# Precipitation Chemistry at Mount Rainier (Paradise Ranger Station) Collection Site

Final Report for Data collected between June 1, 2011 and May 30, 2012

Cooperative Agreement between NPS and CWU, Agreement number H9453070012

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#### Introduction

In order to understