.4	-6.8	-6.7	-7.4	-7.6	-8.4	-9.1	-8.6	-9.2	-9.3	-6.7	-13.2	-9.9
2	-9.1	-9.0	-9.0	-8.7	-8.3	-8.3	-8.3	-8.5	-8.4	-8.5	-8.6	-8.6	-7.7	-7.3	-7.2	-7.2	-7.5	-8.1	-8.7	-9.6	-9.6	-10.7	-11.2	-11.2	-7.2	-11.2	-8.7
3	-11.3	-11.2	-11.1	-11.0	-11.4	-11.4	-10.4	-9.9	-9.8	-10.2	-10.1	-9.5	-9.1	-8.8	-8.8	-9.2	-9.8	-10.1	-10.3	-9.6	-9.2	-8.9	-8.4	-9.2	-8.4	-11.4	-9.9
4	-9.8	-9.2	-9.2	-9.5	-9.4	-9.0	-9.1	-9.1	-9.4	-9.2	-7.7	-6.4	-6.0	-5.7	-5.6	-5.8	-6.4	-6.7	-7.0	-6.7	-7.0	-7.0	-6.8	-7.1	-5.6	-9.8	-7.7
5	-6.9	-6.7	-7.7	-8.3	-8.9	-9.0	-10.3	-11.0	-11.5	-13.1	-13.8	-10.5	-9.2	-7.7	-7.1	-8.1	-9.5	-10.8	-11.8	-11.8	-13.2	-13.8	-13.2	-13.6	-6.7	-13.8	-10.3
6	-13.2	-12.6	-11.1	-10.4	-10.0	-10.4	-10.1	-9.0	-7.1	-8.1	-7.6	-7.9	-7.9	-6.9	-6.2	-6.7	-6.5	-8.4	-7.2	-6.9	-7.5	-7.7	-7.4	-8.1	-6.2	-13.2	-8.5
7	-8.6	-8.8	-8.7	-8.6	-8.9	-9.4	-9.9	-9.8	-10.0	-9.8	-9.1	-8.6	-8.6	-7.6	-7.4	-7.7	-7.5	-7.8	-7.9	-8.3	-8.5	-8.4	-8.8	-9.0	-7.4	-10.0	-8.6
8	-8.6	-8.2	-8.6	-8.7	-8.8	-9.0	-8.4	-8.1	-9.5	-9.6	-10.0	-9.1	-8.1	-6.6	-6.1	-6.3	-7.6	-9.6	-11.2	-11.6	-11.7	-12.9	-11.6	-12.3	-6.1	-12.9	-9.2
9	-14.0	-12.7	-12.7	-13.3	-13.0	-10.9	-11.6	-10.9	-9.9	-8.8	-8.5	-8.6	-8.2	-7.5	-7.6	-7.9	-8.0	-8.6	-8.4	-9.7	-11.5	-11.8	-10.0	-10.2	-7.5	-14.0	-10.2
10	-9.8	-10.2	-7.7	-7.3	-8.0	-7.9	-7.7	-6.9	-6.6	-5.9	-6.2	-5.5	-4.8	-3.0	-2.1	-2.3	-3.9	-5.5	-6.0	-5.5	-4.8	-4.5	-4.7	-4.9	-2.1	-10.2	-5.9
11	-5.1	-5.4	-5.6	-5.5	-5.5	-5.4	-5.3	-5.3	-5.2	-5.2	-5.3	-5.2	-4.5	-3.8	-3.2	-3.1	-3.2	-4.5	-4.9	-5.5	-5.1	-4.9	-4.9	-4.8	-3.1	-5.6	-4.9
12	-4.6	-4.4	-4.3	-3.9	-3.9	-3.9	-4.3	-3.9	-3.9	-3.7	-3.2	-2.9	-2.5	-2.7	-2.5	-2.5	-2.5	-2.6	-2.6	-2.9	-3.3	-3.3	-3.3	-3.1	-2.5	-4.6	-3.4
13	-2.9	-3.1	-2.6	-2.5	-2.5	-2.8	-3.0	-2.9	-3.0	-2.9	-2.7	-2.5	-2.0	-1.6	-1.4	-1.7	-1.8	-1.9	-2.1	-2.6	-2.4	-2.1	-1.8	-2.0	-1.4	-3.1	-2.4
14	-1.9	-1.8	-2.3	-2.6	-2.6	-2.6	-2.2	-1.6	-1.1	-0.5	-0.3	0.0	0.1	0.5	0.7	0.7	0.9	1.2	1.4	1.7	1.3	1.3	1.3	1.3	1.7	-2.6	-0.3
15	1.0	0.1	-1.6	-2.1	-2.9	-3.4	-3.8	-4.5	-4.8	-5.0	-5.1	-4.9	-4.7	-4.6	-4.4	-4.2	-5.1	-4.2	-4.1	-4.6	-4.3	-4.1	-3.7	-3.1	1.0	-5.1	-3.7
16	-3.4	-3.6	-3.8	-3.6	-3.5	-4.6	-4.6	-4.4	-4.4	-3.9	-4.0	-4.6	-4.8	-4.3	-4.0	-4.5	-5.2	-4.9	-5.0	-5.3	-5.2	-5.1	-5.0	-5.6	-3.4	-5.6	-4.5
17	-6.4	-6.0	-6.2	-5.9	-5.6	-5.1	-4.3	-4.0	-3.5	-3.2	-3.3	-3.2	-3.1	-3.2	-2.9	-2.6	-3.1	-4.2	-5.0	-5.5	-5.9	-5.9	-5.8	-5.5	-2.6	-6.4	-4.6
18	-5.2	-5.3	-5.4	-5.3	-5.0	-5.0	-4.7	-4.2	-3.8	-3.3	-3.0	-2.9	-2.7	-2.7	-2.6	-2.5	-2.4	-2.1	-1.8	-1.8	-2.1	-2.0	-1.8	-2.0	-1.8	-5.4	-3.3
19	-1.6	-1.1	-0.8	-0.8	-1.3	-1.8	-1.5	-0.7	-0.1	-0.1	0.5	1.0	0.8	-0.5	-0.6	-0.6	-1.3	-1.4	-1.3	-1.1	-0.7	0.2	0.7	0.8	1.0	-1.8	-0.6
20	0.9	1.0	0.9	0.9	0.8	0.6	0.6	0.4	0.3	0.3	0.4	0.3	0.3	0.5	0.6	0.6	0.5	0.4	0.4	0.6	0.7	0.6	0.5	0.5	1.0	0.3	0.6
21	0.8	0.8	0.6	0.3	0.3	0.5	0.4	0.3	-0.5	-0.6	-0.6	-0.9	-0.6	-0.4	-0.3	-0.4	-0.5	-0.8	-0.9	-0.5	0.0	0.4	0.7	1.2	1.2	-0.9	0.0
22	1.3	1.2	1.0	0.8	0.9	0.8	0.7	0.3	0.1	-0.2	-0.5	-0.7	-0.6	-0.4	-0.4	-0.8	-1.1	-1.4	-1.3	-1.5	-0.8	-0.4	-1.1	0.0	1.3	-1.5	-0.2
23	0.8	1.0	0.9	0.6	1.5	2.2	2.9	3.8	3.7	3.1	2.4	2.0	1.4	-0.4	-0.4	-0.3	-1.0	-1.9	-0.7	-0.4	-1.0	-2.4	-3.4	-4.9	3.8	-4.9	0.4
24	-6.0	-4.6	-5.6	-4.4	-5.9	-3.9	-2.7	-0.8	0.5	1.6	2.0	1.2	0.4	0.1	0.6	-0.8	-0.7	-1.3	-1.5	-1.2	-3.1	-2.8	-4.5	-6.1	2.0	-6.1	-2.1
25	-8.5	-8.2	-8.3	-9.0	-8.5	-9.1	-8.9	-9.9	-10.1	-9.7	-12.0	-11.8	-11.2	-11.7	-10.6	-8.2	-8.2	-7.9	-7.9	-8.0	-7.7	-7.0	-6.1	-5.9	-5.9	-12.0	-8.9
26	-5.7	-5.6	-5.6	-5.6	-5.5	-5.5	-6.1	-6.6	-7.0	-7.6	-7.8	-7.4	-7.0	-6.2	-5.2	-3.3	-3.3	-3.5	-3.5	-3.5	-3.2	-2.8	-3.1	-3.2	-2.8	-7.8	-5.2
27	-2.9	-3.0	-2.8	-1.9	-2.1	-1.9	-1.3	-0.4	0.0	0.8	0.9	-0.2	-0.8	-0.5	-0.9	-1.3	-1.4	-1.3	-1.3	-1.2	-1.3	-1.4	-1.3	-0.8	0.9	-3.0	-1.2
28	-0.6	-0.7	-0.9	-1.0	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4	-0.5	-0.1	-0.5	-0.9	-1.0	-1.9	-1.8	-1.9	-2.0	-2.2	-2.2	-2.3	-2.2	-0.1	-2.3	-1.1
29	-2.0	-1.9	-1.9	-1.8	-1.6	-2.2	-2.5	-4.2	-3.7	-3.7	-4.2	-4.4	-3.8	-3.4	-2.6	-2.0	-1.3	-1.2	-0.4	0.2	0.3	-0.1	0.0	0.0	0.3	-4.4	-2.0
30	-0.6	-1.0	-0.7	-0.2	0.0	0.0	0.0	0.2	0.5	0.4	0.1	0.1	0.2	0.1	-0.2	-0.4	-0.4	-0.7	-0.8	-1.0	-1.0	-1.0	-0.8	-0.9	0.5	-1.0	-0.3
Max.	1.3	1.2	1.0	0.9	1.5	2.2	2.9	3.8	3.7	3.1	2.4	2.0	1.4	0.5	0.7	0.7	0.9	1.2	1.4	1.7	1.3	1.3	1.3	1.3	3.8		
Min.	-14.0	-12.7	-13.1	-13.3	-13.0	-13.2	-13.0	-12.3	-11.5	-13.1	-13.8	-11.8	-11.2	-11.7	-10.6	-9.2	-9.8	-10.8	-11.8	-11.8	-13.2	-13.8	-13.2	-13.6		-14.0	
Avg.	-5.2	-5.1	-5.1	-5.1	-5.1	-5.1	-5.0	-4.8	-4.6	-4.6	-4.6	-4.4	-4.1	-3.8	-3.6	-3.6	-3.9	-4.3	-4.4	-4.5	-4.6	-4.6	-4.6	-4.7			-4.6

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100%

Rock Creek - 10-m Temperature (deg. C)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.1	-1.1	-1.3	-1.3	-1.2	-1.3	-1.5	-1.6	-1.4	-1.5	-1.6	-1.6	-1.5	-1.8	-2.3	-2.3	-2.4	-2.5	-2.7	-2.9	-2.8	-3.4	-4.1	-4.6	-1.1	-4.6	-2.1
2	-5.2	-6.6	-7.1	-6.6	-6.7	-7.3	-8.6	-6.9	-8.2	-8.5	-8.5	-7.4	-7.7	-7.7	-7.3	-6.8	-4.6	-5.0	-4.7	-4.7	-4.8	-5.0	-5.0	-4.9	-4.6	-8.6	-6.5
3	-4.8	-4.8	-4.9	-5.2	-5.3	-5.4	-5.4	-5.5	-5.6	-5.5	-5.7	-5.8	-6.1	-6.0	-6.0	-6.2	-6.3	-6.7	-6.9	-7.2	-7.3	-7.9	-9.3	-10.6	-4.8	-10.6	-6.3
4	-11.6	-12.9	-12.8	-12.9	-12.2	-10.5	-9.7	-9.4	-8.6	-7.7	-7.3	-7.2	-7.2	-7.3	-7.3	-7.8	-8.6	-9.0	-10.1	-9.8	-9.4	-8.9	-9.1	-9.0	-7.2	-12.9	-9.4
5	-8.0	-7.8	-8.4	-8.7	-9.3	-9.1	-11.7	-12.3	-14.3	-12.6	-12.0	-13.1	-14.3	-14.3	-13.2	-13.5	-14.1	-12.8	-14.8	-15.4	-15.4	-16.3	-15.2	-15.6	-7.8	-16.3	-12.6
6	-15.4	-15.4	-15.3	-15.7	-12.9	-14.7	-12.7	-11.7	-11.9	-11.9	-11.9	-9.4	-9.0	-10.1	-10.5	-10.1	-10.7	-10.7	-10.7	-11.0	-10.9	-10.4	-11.2	-10.8	-9.0	-15.7	-11.9
7	-10.5	-10.3	-10.4	-10.4	-10.3	-9.7	-9.4	-9.6	-9.4	-8.7	-9.0	-8.9	-8.1	-7.8	-7.7	-8.1	-8.7	-8.9	-9.2	-9.4	-9.7	-9.6	-9.1	-9.0	-7.7	-10.5	-9.2
8	-8.8	-8.8	-9.1	-9.7	-9.9	-9.9	-9.7	-9.7	-9.7	-9.7	-9.7	-10.0	-10.2	-10.6	-10.7	-10.3	-10.5	-10.2	-10.3	-10.1	-10.6	-10.8	-10.7	-11.0	-8.8	-11.0	-10.0
9	-10.9	-11.4	-11.1	-11.3	-11.2	-11.1	-11.1	-11.0	-10.9	-11.1	-10.6	-11.0	-11.1	-10.9	-10.7	-10.7	-10.8	-11.4	-12.1	-12.8	-13.6	-13.4	-12.8	-13.1	-10.6	-13.6	-11.5
10	-13.3	-13.7	-13.8	-13.1	-12.8	-12.9	-13.0	-13.3	-13.3	-13.4	-13.7	-13.6	-13.4	-13.5	-13.8	-13.8	-14.0	-14.0	-15.2	-16.1	-16.2	-15.3	-14.5	-13.6	-12.8	-16.2	-13.9
11	-11.8	-10.3	-9.4	-7.7	-6.8	-6.3	-5.7	-6.9	-5.7	-6.3	-6.3	-6.0	-5.6	-5.5	-4.7	-5.0	-4.6	-4.7	-4.9	-5.1	-5.6	-5.9	-6.2	-6.9	-4.6	-11.8	-6.4
12	-7.2	-7.6	-7.7	-7.8	-8.2	-8.0	-8.5	-8.0	-9.0	-9.6	-10.0	-9.6	-8.7	-8.6	-8.2	-7.3	-8.0	-9.9	-10.5	-9.9	-9.1	-9.4	-9.3	-9.2	-7.2	-10.5	-8.7
13	-8.7	-8.9	-8.8	-8.1	-8.3	-8.4	-8.4	-8.4	-7.8	-8.3	-8.7	-8.9	-7.9	-8.6	-8.9	-9.6	-9.6	-10.2	-11.1	-11.6	-11.4	-12.7	-12.6	-12.1	-7.8	-12.7	-9.5
14	-11.6	-11.7	-11.7	-12.5	-13.5	-13.0	-13.4	-14.0	-14.0	-13.9	-13.8	-13.3	-14.2	-14.0	-14.3	-13.7	-13.3	-13.5	-12.1	-14.3	-14.4	-14.9	-14.1	-15.5	-11.6	-15.5	-13.5
15	-16.6	-14.7	-13.8	-13.0	-14.1	-13.2	-10.2	-11.0	-11.0	-10.2	-11.8	-12.0	-10.1	-9.8	-8.9	-7.3	-6.2	-6.5	-5.7	-5.8	-5.8	-5.0	-4.3	-4.0	-4.0	-16.6	-9.6
16	-5.1	-5.5	-6.5	-6.6	-6.6	-6.2	-5.7	-6.2	-5.4	-4.7	-4.2	-3.8	-3.5	-3.1	-3.0	-2.7	-2.8	-2.5	-2.5	-1.9	-2.0	-1.5	-2.3	-2.4	-1.5	-6.6	-4.0
17	-3.0	-3.9	-4.8	-5.3	-5.6	-5.8	-5.8	-5.7	-5.7	-5.3	-4.8	-4.7	-5.0	-5.0	-4.8	-4.5	-4.2	-4.2	-4.0	-3.9	-3.7	-3.4	-3.2	-3.2	-3.0	-5.8	-4.6
18	-3.5	-3.5	-3.3	-3.3	-3.9	-4.3	-4.3	-4.3	-4.7	-4.7	-4.8	-4.9	-4.9	-5.0	-5.1	-5.1	-5.1	-5.3	-5.4	-5.4	-5.4	-5.5	-5.5	-5.7	-3.3	-5.7	-4.7
19	-5.8	-5.8	-6.1	-6.5	-6.4	-7.2	-6.4	-6.9	-7.7	-8.5	-9.0	-9.4	-10.4	-10.8	-11.0	-11.3	-11.4	-11.6	-11.7	-12.0	-12.1	-12.2	-12.2	-12.1	-5.8	-12.2	-9.3
20	-12.1	-12.4	-12.5	-13.0	-13.0	-12.9	-13.1	-13.3	-13.7	-15.0	-15.7	-17.4	-19.5	-18.6	-17.5	-17.7	-18.5	-19.3	-21.2	-21.3	-22.1	-22.2	-21.9	-21.9	-12.1	-22.2	-16.9
21	-22.8	-22.8	-25.1	-23.8	-25.5	-26.3	-25.7	-26.8	-26.3	-26.9	-27.2	-27.1	-27.6	-26.8	-28.1	-27.6	-27.3	-28.2	-26.9	-26.2	-26.6	-26.3	-26.4	-27.1	-22.8	-28.2	-26.3
22	-25.7	-25.9	-23.3	-24.1	-24.1	-23.8	-24.4	-23.3	-23.8	-23.9	-25.1	-24.6	-25.2	-25.0	-25.5	-25.6	-25.7	-26.0	-26.3	-26.2	-26.2	-25.8	-25.6	-25.3	-23.3	-26.3	-25.0
23	-26.1	-25.3	-24.8	-24.4	-24.0	-23.8	-23.9	-23.4	-22.4	-21.8	-21.9	-21.3	-21.4	-20.5	-19.9	-20.3	-20.0	-19.9	-21.2	-22.4	-23.7	-24.5	-24.6	-23.5	-19.9	-26.1	-22.7
24	-23.4	-22.9	-23.3	-23.0	-22.5	-22.8	-21.8	-22.4	-20.9	-21.6	-21.0	-19.1	-18.8	-18.3	-17.5	-16.1	-15.4	-14.9	-15.4	-15.6	-15.0	-14.9	-14.7	-14.6	-14.6	-23.4	-19.0
25	-14.3	-13.2	-12.4	-11.4	-10.4	-9.0	-8.5	-7.3	-6.4	-6.1	-5.3	-3.7	-2.9	-2.0	-1.7	-1.1	-0.6	-0.9	-1.1	-1.1	-0.6	-0.9	-1.7	-1.6	-0.6	-14.3	-5.2
26	-1.2	-1.3	-1.1	-1.0	-1.0	-1.3	-1.3	-1.3	-1.7	-1.8	-1.8	-1.8	-1.9	-2.2	-2.4	-2.6	-2.7	-2.7	-2.8	-3.1	-3.3	-3.5	-3.5	-3.8	-1.0	-3.8	-2.1
27	-3.6	-3.8	-3.7	-4.2	-3.7	-3.9	-4.0	-3.6	-4.0	-3.9	-3.9	-4.0	-4.6	-4.9	-4.7	-6.2	-7.1	-7.3	-8.0	-8.2	-8.1	-8.3	-8.2	-8.7	-3.6	-8.7	-5.4
28	-8.7	-9.4	-9.8	-10.7	-11.1	-12.7	-14.2	-15.0	-16.4	-15.7							-11.2	-11.3	-11.7	-11.4	-11.4	-11.2	-11.2		-8.7	-16.4	-11.9
29	-10.8	-10.7	-10.4	-10.4	-10.0	-9.2	-8.9	-8.6	-8.3	-8.2	-7.7	-7.4	-7.2	-7.2	-6.3	-6.3	-5.1	-5.4	-5.9	-6.1	-6.5	-6.1	-6.6	-6.4	-5.1	-10.8	-7.7
30	-6.0	-6.2	-6.6	-6.8	-6.7	-6.5	-6.1	-6.6	-6.6	-5.8	-4.8	-4.4	-4.9	-4.5	-2.5	-1.0	-0.4	-1.2	-1.4	-1.3	-1.6	-2.0	-2.6	-2.8	-0.4	-6.8	-4.1
31	-2.5	-2.7	-2.9	-2.7	-2.3	-2.5	-1.9	-2.1	-2.1	-1.6	-1.1	-1.0	-1.0	-1.2	-1.4	-1.4	-1.4	-1.4	-1.4	-1.1	-0.6	-0.3	0.0	0.4	0.4	-2.9	-1.5
Max.	-1.1	-1.1	-1.1	-1.0	-1.0	-1.3	-1.3	-1.3	-1.4	-1.5	-1.1	-1.0	-1.0	-1.2	-1.4	-1.0	-0.4	-0.9	-1.1	-1.1	-0.6	-0.3	0.0	0.4	0.4		
Min.	-26.1	-25.9	-25.1	-24.4	-25.5	-26.3	-25.7	-26.8	-26.3	-26.9	-27.2	-27.1	-27.6	-26.8	-28.1	-27.6	-27.3	-28.2	-26.9	-26.2	-26.6	-26.3	-26.4	-27.1		-28.2	
Avg.	-10.3	-10.4	-10.4	-10.4	-10.3	-10.3	-10.2	-10.2	-10.2	-10.1	-10.0	-9.7	-9.8	-9.7	-9.5	-9.4	-9.3	-9.6	-9.9	-10.1	-10.2	-10.3	-10.2	-10.3			-10.0

Total Hours in Month

744

Hours Data Available

737

Data Recovery

99%

Rock Creek - Delta T (deg. C)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0.6	0.9	0.6	0.9	1.2	0.7	1.4	0.6	1.2	0.1	0.5	0.8	-0.5	-0.5	-0.5	-0.3	-0.3	-0.3	0.0	-0.4	-0.3	0.2	-0.2	-0.2	1.4	-0.5	0.3	
2	-0.1	-0.1	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.3	-0.3	-0.3	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.5	-0.3
3	-0.1	0.0	0.0	0.0	-0.1	0.1	0.0	-0.1	-0.1	-0.1	0.1	-0.5	-0.6	-0.5	-0.6	-0.5	-0.3	-0.3	-0.2	0.3	0.1	-0.1	0.3	0.9	0.9	-0.6	-0.1	
4	0.8	1.4	1.0	1.4	1.6	2.2	2.0	2.0	1.3	0.9	0.8	-0.3	-0.6	-0.8	-0.9	-0.6	-0.3	0.1	0.1	0.1	0.1	0.5	0.3	0.4	2.2	-0.9	0.6	
5	0.7	1.4	1.1	1.7	1.5	1.2	1.2	1.7	1.6	0.9	0.8	0.5	-0.5	-0.8	-1.1	-0.9	0.4	0.6	0.8	1.4	0.0	0.1	0.4	0.3	1.7	-1.1	0.6	
6	0.5	0.3	1.0	0.6	0.7	0.5	0.7	0.6	0.4	0.2	0.7	0.0	-0.4	-0.5	-0.4	-0.2	-0.1	0.2	0.4	0.1	0.0	0.0	0.0	-0.1	1.0	-0.5	0.2	
7	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.3	-0.2
8	-0.1	0.0	0.1	0.1	0.0	0.3	0.4	0.3	0.3	1.2	1.0	0.3	-1.1	-1.3	-1.3	-1.2	-0.5	0.6	0.6	1.4	1.3	0.8	1.5	1.4	1.5	-1.3	0.3	
9	1.4	1.8	1.9	1.7	1.5	5.1	2.1	2.3	1.7	0.9	0.2	-0.5	-0.6	-0.9	-0.9	-0.9	-0.2	0.9	1.5	1.5	1.1	1.2	2.0	1.5	5.1	-0.9	1.1	
10	1.7	0.9	0.9	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	-0.1	-0.2	-0.1	-0.2	-0.2	-0.6	-0.3	-0.4	-0.3	-0.2	-0.4	-0.4	-0.4	1.7	-0.6	0.0	
11	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4	-0.3	-0.5	-0.5	-0.7	-0.9	-1.1	-0.6	-0.3	0.1	0.1	0.1	-0.3	-0.5	-0.4	0.1	-1.1	-0.4	
12	-0.2	-0.2	-0.3	-0.3	-0.5	-0.5	-0.7	-0.3	-0.5	-0.3	-0.1	-0.5	-0.5	-0.5	-0.7	-0.7	-0.5	-0.4	-0.4	-0.3	-0.3	-0.1	-0.1	-0.2	-0.1	-0.7	-0.4	
13	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	-0.4	-0.2	
14	-0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	0.2	-0.1	0.0	
15	-0.1	-0.3	-0.3	-0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.3	-0.6	-0.5	-0.3	-0.1	0.0	-0.1	0.2	0.8	0.3	-0.1	-0.1	0.8	-0.6	-0.1	
16	-0.2	-0.2	0.0	-0.1	-0.1	-0.2	0.2	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.2	-0.6	-0.5	-0.3	-0.1	-0.2	-0.2	0.0	0.0	0.2	0.0	0.2	-0.6	-0.1	
17	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.2	0.0	
18	0.0	-0.1	-0.2	0.1	0.0	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.2	0.1	-0.2	0.0	
19	-0.1	0.0	-0.1	0.0	-0.1	0.0	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	-0.1	0.1	
20	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	-0.2	0.0	
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0	0.1
22	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	0.0	0.1	0.1	0.0	0.2	0.5	0.6	0.6	0.6	-0.1	0.1	
23	0.6	1.1	1.0	0.8	0.8	1.0	0.8	0.6	0.6	0.5	0.5	0.2	0.0	-0.1	-0.2	-0.3	-0.1	0.4	0.6	0.8	1.1	0.8	1.0	0.3	1.1	-0.3	0.6	
24	0.7	1.5	0.8	1.4	1.0	1.9	2.2	0.9	1.0	0.9	0.8	0.4	0.2	-0.3	0.4	-0.1	0.8	0.3	1.6	1.8	0.7	1.0	1.1	0.3	2.2	-0.3	0.9	
25	0.1	1.4	1.3	0.8	1.5	1.0	1.8	2.2	1.3	1.8	1.6	2.1	0.5	0.1	0.4	0.3	-0.4	-0.5	-0.3	-0.5	-0.4	-0.3	-0.5	-0.4	2.2	-0.5	0.6	
26	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	-0.1	0.0	
27	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.3	0.5	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.1
28	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	-0.2	-0.3	-0.5	0.0	-0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.5	0.0	
29	0.1	0.0	0.2	0.4	0.6	1.1	0.9	1.0	0.7	0.7	0.4	0.7	0.2	-0.3	-0.3	-0.4	0.0	0.1	0.0	0.0	0.0	-0.1	-0.1	0.0	1.1	-0.4	0.3	
30	0.1	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	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	
Max.	1.7	1.8	1.9	1.7	1.6	5.1	2.2	2.3	1.7	1.8	1.6	2.1	0.5	0.2	0.4	0.3	0.8	0.9	1.6	1.8	1.3	1.2	2.0	1.5	5.1			
Min.	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	-0.7	-0.5	-0.5	-0.5	-0.3	-0.5	-1.1	-1.3	-1.3	-1.2	-0.6	-0.5	-0.4	-0.5	-0.4	-0.4	-0.5	-0.4		-1.3		
Avg.	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.1	-0.2	-0.3	-0.3	-0.3	-0.1	0.0	0.1	0.2	0.1	0.1	0.2	0.1			0.1	

Total Hours in Month 720 **Hours Data Available** 720 **Data Recovery** 100.0%

Rock Creek - Delta T (deg. C)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	-0.1	-0.5	-0.9	-0.9	-0.4	0.0	0.0	0.0	0.1	0.3	0.8	0.8	0.8	-0.9	0.0	
2	1.3	1.1	0.5	0.7	1.2	1.0	0.2	1.3	1.0	0.9	0.4	0.4	-0.1	-0.5	-0.4	0.0	1.1	0.6	0.7	0.0	-0.1	0.0	0.0	0.1	1.3	-0.5	0.5	
3	0.0	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.1	0.1	0.3	0.8	1.0	1.3	1.0	1.2	1.3	-0.2	0.2	
4	0.5	1.1	0.9	0.0	0.9	1.1	0.1	0.4	0.4	0.1	-0.2	-0.1	-0.2	0.0	-0.2	0.0	0.1	0.6	0.6	0.5	0.6	0.4	0.5	0.6	1.1	-0.2	0.4	
5	1.0	0.6	0.5	0.6	0.4	0.5	-0.3	0.5	0.0	0.8	0.1	0.3	0.2	0.0	0.1	0.2	-0.1	0.3	-0.2	0.1	0.2	0.5	0.5	0.5	1.0	-0.3	0.3	
6	0.2	0.4	0.2	0.5	0.2	-0.1	0.1	0.0	-0.2	-0.1	-0.1	0.2	0.1	-0.2	-0.2	0.0	-0.4	-0.3	-0.2	-0.2	-0.1	0.0	-0.3	0.0	0.5	-0.4	0.0	
7	-0.2	-0.1	-0.3	-0.1	-0.4	-0.1	-0.2	-0.3	-0.2	-0.1	-0.2	-0.1	-0.2	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.4	-0.2
8	-0.2	-0.2	-0.3	-0.2	-0.1	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.4	-0.4	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3	-0.1	-0.4	-0.2	
9	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.5	-0.4	-0.6	-0.7	-0.6	0.1	0.4	0.2	0.1	0.0	-0.1	-0.1	-0.5	0.4	-0.7	-0.2	
10	-0.3	-0.2	-0.1	-0.1	-0.4	-0.3	-0.4	-0.3	-0.3	-0.3	-0.2	-0.2	-0.3	-0.4	-0.5	-0.1	0.1	0.3	0.4	0.1	0.2	0.2	-0.1	0.2	0.4	-0.5	-0.1	
11	0.2	0.0	0.1	0.1	-0.1	0.1	0.2	-0.3	-0.1	-0.2	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	0.2	-0.3	-0.1	
12	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	-0.2	-0.1	0.2	0.3	0.3	-0.1	-0.1	-0.1	0.0	-0.1	0.0	-0.1	0.1	0.1	0.7	0.1	0.2	0.7	-0.2	0.0	
13	-0.1	0.0	-0.2	-0.1	-0.2	0.0	-0.1	0.0	-0.1	-0.3	-0.2	-0.2	0.0	-0.4	0.2	0.1	0.4	0.3	0.6	0.8	1.3	0.8	1.2	1.2	1.3	-0.4	0.2	
14	0.6	0.5	1.2	0.8	0.7	0.8	0.8	1.5	1.1	1.1	1.2	1.0	0.8	0.1	-0.9	-0.2	0.6	0.2	0.9	0.2	0.8	1.4	1.5	0.6	1.5	-0.9	0.7	
15	0.9	1.3	0.9	1.1	-0.1	1.0	0.7	0.1	0.5	0.5	0.2	0.6	0.5	0.4	0.1	0.4	0.5	0.5	0.4	0.4	0.6	0.6	0.3	0.3	1.3	-0.1	0.5	
16	0.3	0.3	0.2	0.1	-0.1	-0.1	-0.2	-0.1	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	-0.1	0.0	0.1	0.0	0.0	-0.4	-0.4	0.3	-0.4	0.0	
17	-0.2	-0.2	-0.3	-0.5	-0.3	-0.3	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	0.1	-0.5	-0.1	
18	-0.4	-0.3	-0.3	-0.2	-0.4	-0.6	-0.5	-0.4	-0.6	-0.5	-0.5	-0.6	-0.9	-0.7	-0.8	-0.7	-0.5	-0.5	-0.5	-0.6	-0.6	-0.4	-0.2	-0.6	-0.2	-0.9	-0.5	
19	-0.6	-0.8	-0.2	-0.4	-0.5	-0.9	-0.8	-0.8	-0.8	-0.5	-0.5	-0.5	-0.6	-0.5	-0.5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.9	-0.5	
20	-0.4	-0.3	-0.2	-0.5	-0.3	-0.2	-0.1	0.0	-0.1	0.7	0.9	0.8	0.7	1.2	0.1	-0.2	0.7	0.6	0.7	1.0	0.8	0.6	1.2	1.0	1.2	-0.5	0.4	
21	0.8	1.0	0.4	1.1	-0.4	0.5	1.0	1.4	1.9	0.6	1.2	1.3	0.5	1.2	0.2	0.9	1.0	1.1	1.1	0.4	1.0	0.8	1.0	0.7	1.9	-0.4	0.9	
22	0.6	1.0	0.8	0.5	0.7	0.8	0.6	0.6	0.5	0.2	0.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.3	
23	0.2	0.7	0.3	0.2	0.2	0.2	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.4	0.3	0.6	1.0	1.3	1.4	1.9	1.4	1.4	1.4	1.1	1.9	0.2	0.7	
24	0.2	0.5	0.4	0.8	0.7	1.3	0.9	1.3	1.5	0.1	0.6	0.6	-0.2	0.1	-0.4	-0.1	-0.3	-0.2	0.0	0.0	0.0	-0.1	0.0	0.0	1.5	-0.4	0.3	
25	0.0	0.1	0.0	0.0	-0.2	-0.3	-0.3	0.0	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	0.0	-0.1	-0.1	0.0	-0.1	0.0	0.1	0.2	-0.3	0.0	
26	-0.1	-0.3	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.1	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.3	-0.4	-0.4	-0.1	-0.2	-0.1	-0.3	-0.3	-0.3	-0.1	-0.4	-0.3	
27	-0.3	-0.4	-0.2	-0.5	-0.3	-0.3	-0.2	-0.2	-0.3	-0.4	-0.5	-0.5	-0.5	-0.3	-0.3	-0.4	-0.1	-0.1	-0.1	0.5	1.1	1.0	0.7	0.9	1.1	-0.5	-0.1	
28	0.8	1.4	1.1	0.5	1.1	0.4	0.9	0.6	0.2	0.7	1.0						0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4	0.1	0.5	
29	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.5	0.1	0.5	0.4	0.5	0.5	0.0	0.2	
30	0.7	0.5	0.7	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.0	0.2	
31	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.0	0.1	
Max.	1.3	1.4	1.2	1.1	1.2	1.3	1.0	1.5	1.9	1.1	1.2	1.3	0.8	1.2	0.3	0.9	1.1	1.3	1.4	1.9	1.4	1.4	1.5	1.2	1.9			
Min.	-0.6	-0.8	-0.3	-0.5	-0.5	-0.9	-0.8	-0.8	-0.8	-0.5	-0.5	-0.6	-0.9	-0.7	-0.9	-0.9	-0.5	-0.5	-0.5	-0.6	-0.6	-0.4	-0.4	-0.6		-0.9		
Avg.	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	-0.2	-0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2			0.1	

Total Hours in Month 744

Hours Data Available 738

Data Recovery 99%

Rock Creek - Backup Temperature (deg. C)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.2	-0.3	-0.7	-0.9	-0.8	-0.6	-0.1	0.4	0.3	1.5	2.5	3.3	4.4	4.3	4.2	4.1	3.9	3.8	3.7	3.4	3.2	3.2	2.9	2.6	4.4	-0.9	2.0
2	1.9	1.7	1.9	1.2	1.1	1.0	0.3	-0.7	-1.4	-1.4	1.1	4.5	7.6	9.4	9.9	8.3	7.7	6.8	4.4	1.4	-0.4	-1.8	-2.7	-2.7	9.9	-2.7	2.5
3	-3.4	-3.6	-4.6	-4.7	-6.2	-6.4	-6.6	-7.4	-7.3	-7.1	-4.0	-0.5	2.1	2.5	3.4	3.3	1.8	2.4	2.0	1.9	1.8	2.0	2.8	2.5	3.4	-7.4	-1.4
4	2.3	3.2	3.4	3.4	3.4	3.3	3.5	3.5	3.9	4.1	4.6	4.9	6.1	7.1	8.1	8.9	9.0	8.1	7.5	7.1	6.8	6.0	5.9	5.4	9.0	2.3	5.4
5	4.8	3.7	2.8	1.5	0.9	1.5	0.9	-0.3	0.0	0.7	5.5	8.6	10.2	9.7	10.8	12.0	11.0	8.2	6.7	5.1	4.3	3.9	3.0	2.9	12.0	-0.3	4.9
6	1.9	0.5	0.2	0.0	-0.2	0.2	0.1	0.4	0.8	0.0	1.5	4.5	7.6	8.8	9.4	9.2	8.3	7.5	5.2	3.9	2.0	0.5	-0.6	-0.6	9.4	-0.6	3.0
7	0.7	0.9	0.7	0.9	0.9	0.9	0.8	0.8	1.0	1.1	1.6	2.1	4.9	5.5	5.8	6.4	6.1	4.8	3.6	3.0	2.5	2.2	1.9	1.6	6.4	0.7	2.5
8	1.7	1.8	1.9	2.0	2.2	1.9	2.0	2.3	2.6	2.9	3.4	3.8	4.3	4.5	4.6	4.5	4.3	4.2	3.6	3.3	3.4	3.5	3.6	3.3	4.6	1.7	3.2
9	3.1	2.5	2.4	2.5	2.5	2.8	2.9	2.4	2.8	3.1	3.6	4.6	5.2	5.5	5.4	5.9	5.7	5.1	4.7	4.1	3.9	3.8	3.9	4.2	5.9	2.4	3.9
10	4.1	3.4	3.5	3.7	3.7	3.6	3.7	4.0	4.4	5.0	5.9	6.1	5.9	5.7	5.8	6.0	5.7	5.7	5.3	5.4	5.5	5.4	5.2	5.1	6.1	3.4	4.9
11	5.1	5.4	5.4	5.2	5.2	5.0	4.8	4.8	4.3	4.9	6.1	7.8	8.3	7.8	8.0	8.0	8.2	8.0	6.5	5.8	5.1	4.0	3.9	4.1	8.3	3.9	5.9
12	2.5	2.1	1.7	2.8	3.9	4.9	4.9	5.4	3.8	5.3	4.4	5.1	6.1	5.9	5.9	5.1	2.8	1.9	0.9	0.4	0.6	0.8	0.5	0.8	6.1	0.4	3.3
13	0.9	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.3	1.0	1.8	2.7	3.5	3.7	3.9	4.0	3.8	3.3	2.9	2.5	2.5	2.3	2.4	4.0	0.2	1.9
14	2.2	2.2	2.4	2.3	1.6	1.2	0.4	0.8	0.7	1.0	1.6	2.5	3.5	3.6	4.3	5.0	5.1	5.2	5.0	5.0	4.8	4.5	4.1	3.9	5.2	0.4	3.0
15	3.7	3.7	3.7	3.7	3.5	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.5	3.9	4.0	4.2	4.4	5.1	4.8	4.1	3.7	3.8	3.0	2.1	5.1	2.1	3.8
16	2.0	1.9	2.1	2.0	2.7	2.6	3.0	3.1	3.1	3.1	3.3	4.2	6.4	6.1	5.9	5.8	5.3	4.5	4.5	4.1	4.0	4.2	4.4	4.6	6.4	1.9	3.9
17	4.4	4.3	3.7	3.7	3.3	3.2	2.8	2.7	2.3	3.2	3.8	3.7	4.1	4.4	4.0	3.9	4.0	3.6	3.1	3.0	2.7	2.5	2.5	2.4	4.4	2.3	3.4
18	2.4	2.6	2.7	2.9	3.0	2.9	3.1	3.1	2.8	2.3	1.8	1.5	1.3	1.8	2.3	3.3	4.6	6.1	7.0	6.3	5.8	5.6	5.5	4.9	7.0	1.3	3.6
19	5.5	5.0	4.6	4.6	4.3	4.1	3.9	4.3	4.5	4.8	5.1	5.3	5.6	5.7	5.0	5.0	4.3	3.3	4.2	3.8	4.0	3.2	3.2	2.8	5.7	2.8	4.4
20	3.1	2.3	2.6	2.1	1.9	2.0	2.0	1.8	2.2	2.4	2.7	3.3	3.9	4.7	4.8	2.9	2.0	1.5	1.4	1.0	0.7	0.1	0.2	0.3	4.8	0.1	2.2
21	0.2	-0.3	-0.2	-0.6	-0.6	-0.4	-0.3	-0.6	-0.5	-0.6	0.0	1.2	1.3	1.2	0.7	0.4	0.1	0.1	-0.1	-0.2	0.0	0.1	0.1	0.3	1.3	-0.6	0.1
22	0.4	0.7	1.4	1.6	1.3	1.4	1.3	1.4	1.8	1.7	2.2	2.2	2.1	2.2	2.6	2.7	2.7	2.6	2.2	1.8	2.0	2.0	2.1	2.1	2.7	0.4	1.8
23	2.0	2.0	1.8	1.7	1.4	1.5	1.4	1.6	1.4	1.5	1.7	2.2	2.7	3.1	3.4	3.2	3.1	2.8	2.4	2.1	2.5	2.0	1.8	1.2	3.4	1.2	2.1
24	1.0	0.8	0.5	0.5	0.5	0.1	-0.1	0.1	-0.3	0.2	0.7	1.3	0.9	1.6	1.4	0.4	1.1	0.4	-0.4	-0.9	-1.6	-2.5	-3.0	-2.6	1.6	-3.0	0.0
25	-1.3	-1.6	-3.6	-5.5	-5.9	-6.5	-6.8	-6.5	-5.4	-3.8	-2.6	-1.9	-1.4	-1.1	-1.4	-2.1	-2.4	-2.6	-2.7	-2.8	-3.1	-3.5	-4.4	-4.4	-1.1	-6.8	-3.5
26	-4.6	-4.3	-3.7	-3.0	-2.3	-1.7	-1.1	-0.6	0.2	0.8	1.0	1.8	2.2	2.5	2.7	2.6	2.8	2.7	2.6	2.7	2.5	2.4	2.2	2.2	2.8	-4.6	0.5
27	2.1	2.0	1.6	1.8	1.9	1.2	0.8	0.8	0.9	1.3	1.6	1.8	2.1	2.0	1.9	2.1	2.0	1.6	1.2	1.1	1.1	0.9	0.9	0.7	2.1	0.7	1.5
28	0.9	0.6	0.5	0.6	-0.1	-0.7	-1.5	-1.7	-1.4	-0.5	-0.1	0.0	0.4	0.8	0.4	-0.5	-1.0	-1.1	-1.7	-2.1	-2.4	-2.7	-2.9	-3.1	0.9	-3.1	-0.8
29	-3.5	-3.6	-3.9	-4.2	-4.5	-4.7	-4.3	-4.2	-4.2	-4.0	-3.5	-3.3	-3.3	-3.2	-3.1	-3.9	-5.1	-6.4	-6.9	-7.5	-7.6	-7.8	-7.9	-8.0	-3.1	-8.0	-5.0
30	-8.1	-8.2	-8.3	-8.2	-8.2	-8.4	-8.3	-8.4	-8.2	-8.8	-9.0	-7.4	-4.9	-4.0	-4.6	-4.8	-5.5	-7.4	-7.9	-9.2	-9.9	-8.2	-9.3	-10.3	-4.0	-10.3	-7.7
31	-12.5	-11.1	-13.1	-13.8	-13.7	-14.1	-14.2	-14.4	-12.0	-10.5	-9.8	-7.4	-6.8	-5.6	-5.0	-5.0	-6.0	-7.4	-7.9	-9.2	-9.9	-9.5	-10.1	-10.8	-5.0	-14.4	-9.9
Max.	5.5	5.4	5.4	5.2	5.2	5.0	4.9	5.4	4.5	5.3	6.1	8.6	10.2	9.7	10.8	12.0	11.0	8.2	7.5	7.1	6.8	6.0	5.9	5.4	12.0		
Min.	-12.5	-11.1	-13.1	-13.8	-13.7	-14.1	-14.2	-14.4	-12.0	-10.5	-9.8	-7.4	-6.8	-5.6	-5.0	-5.0	-6.0	-7.4	-7.9	-9.2	-9.9	-9.5	-10.1	-10.8		-14.4	
Avg.	0.8	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.2	0.6	1.3	2.3	3.2	3.5	3.7	3.6	3.2	2.8	2.2	1.7	1.3	1.1	0.8	0.6			1.5

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Backup Temperature (deg. C)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-11.7	-12.6	-14.1	-14.4	-13.8	-14.3	-14.7	-13.2	-11.3	-12.5	-11.9	-10.5	-8.5	-7.7	-7.1	-6.7	-6.6	-7.4	-8.0	-8.3	-9.1	-9.2	-9.4	-9.4	-6.6	-14.7	-10.5
2	-9.3	-9.2	-9.0	-8.7	-8.4	-8.1	-8.1	-8.2	-8.3	-8.3	-8.6	-8.5	-7.5	-6.9	-6.8	-7.0	-7.3	-8.0	-8.8	-9.8	-9.8	-10.8	-11.3	-11.4	-6.8	-11.4	-8.7
3	-11.4	-11.4	-11.4	-11.3	-11.6	-11.8	-10.7	-10.1	-9.9	-10.4	-10.5	-9.2	-8.6	-8.5	-8.3	-8.7	-9.7	-10.1	-10.4	-10.2	-9.5	-9.2	-9.1	-10.5	-8.3	-11.8	-10.1
4	-11.0	-11.1	-10.6	-11.2	-11.3	-11.7	-11.4	-11.4	-11.0	-10.5	-8.8	-6.5	-5.6	-5.1	-4.9	-5.4	-6.4	-7.1	-7.4	-7.1	-7.4	-8.0	-7.5	-7.9	-4.9	-11.7	-8.6
5	-8.0	-8.6	-9.2	-10.4	-10.9	-10.8	-11.9	-13.3	-13.6	-14.5	-14.9	-11.1	-8.9	-7.1	-6.2	-7.5	-10.2	-11.7	-13.1	-13.7	-13.5	-14.2	-13.9	-14.3	-6.2	-14.9	-11.3
6	-14.0	-13.2	-12.4	-11.3	-11.0	-11.2	-11.2	-9.9	-7.8	-8.6	-8.6	-8.1	-7.7	-6.6	-6.0	-6.7	-6.5	-8.8	-7.9	-7.3	-7.7	-8.0	-7.7	-8.2	-6.0	-14.0	-9.0
7	-8.7	-8.9	-8.9	-8.8	-9.0	-9.5	-9.9	-9.9	-10.1	-10.0	-9.2	-8.7	-8.6	-7.6	-7.3	-7.6	-7.5	-7.7	-7.9	-8.3	-8.5	-8.5	-8.9	-9.2	-7.3	-10.1	-8.7
8	-8.8	-8.5	-9.1	-9.0	-9.1	-9.6	-9.2	-8.8	-10.3	-11.3	-11.4	-9.9	-7.4	-5.5	-4.8	-5.1	-7.4	-10.7	-12.3	-13.5	-13.5	-14.4	-13.5	-14.1	-4.8	-14.4	-9.9
9	-16.0	-15.2	-15.2	-15.6	-15.0	-16.3	-14.3	-13.6	-11.9	-10.1	-9.1	-8.5	-7.9	-6.7	-6.8	-7.1	-8.0	-9.8	-10.2	-11.7	-13.1	-13.6	-12.4	-12.1	-6.7	-16.3	-11.7
10	-11.9	-11.5	-9.0	-7.8	-8.3	-8.3	-8.0	-7.2	-6.8	-6.2	-6.5	-5.6	-4.8	-3.2	-2.2	-2.3	-3.5	-5.4	-5.8	-5.5	-4.9	-4.5	-4.7	-4.9	-2.2	-11.9	-6.2
11	-5.1	-5.2	-5.5	-5.4	-5.4	-5.4	-5.3	-5.3	-5.2	-5.3	-5.3	-4.9	-4.1	-3.2	-2.2	-2.2	-3.0	-4.7	-5.6	-6.0	-5.6	-5.0	-5.0	-4.8	-2.2	-6.0	-4.8
12	-4.8	-4.5	-4.4	-4.1	-3.9	-3.9	-4.1	-4.1	-3.9	-3.9	-3.5	-2.7	-2.0	-2.1	-1.8	-2.0	-2.3	-2.6	-2.7	-3.1	-3.3	-3.4	-3.4	-3.2	-1.8	-4.8	-3.3
13	-3.1	-3.3	-2.6	-2.5	-2.6	-2.7	-3.0	-2.9	-3.0	-3.0	-2.8	-2.5	-1.9	-1.4	-1.2	-1.5	-1.6	-1.7	-2.0	-2.5	-2.4	-2.2	-1.8	-2.1	-1.2	-3.3	-2.3
14	-2.1	-2.0	-2.5	-2.9	-2.9	-3.0	-2.6	-2.0	-1.4	-0.9	-0.6	-0.2	-0.1	0.3	0.5	0.5	0.7	0.9	1.1	1.4	1.1	1.1	1.1	1.1	1.4	-3.0	-0.5
15	0.9	0.2	-1.5	-2.2	-2.9	-3.5	-3.9	-4.5	-4.8	-5.1	-5.1	-5.0	-4.5	-4.0	-3.9	-3.9	-5.0	-4.6	-4.3	-5.4	-5.5	-4.7	-4.0	-3.2	0.9	-5.5	-3.8
16	-3.6	-3.8	-4.0	-3.8	-3.7	-4.7	-5.0	-4.6	-4.5	-4.2	-4.2	-4.8	-4.8	-4.1	-3.4	-4.1	-5.2	-5.1	-5.2	-5.5	-5.6	-5.4	-5.5	-6.0	-3.4	-6.0	-4.6
17	-6.7	-6.4	-6.4	-6.1	-5.8	-5.3	-4.4	-4.1	-3.8	-3.5	-3.5	-3.3	-3.3	-3.4	-3.1	-2.8	-3.3	-4.5	-5.3	-5.8	-6.2	-6.3	-6.1	-5.8	-2.8	-6.7	-4.8
18	-5.5	-5.4	-5.4	-5.6	-5.3	-5.2	-4.9	-4.4	-4.0	-3.5	-3.2	-3.0	-2.8	-2.8	-2.7	-2.6	-2.4	-2.3	-1.9	-1.9	-2.3	-2.3	-2.1	-2.1	-1.9	-5.6	-3.5
19	-1.8	-1.5	-1.0	-1.0	-1.5	-2.0	-2.1	-1.2	-0.5	-0.6	0.0	0.7	0.6	-0.8	-0.8	-1.0	-1.7	-1.8	-1.7	-1.4	-1.0	-0.2	0.3	0.5	0.7	-2.1	-0.9
20	0.6	0.7	0.6	0.6	0.5	0.4	0.4	0.2	0.1	0.1	0.2	0.2	0.2	0.5	0.6	0.6	0.4	0.1	0.2	0.3	0.4	0.3	0.3	0.2	0.7	0.1	0.4
21	0.5	0.6	0.4	0.2	0.1	0.3	0.2	0.1	-0.7	-1.0	-1.0	-1.2	-0.8	-0.8	-0.8	-0.8	-0.9	-1.1	-1.2	-0.8	-0.4	0.0	0.4	0.9	0.9	-1.2	-0.3
22	1.0	0.9	0.7	0.5	0.6	0.5	0.4	0.0	-0.2	-0.5	-0.9	-0.9	-0.6	-0.2	-0.1	-0.8	-1.4	-1.7	-1.7	-1.8	-1.4	-1.3	-2.1	-1.1	1.0	-2.1	-0.5
23	-0.2	-0.4	-0.4	-0.4	0.4	1.0	1.7	2.9	2.8	2.4	1.6	1.6	1.2	-0.4	-0.3	-0.2	-1.2	-2.6	-1.6	-1.6	-2.3	-3.5	-4.7	-5.8	2.9	-5.8	-0.4
24	-7.2	-6.5	-6.7	-6.2	-7.3	-6.2	-5.1	-2.3	-0.9	0.4	1.0	0.6	0.2	0.4	0.3	-0.7	-1.8	-2.1	-3.6	-3.4	-4.4	-4.3	-6.0	-6.8	1.0	-7.3	-3.3
25	-9.0	-10.3	-10.4	-10.4	-10.7	-10.9	-11.5	-12.7	-12.3	-12.3	-14.1	-14.5	-12.1	-12.0	-11.2	-8.9	-8.2	-7.9	-8.0	-7.9	-7.6	-7.2	-5.9	-5.7	-5.7	-14.5	-10.1
26	-5.9	-5.8	-5.8	-5.8	-5.7	-5.7	-6.3	-6.7	-7.2	-7.9	-8.1	-7.7	-7.1	-6.4	-5.4	-3.6	-3.5	-3.8	-3.8	-3.8	-3.5	-3.1	-3.3	-3.4	-3.1	-8.1	-5.4
27	-3.2	-3.2	-3.0	-2.2	-2.3	-2.3	-1.6	-0.7	-0.6	0.1	0.3	-0.6	-1.1	-0.8	-1.1	-1.4	-1.6	-1.5	-1.5	-1.4	-1.4	-1.5	-1.6	-1.1	0.3	-3.2	-1.5
28	-0.9	-0.9	-1.2	-1.2	-1.0	-0.8	-0.8	-0.7	-0.7	-0.7	-0.8	-0.7	0.0	-0.3	-0.4	-1.3	-1.8	-2.1	-2.0	-2.2	-2.3	-2.4	-2.5	-2.4	0.0	-2.5	-1.3
29	-2.2	-2.2	-2.3	-2.5	-2.4	-3.6	-3.7	-5.3	-4.7	-4.7	-4.9	-5.3	-4.2	-3.3	-2.5	-1.9	-1.5	-1.5	-0.7	0.0	0.1	-0.2	-0.2	-0.2	0.1	-5.3	-2.5
30	-0.9	-1.3	-0.9	-0.4	-0.3	-0.2	-0.3	-0.1	0.1	0.0	-0.1	-0.2	-0.1	0.0	-0.3	-0.5	-0.7	-0.9	-1.0	-1.2	-1.2	-1.3	-1.1	-1.1	0.1	-1.3	-0.6
Max.	1.0	0.9	0.7	0.6	0.6	1.0	1.7	2.9	2.8	2.4	1.6	1.6	1.2	0.5	0.6	0.6	0.7	0.9	1.1	1.4	1.1	1.1	1.1	1.1	2.9		
Min.	-16.0	-15.2	-15.2	-15.6	-15.0	-16.3	-14.7	-13.6	-13.6	-14.5	-14.9	-14.5	-12.1	-12.0	-11.2	-8.9	-10.2	-11.7	-13.1	-13.7	-13.5	-14.4	-13.9	-14.3		-16.3	
Avg.	-5.7	-5.7	-5.7	-5.7	-5.7	-5.8	-5.7	-5.5	-5.2	-5.2	-5.1	-4.7	-4.1	-3.6	-3.3	-3.4	-4.0	-4.6	-4.8	-5.0	-5.1	-5.1	-5.0	-5.1			-5.0

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Backup Temperature (deg. C)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	-1.3	-1.3	-1.4	-1.5	-1.4	-1.4	-1.6	-1.8	-1.7	-1.7	-1.8	-1.8	-1.6	-1.5	-1.5	-1.6	-2.3	-2.7	-2.9	-3.1	-3.1	-3.9	-5.2	-5.7	-1.3	-5.7	-2.2	
2	-6.9	-8.2	-8.1	-7.7	-8.1	-8.6	-9.2	-8.5	-9.6	-9.7	-9.2	-8.0	-7.8	-6.9	-6.7	-6.9	-6.0	-6.2	-5.9	-5.0	-5.0	-5.3	-5.4	-5.3	-5.0	-9.7	-7.3	
3	-5.0	-5.0	-5.0	-5.2	-5.4	-5.5	-5.6	-5.7	-5.8	-5.7	-5.9	-6.0	-6.2	-6.1	-6.1	-6.4	-6.6	-7.0	-7.6	-8.3	-8.7	-9.6	-10.8	-12.3	-5.0	-12.3	-6.7	
4	-12.6	-14.6	-14.3	-13.4	-13.4	-12.1	-10.3	-10.2	-9.5	-8.0	-7.4	-7.3	-7.2	-7.5	-7.3	-8.0	-9.0	-10.0	-11.2	-10.7	-10.4	-9.7	-10.1	-10.1	-7.2	-14.6	-10.2	
5	-9.3	-8.7	-9.1	-9.6	-10.0	-10.0	-11.8	-13.3	-14.8	-13.9	-12.3	-13.7	-14.7	-14.5	-13.4	-13.9	-14.2	-13.5	-14.8	-15.7	-15.9	-17.2	-16.0	-16.4	-8.7	-17.2	-13.2	
6	-15.8	-16.1	-15.7	-16.6	-13.3	-14.8	-13.1	-12.0	-11.9	-12.0	-12.0	-9.9	-9.3	-10.0	-10.6	-10.3	-10.5	-10.7	-10.7	-10.9	-11.0	-10.7	-11.2	-11.2	-9.3	-16.6	-12.1	
7	-10.6	-10.5	-10.3	-10.6	-10.2	-9.9	-9.4	-9.5	-9.4	-8.8	-9.0	-9.0	-8.1	-7.9	-7.7	-8.1	-8.7	-9.1	-9.3	-9.5	-9.7	-9.7	-9.2	-9.2	-7.7	-10.6	-9.3	
8	-8.9	-8.9	-9.0	-9.8	-10.0	-9.9	-9.8	-9.8	-9.8	-9.7	-9.7	-10.0	-10.2	-10.5	-10.6	-10.3	-10.3	-10.2	-10.2	-10.1	-10.5	-10.8	-10.7	-10.9	-8.9	-10.9	-10.0	
9	-10.9	-11.3	-11.1	-11.2	-11.2	-11.0	-11.0	-10.9	-10.9	-11.0	-10.6	-10.7	-10.9	-10.5	-10.3	-10.5	-11.1	-12.1	-12.5	-13.2	-14.0	-13.8	-13.2	-13.0	-10.3	-14.0	-11.5	
10	-13.4	-13.8	-14.0	-13.4	-12.8	-12.9	-12.9	-13.2	-13.2	-13.3	-13.7	-13.6	-13.3	-13.1	-13.5	-14.0	-14.4	-14.6	-16.1	-16.5	-16.7	-15.9	-14.6	-14.2	-12.8	-16.7	-14.0	
11	-12.3	-10.6	-9.8	-8.2	-7.0	-6.7	-6.3	-6.9	-5.9	-6.3	-6.5	-6.1	-5.7	-5.5	-4.8	-5.1	-4.7	-4.8	-5.0	-5.2	-5.7	-6.1	-6.2	-7.0	-4.7	-12.3	-6.6	
12	-7.3	-7.7	-7.7	-7.9	-8.3	-8.1	-8.8	-8.2	-9.2	-10.0	-10.6	-10.2	-8.8	-8.6	-8.3	-7.5	-8.2	-10.2	-10.6	-10.2	-9.5	-10.4	-9.7	-9.7	-7.3	-10.6	-9.0	
13	-8.9	-9.2	-9.0	-8.3	-8.4	-8.6	-8.6	-8.6	-8.0	-8.4	-8.8	-9.1	-8.2	-8.5	-9.4	-9.9	-10.3	-10.8	-12.1	-12.9	-13.3	-14.0	-14.3	-13.9	-8.0	-14.3	-10.1	
14	-12.6	-12.8	-13.4	-13.9	-14.8	-14.3	-14.9	-16.2	-15.7	-15.7	-15.6	-15.1	-15.5	-14.2	-13.4	-13.7	-14.4	-14.2	-13.7	-15.0	-15.7	-16.9	-16.2	-16.9	-12.6	-16.9	-14.8	
15	-18.0	-16.6	-15.2	-14.5	-14.7	-14.7	-11.2	-11.3	-11.8	-11.1	-12.4	-13.0	-10.8	-10.4	-9.2	-8.0	-7.0	-7.2	-6.4	-6.4	-6.6	-5.9	-4.9	-4.6	-4.6	-18.0	-10.5	
16	-5.7	-6.0	-6.9	-6.9	-6.8	-6.5	-5.8	-6.4	-5.7	-4.9	-4.4	-4.1	-3.7	-3.2	-3.0	-3.0	-3.0	-2.7	-2.8	-2.3	-2.3	-2.0	-2.2	-2.4	-2.0	-6.9	-4.3	
17	-3.1	-3.9	-4.8	-5.2	-5.5	-5.8	-5.9	-5.8	-5.9	-5.6	-5.1	-4.9	-5.2	-5.2	-5.0	-4.7	-4.4	-4.4	-4.2	-4.0	-3.8	-3.5	-3.3	-3.2	-3.1	-5.9	-4.7	
18	-3.5	-3.5	-3.3	-3.4	-3.8	-4.1	-4.3	-4.3	-4.6	-4.7	-4.7	-4.7	-4.4	-4.5	-4.5	-4.6	-4.9	-5.1	-5.3	-5.2	-5.2	-5.3	-5.7	-5.5	-3.3	-5.7	-4.5	
19	-5.7	-5.5	-6.3	-6.6	-6.4	-6.8	-6.1	-6.5	-7.4	-8.3	-8.9	-9.3	-10.1	-10.5	-10.7	-11.2	-11.4	-11.6	-11.7	-12.0	-12.1	-12.3	-12.2	-12.1	-5.5	-12.3	-9.2	
20	-12.1	-12.5	-12.7	-13.0	-13.1	-13.1	-13.4	-13.7	-14.0	-16.1	-17.0	-18.6	-20.5	-20.0	-18.0	-17.7	-19.4	-20.2	-22.2	-22.7	-23.3	-23.3	-23.5	-23.5	-12.1	-23.5	-17.6	
21	-24.0	-24.5	-25.9	-25.5	-25.5	-27.5	-27.4	-28.8	-28.8	-28.3	-29.0	-29.1	-28.6	-28.4	-28.7	-28.9	-28.9	-29.8	-28.6	-26.9	-28.1	-27.6	-27.8	-28.3	-24.0	-29.8	-27.7	
22	-26.6	-27.4	-24.5	-24.9	-25.2	-25.0	-25.2	-24.2	-24.6	-24.3	-25.7	-25.4	-25.6	-25.2	-25.6	-25.8	-25.9	-26.2	-26.4	-26.4	-26.4	-26.1	-25.8	-25.6	-24.2	-27.4	-25.6	
23	-26.7	-26.5	-25.4	-24.9	-24.6	-24.4	-24.6	-24.1	-23.3	-22.7	-22.9	-22.3	-22.2	-21.2	-20.4	-21.2	-21.3	-21.6	-23.0	-24.9	-25.8	-26.5	-26.6	-25.2	-20.4	-26.7	-23.8	
24	-24.1	-24.0	-24.3	-24.5	-24.0	-24.7	-23.4	-24.3	-23.2	-22.3	-22.1	-20.1	-19.0	-18.7	-17.3	-16.3	-15.4	-14.9	-15.5	-15.8	-15.2	-15.0	-14.9	-14.8	-14.8	-24.7	-19.7	
25	-14.5	-13.5	-12.6	-11.6	-10.4	-9.0	-8.5	-7.6	-6.7	-6.5	-5.7	-4.2	-3.4	-2.4	-2.1	-1.4	-0.8	-1.2	-1.3	-1.3	-0.9	-1.1	-2.0	-2.0	-0.8	-14.5	-5.4	
26	-1.5	-1.4	-1.3	-1.0	-1.1	-1.3	-1.3	-1.3	-1.8	-1.9	-1.9	-1.7	-1.7	-1.9	-2.1	-2.5	-2.5	-2.6	-3.0	-3.4	-3.6	-3.6	-3.5	-3.9	-1.0	-3.9	-2.2	
27	-3.7	-3.8	-3.9	-4.2	-3.8	-3.9	-4.1	-3.9	-4.0	-3.9	-3.7	-3.9	-4.5	-4.9	-4.8	-6.1	-7.2	-7.5	-8.2	-9.0	-9.6	-9.6	-9.3	-10.1	-3.7	-10.1	-5.7	
28	-9.9	-11.2	-11.5	-11.5	-12.6	-13.7	-15.7	-16.2	-17.3	-17.0	-16.3							-11.5	-11.6	-12.0	-11.7	-11.7	-11.5	-11.4	-9.9	-17.3	-13.0	
29	-11.2	-11.0	-10.6	-10.7	-10.3	-9.5	-9.2	-8.8	-8.5	-8.4	-8.0	-7.6	-7.4	-7.4	-6.5	-6.5	-5.4	-5.8	-6.5	-6.8	-6.8	-6.8	-7.2	-7.2	-5.4	-11.2	-8.1	
30	-6.8	-6.9	-7.4	-7.5	-7.3	-7.1	-6.7	-7.1	-7.0	-6.2	-5.2	-4.8	-5.3	-4.9	-3.0	-1.4	-0.7	-1.4	-1.6	-1.5	-1.8	-2.2	-2.9	-3.1	-0.7	-7.5	-4.6	
31	-2.8	-2.9	-3.2	-2.9	-2.7	-2.8	-2.2	-2.3	-2.4	-1.9	-1.5	-1.3	-1.4	-1.5	-1.7	-1.7	-1.7	-1.7	-1.8	-1.5	-0.9	-0.6	-0.2	0.2	0.2	-3.2	-1.8	
Max.	-1.3	-1.3	-1.3	-1.0	-1.1	-1.3	-1.3	-1.3	-1.7	-1.7	-1.5	-1.3	-1.4	-1.5	-1.5	-1.4	-0.7	-1.2	-1.3	-1.3	-0.9	-0.6	-0.2	0.2	0.2			
Min.	-26.7	-27.4	-25.9	-25.5	-25.5	-27.5	-27.4	-28.8	-28.8	-28.3	-29.0	-29.1	-28.6	-28.4	-28.7	-28.9	-28.9	-29.8	-28.6	-26.9	-28.1	-27.6	-27.8	-28.3		-29.8		
Avg.	-10.8	-10.9	-10.9	-10.8	-10.7	-10.8	-10.6	-10.7	-10.7	-10.6	-10.6	-10.2	-10.0	-9.9	-9.5	-9.6	-9.7	-10.0	-10.4	-10.6	-10.8	-10.9	-10.8	-10.9			-10.5	

Total Hours in Month

744

Hours Data Available

738

Data Recovery

99%

Rock Creek - Wind Speed (m/s)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.9	1.3	0.8	0.5	0.6	1.0	1.2	0.8	0.8	1.0	1.5	2.3	4.7	5.0	4.6	4.8	4.0	2.8	2.2	1.9	2.6	2.9	4.1	4.1	5.0	0.5	2.3
2	3.9	2.0	1.5	1.0	0.7	1.1	1.1	0.7	1.5	1.1	1.3	0.9	1.9	1.8	2.3	3.3	2.6	3.3	2.7	2.0	2.3	1.1	1.2	1.0	3.9	0.7	1.8
3	0.7	0.8	0.8	1.0	0.5	0.8	0.7	0.8	0.8	1.1	0.9	2.3	2.1	3.1	3.0	3.7	2.7	2.5	2.5	2.6	3.9	4.1	4.1	3.2	4.1	0.5	2.0
4	3.2	3.9	4.7	4.4	3.4	3.1	3.3	3.5	2.6	3.0	3.9	5.0	4.6	4.0	3.4	3.3	2.0	1.6	2.5	3.6	1.9	1.7	0.9	1.1	5.0	0.9	3.1
5	1.1	1.3	0.9	1.1	0.9	0.9	0.7	0.6	0.7	0.6	0.7	1.0	2.7	2.8	1.9	2.0	2.2	2.0	0.9	1.2	0.9	2.4	1.5	0.9	2.8	0.6	1.3
6	0.9	0.9	0.7	0.9	1.1	1.2	0.8	0.7	0.7	0.7	0.6	1.0	1.5	2.5	3.4	4.1	3.4	2.3	1.3	1.2	0.7	1.1	0.9	1.4	4.1	0.6	1.4
7	3.7	4.0	3.8	3.8	3.7	3.1	2.9	2.9	2.9	2.0	1.3	1.3	1.7	1.8	1.5	2.6	2.5	3.1	2.6	2.4	2.2	2.0	2.7	2.5	4.0	1.3	2.6
8	2.5	2.5	2.1	2.5	2.4	3.3	4.1	4.3	4.5	4.8	5.5	5.5	4.6	4.9	4.7	5.9	6.6	5.3	5.3	5.5	5.5	5.4	4.9	4.3	6.6	2.1	4.5
9	5.0	5.6	5.1	4.5	3.7	4.0	4.1	4.0	4.5	6.0	6.3	6.6	5.8	6.0	6.0	6.0	6.9	6.6	4.9	4.1	5.7	5.1	7.1	7.2	7.2	3.7	5.4
10	7.1	7.0	7.3	7.2	8.2	7.7	8.5	9.5	9.3	7.3	6.6	6.7	6.7	7.0	7.2	7.1	7.1	5.8	6.1	5.5	5.4	5.0	4.7	5.0	9.5	4.7	6.9
11	4.6	4.4	3.5	2.5	3.1	2.7	2.5	2.1	1.7	2.2	3.2	4.2	5.3	2.7	2.7	3.8	3.4	4.3	5.4	6.7	6.5	6.3	5.5	4.6	6.7	1.7	3.9
12	6.3	4.1	6.5	7.9	8.9	8.8	9.4	10.3	9.0	8.1	5.3	6.6	4.0	3.8	3.8	5.2	6.0	4.3	3.5	3.2	4.5	4.3	4.0	2.7	10.3	2.7	5.8
13	1.8	2.4	1.6	1.4	1.8	1.3	0.8	0.6	1.1	1.1	1.1	2.1	2.9	2.0	2.3	2.0	2.1	2.0	1.3	0.8	0.7	0.6	1.1	1.0	2.9	0.6	1.5
14	0.7	1.3	0.9	1.5	3.8	1.8	2.7	2.5	1.6	1.8	2.5	2.9	4.9	6.2	7.7	7.2	7.2	7.8	7.9	9.1	9.5	9.7	10.6	11.1	11.1	0.7	5.1
15	10.9	11.4	11.9	11.5	11.5	11.5	11.3	11.3	10.9	10.6	9.9	9.8	9.6	8.8	8.2	7.4	7.1	3.7	2.0	3.2	1.7	1.3	4.7	2.4	11.9	1.3	8.0
16	2.7	2.1	2.5	1.2	1.4	2.0	1.6	1.8	2.3	1.9	2.0	1.7	1.8	2.4	2.9	3.1	3.5	2.6	2.2	1.5	2.1	4.6	4.6	4.3	4.6	1.2	2.5
17	3.9	3.7	4.0	3.7	3.8	2.2	1.2	1.0	0.8	2.8	4.9	5.4	5.7	5.6	6.0	4.6	2.1	3.0	3.0	4.3	4.3	4.3	5.3	6.3	6.3	0.8	3.8
18	5.9	5.9	5.2	4.2	6.0	7.6	8.8	9.9	11.0	11.9	13.1	13.5	14.0	15.6	17.7	18.2	17.9	16.9	15.4	13.7	12.1	11.3	10.8	10.5	18.2	4.2	11.5
19	11.1	10.7	11.3	11.1	11.6	12.2	12.0	12.7	13.2	14.1	14.1	13.4	13.7	12.9	11.4	10.7	11.1	7.2	7.3	7.0	7.9	8.2	7.4	5.7	14.1	5.7	10.8
20	4.5	3.5	5.2	4.0	4.3	5.4	5.5	4.8	5.2	5.7	6.3	6.4	7.4	8.1	7.6	5.2	4.5	2.7	2.3	2.1	2.5	1.6	1.5	3.8	8.1	1.5	4.6
21	5.2	4.7	4.3	4.2	4.5	5.7	4.9	5.3	6.0	4.2	4.4	5.8	5.7	6.8	8.4	6.7	5.7	4.4	1.7	2.7	1.9	2.1	2.4	2.3	8.4	1.7	4.6
22	3.7	4.9	4.8	4.3	4.7	4.8	5.3	6.1	4.2	2.8	4.8	2.0	2.2	1.8	1.3	1.3	1.2	0.9	0.8	0.7	1.5	1.1	1.3	1.9	6.1	0.7	2.9
23	1.3	0.6	1.0	0.9	0.8	1.0	1.2	1.3	0.8	0.8	1.2	2.1	3.7	3.5	3.7	3.2	4.1	3.1	4.6	4.6	6.3	4.3	3.4	3.0	6.3	0.6	2.5
24	3.6	4.6	3.5	7.3	6.6	6.9	6.2	4.6	5.2	6.1	5.7	6.6	7.1	6.7	8.8	7.6	8.0	7.8	6.7	5.4	4.6	3.3	4.8	4.1	8.8	3.3	5.9
25	5.8	4.8	2.0	2.3	2.8	1.3	2.7	2.0	1.1	5.2	9.5	8.5	9.1	9.8	12.6	12.3	13.1	12.9	10.6	9.3	10.2	10.4	11.2	10.2	13.1	1.1	7.5
26	9.0	9.6	8.6	11.1	11.0	7.5	7.4	8.6	8.0	6.2	2.4	4.7	5.2	5.0	5.0	5.3	5.2	5.2	5.2	5.2	5.0	4.7	5.7	5.7	11.1	2.4	6.5
27	6.4	6.8	5.8	6.4	6.7	6.3	7.1	7.3	7.0	6.1	5.0	5.1	5.5	4.7	5.0	4.3	4.0	3.2	3.0	3.2	3.1	2.9	2.5	2.3	7.3	2.3	5.0
28	4.0	5.6	4.7	5.0	4.6	5.0	5.0	4.9	4.3	6.9	8.1	8.0	7.9	7.9	8.6	9.1	8.8	9.0	8.1	7.4	7.1	6.9	7.1	7.2	9.1	4.0	6.7
29	7.2	7.2	7.0	7.2	6.2	5.6	6.1	6.5	6.0	6.0	6.8	7.3	7.8	6.9	6.1	6.2	7.1	7.8	8.8	9.0	9.4	10.9	11.3	11.5	11.5	5.6	7.6
30	10.4	10.0	11.3	11.9	11.6	9.5	7.2	7.4	4.9	4.2	3.3	2.6	2.7	4.1	4.6	3.9	3.8	1.6	1.8	1.5	1.4	1.6	1.7	1.9	11.9	1.4	5.2
31	1.4	3.0	1.0	1.1	0.8	1.1	1.1	1.0	3.3	1.7	1.3	2.6	2.3	2.2	2.1	2.1	1.5	0.9	0.8	0.9	2.0	3.8	2.8	1.7	3.8	0.8	1.8
Max.	11.1	11.4	11.9	11.9	11.6	12.2	12.0	12.7	13.2	14.1	14.1	13.5	14.0	15.6	17.7	18.2	17.9	16.9	15.4	13.7	12.1	11.3	11.3	11.5	18.2		
Min.	0.7	0.6	0.7	0.5	0.5	0.8	0.7	0.6	0.7	0.6	0.6	0.9	1.5	1.8	1.3	1.3	1.2	0.9	0.8	0.7	0.7	0.6	0.9	0.9		0.5	
Avg.	4.5	4.5	4.3	4.4	4.6	4.4	4.4	4.5	4.4	4.4	4.6	5.0	5.3	5.4	5.6	5.6	5.4	4.7	4.3	4.2	4.4	4.3	4.6	4.3			4.7

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Wind Speed (m/s)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.9	0.7	0.8	1.0	1.3	0.8	0.7	1.1	1.5	0.8	1.9	2.7	3.0	1.3	1.5	1.5	2.1	2.8	3.9	2.4	1.6	1.4	0.9	1.1	3.9	0.7	1.6
2	1.1	0.8	1.1	1.3	1.6	5.3	5.5	4.4	2.9	4.3	4.0	5.2	4.2	4.6	6.0	7.1	7.2	7.7	8.3	9.4	10.2	10.6	11.9	12.1	12.1	0.8	5.7
3	10.8	7.6	7.1	8.2	8.3	7.1	9.8	11.8	10.5	6.4	3.8	4.0	6.3	9.5	9.6	9.1	10.8	8.8	4.6	4.6	5.1	3.5	2.8	2.1	11.8	2.1	7.2
4	2.0	1.1	2.9	2.2	0.9	1.4	2.0	1.8	2.0	1.9	4.3	5.1	5.8	5.2	4.4	4.8	4.2	5.6	5.5	4.9	3.6	1.3	2.5	3.2	5.8	0.9	3.3
5	3.2	2.1	1.5	1.3	1.2	0.7	1.1	0.7	0.9	1.0	1.9	1.4	1.4	2.4	1.7	2.0	1.6	0.9	0.6	0.8	2.3	1.7	2.9	3.5	3.5	0.6	1.6
6	3.7	2.3	4.3	5.7	5.4	5.9	5.3	4.2	4.4	4.2	3.9	4.9	6.0	6.6	8.1	7.1	8.8	6.6	7.3	6.4	7.0	8.2	9.8	10.1	10.1	2.3	6.1
7	9.7	10.8	11.0	14.6	16.0	15.0	12.3	11.5	12.3	12.4	13.3	13.9	13.3	12.7	12.8	11.8	11.1	10.4	10.2	11.4	10.7	9.8	9.6	9.3	16.0	9.3	11.9
8	9.0	7.4	3.9	6.0	5.8	6.0	5.5	4.9	3.5	3.9	2.5	2.4	2.0	2.4	2.2	1.6	0.8	0.8	0.7	0.8	0.7	0.8	1.3	0.9	9.0	0.7	3.2
9	0.6	0.8	0.8	1.5	1.2	3.2	3.4	3.4	3.8	4.9	6.5	4.5	3.6	3.9	3.7	3.5	3.1	4.1	4.5	3.3	2.2	1.3	3.0	2.4	6.5	0.6	3.1
10	3.7	3.7	6.9	10.0	8.6	9.6	10.1	11.5	9.9	11.4	9.0	9.7	8.0	9.4	10.4	9.2	6.8	6.8	6.4	5.5	4.8	3.6	2.2	2.0	11.5	2.0	7.5
11	1.4	0.9	1.3	1.1	1.1	1.5	1.2	0.9	1.0	0.9	1.1	0.7	1.0	1.4	1.1	1.0	0.8	1.1	0.7	0.9	0.6	0.5	0.6	0.7	1.5	0.5	1.0
12	0.5	0.5	0.8	0.9	0.7	0.6	0.5	0.9	0.9	0.8	1.8	1.3	2.8	2.8	1.7	2.7	1.9	2.2	1.1	2.0	4.3	6.4	7.2	8.4	8.4	0.5	2.3
13	9.0	9.4	9.8	9.3	8.8	7.6	8.4	9.2	9.7	9.8	9.1	7.8	6.5	5.1	5.4	5.3	4.1	3.5	4.1	5.4	5.2	5.0	8.8	10.3	10.3	3.5	7.4
14	10.2	11.3	12.2	15.0	15.5	16.5	15.6	15.5	15.0	14.6	12.7	11.9	12.1	11.6	11.0	10.8	10.8	11.0	12.0	11.7	11.0	10.2	10.1	9.8	16.5	9.8	12.4
15	8.7	4.9																2.1	3.4	1.9	2.3	3.2	4.8	7.0	8.7	1.9	4.2
16	3.5	3.1	3.0	6.3	7.2	5.1	2.8	3.9	6.3	3.9	3.0	2.9	1.9	2.3	2.3	2.9	4.3	4.4	3.4	2.9	2.1	2.0	1.8	1.4	7.2	1.4	3.4
17	1.0	2.1	2.2	1.9	1.5	2.4	3.9	4.0	8.2	8.9	8.6	11.2	12.1	12.0	11.3	12.9	11.7	11.4	11.9	12.0	10.9	11.2	10.6	10.6	12.9	1.0	8.1
18	9.7	8.0	7.0	12.0	12.2	9.2	7.8	7.3	7.0	8.1	9.6	10.8	10.7	10.7	10.4	9.1	7.2	6.7	5.4	4.6	5.0	5.2	2.1	2.4	12.2	2.1	7.8
19	2.0	3.5	8.2	7.8	6.9	7.9	6.1	6.7	10.9	9.5	12.4	12.2	12.8	11.9	12.0	15.3	16.2	15.2	14.2	13.9	15.4	16.9	16.4	16.6	16.9	2.0	11.3
20	16.7	15.9	15.7	17.4	16.9	15.3	13.8	13.3	12.7	12.4	12.8	12.7	11.8	9.6	7.9	7.4	7.2	5.7	7.0	7.3	8.2	5.8	5.5	9.9	17.4	5.5	11.2
21	10.0	8.7	7.5	6.4	8.2	9.1	8.1	8.4	9.3	10.1	9.9	10.7	12.4	13.5	15.9	15.9	15.6	16.7	19.1	19.0	18.1	17.9	17.6	17.4	19.1	6.4	12.7
22	16.3	15.5	15.9	15.2	15.1	13.7	13.1	12.4	11.4	11.1	9.7	9.1	8.7	8.2	8.1	7.5	7.3	7.5	7.8	7.7	4.9	2.4	2.8	4.4	16.3	2.4	9.8
23	5.9	6.0	5.7	7.6	5.8	6.7	8.5	7.9	9.1	10.2	7.8	6.2	6.9	9.9	6.4	3.2	1.8	3.3	6.1	3.8	3.6	1.5	0.9	0.8	10.2	0.8	5.6
24	1.2	2.4	2.6	4.6	1.5	2.9	2.2	4.4	6.3	11.2	8.7	7.0	7.8	6.8	6.7	5.5	3.9	2.7	3.2	2.3	2.2	3.4	3.5	4.7	11.2	1.2	4.5
25	1.9	1.7	1.2	0.8	0.7	0.7	0.7	0.6	0.9	1.0	1.1	0.9	0.9	1.0	0.8	1.6	1.6	0.8	0.7	1.1	1.1	1.5	3.6	3.9	3.9	0.6	1.3
26	3.1	3.0	2.7	4.3	6.0	7.7	6.9	6.1	5.9	6.0	4.0	4.3	8.9	8.1	5.8	6.5	4.5	3.6	4.5	4.7	5.3	5.3	2.6	2.6	8.9	2.6	5.1
27	2.6	1.7	1.4	2.2	1.8	2.0	5.3	7.9	7.6	10.1	9.0	8.6	7.9	11.2	11.7	10.3	8.7	6.5	6.9	5.9	7.5	9.0	9.9	8.5	11.7	1.4	6.8
28	8.2	9.2	9.5	9.6	8.9	8.4	8.8	8.1	8.5	7.5	5.1	5.9	4.7	3.7	1.4	1.7	1.9	2.0	1.8	0.9	1.4	1.6	1.3	1.3	9.6	0.9	5.1
29	2.4	4.3	2.8	3.5	4.4	3.8	4.6	1.3	0.8	0.5	0.7	0.8	1.5	1.6	1.6	2.1	1.5	1.0	3.6	5.3	6.8	5.0	5.4	8.4	8.4	0.5	3.1
30	9.1	8.4	9.9	8.5	10.7	13.8	15.6	15.1	14.4	13.5	12.1	11.8	12.5	12.0	12.3	12.0	11.5	11.5	10.5	9.6	8.9	8.6	10.0	9.4	15.6	8.4	11.3
Max.	16.7	15.9	15.9	17.4	16.9	16.5	15.6	15.5	15.0	14.6	13.3	13.9	13.3	13.5	15.9	15.9	16.2	16.7	19.1	19.0	18.1	17.9	17.6	17.4	19.1		
Min.	0.5	0.5	0.8	0.8	0.7	0.6	0.5	0.6	0.8	0.5	0.7	0.7	0.9	1.0	0.8	1.0	0.8	0.8	0.6	0.8	0.6	0.5	0.6	0.7		0.5	
Avg.	5.6	5.3	5.5	6.4	6.4	6.5	6.5	6.5	6.8	6.9	6.5	6.6	6.8	6.9	6.7	6.6	6.2	5.8	6.0	5.7	5.8	5.5	5.7	6.2			6.2

Total Hours in Month 720

Hours Data Available 705

Data Recovery 97.9%

Rock Creek - Wind Speed (m/s)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	8.0	6.9	5.7	4.4	3.0	2.8	2.9	2.6	2.2	2.6	1.7	1.8	1.2	0.6	0.9	0.7	1.2	1.5	2.0	2.2	1.9	2.0	0.9	1.5	8.0	0.6	2.5
2	1.3	0.8	0.7	1.1	0.9	0.8	0.6	1.4	1.0	1.2	0.8	1.2	0.5	0.7	0.9	1.4	1.3	1.6	1.5	4.8	6.5	6.8	6.3	5.7	6.8	0.5	2.1
3	7.6	9.0	8.2	9.0	8.8	10.9	10.0	10.0	10.1	8.9	9.3	8.8	9.7	9.0	8.7	8.1	7.9	6.9	6.1	5.0	4.8	4.2	2.2	1.6	10.9	1.6	7.7
4	1.1	1.4	1.2	0.8	0.9	1.4	1.5	1.5	3.8	5.2	5.0	5.6	5.9	6.4	5.4	6.6	2.8	1.8	3.4	4.3	4.2	2.9	1.6	2.2	6.6	0.8	3.2
5	4.8	4.3	4.7	4.6	5.3	4.5	1.6	0.9	1.2	4.5	6.3	3.5	3.1	2.7	3.4	4.2	5.8	6.1	7.8	8.3	5.4	3.2	7.2	9.1	9.1	0.9	4.7
6	8.9	8.7	9.1	7.9	9.0	10.7	9.1	10.3	9.1	9.7	9.2	11.9	11.3	9.8	10.8	6.8	6.9	7.8	7.6	8.8	9.2	7.4	4.3	5.5	11.9	4.3	8.7
7	7.4	7.7	5.7	3.5	4.9	4.5	6.3	6.5	7.1	8.0	10.0	10.5	9.6	11.1	11.8	11.3	11.1	11.5	11.4	11.4	10.9	10.3	10.4	8.3	11.8	3.5	8.8
8	6.1	7.3	7.7	11.1	13.2	9.5	6.7	10.8	9.6	9.4	9.2	9.2	11.1	10.5	8.9	7.4	4.8	4.0	6.5	8.0	6.6	7.3	7.3	7.8	13.2	4.0	8.3
9	8.2	5.7	5.8	6.1	7.2	4.7	5.4	5.8	5.7	5.9	5.8	5.1	4.3	2.1	2.1	1.8	3.8	4.8	3.0	4.2	1.6	1.2	1.5	1.9	8.2	1.2	4.3
10	2.6	4.0	3.7	1.3	2.7	3.1	2.7	3.3	3.2	4.0	4.9	4.1	3.8	3.0	2.6	3.8	5.3	5.0	3.2	5.0	7.1	6.1	4.3	6.1	7.1	1.3	3.9
11	7.3	6.8	8.3	6.9	8.0	10.9	12.3	8.3	8.4	10.7	9.7	10.0	9.9	9.4	8.3	9.6	10.6	10.7	10.9	12.1	11.8	9.9	9.5	11.1	12.3	6.8	9.6
12	11.5	11.8	10.0	8.4	7.7	7.5	7.7	6.9	6.8	7.7	7.6	7.7	6.7	7.8	7.8	7.3	7.2	4.5	8.7	8.5	7.5	7.9	4.0	4.3	11.8	4.0	7.6
13	2.5	1.6	3.1	7.8	7.4	7.1	7.6	7.6	5.2	3.2	5.1	3.9	5.0	2.8	3.9	5.2	4.5	4.1	2.3	1.7	1.1	1.2	1.3	0.9	7.8	0.9	4.0
14	1.5	1.1	1.4	1.4	1.4	2.0	0.8	0.7	0.7	0.9	1.0	0.5	0.6	0.8	0.6	1.1	0.7	0.7	0.9	1.4	1.5	1.3	1.0	1.2	2.0	0.5	1.0
15	1.9	1.8	1.9	2.5	3.5	6.4	10.3	10.2	9.6	4.9	2.9	5.6	9.1	10.0	10.4	11.8	14.7	15.8	14.3	14.6	17.3	16.9	14.9	13.5	17.3	1.8	9.4
16	14.1	14.7	15.2	13.4	10.4	8.8	6.6	9.4	9.8	9.9	9.1	8.2	7.1	6.6	6.0	4.4	6.2	6.2	5.0	5.0	3.4	1.6	2.0	1.7	15.2	1.6	7.7
17	3.4	5.2	4.5	2.7	5.4	5.0	6.8	8.0	11.3	12.1	11.3	12.3	12.5	12.9	14.4	12.4	11.1	10.1	10.2	8.1	6.5	2.2	3.1	4.5	14.4	2.2	8.2
18	2.8	2.1	2.5	4.0	2.5	1.8	1.3	1.6	1.0	1.3	0.9	0.6	1.5	1.2	1.2	1.8	2.1	2.5	2.3	1.6	1.6	2.8	1.8	1.0	4.0	0.6	1.8
19	0.8	1.1	1.4	1.1	1.1	0.6	1.8	2.2	4.3	5.7	4.7	2.4	3.2	4.1	4.5	4.6	3.6	5.3	4.0	4.2	4.0	3.0	2.4	2.1	5.7	0.6	3.0
20	3.2	2.4	2.1	1.5	1.9	2.1	2.2	1.7	1.9	1.1	1.9	1.8	1.4	2.3	4.3	2.8	5.4	6.0	1.9	4.1	2.9	2.3	2.1	1.4	6.0	1.1	2.5
21	2.5	1.2	1.2	1.1	1.1	1.3	1.0	1.2	1.0	0.7	0.7	0.9	1.0	1.0	1.3	1.5	0.9	1.0	3.6	2.2	1.2	2.7	1.0	1.4	3.6	0.7	1.4
22	4.2	4.1	6.2	2.8	6.9	4.7	7.2	7.0	6.3	7.2	6.9	6.9	7.1	9.4	9.3	10.3	10.4	10.5	10.0	9.0	8.6	8.6	8.4	7.9	10.5	2.8	7.5
23	2.7	3.3	6.8	6.8	3.8	2.9	4.6	4.0	4.2	2.3	2.2	2.2	1.8	3.0	5.0	3.3	1.8	1.2	1.2	1.5	0.9	1.1	1.1	1.1	6.8	0.9	2.9
24	1.0	0.6	0.8	1.2	0.9	0.7	0.7	0.6	0.8	1.1	1.0	1.7	1.0	1.7	2.4	2.3	3.7	5.6	11.6	13.3	13.6	12.7	15.5	13.9	15.5	0.6	4.5
25	15.3	15.4	15.3	12.9	8.8	7.0	7.1	13.9	16.6	16.3	17.1	18.0	18.1	17.7	17.1	13.7	9.9	8.4	7.5	8.2	11.0	10.2	9.2	7.4	18.1	7.0	12.6
26	5.2	3.3	4.2	4.6	5.3	4.9	4.5	5.0	4.6	4.4	3.1	2.1	2.5	3.6	2.9	2.7	2.2	1.9	1.6	0.9	1.6	1.8	1.1	0.8	5.3	0.8	3.1
27	1.0	0.8	1.0	0.8	1.4	1.7	1.1	0.8	2.3	2.5	1.8	2.3	2.9	3.9	4.0	5.1	5.0	6.0	7.6	4.5	4.7	5.7	5.6	4.8	7.6	0.8	3.2
28	4.3	3.2	3.4	5.0	4.2	1.7	1.0	1.1	1.8	1.0	1.3						2.4	5.8	8.3	11.2	12.7	13.4	11.4	13.4	1.0	5.2	
29	11.1	11.2	10.5	11.7	10.6	9.1	9.2	8.3	8.2	8.3	8.3	7.0	6.2	7.6	6.1	3.5	2.9	4.8	9.4	12.0	6.2	12.0	9.9	13.8	13.8	2.9	8.7
30	14.2	14.6	15.0	13.6	13.1	14.5	15.3	15.6	16.2	17.4	18.3	19.5	19.3	18.8	16.3	14.0	8.8	8.0	6.3	6.0	4.2	3.0	2.9	3.1	19.5	2.9	12.4
31	1.9	0.9	1.1	1.1	1.1	1.5	3.3	2.9	4.4	4.1	11.2	11.3	11.6	12.3	12.7	12.7	12.4	13.8	12.0	11.8	12.2	12.1	8.9	7.6	13.8	0.9	7.7
Max.	15.3	15.4	15.3	13.6	13.2	14.5	15.3	15.6	16.6	17.4	18.3	19.5	19.3	18.8	17.1	14.0	14.7	15.8	14.3	14.6	17.3	16.9	15.5	13.9 #	19.5		
Min.	0.8	0.6	0.7	0.8	0.9	0.6	0.6	0.6	0.7	0.7	0.7	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.9	0.9	0.9	1.1	0.9	0.8		0.5	
Avg.	5.4	5.3	5.4	5.2	5.2	5.0	5.1	5.5	5.8	5.9	6.1	6.2	6.3	6.4	6.5	6.1	5.8	5.8	6.1	6.5	6.2	5.9	5.3	5.3			5.8

Total Hours in Month 744

Hours Data Available 738

Data Recovery 99%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.6	2.1	2.0	1.0	1.2	3.2	2.9	1.3	1.6	3.0	3.7	5.9	9.7	7.9	8.5	7.9	7.0	5.8	3.9	3.5	4.6	4.5	6.0	6.1	9.7	1.0	4.4
2	5.8	3.8	3.2	2.5	1.6	2.1	2.2	2.1	3.1	3.0	2.2	2.1	3.0	3.4	4.5	5.0	3.9	4.7	5.1	3.1	4.6	3.0	2.9	1.6	5.8	1.6	3.3
3	1.5	2.3	1.6	2.6	1.5	1.8	1.6	2.0	1.8	2.4	2.0	5.0	4.7	5.2	5.7	6.5	5.0	4.7	5.0	5.9	5.7	7.2	7.0	5.6	7.2	1.5	3.9
4	6.0	7.0	7.8	7.0	6.1	5.7	5.8	5.6	4.5	5.4	6.5	6.8	6.6	5.6	5.5	5.3	3.2	3.7	5.0	5.2	4.5	4.2	2.2	2.0	7.8	2.0	5.3
5	2.8	3.0	1.7	2.3	2.1	1.8	1.3	1.4	1.4	1.3	1.3	2.8	4.5	4.3	3.5	3.4	3.3	3.2	2.1	2.9	2.0	4.2	4.3	2.0	4.5	1.3	2.6
6	2.2	2.3	1.4	2.5	2.5	2.9	1.6	1.4	1.3	1.8	1.4	2.2	2.7	4.0	4.8	6.1	5.0	4.1	2.6	2.4	1.6	2.2	1.7	4.4	6.1	1.3	2.7
7	5.2	5.2	4.6	5.1	5.1	4.5	3.8	3.9	4.6	4.4	2.1	2.7	3.7	4.1	3.2	4.3	4.5	5.2	4.0	4.1	3.4	3.2	5.8	5.2	5.8	2.1	4.2
8	4.3	4.7	4.2	6.2	6.1	7.6	7.8	7.5	8.4	8.3	9.7	10.0	8.5	8.7	8.6	10.2	11.3	9.8	9.4	9.6	9.3	9.9	9.1	8.5	11.3	4.2	8.2
9	10.6	9.3	9.7	8.8	7.3	8.1	9.1	8.5	9.5	10.0	10.7	11.0	10.1	10.4	11.5	11.4	11.3	12.3	10.0	8.9	9.7	8.6	12.5	11.3	12.5	7.3	10.0
10	12.8	10.8	12.1	13.0	12.8	12.4	13.1	14.7	14.1	11.6	11.5	10.9	10.1	10.8	11.0	10.7	11.8	8.9	9.2	8.6	8.1	6.9	6.7	7.6	14.7	6.7	10.8
11	6.6	6.1	5.6	3.8	4.9	4.5	4.7	4.9	3.7	6.0	6.5	8.6	8.7	5.4	5.8	6.5	6.3	7.4	8.0	10.8	10.1	9.5	10.0	8.6	10.8	3.7	6.8
12	9.2	8.4	10.4	10.9	14.8	14.3	14.7	16.4	12.7	14.3	12.0	12.1	8.1	8.9	6.1	8.7	10.7	8.0	5.3	5.2	6.8	6.6	6.6	5.5	16.4	5.2	9.9
13	4.6	3.8	3.9	3.1	3.5	3.0	1.8	1.3	2.1	1.9	2.2	3.6	3.7	3.1	3.4	2.9	2.8	2.6	2.5	1.7	1.6	1.2	2.1	2.1	4.6	1.2	2.7
14	1.6	2.7	2.1	3.2	5.5	4.1	5.2	6.2	3.3	2.9	3.5	6.3	10.2	10.3	12.5	11.5	12.0	12.3	14.0	14.3	15.6	16.1	16.4	18.9	18.9	1.6	8.8
15	16.6	19.3	18.5	18.8	19.1	18.6	17.9	17.8	17.8	17.6	16.2	16.2	15.9	14.3	13.7	12.5	11.0	9.3	4.5	6.2	6.3	5.5	8.9	5.9	19.3	4.5	13.7
16	6.5	4.5	4.1	2.4	2.9	3.6	2.9	3.1	4.4	4.4	3.2	4.0	3.5	4.3	5.2	4.6	6.4	4.4	3.1	2.3	5.7	6.1	6.5	5.9	6.5	2.3	4.3
17	5.3	5.4	5.1	4.8	4.8	4.2	2.9	2.0	1.8	5.5	8.4	8.3	8.4	9.0	9.2	8.5	4.6	5.7	6.6	7.2	7.0	7.8	9.0	10.6	10.6	1.8	6.3
18	9.7	9.4	9.0	8.4	11.2	12.1	13.7	15.7	17.9	18.4	20.6	21.4	23.3	24.0	28.0	27.6	28.9	26.4	28.7	25.3	21.3	20.9	19.8	20.1	28.9	8.4	19.2
19	19.4	22.3	21.0	24.0	24.3	24.0	22.3	23.4	23.0	24.3	22.3	22.2	22.3	20.2	20.9	19.0	21.3	17.0	12.9	10.8	12.9	20.5	13.0	8.6	24.3	8.6	19.7
20	9.2	6.0	11.4	8.8	9.0	10.1	11.9	9.0	9.1	12.1	12.3	13.0	12.4	12.1	12.9	11.7	8.6	5.2	4.6	4.0	5.4	4.6	2.9	8.0	13.0	2.9	8.9
21	9.7	9.2	8.5	8.5	9.9	11.1	10.0	10.0	10.6	9.6	7.5	10.1	11.4	11.8	13.5	12.3	12.1	7.7	6.0	8.2	6.0	3.9	4.0	4.0	13.5	3.9	9.0
22	7.7	7.5	7.1	6.5	6.4	6.4	8.2	8.8	7.6	8.3	10.4	4.1	5.7	3.1	2.3	2.3	3.0	2.5	2.1	1.3	3.0	2.4	3.5	3.5	10.4	1.3	5.2
23	3.4	1.0	1.4	2.1	2.3	2.1	2.6	2.7	1.8	1.8	2.4	4.4	5.7	5.3	5.5	5.2	6.1	4.8	6.0	7.9	9.6	7.7	6.8	5.9	9.6	1.0	4.4
24	6.9	6.8	6.9	13.1	10.4	10.1	10.0	8.7	8.5	10.9	11.1	12.0	11.5	11.3	15.5	12.1	12.9	11.9	11.9	9.9	8.0	6.2	8.2	8.1	15.5	6.2	10.1
25	9.2	9.0	4.3	3.9	4.9	2.9	5.4	4.0	2.9	9.5	15.7	15.4	19.3	17.0	19.3	18.9	20.3	18.6	18.8	20.4	17.6	16.6	17.7	17.7	20.4	2.9	12.9
26	15.3	15.6	14.3	17.0	17.8	14.1	13.1	14.8	12.1	11.5	7.3	7.7	8.1	7.8	7.7	7.8	7.7	8.6	7.8	7.9	8.6	8.0	9.9	9.4	17.8	7.3	10.8
27	10.7	10.5	10.1	10.9	10.7	10.8	10.2	10.9	10.7	9.2	7.9	8.0	8.3	7.2	7.5	6.6	6.4	5.2	4.8	5.1	5.1	5.2	4.3	5.9	10.9	4.3	8.0
28	6.7	8.5	7.5	8.1	6.4	7.5	6.1	6.2	7.0	10.8	11.4	11.7	10.9	11.3	12.9	12.7	12.2	13.4	11.4	11.1	10.2	9.6	9.3	11.1	13.4	6.1	9.7
29	9.9	10.8	11.4	10.6	8.7	8.3	9.0	9.8	8.2	9.3	10.2	11.0	11.6	10.6	8.9	8.8	10.1	11.3	13.0	13.5	13.7	17.8	18.1	18.8	18.8	8.2	11.4
30	15.7	15.0	17.4	16.9	17.0	16.3	12.5	12.3	9.4	7.2	5.9	5.1	4.8	8.2	7.5	6.3	5.8	3.3	4.6	3.2	2.6	2.9	4.9	4.5	17.4	2.6	8.7
31	4.9	5.6	2.5	2.4	1.9	2.8	2.7	2.5	5.5	4.8	2.8	5.2	6.6	5.5	4.0	3.2	2.6	1.9	1.6	1.9	4.3	4.8	4.4	3.9	6.6	1.6	3.7
Max.	19.4	22.3	21.0	24.0	24.3	24.0	22.3	23.4	23.0	24.3	22.3	22.2	23.3	24.0	28.0	27.6	28.9	26.4	28.7	25.3	21.3	20.9	19.8	20.1	28.9		
Min.	1.5	1.0	1.4	1.0	1.2	1.8	1.3	1.3	1.3	1.3	1.3	2.1	2.7	3.1	2.3	2.3	2.6	1.9	1.6	1.3	1.6	1.2	1.7	1.6		1.0	
Avg.	7.8	7.7	7.4	7.7	7.8	7.8	7.6	7.7	7.4	8.1	8.1	8.7	9.2	8.9	9.3	9.0	9.0	8.1	7.6	7.5	7.6	7.7	7.9	7.8			8.1

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	2.0	2.1	1.8	1.9	2.9	1.7	1.6	2.9	3.4	2.0	3.4	6.1	5.1	2.6	2.8	4.5	4.4	4.2	5.5	4.7	3.4	3.0	2.2	1.9	6.1	1.6	3.2	
2	2.1	1.8	3.2	2.9	4.9	7.4	7.0	6.0	6.2	7.1	6.9	7.4	7.3	9.1	10.2	10.8	11.1	10.0	13.4	12.8	14.5	15.9	17.4	17.5	17.5	1.8	8.9	
3	16.3	12.9	12.0	16.2	14.3	11.0	18.1	19.0	19.8	12.1	9.9	9.7	13.9	15.2	14.5	14.3	18.4	15.1	7.5	11.1	9.1	7.3	5.8	4.0	19.8	4.0	12.8	
4	6.0	2.2	5.5	4.6	2.2	3.7	3.9	3.0	3.7	4.3	8.7	8.7	9.1	8.8	7.9	8.0	7.1	8.7	9.2	8.7	6.8	5.6	6.2	6.3	9.2	2.2	6.2	
5	6.1	4.6	3.6	2.9	2.5	2.2	2.6	1.7	2.3	2.7	3.7	3.7	2.8	3.8	2.5	4.2	3.7	2.0	1.8	2.6	4.9	3.7	6.6	6.3	6.6	1.7	3.5	
6	6.0	5.2	8.5	8.8	7.7	8.1	7.0	7.8	7.1	7.5	7.2	8.0	8.0	12.3	14.1	12.2	14.6	8.6	10.6	11.4	11.5	14.9	14.8	16.5	16.5	5.2	9.9	
7	16.2	16.2	18.5	21.7	22.1	22.0	21.9	16.0	18.0	17.2	19.0	19.7	19.2	17.5	18.9	17.5	16.7	15.4	14.1	15.7	15.9	14.2	14.6	13.3	22.1	13.3	17.5	
8	12.3	12.3	8.4	10.2	10.1	9.0	8.1	8.1	6.8	8.2	5.7	5.1	3.7	3.7	3.4	2.8	1.5	2.0	1.6	1.5	2.1	1.8	2.8	1.9	12.3	1.5	5.5	
9	1.3	2.1	2.9	3.9	3.4	5.1	5.3	5.9	6.0	7.1	8.6	8.0	5.6	5.7	5.5	4.9	4.3	6.3	5.9	4.8	4.5	3.3	4.4	4.0	8.6	1.3	5.0	
10	7.2	7.6	13.8	14.9	13.4	13.4	16.3	16.0	15.7	15.6	13.0	13.5	12.2	13.7	15.8	14.8	12.0	10.5	8.8	7.3	7.6	5.6	4.9	5.8	16.3	4.9	11.6	
11	4.2	1.9	2.8	2.6	2.0	3.2	2.7	1.5	1.8	1.9	2.5	2.0	2.1	2.4	2.3	1.7	1.6	2.5	2.1	2.2	1.3	1.1	1.2	1.2	4.2	1.1	2.1	
12	1.3	1.2	1.3	1.7	1.4	1.4	1.3	1.8	2.0	2.7	5.0	3.0	4.7	4.7	5.5	6.8	5.8	4.6	3.1	9.4	10.0	10.8	10.5	12.7	12.7	1.2	4.7	
13	12.8	13.9	14.7	14.5	13.9	11.8	13.2	14.4	15.7	15.7	14.7	13.4	10.9	8.6	9.1	9.3	7.8	6.0	7.1	9.1	8.8	10.4	15.5	15.8	15.8	6.0	12.0	
14	15.5	16.5	19.9	21.1	23.3	21.9	22.1	24.1	20.6	20.4	18.4	16.9	15.9	16.0	14.6	14.4	14.8	14.7	15.7	16.4	16.5	15.4	15.0	14.8	24.1	14.4	17.7	
15	13.2	10.7																7.7	5.6	4.5	3.7	6.2	12.3	10.5	13.2	3.7	8.3	
16	6.1	8.8	12.8	11.4	12.8	11.7	4.2	8.4	9.9	6.8	6.9	5.2	3.7	3.8	4.1	7.3	13.1	6.3	6.9	5.2	3.8	3.4	2.8	2.6	13.1	2.6	7.0	
17	2.7	4.8	4.4	3.7	3.7	5.7	7.3	8.3	11.3	11.8	12.9	15.2	16.0	15.9	15.2	17.2	16.0	17.6	18.9	18.3	16.8	17.1	15.6	17.5	18.9	2.7	12.2	
18	14.8	13.6	14.7	16.7	17.3	14.7	12.2	11.4	11.0	13.0	14.3	14.2	14.5	15.4	14.0	12.9	10.5	9.5	7.8	6.4	7.6	7.4	4.6	5.5	17.3	4.6	11.8	
19	5.0	9.6	11.0	10.4	10.9	12.7	12.3	12.7	15.5	15.3	18.3	18.6	18.2	18.9	17.8	22.5	22.2	20.3	20.1	18.7	21.8	26.1	24.2	26.7	26.7	5.0	17.1	
20	22.9	22.5	21.8	25.7	23.1	21.7	21.2	19.3	17.5	18.9	19.2	18.6	17.2	14.9	12.3	11.3	11.7	10.2	12.9	12.3	14.3	10.9	10.4	15.1	25.7	10.2	16.9	
21	15.6	13.2	13.1	10.2	12.0	15.8	12.4	11.6	13.9	14.7	13.7	16.0	17.9	19.7	21.2	21.5	22.4	22.8	26.7	28.0	25.0	25.2	23.7	23.1	28.0	10.2	18.3	
22	20.9	21.9	21.2	20.3	20.4	18.4	17.9	16.4	16.2	16.2	14.1	13.1	13.4	11.9	10.6	10.3	9.6	10.5	11.3	12.7	11.8	6.1	6.8	9.6	21.9	6.1	14.2	
23	11.7	11.0	9.6	11.2	10.1	10.5	11.9	14.3	14.1	15.2	13.1	10.0	12.0	13.1	11.2	8.6	4.7	8.8	8.3	6.9	6.7	3.9	3.1	1.7	15.2	1.7	9.7	
24	3.7	6.1	5.8	7.6	3.7	6.1	7.1	11.1	10.8	15.9	13.6	10.6	10.4	10.8	8.6	9.2	6.4	5.1	6.3	4.6	5.3	7.1	7.9	9.2	15.9	3.7	8.0	
25	5.4	3.4	3.1	1.6	1.7	1.6	1.7	1.6	2.2	2.6	2.4	2.4	2.3	2.1	2.1	3.2	2.8	2.2	1.8	2.3	2.0	5.1	6.3	6.8	6.8	1.6	2.9	
26	5.2	4.4	5.6	6.7	11.2	10.7	10.5	11.9	12.0	11.5	8.9	10.1	14.2	13.2	12.4	10.8	10.6	6.9	7.3	7.4	8.2	8.2	6.5	4.7	14.2	4.4	9.1	
27	4.5	3.1	2.7	4.8	4.2	6.1	8.8	12.2	10.9	14.9	14.6	12.9	12.8	17.1	17.6	13.9	13.2	8.8	8.9	8.8	10.3	12.2	13.2	11.6	17.6	2.7	10.3	
28	12.1	14.6	13.9	12.9	12.4	12.1	13.6	11.5	11.5	10.4	8.6	9.9	10.3	5.9	2.9	2.9	3.5	3.0	2.8	2.5	2.5	2.8	3.7	3.6	14.6	2.5	7.9	
29	5.5	5.6	5.1	6.0	6.3	5.5	6.2	4.4	2.2	1.3	1.3	2.0	2.9	2.7	3.3	5.4	3.7	2.3	9.6	9.8	10.0	10.1	11.4	12.4	12.4	1.3	5.6	
30	13.1	13.8	15.4	11.7	16.2	23.5	21.9	20.2	19.3	18.6	15.6	16.5	18.8	17.4	18.1	17.0	15.7	16.5	17.5	15.0	13.2	11.4	15.7	12.9	23.5	11.4	16.4	
Max.	22.9	22.5	21.8	25.7	23.3	23.5	22.1	24.1	20.6	20.4	19.2	19.7	19.2	19.7	21.2	22.5	22.4	22.8	26.7	28.0	25.0	26.1	24.2	26.7	28.0			
Min.	1.3	1.2	1.3	1.6	1.4	1.4	1.3	1.5	1.8	1.3	1.3	2.0	2.1	2.1	2.1	1.7	1.5	2.0	1.6	1.5	1.3	1.1	1.2	1.2		1.1		
Avg.	9.1	8.9	9.5	10.0	10.0	10.3	10.4	10.5	10.6	10.7	10.5	10.4	10.5	10.6	10.3	10.3	10.0	9.0	9.3	9.4	9.3	9.2	9.7	9.8			9.9	

Total Hours in Month 720

Hours Data Available 705

Data Recovery 97.9%

Rock Creek - Highest Instantaneous Wind Speed (m/s)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	11.0	10.0	8.4	6.5	5.7	4.1	4.4	4.0	3.3	3.7	4.2	3.6	2.4	1.3	1.7	1.3	2.1	2.1	2.8	3.1	2.9	3.3	1.7	2.3	10.0	1.3	3.7
2	2.5	1.8	1.8	2.3	2.0	2.0	1.4	2.8	2.1	2.2	1.6	2.4	1.5	1.4	2.0	2.8	2.8	3.2	4.5	7.4	10.1	10.8	10.0	10.0	10.8	1.4	3.9
3	12.5	13.1	11.6	13.5	13.1	16.1	14.7	15.1	14.6	14.0	13.1	14.0	14.0	13.8	12.5	12.6	13.0	12.7	9.4	7.3	7.3	5.6	5.2	5.1	16.1	5.1	11.8
4	2.1	4.6	2.6	1.4	2.1	3.9	4.0	3.2	7.5	7.6	7.6	9.3	9.5	9.5	8.1	10.2	8.1	3.0	6.8	8.3	6.7	8.0	5.3	4.5	10.2	1.4	6.2
5	7.6	7.6	7.8	8.1	8.2	7.6	4.0	1.8	2.9	12.2	11.0	11.1	6.7	5.0	6.3	7.9	9.4	8.9	10.3	11.3	10.0	8.8	9.7	11.7	12.2	1.8	8.2
6	12.2	11.1	12.0	10.4	13.6	13.9	13.9	13.1	13.1	14.6	14.0	18.5	17.3	13.2	14.4	12.6	11.3	11.3	10.0	11.3	11.3	10.4	6.8	10.0	18.5	6.8	12.5
7	10.4	11.0	10.2	6.4	7.0	7.8	9.5	9.3	10.0	10.5	13.5	14.1	13.6	14.2	15.7	15.9	15.1	16.2	15.9	15.9	15.9	14.7	13.1	13.4	16.2	6.4	12.6
8	10.2	11.0	11.5	16.6	18.5	16.7	10.5	15.5	15.7	14.2	13.4	14.2	14.9	14.3	12.2	10.9	9.1	7.7	11.0	10.9	9.9	10.0	10.6	10.6	18.5	7.7	12.6
9	12.0	9.1	9.3	9.3	10.1	7.3	7.3	8.0	8.4	8.1	7.6	7.5	5.6	5.2	4.8	3.5	6.1	7.2	6.2	6.9	3.8	3.9	3.8	3.6	10.1	3.5	6.6
10	5.6	6.3	5.7	2.6	4.5	4.6	4.5	5.2	4.9	5.7	6.6	6.4	5.2	5.1	4.5	7.1	7.6	7.1	8.0	8.9	12.9	9.8	10.8	9.9	12.9	2.6	6.7
11	11.5	11.0	13.4	13.9	13.1	16.1	17.8	13.9	13.0	15.1	15.1	14.5	13.7	12.7	13.1	12.8	14.8	14.7	15.1	16.2	16.4	14.5	13.2	14.4	17.8	11.0	14.3
12	14.4	15.0	13.9	11.6	10.8	11.9	10.6	9.9	9.0	10.1	10.1	10.6	8.6	9.5	11.0	11.4	10.9	7.5	10.8	10.6	10.9	10.5	7.9	8.7	15.0	7.5	10.5
13	8.5	5.7	9.5	10.1	9.3	9.1	9.5	9.8	9.9	6.8	7.7	6.8	7.0	5.3	6.6	8.3	8.5	10.0	6.3	6.2	2.7	3.7	4.5	2.5	10.1	2.5	7.2
14	2.7	1.9	2.9	3.4	3.0	4.0	2.3	1.5	1.6	2.2	1.9	1.0	1.3	1.7	1.1	2.3	1.6	1.7	1.8	2.6	3.0	2.8	2.5	2.7	4.0	1.0	2.2
15	3.8	4.9	4.3	4.3	7.2	10.3	16.2	13.4	11.9	11.5	9.2	11.2	13.1	14.3	13.6	19.3	20.4	25.4	23.1	22.0	23.9	24.0	24.0	19.3	25.4	4.3	15.1
16	21.6	22.6	22.0	21.5	16.2	14.8	11.4	14.6	14.9	14.0	14.1	10.8	9.8	9.5	10.4	6.8	9.4	10.7	8.7	6.9	6.1	4.5	5.9	5.1	22.6	4.5	11.8
17	6.4	9.5	9.7	7.9	11.3	8.4	10.3	13.7	16.2	16.3	15.4	16.2	16.1	16.9	18.7	17.6	14.7	14.0	13.9	11.9	13.6	6.3	6.5	8.0	18.7	6.3	12.7
18	5.3	5.2	6.0	7.3	4.7	3.4	2.4	3.2	2.1	2.0	1.5	1.2	2.4	1.6	2.1	3.3	4.1	3.5	4.2	2.7	3.3	4.3	3.5	1.5	7.3	1.2	3.3
19	1.2	1.6	2.1	1.5	1.7	1.2	6.4	5.9	7.8	9.8	8.9	6.4	8.9	7.8	7.6	6.5	7.6	8.1	7.2	6.6	6.6	6.4	4.0	4.2	9.8	1.2	5.9
20	4.9	5.1	4.0	2.5	3.6	4.3	4.6	3.7	4.5	2.4	3.7	4.6	4.5	6.4	7.4	6.0	7.4	8.1	4.4	7.1	5.9	6.0	5.3	3.3	8.1	2.4	5.0
21	6.6	2.6	3.6	2.6	2.1	3.2	2.4	3.2	2.5	1.5	1.3	2.1	2.6	2.2	2.7	3.7	2.2	2.9	8.9	8.1	3.4	6.7	3.0	2.9	8.9	1.3	3.3
22	9.1	8.7	9.8	6.5	9.7	9.0	9.2	9.2	9.5	10.3	9.8	9.0	11.1	13.9	14.2	15.7	14.2	15.4	14.4	12.5	11.6	13.0	12.0	13.1	15.7	6.5	11.4
23	7.0	9.6	12.0	12.3	10.4	7.8	9.4	8.7	9.0	7.2	5.5	4.4	3.9	5.4	7.0	6.0	4.2	2.6	2.2	3.5	2.9	2.7	2.2	2.4	12.3	2.2	6.1
24	1.9	1.2	1.6	2.5	1.9	2.0	1.7	1.2	1.8	2.1	2.4	3.4	2.4	3.5	4.7	4.7	8.6	12.7	17.7	18.5	19.2	17.5	22.4	19.2	22.4	1.2	7.5
25	22.4	26.7	24.3	24.4	18.1	13.9	17.1	22.2	22.0	22.3	23.2	24.6	25.3	24.9	24.7	21.9	15.0	14.5	11.5	13.6	17.6	14.7	13.1	10.8	26.7	10.8	19.4
26	8.0	5.6	6.5	7.6	7.4	7.2	6.1	8.9	7.6	6.8	6.2	3.9	4.0	5.6	6.0	3.7	3.3	2.6	2.3	1.9	2.4	2.6	2.0	1.5	8.9	1.5	4.9
27	2.0	2.4	2.4	1.7	2.6	3.1	2.5	1.7	4.6	4.0	4.2	4.5	6.2	5.6	5.8	9.2	10.7	11.5	12.6	9.6	9.1	7.2	8.4	7.2	12.6	1.7	6.0
28	6.6	5.4	6.7	6.9	6.7	4.9	2.6	2.7	4.5	2.1	2.2							6.7	10.7	13.5	15.0	16.8	17.8	15.8	17.8	2.1	8.3
29	16.0	16.9	15.6	18.1	15.6	15.1	13.0	16.5	11.3	11.4	11.6	11.9	10.0	12.1	9.8	6.7	7.7	10.1	16.5	17.6	14.3	17.6	17.3	19.7	19.7	6.7	13.8
30	18.9	18.9	20.1	18.2	17.1	20.3	19.5	20.1	20.6	23.2	24.0	24.9	24.8	24.4	21.3	19.5	15.4	11.2	10.5	9.9	6.6	5.5	6.6	4.2	24.9	4.2	16.8
31	4.5	1.9	2.3	2.0	2.0	3.6	4.4	9.2	8.2	11.5	14.5	14.6	16.0	15.4	16.6	17.1	15.9	18.2	16.8	16.6	16.6	15.0	12.8	9.7	18.2	1.9	11.3
Max.	22.4	26.7	24.3	24.4	18.5	20.3	19.5	22.2	22.0	23.2	24.0	24.9	25.3	24.9	24.7	21.9	20.4	25.4	23.1	22.0	23.9	24.0	24.0	19.7	26.7		
Min.	1.2	1.2	1.6	1.4	1.7	1.2	1.4	1.2	1.6	1.5	1.3	1.0	1.3	1.3	1.1	1.3	1.6	1.7	1.8	1.9	2.4	2.6	1.7	1.5		1.0	
Avg.	8.7	8.6	8.8	8.5	8.4	8.3	8.2	8.7	8.9	9.2	9.2	9.6	9.4	9.4	9.5	9.6	9.4	9.4	9.8	10.0	9.7	9.3	8.8	8.3			9.1

Total Hours in Month 744

Hours Data Available 738

Data Recovery 99%

Rock Creek - Wind Direction (degrees)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	342.5	2.0	326.2	311.9	305.3	324.7	351.1	199.2	317.6	103.9	205.1	185.0	180.8	177.7	171.8	173.5	173.4	176.1	156.6	168.3	138.5	125.8	103.3	100.5
2	89.7	52.4	33.5	341.9	332.1	335.2	59.3	322.0	346.9	334.3	325.8	172.9	179.8	197.8	192.8	190.5	195.1	183.2	160.2	23.3	0.7	156.5	347.7	154.9
3	353.1	349.3	3.5	14.8	5.8	8.5	106.3	27.2	17.1	349.0	303.5	13.3	352.1	105.4	104.7	85.6	44.8	43.6	34.1	5.6	1.9	2.3	35.2	7.9
4	17.2	36.3	46.3	53.6	45.6	51.3	31.6	41.0	36.4	25.7	356.4	353.4	352.7	0.8	5.6	15.8	51.4	64.4	339.4	339.4	6.6	250.1	139.7	358.3
5	0.1	344.6	353.6	68.4	355.9	7.7	86.5	68.8	54.6	327.2	184.6	156.5	180.2	197.2	190.2	194.4	184.7	148.0	127.5	20.7	4.4	349.2	342.2	349.2
6	350.9	338.7	20.5	38.8	345.3	334.3	357.4	64.6	16.4	49.7	261.5	183.0	178.1	165.0	162.0	165.7	158.6	171.4	107.7	6.3	189.4	172.0	166.8	351.1
7	338.1	350.5	344.1	352.5	358.7	0.4	342.9	354.2	1.5	352.4	349.5	6.2	53.3	15.3	231.7	226.5	215.4	203.6	181.4	127.6	115.5	102.9	82.2	68.4
8	72.2	54.7	29.2	30.4	35.5	71.6	68.1	74.1	65.8	71.7	60.8	71.0	71.3	81.4	79.3	81.8	86.9	75.7	65.8	62.7	59.2	57.7	49.7	51.4
9	53.3	60.7	62.7	41.3	24.9	25.3	20.8	8.3	21.0	38.6	46.3	64.3	56.8	46.0	28.5	26.8	17.9	23.4	39.6	26.8	37.6	47.8	55.8	49.8
10	47.2	41.9	39.8	45.8	56.4	61.3	69.3	70.9	79.2	94.1	135.2	139.3	136.0	134.2	133.6	135.1	133.1	134.0	105.5	108.3	109.2	108.9	103.0	85.6
11	86.5	81.7	86.5	90.0	85.4	75.5	56.7	341.4	354.9	332.7	13.3	77.0	81.7	11.0	354.1	352.3	22.3	40.9	49.8	39.3	16.4	14.8	16.7	22.5
12	12.1	358.8	9.5	12.7	25.4	32.1	34.3	17.9	2.8	15.7	9.5	23.9	35.1	29.2	13.6	34.2	68.2	37.8	341.4	336.6	7.3	344.6	332.8	350.5
13	350.1	334.3	351.6	336.9	341.8	39.4	106.9	345.0	337.5	345.9	313.2	327.3	327.0	330.6	339.2	352.0	350.2	348.5	81.5	42.6	350.9	14.7	0.6	272.6
14	346.3	339.1	155.1	342.1	6.7	345.3	327.1	300.1	199.7	138.4	137.3	148.9	171.0	162.4	165.2	175.2	167.4	161.2	171.5	168.3	165.3	161.9	162.9	158.9
15	154.9	152.8	154.0	157.7	158.2	157.1	156.0	157.6	159.5	161.5	161.6	164.5	164.8	165.5	165.0	162.9	154.4	179.5	199.9	230.6	245.0	184.6	305.8	325.4
16	301.6	337.5	8.6	102.9	131.2	123.4	160.2	174.5	161.8	180.3	128.3	157.1	160.9	176.6	178.2	163.3	193.3	155.4	117.6	103.5	141.2	102.0	121.8	137.6
17	135.3	116.8	101.9	98.0	95.3	101.4	349.6	344.7	324.7	79.1	84.6	90.4	95.1	92.2	93.5	79.1	79.8	63.9	79.4	70.9	69.9	82.7	87.3	93.3
18	94.9	106.1	102.0	107.7	109.6	101.2	103.3	102.3	102.7	101.8	102.9	102.7	104.4	103.8	104.2	109.6	117.7	139.1	153.0	168.4	183.4	187.7	190.0	188.1
19	186.4	191.0	190.2	197.9	195.4	198.8	199.6	206.4	203.6	206.5	206.6	206.9	209.6	208.3	204.2	204.2	203.9	185.2	180.1	164.7	158.3	161.5	175.2	172.9
20	193.1	190.8	192.6	197.8	203.3	192.6	195.9	198.0	190.2	207.1	197.5	197.4	202.8	203.4	200.3	210.7	195.6	183.5	171.8	163.5	169.3	231.7	128.2	236.5
21	244.5	239.0	231.8	223.8	255.2	252.8	247.3	247.1	247.8	239.1	239.2	250.7	259.1	251.8	251.9	255.0	245.3	220.4	223.9	185.7	146.0	143.0	135.9	94.8
22	91.7	104.1	123.5	110.9	94.0	93.6	92.5	77.7	72.0	20.6	61.1	341.4	40.2	340.8	326.8	342.4	322.5	341.8	323.0	311.0	337.9	336.8	338.4	348.1
23	328.7	171.2	11.7	320.3	343.7	343.8	356.7	329.6	330.2	106.4	295.4	334.1	354.2	345.8	3.0	0.1	7.3	8.3	2.5	339.3	353.1	359.6	354.8	339.9
24	338.6	343.3	4.7	337.7	331.1	325.0	327.1	322.9	308.0	309.9	321.7	321.9	322.3	312.4	326.9	333.5	330.1	332.0	325.3	334.6	10.1	357.5	3.0	358.2
25	7.6	6.8	344.2	347.1	2.7	354.8	350.3	332.1	1.1	38.2	43.9	38.2	34.2	28.8	31.7	25.1	35.6	41.2	26.3	26.3	40.2	41.8	33.4	31.3
26	35.3	39.5	43.8	60.7	62.6	59.6	69.0	78.4	82.9	73.8	32.2	96.7	112.2	123.1	123.3	124.7	127.9	126.3	118.3	115.6	107.5	101.3	99.6	100.9
27	94.9	80.2	84.7	77.0	76.9	77.0	75.9	78.3	80.6	83.4	83.4	67.9	68.0	72.4	75.7	92.8	102.1	92.9	80.6	57.4	51.1	58.0	34.8	20.6
28	39.8	36.7	27.3	19.5	7.5	6.4	1.3	350.5	7.7	14.9	16.3	10.8	4.2	8.5	10.8	10.0	12.1	15.3	14.4	20.4	17.8	17.6	12.7	16.2
29	13.6	15.9	13.6	12.3	8.8	9.6	14.0	14.6	10.3	359.9	4.7	10.1	9.8	12.3	2.0	3.3	6.8	10.1	14.3	10.6	14.6	15.4	13.6	8.6
30	3.5	4.4	358.3	354.3	356.7	354.7	350.9	351.2	349.4	7.8	19.0	28.5	343.2	319.2	300.2	311.1	328.9	352.1	41.3	4.1	127.0	25.3	339.9	350.1
31	347.0	354.7	336.3	335.1	19.3	17.6	352.9	289.2	354.7	165.3	22.6	332.2	328.5	354.2	297.1	293.8	346.6	24.3	66.6	331.4	2.3	0.6	326.1	7.1

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100%

Rock Creek - Wind Direction (degrees)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	138.0	52.4	38.4	150.3	16.7	315.4	8.4	14.8	13.3	293.3	334.2	6.7	329.4	320.0	324.5	12.2	26.9	335.7	348.8	332.5	337.6	356.2	333.2	345.1
2	19.0	333.6	317.2	333.8	353.4	6.6	3.8	359.6	3.0	359.4	7.5	2.4	6.2	12.0	17.8	15.9	9.3	6.3	7.3	11.9	8.9	13.1	10.8	13.4
3	10.1	8.4	11.6	2.5	0.9	358.4	353.3	351.8	347.8	348.7	359.6	358.1	349.8	343.4	341.7	339.8	344.3	349.8	359.4	327.5	301.7	331.4	333.8	9.7
4	68.2	302.6	348.4	7.7	64.7	39.7	39.2	49.3	33.4	6.0	317.2	314.3	309.5	302.6	309.7	308.6	310.1	308.3	315.9	329.7	346.8	85.8	13.5	343.2
5	356.0	333.0	355.5	58.6	9.4	75.3	3.2	50.4	347.1	308.2	331.8	339.4	319.7	331.1	328.9	328.1	7.3	92.8	107.4	349.2	354.2	340.7	317.1	317.1
6	330.4	331.3	334.4	331.4	341.1	334.7	348.6	11.3	33.7	15.2	29.3	15.4	9.9	27.8	23.5	15.7	21.1	12.5	21.1	27.5	27.9	20.2	25.7	11.9
7	5.4	7.0	16.4	19.9	15.6	12.9	3.0	8.1	8.8	13.5	12.6	8.3	4.4	10.3	12.6	7.5	5.4	7.7	6.3	6.7	8.6	5.1	5.2	8.0
8	3.4	1.8	347.4	350.1	354.7	351.0	1.1	10.8	336.3	347.0	314.0	352.6	297.1	350.2	8.3	126.4	292.3	346.1	6.0	279.2	6.9	333.3	11.4	352.4
9	155.7	352.7	341.0	3.2	14.3	7.6	343.0	333.2	341.2	0.0	8.0	3.2	10.6	10.7	5.3	1.8	353.3	355.4	15.7	339.1	338.2	344.6	341.1	336.6
10	339.5	326.6	28.9	28.3	5.1	7.6	5.2	20.6	11.7	24.1	14.8	12.2	18.3	25.7	30.6	35.5	352.3	2.0	8.8	9.1	10.4	321.3	333.5	340.2
11	354.4	20.5	342.5	10.3	3.4	343.1	343.8	305.9	331.5	341.5	349.8	179.0	300.4	336.5	283.0	240.9	39.8	346.0	351.8	342.9	19.1	338.1	264.8	332.5
12	53.5	339.2	350.9	334.2	341.2	329.8	299.7	7.9	327.8	339.4	17.5	116.2	83.5	75.6	52.8	31.2	322.1	282.4	294.8	290.3	82.6	82.9	92.3	93.2
13	93.3	96.3	111.5	113.2	116.6	128.1	125.0	126.1	122.6	125.4	142.1	162.6	170.1	172.0	171.4	168.9	161.7	153.4	126.4	105.2	107.5	117.5	102.9	102.0
14	105.5	102.7	102.1	102.1	99.2	97.3	98.0	97.8	98.0	97.2	96.5	95.0	92.1	98.6	98.7	98.1	109.1	123.3	129.6	129.7	126.4	135.2	135.1	140.6
15	148.1	188.2	245.0	241.3	243.5	245.1	244.5	235.3	230.7	245.5	227.1	234.3	252.3	325.8	78.1	131.3	113.3	150.2	176.8	176.9	138.0	118.6	145.5	154.0
16	192.2	195.1	148.1	206.8	209.0	230.6	124.0	154.7	165.2	201.2	180.4	159.1	167.5	163.9	200.2	219.1	215.9	246.1	254.9	248.9	200.0	133.3	115.6	29.2
17	322.3	16.0	328.1	336.0	324.3	44.5	73.1	79.9	91.9	88.6	85.7	90.1	88.7	88.0	93.3	92.9	92.1	88.2	80.2	78.9	82.8	84.3	82.6	80.6
18	81.2	82.3	82.8	86.8	86.3	83.6	77.8	74.5	80.3	88.8	93.0	90.5	90.5	92.1	93.4	97.7	100.6	96.8	113.0	124.6	110.0	72.9	29.3	309.6
19	297.5	45.0	88.7	76.2	83.5	81.0	41.2	38.6	57.6	42.3	54.1	60.3	69.5	76.6	77.7	88.3	90.8	90.5	89.0	89.0	94.7	98.2	104.8	112.9
20	115.6	117.1	122.3	130.0	130.8	129.4	140.2	139.6	142.8	146.7	147.6	153.1	155.8	167.0	173.8	185.2	183.1	195.8	194.0	197.3	204.2	199.4	169.7	163.8
21	176.8	174.4	165.6	165.0	157.6	149.9	141.5	140.1	112.3	101.4	92.4	85.1	85.0	86.8	90.6	89.0	90.1	93.0	96.2	105.4	109.2	113.1	113.1	117.5
22	113.6	119.5	129.8	126.6	133.7	138.5	139.7	136.4	138.7	142.3	132.8	131.9	132.7	127.6	92.7	86.9	82.4	79.9	83.2	82.3	36.0	4.7	344.1	70.1
23	59.4	44.4	39.2	45.3	38.3	42.3	55.5	67.1	75.8	79.3	80.1	81.3	97.5	96.1	76.7	357.5	343.2	349.4	5.9	347.8	358.1	6.1	119.2	341.3
24	320.7	336.8	339.3	331.1	257.5	21.5	249.2	33.3	356.4	33.0	33.3	19.1	11.4	353.8	359.7	351.4	307.6	318.0	337.2	6.0	161.0	47.8	3.5	348.1
25	314.9	342.2	140.0	311.4	34.7	177.3	22.9	135.0	43.3	6.5	150.9	1.1	16.0	18.2	0.2	96.6	339.3	331.3	32.2	355.9	317.6	31.0	99.9	112.1
26	112.0	134.8	116.1	98.9	91.4	90.4	85.8	78.9	70.6	37.7	1.5	356.2	335.9	332.8	343.7	57.2	39.6	26.7	24.0	34.8	53.4	69.2	314.6	323.5
27	318.4	330.4	352.3	59.9	287.3	15.1	74.2	65.4	51.9	52.5	43.0	47.1	47.7	77.0	88.0	93.9	95.9	96.4	88.5	84.7	77.7	85.6	83.8	78.6
28	76.9	85.6	87.0	87.8	84.7	82.1	79.0	70.8	69.9	59.0	47.4	331.8	7.8	8.0	27.6	147.0	145.3	116.7	95.1	283.8	18.2	329.0	269.6	254.9
29	358.2	2.9	348.6	2.2	8.8	344.8	351.3	328.7	21.2	52.0	307.5	341.0	323.7	322.5	320.7	348.5	344.2	125.9	180.0	183.6	159.1	179.0	178.9	160.0
30	156.8	141.4	135.5	129.9	113.3	106.8	115.7	125.1	132.4	132.4	135.1	138.0	140.6	141.7	147.5	147.4	147.2	145.0	150.2	146.4	146.2	140.0	128.5	135.4

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100%

Rock Creek - Wind Direction (degrees)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	142.8	140.3	138.2	134.7	134.3	129.9	138.3	132.8	119.2	96.5	127.9	102.3	56.1	8.4	193.3	136.6	171.3	147.1	135.1	152.9	154.3	149.9	121.9	141.1
2	41.4	30.5	75.1	357.9	4.7	57.0	348.2	350.5	357.8	146.0	23.2	63.5	271.1	251.3	178.6	128.8	315.6	327.2	1.8	316.2	297.1	290.1	290.1	282.9
3	302.5	308.7	310.1	313.1	308.2	302.8	299.7	294.7	296.5	302.6	298.6	307.1	298.0	299.1	299.6	304.6	305.3	307.3	340.9	345.1	352.4	344.8	3.7	13.8
4	154.1	340.5	124.6	324.7	344.7	24.2	319.7	335.1	81.0	88.1	76.2	71.2	79.0	74.2	70.1	83.3	29.4	37.7	2.9	353.4	348.6	335.6	320.2	333.2
5	35.8	39.6	50.6	46.6	46.9	36.1	207.5	220.2	196.1	96.0	16.1	183.3	40.7	30.5	40.9	34.9	15.5	42.3	11.5	6.5	340.3	347.5	11.1	359.9
6	4.0	4.6	353.1	349.7	5.8	344.2	359.2	15.0	9.4	0.6	345.5	33.6	30.6	16.0	14.8	6.8	347.8	350.9	4.5	8.7	23.6	23.9	318.7	355.3
7	8.3	3.1	348.1	306.4	355.7	350.6	346.8	347.3	352.6	3.2	3.6	10.8	2.1	13.1	12.2	9.1	7.4	8.5	9.6	4.5	8.4	8.2	6.9	1.1
8	352.9	3.2	352.6	3.8	9.4	7.5	3.5	8.7	6.9	0.3	3.8	7.3	5.6	5.7	8.1	1.1	342.1	354.7	359.1	1.5	356.3	355.7	353.6	2.1
9	11.1	356.0	0.2	357.7	4.0	352.7	350.3	351.7	354.8	354.0	4.8	347.2	338.4	358.1	40.3	48.7	87.1	72.7	90.6	40.3	212.1	243.4	354.2	345.7
10	342.9	339.6	357.5	65.2	89.0	79.3	68.1	83.5	79.2	71.3	92.3	61.4	57.1	54.1	38.3	47.6	58.2	46.6	333.9	318.7	331.3	344.2	351.3	0.7
11	353.3	359.8	317.6	10.1	19.4	30.1	28.9	352.2	3.5	3.2	0.3	356.1	347.0	338.5	355.9	355.4	8.7	10.4	9.2	15.3	4.0	356.5	1.9	8.5
12	13.1	15.2	0.3	347.8	343.3	356.0	346.2	356.1	344.5	354.8	342.4	345.1	348.8	344.6	345.3	3.1	357.5	351.8	349.2	356.9	355.8	347.8	4.4	356.0
13	32.9	73.9	20.1	1.8	354.6	348.8	347.2	350.9	7.2	358.3	3.8	354.8	5.4	337.8	333.1	317.8	320.6	341.2	14.4	17.4	109.6	10.2	22.0	121.1
14	148.2	164.3	19.2	334.8	333.3	12.8	354.9	327.9	148.7	357.1	136.8	46.1	204.3	208.1	158.4	182.1	161.7	332.1	28.5	318.3	280.2	187.7	234.2	349.5
15	325.3	266.9	10.8	5.1	351.1	351.4	23.3	18.3	11.7	16.6	22.2	345.5	10.0	18.5	4.0	27.4	41.2	42.0	32.3	28.7	37.3	35.6	21.4	25.3
16	47.8	56.6	43.6	31.2	21.2	358.9	6.4	339.2	333.2	344.1	351.5	358.2	1.7	350.0	357.1	356.0	355.6	354.1	5.4	357.7	17.8	22.8	115.5	31.9
17	89.0	90.5	89.2	70.6	95.9	81.6	87.3	66.6	86.8	82.6	85.2	90.5	89.7	93.1	91.0	90.8	85.8	82.9	85.3	83.1	84.6	356.9	53.0	95.7
18	113.5	93.0	79.5	93.9	113.4	110.3	159.3	95.4	119.5	151.0	166.5	90.3	160.6	155.4	132.1	66.2	93.5	115.3	130.3	147.3	26.4	79.1	80.2	15.2
19	7.2	354.7	27.7	337.2	12.6	201.6	173.3	288.4	271.7	296.8	282.1	214.0	234.9	253.4	230.6	223.4	223.4	249.6	253.0	241.8	261.6	277.3	270.8	235.0
20	258.4	256.3	270.6	228.7	248.3	353.8	37.9	84.5	178.2	17.2	13.5	84.4	171.2	63.2	343.4	344.7	346.4	348.9	143.5	346.6	352.3	347.5	20.2	60.9
21	359.5	322.9	168.7	352.9	216.5	37.3	337.5	167.4	0.4	213.7	336.4	157.3	230.4	321.0	348.2	6.0	130.2	201.5	351.2	172.2	87.2	18.2	338.3	354.2
22	49.5	350.3	356.5	143.0	352.2	1.4	0.3	4.3	8.5	5.7	1.9	7.4	8.6	20.5	13.8	16.5	18.8	20.2	16.8	18.2	19.8	12.0	5.1	358.0
23	335.0	340.2	347.5	353.7	346.6	357.8	350.5	0.4	331.5	308.3	210.6	214.7	296.4	286.3	295.8	295.1	341.7	37.7	34.6	29.8	133.6	29.0	162.3	39.7
24	23.5	353.0	134.4	18.8	42.2	329.3	23.4	49.0	79.4	334.0	329.2	345.7	326.2	314.8	328.6	287.4	15.3	40.7	84.5	88.5	98.0	102.3	102.8	102.5
25	103.1	103.0	105.7	115.0	117.7	145.6	171.4	153.4	142.2	139.4	135.8	139.7	145.4	161.3	166.0	176.7	204.8	214.7	208.0	205.4	211.7	222.9	232.8	239.7
26	223.9	209.6	197.1	204.3	211.5	208.6	213.3	217.0	197.3	171.6	173.3	138.4	161.7	182.7	164.6	153.2	142.8	166.0	95.3	86.7	47.4	353.9	8.4	257.0
27	77.3	34.7	136.2	312.4	101.9	144.8	133.1	286.9	168.8	207.5	187.0	215.1	254.4	268.4	280.1	301.2	11.6	346.8	334.3	333.3	337.9	341.5	358.4	350.5
28	6.9	353.7	336.2	342.0	353.9	257.0	310.8	212.1	6.3	131.9	6.3							59.5	72.7	68.4	82.9	85.8	87.8	94.2
29	92.1	95.9	94.7	90.8	90.8	92.7	88.6	86.6	83.9	85.8	83.4	84.3	85.8	100.6	97.6	352.4	290.6	84.8	83.7	87.8	104.0	87.8	89.5	89.6
30	89.5	91.2	90.7	94.5	94.5	91.4	102.9	102.5	97.7	100.5	109.3	109.7	105.9	107.4	124.8	149.0	187.5	193.3	193.0	202.6	192.4	180.1	175.1	155.6
31	165.3	228.6	210.2	88.6	343.0	336.4	77.0	61.7	43.5	47.6	87.4	96.8	96.2	98.5	97.6	95.4	95.1	96.1	92.2	94.1	102.9	106.6	106.5	119.1

Total Hours in Month

744

Hours Data Available

738

Data Recovery

99%

Rock Creek - Wind Sigma

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	43.0	15.7	67.4	49.3	78.8	51.4	51.7	34.8	34.3	55.9	51.7	55.4	9.9	9.3	9.6	9.8	9.8	10.3	12.1	14.5	10.8	7.6	7.3	7.5	78.8	7.3	29.5
2	5.8	25.4	42.1	26.3	43.1	17.6	38.5	55.2	26.7	60.7	28.9	51.9	14.9	27.6	28.4	11.4	14.0	10.4	8.9	29.2	47.7	43.2	46.7	46.0	60.7	5.8	31.3
3	52.6	36.2	54.8	57.1	71.6	38.9	43.8	47.0	63.6	55.1	53.5	20.5	44.3	17.2	18.2	14.6	17.1	20.8	16.2	10.8	7.1	11.8	11.6	10.1	71.6	7.1	33.1
4	15.5	12.6	9.2	9.0	12.0	11.7	12.0	10.8	11.8	9.9	10.8	7.2	7.2	7.8	9.9	12.6	39.3	34.0	32.3	8.8	52.5	39.4	68.2	20.5	68.2	7.2	19.4
5	26.8	61.2	36.9	67.7	47.8	35.5	46.2	48.7	48.9	55.4	65.4	57.0	11.1	12.1	17.1	19.3	12.3	14.1	25.9	49.1	54.5	17.6	29.1	45.6	67.7	11.1	37.7
6	66.5	55.3	46.9	56.7	37.7	46.6	47.7	38.5	49.1	54.2	52.1	29.6	17.8	14.8	11.9	11.0	11.9	13.4	41.9	14.9	55.9	41.9	53.8	31.6	66.5	11.0	37.6
7	8.3	6.7	5.6	6.1	5.1	6.4	8.1	6.0	7.4	15.8	11.7	17.5	33.4	29.4	50.2	13.5	12.1	8.6	10.2	9.8	22.0	13.6	12.8	14.2	50.2	5.1	13.9
8	16.0	19.1	23.9	26.9	30.1	19.2	12.0	10.1	10.5	9.6	9.3	11.0	15.5	14.6	13.6	11.0	10.6	11.1	10.4	10.9	9.8	11.3	12.2	14.6	30.1	9.3	14.3
9	14.8	9.7	10.1	18.8	17.3	17.6	14.5	25.2	16.2	10.4	8.9	10.1	10.7	11.7	10.7	11.5	9.5	11.7	16.9	20.4	11.0	11.5	9.2	7.8	25.2	7.8	13.2
10	9.3	9.3	9.1	9.1	8.2	8.2	8.1	7.8	8.3	8.3	8.6	7.7	7.2	7.2	7.3	7.2	7.9	7.2	6.8	6.9	6.3	6.1	6.5	7.0	9.3	6.1	7.7
11	6.7	6.3	6.0	8.3	9.3	12.0	18.9	39.9	27.9	54.1	26.2	16.1	11.9	25.6	19.1	10.3	10.0	8.9	6.1	7.5	8.2	7.3	9.0	26.2	54.1	6.0	15.9
12	9.7	49.5	29.6	5.9	9.9	8.4	8.2	9.1	6.5	16.2	35.1	11.8	21.6	14.0	12.0	10.7	9.9	23.1	9.3	9.7	7.3	9.7	8.9	15.8	49.5	5.9	14.7
13	43.0	10.4	30.7	27.0	17.1	36.1	31.9	52.3	16.7	36.4	21.4	12.2	8.1	8.4	8.0	8.5	6.7	6.4	15.1	31.1	54.3	22.3	31.2	34.7	54.3	6.4	23.7
14	43.1	11.5	47.5	33.6	9.0	18.7	35.2	33.1	46.0	14.6	10.1	9.6	8.7	8.9	8.9	9.4	8.8	8.0	8.9	8.4	8.2	8.4	8.6	8.0	47.5	8.0	17.3
15	8.2	8.3	8.5	8.3	8.4	8.2	8.3	8.3	8.4	8.5	8.7	8.9	8.8	8.7	8.6	8.6	8.1	38.7	53.1	17.3	61.9	42.8	10.3	39.5	61.9	8.1	17.0
16	24.6	27.0	13.4	52.5	40.2	49.1	31.5	21.7	16.1	21.8	26.6	38.9	17.2	17.7	9.7	11.2	14.2	13.0	10.1	53.7	41.5	6.4	6.8	6.0	53.7	6.0	23.8
17	5.7	5.5	4.1	4.7	4.1	59.2	28.8	25.8	59.9	26.0	7.8	7.2	6.8	8.1	8.0	11.9	17.6	10.6	12.7	10.4	10.9	11.3	10.5	8.7	59.9	4.1	15.3
18	8.7	9.3	10.0	11.0	8.9	7.8	8.0	8.1	8.2	8.1	7.8	7.5	8.1	7.6	7.9	7.1	7.2	7.6	8.1	9.4	9.0	9.7	9.2	9.0	11.0	7.1	8.5
19	9.6	9.6	9.6	10.5	10.2	10.5	9.3	8.9	8.9	8.8	9.1	8.5	8.7	8.8	9.6	9.1	9.0	9.5	9.5	9.3	8.9	9.0	10.3	7.9	10.5	7.9	9.3
20	9.9	9.2	10.3	13.2	14.2	9.2	9.1	10.8	9.2	9.8	9.1	9.6	8.6	8.9	9.0	9.8	9.4	9.5	17.4	21.2	20.7	47.8	29.9	22.1	47.8	8.6	14.1
21	8.7	9.9	13.8	13.5	13.4	10.1	12.8	10.7	9.7	11.6	13.8	10.5	10.9	10.7	9.9	9.9	10.2	12.2	45.0	15.2	28.1	20.6	9.5	11.4	45.0	8.7	13.8
22	15.3	7.8	6.4	6.8	6.3	6.1	6.7	6.9	12.8	31.0	23.5	21.9	43.1	21.4	28.1	19.4	45.3	37.4	45.2	33.1	36.1	50.4	40.3	15.8	50.4	6.1	23.6
23	52.2	45.6	23.8	28.2	35.2	58.0	45.7	59.6	52.5	67.5	47.0	21.6	6.8	7.5	7.9	8.0	7.6	6.0	4.5	10.2	9.1	9.2	7.9	10.6	67.5	4.5	26.3
24	8.9	9.0	17.1	9.0	8.5	7.2	7.8	11.3	9.1	8.4	10.2	10.7	9.8	9.6	8.6	9.8	8.1	8.1	8.1	9.5	7.6	7.3	9.9	12.4	17.1	7.2	9.4
25	7.0	7.6	37.8	25.7	15.0	44.6	41.5	43.1	62.7	23.5	9.5	9.0	8.5	9.2	8.4	8.9	7.7	6.9	8.1	9.4	8.7	7.7	8.2	8.9	62.7	6.9	17.8
26	9.5	9.0	10.0	7.7	8.2	8.7	11.5	9.0	7.4	14.2	71.1	8.4	7.2	7.1	7.1	7.8	7.2	7.2	7.3	7.7	9.0	8.1	8.5	8.6	71.1	7.1	11.1
27	8.1	7.8	8.0	7.7	7.5	7.7	7.0	7.1	7.2	7.1	7.7	7.9	7.6	8.3	7.6	8.8	7.5	8.7	10.6	11.0	8.8	13.4	18.0	20.7	20.7	7.0	9.2
28	10.4	7.2	8.3	8.6	6.4	6.1	4.7	5.7	7.2	6.0	5.4	6.5	6.2	6.2	5.9	5.8	6.4	6.0	6.3	6.2	6.2	5.9	5.4	5.2	10.4	4.7	6.4
29	5.7	5.8	6.1	5.4	5.4	5.6	6.4	5.8	5.4	7.9	6.7	6.8	6.5	6.9	7.9	7.8	7.2	6.5	6.5	6.2	6.5	7.5	7.3	7.4	7.9	5.4	6.6
30	8.0	7.0	9.1	8.5	7.7	9.0	8.6	6.9	11.6	10.0	16.8	11.0	18.5	11.9	9.5	12.8	8.3	20.6	45.5	27.3	41.2	25.1	35.6	40.4	45.5	6.9	17.1
31	51.3	14.9	48.3	43.5	49.9	46.4	42.3	70.6	11.0	51.2	43.3	33.3	28.5	20.8	13.9	12.8	12.5	26.4	68.6	32.3	21.1	7.2	12.8	46.6	70.6	7.2	33.7
Max.	66.5	61.2	67.4	67.7	78.8	59.2	51.7	70.6	63.6	67.5	71.1	57.0	44.3	29.4	50.2	19.4	45.3	38.7	68.6	53.7	61.9	50.4	68.2	46.6	78.8		
Min.	5.7	5.5	4.1	4.7	4.1	5.6	4.7	5.7	5.4	6.0	5.4	6.5	6.2	6.2	5.9	5.8	6.4	6.0	4.5	6.2	6.2	5.9	5.4	5.2		4.1	
Avg.	19.8	17.1	21.4	21.5	20.8	22.0	21.5	23.8	22.0	25.1	23.2	17.6	14.0	12.5	12.7	10.7	12.0	13.6	19.0	16.8	22.3	17.4	17.9	18.4			18.5

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Wind Sigma

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	58.7	70.1	71.7	43.4	34.1	48.0	51.4	55.2	44.6	62.2	32.2	58.0	49.1	19.6	31.2	44.7	54.5	8.1	5.1	24.7	20.3	49.5	62.1	55.3	71.7	5.1	43.9
2	63.1	43.4	22.5	42.5	41.0	5.0	5.6	5.6	12.5	10.1	8.6	6.1	12.9	12.4	10.1	8.1	6.5	5.3	7.4	5.6	6.7	5.9	5.9	6.1	63.1	5.0	14.9
3	6.1	6.9	7.9	8.0	8.1	7.7	8.5	8.5	8.8	9.6	16.9	15.2	10.3	10.0	8.7	8.6	8.2	9.2	8.6	12.9	8.6	13.7	13.5	25.7	25.7	6.1	10.4
4	54.8	59.1	10.6	16.4	46.0	35.8	21.0	14.5	28.8	29.8	15.1	9.0	8.6	8.9	11.6	9.3	10.0	9.3	9.1	9.7	11.0	72.7	23.2	15.3	72.7	8.6	22.5
5	11.3	17.2	63.4	50.0	50.1	52.0	31.0	59.1	48.1	46.0	23.2	50.6	48.0	10.2	9.5	16.4	22.5	58.4	64.2	77.1	25.9	27.9	15.2	24.2	77.1	9.5	37.6
6	11.6	43.1	27.8	9.6	10.5	5.2	7.3	11.5	10.2	11.4	12.5	10.0	6.6	10.3	9.0	7.7	8.7	5.0	7.4	8.0	9.1	8.2	7.7	6.8	43.1	5.0	11.0
7	6.9	6.5	7.0	6.3	6.1	6.0	6.7	6.6	6.3	5.6	5.6	5.9	6.2	6.5	6.4	6.1	6.3	6.8	6.9	5.8	6.4	6.5	6.9	6.0	7.0	5.6	6.3
8	6.2	10.0	21.7	9.2	10.0	10.2	8.6	13.8	17.5	16.0	30.6	28.3	14.4	17.0	10.8	23.1	36.7	59.7	61.4	57.7	71.4	68.2	36.4	53.4	71.4	6.2	28.8
9	41.2	65.7	62.1	54.4	46.7	10.2	15.7	12.2	14.7	8.1	5.2	10.2	14.1	9.5	7.3	9.2	6.8	7.0	5.8	7.8	31.4	58.8	8.5	18.2	65.7	5.2	22.1
10	10.0	35.2	41.5	6.9	8.1	7.3	7.1	7.3	8.8	6.2	6.0	5.4	7.7	7.5	7.3	9.0	11.2	9.7	7.5	6.0	9.1	16.4	46.3	44.4	46.3	5.4	13.8
11	43.9	45.2	19.2	30.6	44.3	44.7	58.1	39.6	16.3	38.2	51.3	53.0	36.7	18.0	51.7	32.5	37.6	26.5	62.1	32.5	53.3	50.8	68.9	47.6	68.9	16.3	41.8
12	60.0	22.4	15.2	31.2	49.9	36.1	53.5	27.0	43.3	38.1	54.0	44.6	10.5	12.2	54.5	48.2	49.1	25.4	76.0	49.1	46.1	9.9	8.5	7.3	76.0	7.3	36.3
13	7.1	7.4	7.3	7.7	7.4	8.7	7.8	7.5	7.0	6.8	7.8	8.7	8.9	8.9	8.7	9.2	9.0	9.2	9.3	7.3	9.2	9.1	7.4	6.8	9.3	6.8	8.1
14	6.6	6.4	6.6	5.9	5.6	5.6	6.8	6.2	6.2	6.7	6.0	5.6	5.0	5.3	5.3	5.1	5.5	5.3	5.0	5.2	5.5	5.8	5.7	6.4	6.8	5.0	5.8
15	7.0	16.5	12.9	8.8	8.2	8.8	8.7	9.4	9.9	9.1	9.9	10.0	9.2	25.3	14.3	9.1	6.1	12.8	13.4	28.4	15.0	32.3	13.5	9.9	32.3	6.1	12.8
16	10.9	16.3	19.6	12.4	7.6	23.8	21.9	13.1	9.6	11.5	16.7	19.6	15.1	15.7	12.4	16.0	13.1	8.0	8.9	9.0	17.0	15.6	12.4	38.2	38.2	7.6	15.2
17	45.8	38.3	25.0	50.6	54.0	39.7	9.8	16.6	5.3	5.3	6.1	5.4	5.0	5.4	5.0	5.0	5.3	5.8	6.1	6.5	7.0	6.7	7.3	7.2	54.0	5.0	15.6
18	7.9	11.8	15.0	6.3	5.5	6.6	7.3	7.2	7.6	6.5	5.9	5.4	5.0	4.9	4.9	4.9	5.4	5.6	7.2	6.5	5.3	10.3	40.2	26.3	40.2	4.9	9.1
19	39.6	42.5	5.1	5.2	7.4	8.4	10.4	10.9	6.3	7.9	6.4	6.5	6.3	6.6	7.1	6.2	5.1	5.1	5.7	5.1	5.5	5.3	5.4	5.5	42.5	5.1	9.4
20	5.6	5.5	5.5	5.2	4.9	5.2	5.7	5.5	6.1	7.0	7.0	6.9	7.0	7.4	7.8	8.2	8.3	10.0	9.2	9.4	8.4	10.3	8.5	7.7	10.3	4.9	7.2
21	7.8	8.1	8.3	8.6	7.4	7.1	6.6	6.1	6.3	5.3	5.3	6.1	5.8	5.4	5.0	5.2	5.2	5.3	5.2	5.0	5.0	5.2	5.5	4.9	8.6	4.9	6.1
22	4.3	5.0	4.7	5.3	4.9	5.2	5.1	4.9	6.0	6.2	5.3	5.5	6.0	6.0	5.5	6.1	5.5	5.0	5.4	6.1	21.7	43.9	39.4	49.4	49.4	4.3	10.9
23	10.6	9.0	9.0	7.1	9.5	7.2	7.9	8.1	6.5	5.8	7.4	8.8	5.9	4.8	8.8	30.0	34.0	30.5	6.1	49.9	26.1	36.0	69.3	53.7	69.3	4.8	18.8
24	35.4	61.7	18.5	14.6	72.8	62.4	70.1	59.5	9.6	5.4	7.8	7.5	8.8	7.9	6.9	45.9	14.0	23.9	27.3	44.0	60.1	24.8	63.7	53.1	72.8	5.4	33.6
25	46.5	53.2	74.9	55.9	68.8	67.8	48.9	75.1	44.1	50.4	48.3	52.5	50.0	45.5	60.6	37.3	20.9	43.2	69.8	29.2	29.0	40.3	12.1	8.5	75.1	8.5	47.2
26	10.0	8.5	13.6	7.5	8.6	6.2	6.3	11.0	12.0	25.4	18.7	14.5	6.8	8.2	29.2	9.5	19.7	31.3	10.7	10.6	6.2	6.6	44.6	23.6	44.6	6.2	14.6
27	25.2	25.4	28.2	44.6	45.3	35.9	17.5	6.1	7.0	6.7	8.6	8.0	7.4	5.7	4.7	4.6	4.8	5.2	4.4	5.2	6.5	5.7	4.6	5.3	45.3	4.4	13.4
28	5.9	6.1	5.5	4.8	5.6	5.1	5.6	5.5	5.3	5.0	10.1	16.1	31.4	8.1	47.9	33.2	16.9	12.1	10.3	43.3	27.1	40.2	42.7	46.3	47.9	4.8	18.3
29	61.1	6.9	23.1	14.8	5.7	8.2	7.9	61.6	47.5	61.6	57.6	66.9	45.7	12.6	58.4	48.1	30.7	41.7	13.0	11.0	7.1	9.4	12.0	6.8	66.9	5.7	30.0
30	7.1	6.5	5.0	5.5	4.7	5.1	5.2	5.1	5.0	5.0	5.0	4.9	5.5	5.4	6.0	5.6	5.8	6.5	6.1	6.6	6.8	5.4	5.4	5.1	7.1	4.7	5.6
Max.	63.1	70.1	74.9	55.9	72.8	67.8	70.1	75.1	48.1	62.2	57.6	66.9	50.0	45.5	60.6	48.2	54.5	59.7	76.0	77.1	71.4	72.7	69.3	55.3	77.1		
Min.	4.3	5.0	4.7	4.8	4.7	5.0	5.1	4.9	5.0	5.0	5.0	4.9	5.0	4.8	4.7	4.6	4.8	5.0	4.4	5.0	5.0	5.2	4.6	4.9		4.3	
Avg.	23.9	25.3	22.0	19.3	23.0	19.5	17.8	19.3	15.6	17.3	16.7	18.5	15.3	11.0	17.2	17.1	15.8	16.6	18.2	19.5	18.9	23.4	23.4	22.5			19.0

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Wind Sigma

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	5.3	5.6	5.3	5.8	6.6	7.6	7.6	8.6	17.7	12.4	42.0	29.8	24.5	64.1	21.5	25.1	33.7	10.2	8.5	9.5	12.0	24.8	39.7	11.3	64.1	5.3	18.3	
2	36.8	44.2	47.6	27.2	19.8	49.7	32.9	40.8	36.4	63.7	54.8	64.5	56.7	58.9	66.5	30.9	36.8	29.5	37.2	13.4	7.4	7.5	8.5	10.0	66.5	7.4	36.7	
3	8.3	6.8	6.6	7.0	7.3	6.7	6.6	6.5	6.9	6.8	6.5	7.3	6.5	7.1	6.8	7.4	7.4	9.5	10.1	7.3	7.2	8.8	55.9	53.5	55.9	6.5	11.3	
4	44.8	59.6	41.8	36.6	47.4	41.9	61.8	50.4	42.8	7.6	7.4	7.3	7.2	6.2	7.9	6.4	61.3	24.5	28.2	13.5	12.8	29.9	63.9	25.9	63.9	6.2	30.7	
5	10.5	10.5	8.3	9.1	6.5	27.9	26.7	73.1	67.7	33.4	24.6	60.0	40.1	56.3	51.1	20.6	11.4	8.0	9.4	4.8	29.7	48.8	5.4	6.7	73.1	4.8	27.1	
6	5.3	6.0	6.5	8.3	10.4	4.7	8.0	5.9	8.1	8.0	11.5	8.2	6.7	6.8	5.6	11.3	17.9	9.8	4.5	4.0	4.0	10.3	12.6	10.2	17.9	4.0	8.1	
7	7.7	6.9	10.4	19.2	7.8	8.3	5.4	5.8	8.3	5.7	4.8	4.8	7.1	4.7	5.0	5.3	6.0	6.2	5.5	6.1	5.6	5.2	5.1	7.1	19.2	4.7	6.8	
8	7.6	6.9	8.0	5.9	6.3	6.4	8.8	6.1	5.5	7.4	7.1	5.9	5.5	5.1	5.3	6.7	11.0	13.0	8.6	5.5	8.0	7.4	7.3	6.5	13.0	5.1	7.2	
9	5.8	9.6	8.9	6.9	6.5	6.5	6.1	4.9	7.6	4.7	6.2	6.4	6.2	59.3	47.0	32.2	17.6	9.7	22.1	22.5	52.0	55.4	53.5	34.8	59.3	4.7	20.5	
10	19.7	10.3	9.4	32.9	15.6	7.1	8.2	6.2	8.1	6.0	4.8	10.5	8.0	9.4	15.6	9.4	5.7	8.4	29.9	14.9	11.3	10.1	18.7	10.6	32.9	4.8	12.1	
11	10.1	14.0	10.4	31.6	9.9	5.7	10.3	10.5	11.3	7.7	6.6	8.3	7.3	5.5	10.7	7.0	5.7	5.4	5.6	5.7	5.7	6.0	6.3	3.8	31.6	3.8	8.8	
12	4.1	4.3	5.6	5.8	8.0	9.7	10.4	9.2	5.3	5.0	5.7	8.4	12.5	4.7	8.4	13.2	9.8	38.4	5.5	6.3	9.3	7.7	26.3	46.3	46.3	4.1	11.2	
13	48.2	59.7	50.2	7.0	5.2	5.3	4.1	7.3	16.6	33.8	11.6	24.6	8.5	37.4	9.2	10.2	13.8	42.2	42.9	53.5	58.1	61.3	59.9	64.4	64.4	4.1	30.6	
14	27.0	53.7	53.9	51.9	58.5	43.6	67.9	54.2	52.3	45.2	51.8	58.4	44.4	52.1	38.2	42.4	49.6	62.8	51.7	24.0	36.1	69.8	71.9	48.4	71.9	24.0	50.4	
15	42.1	51.3	27.3	23.2	42.2	15.1	7.6	7.6	6.9	49.6	50.0	42.6	14.0	11.4	6.6	7.6	6.3	5.7	7.1	7.2	6.2	6.8	6.0	5.9	51.3	5.7	19.0	
16	6.2	7.6	6.3	7.3	9.8	10.6	14.8	6.8	8.3	5.7	5.5	6.7	6.6	8.1	10.3	14.9	7.5	9.1	11.3	8.2	13.2	49.3	60.8	39.4	60.8	5.5	13.9	
17	8.9	8.9	25.1	36.0	9.7	11.2	7.3	7.8	5.5	5.0	4.8	4.3	4.2	4.1	3.9	4.4	4.7	5.3	5.4	7.1	14.2	36.8	24.6	15.8	36.8	3.9	11.0	
18	13.1	54.0	28.9	11.9	11.1	12.0	58.8	24.3	54.1	12.1	15.4	25.4	9.4	12.9	15.2	29.5	32.8	9.3	17.4	22.9	37.4	9.9	17.3	28.4	58.8	9.3	23.5	
19	23.2	19.4	21.7	12.0	10.2	38.6	37.0	35.9	19.7	12.5	11.0	65.0	24.0	11.4	7.7	6.7	8.0	7.8	9.3	9.5	9.4	12.7	12.9	16.9	65.0	6.7	18.4	
20	9.7	14.5	13.9	27.4	25.9	19.3	23.2	38.7	43.3	36.6	46.9	48.7	65.9	39.2	13.2	46.5	6.7	18.7	30.4	46.1	32.2	43.7	40.5	26.7	65.9	6.7	31.6	
21	48.8	68.4	65.8	51.6	55.9	42.3	60.5	54.9	41.5	56.0	73.3	48.7	60.7	74.2	81.4	41.6	67.9	67.2	42.5	71.4	62.8	60.2	59.0	36.8	81.4	36.8	58.1	
22	31.6	36.3	34.1	46.2	7.5	23.1	7.8	6.7	5.3	6.0	8.5	5.3	5.8	5.7	6.3	6.5	5.6	5.4	5.8	5.3	5.3	5.7	6.6	10.8	46.2	5.3	12.2	
23	46.5	38.2	13.2	10.2	22.7	27.4	19.7	11.1	16.1	38.7	35.7	22.4	55.8	17.1	7.3	49.0	38.8	32.6	50.2	72.3	68.6	67.3	45.2	79.5	79.5	7.3	36.9	
24	64.3	48.6	78.2	40.7	70.2	51.0	55.5	52.6	64.5	50.9	47.9	25.1	52.3	47.7	17.3	60.9	46.1	16.2	6.2	5.1	5.5	5.3	5.7	5.7	78.2	5.1	38.5	
25	6.5	8.5	8.7	10.1	9.9	14.5	15.7	7.0	4.9	4.5	5.0	4.9	5.0	6.2	6.4	6.7	7.5	7.1	6.8	6.7	6.0	6.1	6.1	5.9	15.7	4.5	7.4	
26	7.0	7.9	6.7	6.9	5.4	6.0	5.7	7.0	9.7	8.9	15.4	13.3	8.8	6.6	8.5	8.1	9.5	8.6	19.4	27.2	14.0	15.0	25.2	32.8	32.8	5.4	11.8	
27	52.6	52.0	30.7	48.8	42.9	16.4	33.3	58.2	22.3	15.2	15.2	15.0	15.7	7.4	9.1	13.1	26.9	18.2	9.8	8.2	10.3	6.0	10.6	10.6	58.2	6.0	22.9	
28	13.9	10.7	33.2	10.2	17.8	53.3	39.4	54.0	47.4	50.8	28.5							51.9	10.6	7.7	4.5	4.6	4.7	7.6	54.0	4.5	25.0	
29	5.9	5.8	7.4	6.4	8.5	10.3	5.7	7.2	5.5	5.3	5.3	6.1	7.7	6.2	9.2	43.3	47.2	36.8	7.2	5.6	32.4	5.7	14.8	4.9	47.2	4.9	12.5	
30	4.3	3.9	4.5	4.9	5.0	4.6	4.7	4.6	4.4	4.4	5.4	4.6	4.1	3.8	4.9	5.4	7.0	6.4	7.7	8.1	11.0	7.2	9.9	8.8	11.0	3.8	5.8	
31	12.5	48.8	27.9	20.6	29.4	54.2	8.7	39.4	18.4	25.6	4.9	4.2	4.1	3.9	4.0	4.6	4.5	4.3	5.3	5.0	4.3	3.8	4.0	5.0	54.2	3.8	14.5	
Max.	64.3	68.4	78.2	51.9	70.2	54.2	67.9	73.1	67.7	63.7	73.3	65.0	65.9	74.2	81.4	60.9	67.9	67.2	51.7	72.3	68.6	69.8	71.9	79.5	81.4			
Min.	4.1	3.9	4.5	4.9	5.0	4.6	4.1	4.6	4.4	4.4	4.8	4.2	4.1	3.8	3.9	4.4	4.5	4.3	4.5	4.0	4.0	3.8	4.0	3.8		3.8		
Avg.	20.6	25.3	22.8	20.3	19.3	20.7	21.6	23.0	21.7	20.5	20.1	21.5	19.5	21.4	17.0	19.2	20.5	19.0	16.8	16.6	19.2	22.5	25.4	22.0			20.7	

Total Hours in Month 744

Hours Data Available 738

Data Recovery 99%

Rock Creek - Relative Humidity (Percentage)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	88.9	94.2	94.8	95.9	96.0	96.1	95.3	93.8	94.5	95.3	94.3	96.3	96.1	95.3	95.2	95.2	94.9	94.9	94.3	94.9	94.4	94.5	93.9	91.0	96.3	88.9	94.6
2	88.9	88.6	88.7	91.5	92.8	93.5	92.6	94.1	95.4	96.2	91.4	79.6	65.6	57.2	55.1	59.3	61.5	64.7	74.5	86.2	91.4	93.9	96.1	96.1	96.2	55.1	83.1
3	95.3	93.3	92.1	89.1	90.5	90.5	89.9	89.7	89.6	91.4	88.7	78.3	65.9	57.4	54.1	55.7	77.0	73.2	77.4	81.3	82.8	80.8	79.2	82.9	95.3	54.1	81.1
4	89.9	87.4	87.6	90.2	88.7	88.0	88.5	88.3	85.6	85.2	85.1	85.3	79.0	74.2	70.5	67.1	68.5	74.4	77.4	77.6	78.0	81.4	81.3	83.2	90.2	67.1	81.8
5	84.3	88.9	89.4	92.8	94.7	94.2	91.2	95.1	96.6	96.0	82.0	68.3	62.8	68.1	62.8	58.2	62.8	74.6	80.0	82.9	85.3	83.4	86.0	84.3	96.6	58.2	81.9
6	85.4	89.8	90.9	89.4	92.8	92.9	93.1	93.1	89.1	93.3	90.7	80.5	67.6	66.0	62.6	62.9	66.5	67.8	76.3	82.8	86.9	93.5	95.0	97.0	97.0	62.6	83.6
7	96.8	93.7	95.6	96.3	95.8	94.8	94.1	92.7	89.9	90.4	88.2	82.5	65.1	62.0	60.5	57.2	59.4	68.2	75.3	77.5	79.3	80.7	81.9	84.5	96.8	57.2	81.8
8	84.2	83.9	85.1	86.7	87.5	91.3	92.2	92.2	91.7	89.3	84.9	81.4	79.1	74.6	72.5	70.1	68.2	68.1	69.2	69.6	69.0	68.3	68.6	72.5	92.2	68.1	79.2
9	77.2	83.1	81.5	81.0	80.3	76.0	74.6	75.7	74.7	74.5	73.6	68.9	65.4	64.1	63.3	59.8	60.5	63.0	65.7	71.5	72.6	72.6	73.4	73.0	83.1	59.8	71.9
10	73.6	81.4	82.8	84.5	88.1	90.8	91.7	91.1	92.5	93.8	93.6	90.8	91.7	91.9	91.2	89.5	89.7	90.2	90.5	90.0	90.1	89.5	88.7	89.4	93.8	73.6	89.0
11	90.7	90.6	91.8	93.5	93.4	93.2	93.1	92.5	93.9	91.0	83.9	74.8	70.9	72.9	71.2	70.1	66.8	67.4	72.6	74.6	74.7	78.9	79.1	76.7	93.9	66.8	81.6
12	83.4	83.2	84.2	77.4	70.0	63.0	62.0	56.9	62.8	56.8	61.2	59.7	56.2	57.3	58.4	62.2	73.6	82.4	92.4	95.6	94.2	92.3	96.0	95.4	96.0	56.2	74.0
13	94.2	95.1	96.3	96.5	96.3	96.1	96.2	96.2	96.1	96.3	96.1	94.7	92.1	89.2	91.3	89.0	91.4	92.0	93.9	94.8	96.0	96.4	96.8	96.5	96.8	89.0	94.6
14	97.0	97.5	97.1	96.5	92.8	92.7	91.4	89.3	89.2	83.6	80.5	82.6	86.6	95.1	96.0	95.3	94.3	93.0	92.3	90.7	90.7	91.6	91.5	91.4	97.5	80.5	91.6
15	91.1	91.3	91.9	92.1	92.7	92.6	92.7	92.7	92.7	92.7	93.3	92.8	93.2	93.1	93.3	93.5	95.2	94.4	87.1	92.9	92.6	91.0	88.8	90.5	95.2	87.1	92.3
16	92.9	94.2	92.8	93.3	92.5	93.7	94.9	95.3	94.8	94.7	91.9	90.5	82.0	79.5	81.9	85.0	89.3	90.4	87.9	87.6	90.2	92.6	93.7	91.8	95.3	79.5	90.6
17	89.7	90.7	91.0	91.5	91.5	92.0	93.9	92.6	94.5	93.5	87.9	86.1	84.7	83.6	83.1	80.8	76.5	75.6	76.1	75.4	75.0	75.9	77.7	83.1	94.5	75.0	85.1
18	88.9	85.1	84.4	87.8	84.8	84.0	86.1	86.6	89.0	91.7	92.3	93.1	94.0	93.8	93.8	94.1	94.0	94.2	90.6	88.5	86.6	84.2	82.6	83.5	94.2	82.6	88.9
19	77.9	78.4	80.4	81.9	81.9	81.9	81.8	78.9	76.2	71.3	70.8	71.0	68.8	68.0	73.7	74.4	79.8	89.1	84.9	86.5	87.4	92.1	91.5	92.8	92.8	68.0	80.1
20	90.9	86.5	85.0	87.9	88.7	87.8	87.3	87.7	85.8	82.4	82.0	79.2	73.9	69.2	69.2	83.6	89.7	91.9	88.6	88.1	88.9	91.7	90.6	84.3	91.9	69.2	85.0
21	78.8	81.7	86.5	92.6	92.2	84.6	82.9	86.4	88.1	91.4	89.7	78.6	80.8	82.0	82.8	80.3	86.5	82.6	80.7	88.4	86.3	78.5	91.8	94.3	94.3	78.5	85.4
22	93.9	95.0	95.2	94.5	95.5	95.9	94.9	93.2	93.7	94.6	93.3	94.0	94.3	95.6	95.8	96.4	96.4	96.6	97.1	97.6	97.7	97.5	97.4	97.4	97.7	93.2	95.6
23	97.7	97.4	97.7	98.0	98.1	98.2	98.2	97.7	97.5	97.5	97.2	96.7	93.7	91.8	88.6	87.2	82.4	83.7	83.7	82.1	75.5	78.3	77.9	79.3	98.2	75.5	90.7
24	79.1	79.2	79.4	78.6	72.3	75.4	78.0	75.8	83.1	79.4	74.8	70.3	74.0	70.3	71.8	79.0	62.5	66.6	69.8	71.5	73.0	74.8	77.7	77.3	83.1	62.5	74.7
25	72.2	74.1	79.7	84.8	83.7	84.1	87.0	82.3	76.4	74.8	68.9	62.5	57.1	53.8	51.6	54.6	55.7	55.8	56.0	55.3	57.2	62.8	77.7	80.4	87.0	51.6	68.7
26	87.1	85.6	82.3	80.6	81.0	82.5	85.8	90.6	93.6	93.4	94.2	94.3	94.5	94.5	94.1	94.0	94.2	93.9	93.3	92.4	92.4	93.8	94.5	94.7	94.7	80.6	90.7
27	95.2	94.6	94.0	94.0	93.6	93.3	93.8	93.8	94.2	95.1	94.6	94.1	93.7	93.2	92.3	93.0	92.8	92.3	92.7	93.2	93.4	93.0	92.6	91.4	95.2	91.4	93.5
28	88.7	87.9	86.2	83.6	85.8	86.3	87.4	86.4	85.0	80.1	77.9	77.5	77.0	74.1	75.0	77.1	77.9	75.3	76.5	77.7	79.1	80.0	80.1	79.1	88.7	74.1	80.9
29	79.6	77.5	77.5	77.0	80.1	82.6	80.9	79.2	79.4	78.4	76.3	74.2	72.6	71.7	68.8	69.5	68.8	72.5	73.3	74.7	74.8	71.7	71.7	72.4	82.6	68.8	75.2
30	71.3	70.1	68.0	67.1	67.5	67.4	63.5	61.1	59.8	63.1	68.8	68.3	58.3	54.1	62.1	65.5	64.8	68.8	71.7	73.1	78.4	82.5	83.8	81.6	83.8	54.1	68.4
31	86.6	82.8	84.4	87.5	84.5	85.2	82.7	85.5	91.0	84.9	85.8	75.6	71.6	66.4	60.0	59.6	66.4	69.6	77.3	82.3	85.2	83.8	82.7	82.0	91.0	59.6	79.3
Max.	97.7	97.5	97.7	98.0	98.1	98.2	98.2	97.7	97.5	97.5	97.2	96.7	96.1	95.6	96.0	96.4	96.4	96.6	97.1	97.6	97.7	97.5	97.4	97.4	98.2		
Min.	71.3	70.1	68.0	67.1	67.5	63.0	62.0	56.9	59.8	56.8	61.2	59.7	56.2	53.8	51.6	54.6	55.7	55.8	56.0	55.3	57.2	62.8	68.6	72.4		51.6	
Avg.	86.8	87.2	87.6	88.2	87.9	87.8	87.7	87.3	87.6	86.8	85.0	81.4	77.7	76.1	75.6	76.1	77.7	79.6	81.3	83.1	83.8	84.6	85.8	86.1			83.7

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	80.6	82.7	84.3	85.7	84.7	83.9	88.0	89.6	89.7	85.0	89.4	89.4	85.7	85.5	85.8	82.0	77.4	79.6	78.3	78.5	84.2	83.8	84.5	84.0	89.7	77.4	84.3
2	83.3	82.3	82.5	81.2	77.9	74.4	78.1	83.7	86.3	83.3	83.6	79.9	72.5	66.8	64.6	64.8	66.6	67.1	66.7	58.4	49.5	54.8	55.8	57.0	86.3	49.5	71.7
3	59.9	62.8	66.2	65.3	60.6	62.2	61.5	62.1	63.1	63.4	61.9	58.2	55.0	57.6	59.3	60.2	64.2	68.8	73.3	65.4	70.6	80.0	72.4	75.5	80.0	55.0	64.6
4	76.9	76.9	75.2	77.2	77.4	79.6	78.1	81.7	84.9	86.1	80.6	70.9	69.3	65.4	66.4	68.0	72.2	79.3	78.7	75.5	78.7	79.3	78.5	77.8	86.1	65.4	76.4
5	74.7	72.0	73.9	77.5	78.8	77.7	81.0	85.5	87.3	84.4	88.2	90.3	87.1	81.2	71.9	70.3	78.3	81.0	84.2	85.9	82.9	84.7	84.3	83.6	90.3	70.3	81.1
6	82.0	80.0	79.1	74.3	74.3	74.5	78.8	78.6	75.8	73.5	71.8	65.5	60.6	54.3	49.2	46.4	46.6	56.1	56.8	58.2	62.7	64.3	62.0	63.5	82.0	46.4	66.2
7	66.1	65.8	65.2	64.3	63.2	61.3	62.9	61.6	61.1	60.9	58.9	58.7	57.6	57.3	57.6	58.2	56.6	57.1	55.4	53.9	53.8	53.1	53.6	53.7	66.1	53.1	59.1
8	52.4	51.9	52.7	51.8	50.2	50.9	48.0	47.4	57.7	65.5	66.4	59.2	49.8	43.5	43.4	45.2	54.9	67.6	74.1	78.6	80.2	81.8	80.7	78.8	81.8	43.4	59.7
9	83.4	84.8	84.5	86.0	81.5	88.1	88.5	91.4	88.5	83.4	79.1	75.0	71.9	66.8	66.2	66.6	67.8	73.8	77.0	80.0	82.1	85.9	80.9	74.7	91.4	66.2	79.5
10	73.2	72.4	58.4	49.5	50.2	51.1	48.3	42.5	42.1	38.6	40.8	38.8	37.0	34.1	37.1	47.0	67.3	81.3	79.6	79.2	78.1	76.0	78.4	79.9	81.3	34.1	57.5
11	82.6	85.1	88.2	88.2	89.2	88.8	87.1	87.2	86.8	85.8	85.2	84.0	81.2	76.7	73.3	71.9	76.3	82.7	86.9	88.9	89.9	88.4	88.6	89.8	89.9	71.9	84.7
12	92.1	93.6	93.4	94.0	93.3	93.4	93.8	94.8	94.8	95.1	94.4	92.7	87.6	88.3	85.6	85.9	87.8	90.4	90.2	90.5	91.6	92.3	92.6	92.9	95.1	85.6	91.7
13	90.7	91.2	92.8	92.1	92.0	92.4	92.8	92.8	93.5	93.2	93.7	93.0	91.6	90.7	91.0	92.5	94.4	94.7	95.2	96.0	95.0	94.0	93.5	93.6	96.0	90.7	93.0
14	94.8	94.4	94.7	94.4	94.5	95.1	95.8	95.5	95.5	95.6	95.3	94.9	94.8	94.8	94.7	95.0	95.7	97.7	97.2	96.7	95.5	96.3	97.1	97.3	97.7	94.4	95.6
15	97.4	96.8	91.8	90.0	88.9	81.6	77.6	77.6	75.5	76.1	83.0	76.1	69.7	69.3	69.5	77.7	87.7	85.6	79.6	79.3	67.6	74.3	88.6	89.9	97.4	67.6	81.3
16	82.1	76.1	80.2	77.1	67.0	81.9	82.6	84.6	92.1	82.8	69.8	86.1	81.7	73.3	65.6	71.8	88.4	73.6	68.2	66.7	65.8	67.8	73.4	78.5	92.1	65.6	76.5
17	80.5	77.9	78.7	80.2	82.0	87.5	89.1	90.1	90.4	89.1	90.5	91.9	91.9	91.7	92.3	90.2	88.8	86.9	84.5	81.7	80.2	78.3	76.1	74.6	92.3	74.6	85.2
18	72.3	72.7	76.4	83.2	84.0	89.1	89.9	89.0	89.8	93.0	93.3	92.9	92.0	92.0	92.0	92.8	93.8	94.2	95.0	95.1	95.1	94.7	93.1	95.8	95.8	72.3	89.6
19	95.6	95.8	95.4	92.7	92.7	91.3	88.3	85.2	81.1	79.5	76.9	71.9	70.7	88.4	91.9	93.5	94.6	93.9	91.6	91.7	95.9	93.4	92.1	92.8	95.9	70.7	89.0
20	93.9	93.3	94.0	94.1	94.3	95.0	95.6	96.2	97.1	96.2	94.6	94.7	94.4	94.5	92.2	91.5	91.3	92.3	91.1	86.8	84.3	89.2	93.7	96.2	97.1	84.3	93.2
21	94.4	94.6	94.2	95.1	94.9	93.9	94.4	91.1	90.0	90.5	86.6	86.9	85.6	83.2	86.5	85.9	85.6	92.6	97.3	97.1	94.6	93.0	92.0	90.2	97.3	83.2	91.3
22	88.5	87.5	86.4	86.1	86.0	86.2	85.9	88.3	89.2	90.3	91.6	91.2	89.7	86.9	87.3	90.5	91.8	91.6	89.3	92.4	89.1	79.4	77.5	68.6	92.4	68.6	87.1
23	57.5	53.9	54.2	62.8	66.5	63.9	62.6	59.5	58.0	59.5	60.6	63.1	66.8	84.9	86.4	86.0	88.6	91.4	86.1	81.6	81.3	85.2	89.0	92.0	92.0	53.9	72.6
24	93.5	93.7	89.3	88.8	89.4	84.8	74.9	67.3	60.7	57.2	53.9	54.3	55.3	53.0	53.1	56.1	58.1	57.9	63.8	61.2	66.1	65.2	68.3	70.5	93.7	53.0	68.2
25	76.1	81.0	80.8	78.5	81.2	79.4	81.2	83.7	82.9	82.4	82.2	88.8	79.4	78.0	82.1	81.2	79.3	81.8	86.0	91.3	94.3	94.7	90.6	90.4	94.7	76.1	83.6
26	91.5	92.9	93.5	93.2	91.5	91.3	91.4	90.8	89.6	88.1	88.4	87.5	83.7	80.9	78.1	76.4	80.9	82.2	82.7	84.3	85.8	86.6	88.1	89.0	93.5	76.4	87.0
27	91.5	93.5	95.5	96.7	95.4	96.1	95.8	92.8	85.2	77.1	74.4	87.4	91.5	91.5	92.2	92.6	93.7	95.5	94.7	93.7	94.8	94.9	92.9	91.2	96.7	74.4	91.7
28	90.7	92.6	93.4	93.6	92.5	92.4	92.2	92.4	91.3	91.0	91.1	89.1	82.0	83.3	84.3	88.5	91.6	96.9	98.4	98.7	98.9	98.9	98.9	98.8	98.9	82.0	92.6
29	98.0	96.4	94.8	93.5	89.2	89.9	91.8	91.1	95.5	94.6	95.1	95.2	94.0	91.3	93.8	94.2	95.2	96.9	98.3	98.2	96.7	97.6	98.3	96.6	98.3	89.2	94.8
30	96.0	95.5	96.5	97.1	96.2	97.1	97.5	97.2	94.6	93.7	94.2	92.6	91.2	91.1	92.1	93.8	94.0	95.7	96.5	97.1	96.6	96.2	94.2	95.5	97.5	91.1	95.1
Max.	98.0	96.8	96.5	97.1	96.2	97.1	97.5	97.2	97.1	96.2	95.3	95.2	94.8	94.8	94.7	95.0	95.7	97.7	98.4	98.7	98.9	98.9	98.9	98.8	98.9		
Min.	52.4	51.9	52.7	49.5	50.2	50.9	48.0	42.5	42.1	38.6	40.8	38.8	37.0	34.1	37.1	45.2	46.6	56.1	55.4	53.9	49.5	53.1	53.6	53.7		34.1	
Avg.	83.1	83.0	82.9	82.8	82.0	82.5	82.4	82.4	82.3	81.2	80.5	80.0	77.4	76.5	76.2	77.2	80.3	82.9	83.2	82.8	82.7	83.5	83.7	83.8			81.5

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Relative Humidity (Percentage)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	96.0	96.4	97.5	97.5	97.6	98.0	98.3	98.0	96.8	96.6	97.0	97.5	96.4	93.3	92.3	92.5	94.1	97.1	97.8	96.5	96.1	97.2	95.4	97.6	98.3	92.3	96.4
2	95.8	97.1	97.8	96.7	95.2	94.6	96.3	95.8	95.4	95.8	96.2	96.2	93.9	88.9	88.0	89.2	94.0	92.2	93.3	89.0	89.5	89.9	88.5	89.8	97.8	88.0	93.3
3	89.2	87.8	87.0	86.2	86.1	86.9	85.9	84.9	84.8	83.9	81.5	78.0	79.9	80.8	80.8	80.4	84.2	83.1	81.4	78.1	75.6	75.4	77.4	83.2	89.2	75.4	82.6
4	80.7	86.2	87.8	85.8	87.4	88.9	83.0	86.4	86.5	86.3	87.0	85.6	84.3	82.5	80.8	81.1	83.8	82.3	84.6	80.9	78.5	75.0	75.6	74.2	88.9	74.2	83.1
5	68.3	60.9	58.1	56.7	57.0	55.7	61.9	67.3	72.2	66.2	53.4	56.3	59.5	59.8	54.6	55.4	56.1	54.3	57.1	59.1	57.9	62.9	57.7	58.6	72.2	53.4	59.4
6	57.6	58.7	57.4	61.7	54.1	62.2	57.5	53.3	54.4	56.2	59.5	72.2	72.9	78.9	83.4	85.2	83.3	82.8	82.3	80.1	78.3	73.3	73.8	74.5	85.2	53.3	68.9
7	72.5	72.3	72.1	82.5	84.7	83.7	80.7	85.1	85.2	84.3	82.5	82.7	80.7	76.3	77.0	74.7	74.7	74.7	73.8	73.6	71.2	70.1	68.6	67.2	85.2	67.2	77.1
8	67.5	66.5	72.2	74.9	72.9	72.0	68.6	66.5	68.6	71.7	72.3	73.0	72.7	76.0	73.7	75.1	73.3	73.3	77.8	82.7	81.1	82.4	80.7	81.5	82.7	66.5	74.0
9	81.5	84.0	84.4	84.3	85.2	86.2	86.6	85.7	83.5	81.7	77.4	82.9	87.0	86.5	83.6	81.7	70.2	68.8	68.2	69.1	70.5	70.2	67.0	69.9	87.0	67.0	79.0
10	77.2	79.5	78.4	79.1	76.7	77.0	76.7	77.0	76.9	75.6	75.6	73.5	70.6	67.8	70.1	70.5	72.6	71.7	73.5	72.5	73.9	74.6	71.4	73.7	79.5	67.8	74.4
11	70.9	67.9	65.9	70.3	72.1	77.9	84.6	84.4	83.6	83.6	87.6	88.0	88.5	87.4	85.6	85.5	82.7	79.0	76.7	79.5	79.7	79.2	78.7	82.7	88.5	65.9	80.1
12	85.4	85.8	83.9	79.5	75.5	73.0	74.7	72.2	74.3	75.2	74.9	75.3	73.2	73.2	71.8	67.6	67.9	71.7	75.4	74.1	70.3	73.3	71.9	73.7	85.8	67.6	74.7
13	73.4	75.2	76.0	71.4	71.2	74.7	75.6	75.6	74.5	74.7	74.7	76.2	72.2	71.1	72.5	72.9	75.0	75.1	78.8	80.3	81.9	81.9	83.9	83.5	83.9	71.1	75.9
14	79.5	79.4	80.2	79.4	82.3	79.8	79.1	84.1	81.9	82.6	82.1	83.1	82.5	77.6	74.4	77.2	82.6	81.1	80.3	79.6	82.0	83.7	81.7	81.6	84.1	74.4	80.7
15	84.5	83.6	76.8	70.7	70.3	77.7	70.8	68.2	70.0	68.2	69.7	73.0	69.3	71.7	69.5	74.7	74.1	74.8	70.9	68.4	69.8	65.3	59.0	55.5	84.5	55.5	71.1
16	60.6	65.1	70.7	76.1	74.5	76.2	78.7	81.7	77.2	76.1	74.4	74.7	75.0	73.1	71.4	71.8	74.2	73.9	74.2	72.8	73.5	69.4	75.7	75.5	81.7	60.6	73.6
17	71.4	72.9	81.6	85.6	87.7	87.2	88.8	87.7	89.4	90.9	91.8	91.8	91.6	92.2	92.5	91.4	90.0	90.4	90.8	89.9	88.9	86.1	86.0	87.1	92.5	71.4	87.7
18	89.0	89.3	86.8	87.6	89.4	89.3	89.3	88.7	90.4	91.2	92.8	93.8	91.3	89.3	89.2	89.5	91.2	92.9	92.6	92.1	92.7	92.0	92.3	91.9	93.8	86.8	90.6
19	94.1	94.8	90.3	93.1	92.4	93.5	94.6	91.3	90.5	89.4	87.0	83.9	82.2	82.3	83.5	83.6	84.2	81.9	79.5	78.6	77.1	77.0	77.3	77.6	94.8	77.0	85.8
20	78.0	75.2	75.0	80.1	82.6	82.4	80.7	80.6	77.6	81.2	81.5	83.3	82.0	84.1	82.2	79.5	80.2	79.4	80.4	81.4	80.6	80.3	81.2	81.5	84.1	75.0	80.5
21	78.2	79.4	74.8	80.1	74.7	74.0	80.0	76.8	80.4	77.2	77.5	77.7	76.5	77.2	74.8	75.1	75.0	74.1	76.5	72.6	72.5	71.5	70.2	70.0	80.4	70.0	75.7
22	68.0	68.6	65.4	63.3	66.2	65.8	65.6	62.5	63.1	60.5	63.4	62.5	60.7	59.0	59.1	59.8	59.9	60.5	59.7	58.6	57.8	57.3	58.6	61.1	68.6	57.3	62.0
23	60.1	60.3	56.4	56.6	55.9	56.3	58.4	58.8	57.3	57.2	62.0	72.2	73.7	70.4	71.1	71.4	73.5	73.2	73.8	75.9	76.4	76.2	77.4	79.8	79.8	55.9	66.8
24	79.0	79.9	78.0	80.2	80.6	81.3	82.9	80.0	83.8	82.0	83.4	85.3	84.6	85.5	85.2	85.5	83.8	82.9	83.7	85.2	85.8	85.7	85.8	86.9	86.9	78.0	83.2
25	88.2	89.4	90.1	91.1	91.8	91.9	92.5	94.0	94.3	94.8	95.4	96.2	96.5	97.1	97.3	98.1	97.8	93.3	93.4	95.2	93.6	92.3	92.3	92.5	98.1	88.2	93.7
26	92.9	95.4	95.4	96.1	96.2	96.8	96.8	96.2	95.3	95.4	95.7	96.2	96.2	96.2	96.2	96.0	96.6	97.5	96.5	97.1	95.3	96.8	96.5	95.1	97.5	92.9	96.0
27	96.3	95.8	95.4	95.8	96.2	95.6	96.0	95.9	94.9	96.9	96.7	93.4	91.0	92.0	91.7	88.5	87.6	84.4	84.4	83.7	86.4	84.5	82.0	81.8	96.9	81.8	91.1
28	77.0	75.6	75.5	75.8	77.5	78.6	84.0	83.4	83.8	85.7	84.8							77.6	79.7	85.0	88.8	89.2	89.5	87.9	89.5	75.5	82.2
29	86.5	86.4	86.1	86.5	86.6	87.4	89.3	89.0	89.1	89.2	88.5	87.9	87.4	87.8	83.7	82.6	67.2	72.6	77.0	80.1	71.6	75.3	78.1	81.5	89.3	67.2	83.2
30	81.8	82.7	83.3	81.3	82.0	83.6	83.1	85.4	91.8	94.1	94.5	94.6	94.9	95.2	96.2	96.9	97.9	96.4	97.4	95.9	95.3	95.7	95.8	95.5	97.9	81.3	91.3
31	95.9	96.3	96.8	95.8	95.2	96.7	91.8	89.8	89.2	89.7	94.7	95.4	95.4	95.6	95.3	95.2	95.2	95.0	95.2	95.6	95.9	96.3	96.9	96.9	96.9	89.2	94.8
Max.	96.3	97.1	97.8	97.5	97.6	98.0	98.3	98.0	96.8	96.9	97.0	97.5	96.5	97.1	97.3	98.1	97.9	97.5	97.8	97.1	96.1	97.2	96.9	97.6	98.3		
Min.	57.6	58.7	56.4	56.6	54.1	55.7	57.5	53.3	54.4	56.2	53.4	56.3	59.5	59.0	54.6	55.4	56.1	54.3	57.1	58.6	57.8	57.3	57.7	55.5		53.3	
Avg.	79.9	80.3	79.9	80.7	80.6	81.4	81.7	81.5	81.8	81.7	81.8	82.7	82.1	81.6	80.9	81.0	80.8	80.3	80.9	80.7	80.3	80.0	79.6	80.3			80.9

Total Hours in Month 744

Hours Data Available 738

Data Recovery 99%

Rock Creek - Barometric Pressure (mbar)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.			
1	1015	1015	1015	1015	1015	1015	1015	1014	1014	1014	1014	1014	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1015	1013	1014			
2	1013	1012	1012	1012	1011	1011	1010	1010	1009	1009	1008	1007	1007	1006	1003	1004	1002	1001	1001	1000	999	998	997	996	1013	996	1006			
3	995	995	994	993	992	991	991	990	989	988	988	987	986	986	985	985	984	984	984	984	983	983	984	984	995	983	988			
4	984	984	985	985	985	985	986	986	987	987	988	988	988	988	988	988	988	988	988	988	988	988	988	988	988	984	987			
5	988	988	988	988	987	987	987	987	987	987	986	985	985	986	986	984	985	985	985	986	986	986	986	986	988	984	986			
6	986	986	986	986	986	987	987	987	988	988	989	990	987	991	989	990	990	991	991	992	992	993	993	994	994	986	989			
7	994	995	995	996	996	997	997	998	998	999	999	998	998	999	995	998	998	998	998	998	998	998	998	997	997	999	994	997		
8	997	996	995	995	994	993	993	992	992	991	991	990	990	989	988	987	987	986	986	985	985	985	984	984	997	984	990			
9	984	984	983	983	983	982	982	982	982	982	981	982	982	982	982	981	981	982	982	982	982	982	982	982	984	981	982			
10	982	982	982	982	983	983	983	983	984	985	986	987	988	988	989	990	990	991	992	992	993	994	995	996	996	982	988			
11	996	997	998	998	998	999	999	999	999	1000	1001	999	1001	1001	999	998	1000	1000	1000	1000	1000	1000	1000	1000	1000	1001	996	999		
12	1000	1000	999	998	998	998	997	996	996	997	997	997	997	997	996	996	997	997	997	997	997	997	997	998	998	1000	996	997		
13	998	999	999	1000	1000	1001	1001	1002	1002	1003	1004	1004	1004	1005	1005	1005	1006	1006	1006	1007	1007	1008	1008	1008	1008	998	1004			
14	1009	1009	1009	1010	1009	1010	1011	1011	1011	1011	1011	1011	1011	1010	1010	1010	1009	1009	1009	1008	1008	1007	1007	1006	1011	1006	1009			
15	1005	1004	1003	1002	1001	1000	998	997	997	996	995	995	995	995	994	994	994	995	996	997	998	999	1001	1002	1005	994	998			
16	1003	1005	1005	1006	1007	1008	1008	1009	1010	1010	1011	1011	1011	1011	1011	1011	1011	1011	1010	1010	1010	1010	1009	1009	1011	1003	1009			
17	1009	1009	1009	1008	1008	1008	1008	1008	1008	1007	1007	1007	1007	1006	1006	1006	1006	1005	1005	1005	1004	1004	1003	1003	1009	1003	1007			
18	1002	1002	1001	1000	999	997	996	994	992	990	988	985	981	978	975	972	970	969	969	970	971	973	974	975	1002	969	984			
19	975	976	976	977	977	978	979	979	980	981	981	982	984	984	984	985	985	984	984	983	983	983	983	983	983	983	983	985	975	981
20	983	983	983	984	984	984	984	984	984	985	985	985	985	985	985	986	986	986	986	987	987	987	988	988	988	983	985			
21	989	989	990	990	991	991	992	992	993	993	993	994	994	995	996	996	996	996	995	995	994	993	993	993	991	989	993			
22	990	989	988	987	986	986	985	984	984	984	984	983	983	983	983	983	982	982	982	981	981	981	980	980	990	980	984			
23	980	980	979	979	978	978	977	977	977	977	977	977	978	978	978	978	979	979	980	981	982	983	984	985	985	977	979			
24	986	987	989	990	991	992	993	995	996	997	998	999	1000	1001	1003	1003	1005	1006	1007	1008	1008	1009	1009	1010	1010	986	999			
25	1011	1011	1011	1011	1010	1009	1009	1008	1007	1006	1004	1003	1002	1000	998	997	995	993	991	989	988	987	985	984	1011	984	1000			
26	983	981	979	979	978	978	977	976	976	976	976	976	976	976	975	975	975	975	975	975	975	975	974	974	983	974	976			
27	974	974	974	973	973	973	973	973	974	974	975	975	975	976	976	976	977	977	977	978	978	978	978	978	978	973	975			
28	979	979	979	979	979	979	979	979	979	979	980	980	980	981	981	981	981	981	981	982	982	982	983	982	983	983	979	980		
29	983	983	983	984	984	984	984	985	985	985	986	986	987	988	988	989	990	990	991	992	993	993	994	995	995	983	988			
30	996	997	997	998	999	999	1000	1001	1001	1002	1003	1003	1003	1004	1003	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	996	1002		
31	1004	1004	1004	1004	1004	1004	1004	1004	1005	1005	1005	1005	1006	1006	1005	1005	1005	1005	1005	1005	1005	1004	1004	1004	1004	1006	1004	1005		
Max.	1015	1015	1015	1015	1015	1015	1015	1015	1014	1014	1014	1014	1014	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1013	1015				
Min.	974	974	974	973	973	973	973	973	973	974	974	975	975	975	976	975	972	970	969	969	970	971	973	974	974		969			
Avg.	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993	993			993		

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1004	1003	1003	1003	1002	1002	1002	1001	1001	1001	1001	1001	1000	1000	1000	999	999	998	998	998	997	997	997	996	1004	996	1000	
2	996	995	995	994	993	993	992	992	992	991	991	991	990	990	989	988	987	987	987	987	986	986	986	986	996	986	990	
3	985	985	985	985	985	985	985	985	986	986	987	987	987	988	988	990	990	992	992	992	993	993	994	994	994	985	988	
4	995	996	997	997	997	998	998	998	998	999	999	999	1000	1000	1000	1000	1001	1001	1002	1002	1002	1003	1003	1003	1003	995	1000	
5	1004	1004	1004	1004	1004	1005	1005	1005	1005	1006	1006	1007	1007	1005	1007	1007	1007	1007	1007	1008	1008	1008	1008	1008	1008	1008	1004	1006
6	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1009	1009	1008	1009	1007	1008	1007	1007	1007	1007	1007	1006	1006	1005	1009	1005	1008	
7	1005	1005	1004	1003	1003	1002	1003	1002	1002	1001	1001	1000	1000	1000	999	999	999	998	999	999	999	999	999	999	999	1005	998	1001
8	999	999	999	999	1000	1000	1001	1001	1002	1002	1003	1003	1005	1003	1004	1004	1005	1005	1006	1006	1007	1007	1008	1008	1008	1008	999	1003
9	1008	1008	1008	1008	1008	1008	1008	1008	1008	1007	1007	1007	1005	1009	1005	1007	1006	1005	1005	1005	1005	1005	1005	1004	1004	1009	1004	1006
10	1003	1002	1002	1001	1001	1000	1000	999	999	998	998	997	997	996	996	996	996	997	997	998	998	998	999	1000	1003	996	999	
11	1000	1001	1001	1002	1002	1002	1003	1003	1004	1004	1004	1005	1005	1005	1005	1005	1004	1005	1004	1004	1004	1004	1004	1004	1004	1005	1000	1004
12	1004	1004	1004	1004	1004	1004	1003	1003	1003	1002	1002	1002	1002	1001	1001	1000	999	999	998	998	997	996	995	994	1004	994	1001	
13	993	992	992	991	990	989	988	987	987	986	986	986	986	986	986	986	986	985	985	984	984	983	981	979	979	993	979	986
14	978	976	974	972	970	969	968	967	966	966	965	965	964	964	964	963	964	964	964	964	964	965	965	966	978	963	967	
15	967	968	970	972	974	976	978	980	981	983	984	985	985	986	986	987	987	988	989	989	989	990	990	990	990	990	967	982
16	991	991	992	992	993	993	994	994	994	994	995	995	995	995	996	996	997	997	997	998	998	998	998	998	998	998	991	995
17	998	998	997	997	997	996	996	995	995	994	994	993	993	993	992	991	991	991	991	991	991	990	990	989	989	998	989	993
18	989	988	987	986	987	986	986	986	986	986	986	986	987	987	987	988	988	989	990	991	992	993	994	994	994	986	988	
19	994	994	994	994	994	993	992	991	989	988	987	985	984	983	982	980	981	980	980	979	978	978	977	977	994	977	986	
20	977	977	977	977	977	977	978	978	978	979	979	980	982	983	984	985	987	988	989	990	991	992	992	993	993	977	983	
21	994	995	996	996	997	997	997	996	996	996	994	994	993	992	990	989	988	987	986	985	985	986	986	987	997	985	992	
22	987	987	988	989	989	990	991	991	992	992	993	994	994	995	995	995	995	995	994	993	993	993	992	992	995	987	992	
23	991	990	989	988	987	986	986	986	986	985	985	986	986	987	987	987	986	986	985	984	983	983	983	983	991	983	986	
24	982	981	981	980	979	979	978	978	978	978	979	979	979	980	980	980	980	980	981	981	982	983	983	983	983	978	980	
25	984	983	984	984	984	985	985	985	986	986	987	987	988	988	989	989	989	990	990	991	991	992	992	992	992	983	988	
26	993	994	994	993	992	992	993	992	992	992	992	991	990	990	989	988	988	988	989	989	989	989	990	991	992	994	988	991
27	992	992	992	991	991	990	990	988	988	986	985	985	984	982	981	982	981	981	981	981	981	981	981	981	992	980	985	
28	980	980	980	980	979	979	979	979	979	979	979	979	980	981	981	982	982	982	982	983	983	983	983	983	983	983	979	981
29	983	983	983	983	983	983	983	983	984	984	984	984	984	985	985	985	985	985	986	987	987	988	988	989	989	989	983	985
30	990	990	989	988	986	984	984	983	983	983	983	983	984	984	984	984	984	985	985	985	986	986	986	986	990	983	985	
Max.	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1009	1009	1009	1009	1007	1008	1007	1007	1007	1008	1008	1008	1008	1008	1009		
Min.	967	968	970	972	970	969	968	967	966	966	965	965	964	964	964	963	964	964	964	964	964	965	965	966		963		
Avg.	992	992	992	992	992	992	992	992	992	992	991	992	991	992	991	991	991	991	991	992	992	992	992	992	992			992

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Barometric Pressure (mbar)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	986	986	985	985	985	985	985	985	986	986	987	987	987	988	988	988	988	988	988	989	989	989	989	989	989	989	985	987	
2	989	989	989	989	989	988	988	989	989	989	990	990	991	991	992	993	993	994	994	995	996	997	997	998	998	998	998	992	
3	998	1000	1001	1001	1002	1003	1004	1005	1005	1006	1007	1009	1010	1011	1011	1012	1013	1013	1014	1015	1015	1016	1017	1017	1017	998	1009	1009	
4	1017	1017	1017	1017	1016	1015	1014	1014	1012	1012	1011	1010	1009	1008	1007	1007	1007	1007	1006	1005	1005	1004	1004	1004	1004	1004	1004	1010	1010
5	1003	1003	1003	1002	1001	1001	1000	1000	999	998	997	998	997	996	996	995	995	994	993	993	993	992	991	991	991	991	991	997	997
6	990	990	989	989	987	987	986	985	985	984	984	983	983	983	982	983	983	983	983	983	983	983	983	983	983	983	982	985	
7	983	982	982	982	982	981	981	982	982	981	982	982	982	982	982	982	983	983	984	984	984	984	984	984	984	985	981	983	
8	986	985	985	984	984	985	985	985	985	985	985	985	985	985	985	985	985	986	985	985	985	985	985	985	986	984	985	985	
9	986	986	986	986	986	986	986	986	986	986	986	987	987	986	987	986	986	986	986	986	986	986	986	987	987	986	986	986	
10	987	987	987	987	988	988	988	989	989	989	989	990	990	990	990	989	989	989	988	988	988	988	988	988	987	987	987	988	
11	987	987	987	987	987	986	987	988	988	988	989	989	990	990	989	989	989	990	990	991	991	992	993	994	994	986	989	989	
12	994	994	995	995	995	995	995	996	996	996	997	998	998	998	999	999	999	1000	1000	1000	1000	1000	1001	1001	1001	994	998	998	
13	1001	1001	1000	1000	1000	1000	999	999	1000	1000	1001	1001	1000	1000	1000	1000	1000	1000	1000	1000	1001	1001	1001	1001	1001	999	1000	1000	
14	1001	1002	1002	1003	1003	1004	1004	1005	1005	1006	1007	1007	1008	1008	1008	1008	1008	1008	1009	1009	1009	1009	1009	1009	1009	1009	1001	1006	
15	1008	1008	1007	1007	1006	1004	1004	1004	1002	1002	1002	1001	999	999	998	996	995	994	994	993	991	991	990	989	989	989	989	999	
16	989	989	988	988	987	986	986	985	985	985	985	985	986	986	986	986	986	986	986	987	987	987	988	989	989	985	987		
17	990	990	991	991	991	992	992	992	992	993	994	994	994	994	993	994	994	994	994	994	994	994	994	994	993	990	993	993	
18	993	992	991	991	990	990	990	989	989	989	989	989	989	989	989	989	989	989	989	990	990	990	990	990	990	989	990	990	
19	991	991	992	992	993	994	994	995	996	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1007	1008	1009	1010	1011	1011	991	1000	1000	
20	1012	1013	1013	1014	1015	1015	1016	1017	1017	1018	1019	1019	1020	1020	1020	1020	1020	1020	1021	1021	1021	1021	1022	1022	1022	1012	1018	1018	
21	1022	1022	1022	1022	1022	1022	1021	1021	1021	1021	1021	1020	1021	1020	1020	1019	1018	1017	1016	1015	1013	1012	1010	1008	1008	1008	1008	1019	
22	1007	1004	1002	1000	998	998	996	995	994	993	993	993	993	993	993	993	993	994	994	995	996	997	997	999	993	996	996		
23	1000	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1015	1016	1017	1018	1018	1019	1020	1020	1000	1010	1010	
24	1020	1021	1022	1022	1023	1023	1024	1025	1026	1026	1026	1027	1028	1028	1028	1028	1027	1026	1025	1023	1023	1022	1021	1019	1019	1019	1024	1024	
25	1017	1016	1014	1014	1013	1011	1009	1006	1005	1004	1002	1000	999	997	997	996	997	998	998	998	999	1001	1002	1003	1003	996	1004	1004	
26	1004	1005	1005	1005	1005	1006	1006	1006	1007	1007	1008	1008	1008	1008	1007	1007	1007	1007	1007	1007	1006	1006	1006	1006	1006	1004	1006	1006	
27	1006	1006	1006	1006	1007	1007	1007	1007	1008	1008	1008	1009	1009	1010	1010	1011	1012	1013	1014	1016	1017	1019	1020	1022	1022	1006	1011	1011	
28	1023	1024	1025	1026	1027	1028	1028	1028	1029	1030	1031	1031	1031	1031	1031	1030	1030	1030	1029	1029	1028	1027	1027	1027	1027	1023	1028	1028	
29	1027	1026	1026	1025	1026	1025	1025	1025	1024	1023	1023	1024	1023	1023	1022	1020	1019	1018	1017	1016	1015	1014	1013	1011	1011	1011	1021	1021	
30	1011	1010	1009	1009	1007	1005	1004	1003	1001	1001	999	998	998	997	997	998	999	1000	1000	1001	1002	1003	1004	1005	1005	997	1003	1003	
31	1006	1006	1006	1006	1006	1006	1006	1006	1005	1004	1004	1004	1003	1003	1002	1002	1002	1002	1002	1001	1001	1001	1002	1003	1003	1001	1004	1004	
Max.	1027	1026	1026	1026	1027	1028	1028	1028	1029	1030	1031	1031	1031	1031	1031	1030	1030	1030	1030	1029	1029	1028	1027	1027	1027	1031			
Min.	983	982	982	982	982	981	981	982	982	981	982	982	982	982	982	982	983	983	983	983	983	983	983	983	983	981			
Avg.	1001	1001	1001	1001	1001	1001	1000	1001	1000	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1002			1001	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m²)

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	5	21	35	40	47	44	35	29	23	15	5	1	0	0	0	0	47	0	13
2	0	0	0	0	0	0	0	0	14	102	231	337	409	422	385	326	248	158	39	3	0	0	0	0	422	0	111
3	0	0	0	0	0	0	0	0	9	84	152	232	320	253	314	198	65	48	7	0	0	0	0	0	320	0	70
4	0	0	0	0	0	0	0	0	3	24	62	72	134	149	196	163	83	36	10	1	0	0	0	0	196	0	39
5	0	0	0	0	0	0	0	0	5	101	224	259	260	309	321	310	133	60	19	1	0	0	0	0	321	0	83
6	0	0	0	0	0	0	0	0	5	45	105	229	254	308	317	284	176	103	16	1	0	0	0	0	317	0	77
7	0	0	0	0	0	0	0	0	4	31	72	148	277	255	291	284	229	90	13	0	0	0	0	0	291	0	71
8	0	0	0	0	0	0	0	0	1	12	29	49	73	95	90	93	95	69	24	1	0	0	0	0	95	0	26
9	0	0	0	0	0	0	0	0	3	24	58	127	99	115	98	97	74	42	6	0	0	0	0	0	127	0	31
10	0	0	0	0	0	0	0	0	2	23	44	79	73	56	67	69	39	25	4	0	0	0	0	0	79	0	20
11	0	0	0	0	0	0	0	0	3	77	195	311	297	113	101	135	121	78	12	0	0	0	0	0	311	0	60
12	0	0	0	0	0	0	0	0	1	8	17	68	95	106	100	77	43	18	3	0	0	0	0	0	106	0	22
13	0	0	0	0	0	0	0	0	1	19	37	65	96	80	83	62	64	14	4	0	0	0	0	0	96	0	22
14	0	0	0	0	0	0	0	0	1	11	48	42	43	42	65	43	38	15	2	0	0	0	0	0	65	0	15
15	0	0	0	0	0	0	0	0	0	3	11	23	39	49	51	54	41	62	14	0	0	0	0	0	62	0	14
16	0	0	0	0	0	0	0	0	1	29	75	169	191	140	88	51	51	20	2	0	0	0	0	0	191	0	34
17	0	0	0	0	0	0	0	0	0	7	34	53	92	118	75	57	45	26	4	0	0	0	0	0	118	0	21
18	0	0	0	0	0	0	0	0	0	2	6	12	11	12	11	13	22	17	1	0	0	0	0	0	22	0	4
19	0	0	0	0	0	0	0	0	0	19	60	99	144	183	153	170	50	57	3	0	0	0	0	0	183	0	39
20	0	0	0	0	0	0	0	0	0	12	58	130	177	254	218	92	43	20	3	0	0	0	0	0	254	0	42
21	0	0	0	0	0	0	0	0	0	10	57	134	151	92	92	51	34	20	1	0	0	0	0	0	151	0	27
22	0	0	0	0	0	0	0	0	0	4	18	39	37	46	62	51	33	19	1	0	0	0	0	0	62	0	13
23	0	0	0	0	0	0	0	0	0	7	18	67	91	111	156	84	39	12	1	0	0	0	0	0	156	0	24
24	0	0	0	0	0	0	0	0	0	11	84	130	136	212	197	124	98	28	1	0	0	0	0	0	212	0	43
25	0	0	0	0	0	0	0	0	0	7	43	67	96	96	78	61	34	7	0	0	0	0	0	0	96	0	20
26	0	0	0	0	0	0	0	0	0	1	9	17	36	33	41	31	24	4	0	0	0	0	0	0	41	0	8
27	0	0	0	0	0	0	0	0	0	5	39	44	74	80	68	63	31	9	0	0	0	0	0	0	80	0	17
28	0	0	0	0	0	0	0	0	0	5	32	84	176	190	158	63	26	10	0	0	0	0	0	0	190	0	31
29	0	0	0	0	0	0	0	0	0	3	24	64	93	101	95	74	39	9	0	0	0	0	0	0	101	0	21
30	0	0	0	0	0	0	0	0	0	3	55	142	196	219	215	172	60	7	0	0	0	0	0	0	219	0	45
31	0	0	0	0	0	0	0	0	0	3	40	111	72	99	139	94	35	6	0	0	0	0	0	0	139	0	25
Max.	0	0	0	0	0	0	0	0	14	102	231	337	409	422	385	326	248	158	39	3	0	0	0	0	422		
Min.	0	0	0	0	0	0	0	0	0	1	6	12	11	12	11	13	22	4	0	0	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	0	2	23	64	111	138	141	141	112	69	36	6	0	0	0	0	0			35

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	2	26	53	85	70	62	46	25	4	0	0	0	0	0	0	85	0	16
2	0	0	0	0	0	0	0	0	0	1	14	27	62	72	86	61	23	4	0	0	0	0	0	0	86	0	15
3	0	0	0	0	0	0	0	0	0	1	29	121	152	149	193	144	52	6	0	0	0	0	0	0	193	0	35
4	0	0	0	0	0	0	0	0	0	1	34	122	170	195	172	121	44	6	0	0	0	0	0	0	195	0	36
5	0	0	0	0	0	0	0	0	0	1	27	64	102	131	127	42	17	3	0	0	0	0	0	0	131	0	21
6	0	0	0	0	0	0	0	0	0	0	13	55	135	184	161	53	36	3	0	0	0	0	0	0	184	0	27
7	0	0	0	0	0	0	0	0	0	0	6	26	38	51	55	40	13	2	0	0	0	0	0	0	55	0	10
8	0	0	0	0	0	0	0	0	0	0	15	102	157	168	162	113	27	2	0	0	0	0	0	0	168	0	31
9	0	0	0	0	0	0	0	0	0	0	13	90	143	165	152	109	39	2	0	0	0	0	0	0	165	0	30
10	0	0	0	0	0	0	0	0	0	0	5	17	55	64	46	30	9	0	0	0	0	0	0	0	64	0	9
11	0	0	0	0	0	0	0	0	0	0	3	14	26	41	57	35	11	1	0	0	0	0	0	0	57	0	8
12	0	0	0	0	0	0	0	0	0	0	3	12	26	35	44	31	10	1	0	0	0	0	0	0	44	0	7
13	0	0	0	0	0	0	0	0	0	0	2	9	27	25	29	16	3	0	0	0	0	0	0	0	29	0	5
14	0	0	0	0	0	0	0	0	0	0	1	5	12	21	24	15	8	0	0	0	0	0	0	0	24	0	4
15	0	0	0	0	0	0	0	0	0	0	3	15	32	42	33	37	14	1	0	0	0	0	0	0	42	0	7
16	0	0	0	0	0	0	0	0	0	0	1	14	37	38	44	25	12	0	0	0	0	0	0	0	44	0	7
17	0	0	0	0	0	0	0	0	0	0	3	18	17	20	38	29	6	0	0	0	0	0	0	0	38	0	5
18	0	0	0	0	0	0	0	0	0	0	1	14	39	32	27	19	9	0	0	0	0	0	0	0	39	0	6
19	0	0	0	0	0	0	0	0	0	0	1	11	21	16	18	15	4	0	0	0	0	0	0	0	21	0	4
20	0	0	0	0	0	0	0	0	0	0	0	6	12	32	29	14	5	0	0	0	0	0	0	0	32	0	4
21	0	0	0	0	0	0	0	0	0	0	1	8	25	41	30	35	4	0	0	0	0	0	0	0	41	0	6
22	0	0	0	0	0	0	0	0	0	0	4	23	74	117	108	23	4	0	0	0	0	0	0	0	117	0	15
23	0	0	0	0	0	0	0	0	0	0	1	8	16	31	44	25	5	0	0	0	0	0	0	0	44	0	5
24	0	0	0	0	0	0	0	0	0	0	1	13	76	102	92	51	8	0	0	0	0	0	0	0	102	0	14
25	0	0	0	0	0	0	0	0	0	0	1	10	63	27	20	10	2	0	0	0	0	0	0	0	63	0	6
26	0	0	0	0	0	0	0	0	0	0	0	6	19	26	19	10	2	0	0	0	0	0	0	0	26	0	3
27	0	0	0	0	0	0	0	0	0	0	0	2	9	21	18	31	11	0	0	0	0	0	0	0	31	0	4
28	0	0	0	0	0	0	0	0	0	0	0	8	38	28	37	13	2	0	0	0	0	0	0	0	38	0	5
29	0	0	0	0	0	0	0	0	0	0	0	8	20	17	12	6	1	0	0	0	0	0	0	0	20	0	3
30	0	0	0	0	0	0	0	0	0	0	0	5	15	61	46	29	2	0	0	0	0	0	0	0	61	0	7
Max.	0	0	0	0	0	0	0	0	0	2	34	122	170	195	193	144	52	6	0	0	0	0	0	0	195		
Min.	0	0	0	0	0	0	0	0	0	0	0	2	9	16	12	6	1	0	0	0	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	0	0	0	7	30	57	67	66	41	14	1	0	0	0	0	0	0			12

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100%

Rock Creek - Solar (Watts/m^2)

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0	0	0	0	0	0	0	0	0	0	0	3	10	17	23	7	2	0	0	0	0	0	0	0	0	23	0	3
2	0	0	0	0	0	0	0	0	0	0	0	2	15	46	51	18	3	0	0	0	0	0	0	0	0	51	0	6
3	0	0	0	0	0	0	0	0	0	0	0	4	15	20	18	10	2	0	0	0	0	0	0	0	0	20	0	3
4	0	0	0	0	0	0	0	0	0	0	0	2	14	17	14	7	1	0	0	0	0	0	0	0	0	17	0	2
5	0	0	0	0	0	0	0	0	0	0	0	2	15	26	41	12	1	0	0	0	0	0	0	0	0	41	0	4
6	0	0	0	0	0	0	0	0	0	0	0	1	6	11	17	14	1	0	0	0	0	0	0	0	0	17	0	2
7	0	0	0	0	0	0	0	0	0	0	0	2	20	31	19	9	1	0	0	0	0	0	0	0	0	31	0	3
8	0	0	0	0	0	0	0	0	0	0	0	1	8	13	12	5	1	0	0	0	0	0	0	0	0	13	0	2
9	0	0	0	0	0	0	0	0	0	0	0	1	7	12	11	4	1	0	0	0	0	0	0	0	0	12	0	2
10	0	0	0	0	0	0	0	0	0	0	0	2	12	37	21	6	1	0	0	0	0	0	0	0	0	37	0	3
11	0	0	0	0	0	0	0	0	0	0	0	1	4	12	11	5	1	0	0	0	0	0	0	0	0	12	0	1
12	0	0	0	0	0	0	0	0	0	0	0	1	6	16	17	6	1	0	0	0	0	0	0	0	0	17	0	2
13	0	0	0	0	0	0	0	0	0	0	0	2	16	19	15	16	2	0	0	0	0	0	0	0	0	19	0	3
14	0	0	0	0	0	0	0	0	0	0	0	3	18	58	51	20	2	0	0	0	0	0	0	0	0	58	0	6
15	0	0	0	0	0	0	0	0	0	0	0	1	6	13	15	5	1	0	0	0	0	0	0	0	0	15	0	2
16	0	0	0	0	0	0	0	0	0	0	0	1	10	22	14	4	1	0	0	0	0	0	0	0	0	22	0	2
17	0	0	0	0	0	0	0	0	0	0	0	1	4	10	12	5	1	0	0	0	0	0	0	0	0	12	0	1
18	0	0	0	0	0	0	0	0	0	0	0	0	5	6	8	4	0	0	0	0	0	0	0	0	0	8	0	1
19	0	0	0	0	0	0	0	0	0	0	0	1	6	13	15	4	1	0	0	0	0	0	0	0	0	15	0	2
20	0	0	0	0	0	0	0	0	0	0	0	1	6	18	16	8	1	0	0	0	0	0	0	0	0	18	0	2
21	0	0	0	0	0	0	0	0	0	0	0	1	3	9	13	5	1	0	0	0	0	0	0	0	0	13	0	1
22	0	0	0	0	0	0	0	0	0	0	0	1	8	31	35	13	2	0	0	0	0	0	0	0	0	35	0	4
23	0	0	0	0	0	0	0	0	0	0	0	2	12	35	27	10	2	0	0	0	0	0	0	0	0	35	0	4
24	0	0	0	0	0	0	0	0	0	0	0	2	5	11	10	3	0	0	0	0	0	0	0	0	0	11	0	1
25	0	0	0	0	0	0	0	0	0	0	0	0	2	6	7	7	1	0	0	0	0	0	0	0	0	7	0	1
26	0	0	0	0	0	0	0	0	0	0	0	1	6	10	12	8	1	0	0	0	0	0	0	0	0	12	0	2
27	0	0	0	0	0	0	0	0	0	0	0	1	10	11	9	8	2	0	0	0	0	0	0	0	0	11	0	2
28	0	0	0	0	0	0	0	0	0	0	0	2	13	21	14	5	1	0	0	0	0	0	0	0	0	21	0	2
29	0	0	0	0	0	0	0	0	0	0	0	1	8	17	18	9	1	0	0	0	0	0	0	0	0	18	0	2
30	0	0	0	0	0	0	0	0	0	0	0	0	3	6	13	9	1	0	0	0	0	0	0	0	0	13	0	1
31	0	0	0	0	0	0	0	0	0	0	0	2	9	13	14	5	1	0	0	0	0	0	0	0	0	14	0	2
Max.	0	0	0	0	0	0	0	0	0	0	0	4	20	58	51	20	3	0	0	0	0	0	0	0	0	58		
Min.	0	0	0	0	0	0	0	0	0	0	0	0	2	6	7	3	0	0	0	0	0	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	0	0	0	0	2	9	19	19	8	1	0	0	0	0	0	0	0	0			2

Total Hours in Month 720

Hours Data Available 744

Data Recovery 103%

Rock Creek - Precipitation

October 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Total
1	0	0	0	0	0	0	0	0	0	0	0	0.12	0.06	0.04	0.05	0.04	0.03	0.03	0.01	0	0.01	0	0	0	0.39
2	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
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	0.00
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0.01
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	0.00
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	0.00
7		0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0.01
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	0.00
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0.01
10	0	0	0	0	0	0	0.01	0.06	0.07	0.02	0.05	0.03	0.02	0.02	0.03	0.02	0.01	0.02	0.02	0.01	0.02	0	0	0	0.41
11	0	0	0	0.01	0.04	0.01	0.02	0	0	0	0	0	0.01	0	0	0	0	0.01	0	0	0	0	0	0	0.10
12	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
13	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.02	0	0.01	0	0.01	0.01	0	0.09
14	0.01	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.02	0.04	0.16
15	0.03	0.02	0.04	0.04	0.05	0.03	0.03	0.04	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.04	0.04	0.06	0.02	0	0	0.01	0	0	0.75
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	0.00
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	0.00
18	0	0	0	0	0	0	0	0.01	0	0	0.03	0.1	0.06	0.13	0.22	0.29	0.26	0.12	0.14	0	0	0	0	0	1.36
19	0	0	0	0	0	0	0.01	0	0	0.01	0	0.01	0	0	0.01	0	0	0	0	0	0	0	0	0	0.04
20	0	0	0	0	0	0	0	0.02	0.01	0.01	0.01	0.01	0	0.01	0	0	0	0	0	0.01	0	0	0	0	0.08
21	0.01	0	0	0	0	0.01	0	0	0.01	0	0	0	0.01	0.01	0.01	0.01	0	0	0.01	0	0	0	0.01	0	0.09
22	0.01	0.01	0.05	0.04	0.02	0.01	0.01	0.03	0.04	0.03	0.03	0.03	0.05	0.03	0.03	0.02	0.01	0.01	0.01	0	0	0	0.01	0	0.48
23	0	0.01	0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0.01	0.01	0	0.01	0	0	0	0.01	0	0	0	0.09
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0.01
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0.01	0	0	0	0	0	0	0	0	0.09
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	0.00
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	0.00
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	0.00
29	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.02
30	0	0	0	0	0	0	0.01	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0.02
31	0	0	0	0	0	0	0	0	0	0.01	0	0	0.04	0	0	0.01	0	0	0	0	0	0	0	0	0.06

Total Hours in Month	744	Hours Data Available	743	Data Recovery	99.9%	Total Precipitation (inches) =	4.29
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Rock Creek - Precipitation

November 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Total	
1	0	0	0	0	0	0	0	0	0	0	0	0	0.03	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0.05
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	0.00
3	0	0.01	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02
4	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0.01
6	0	0	0	0	0	0	0	0	0.01	0	0														0	0.01
7																										
8																										
9																										
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30																										

Total Hours in Month 720 **Hours Data Available** 131 **Data Recovery** 18% **Total Precipitation (inches) =** 0.10

Rock Creek - Precipitation

December 2004

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Total	
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
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20																										
21																										
22																										
23																										
24																										
25																										
26																										
27																										
28																				0	0	0	0	0	0	0.00
29	0	0.01	0	0	0	0	0	0	0	0.01	0.01	0	0.01	0	0.01	0	0	0.01	0	0.01	0	0	0	0.01	0.08	
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	0.12	
31	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0	0	0.03	
Total Hours in Month			744																							
Hours Data Available										78																
Data Recovery																										
10%																										
Total Precipitation (inches) =																										0.23

Appendix E

Validated Manual Particulate (Field and Laboratory) Data

Not applicable.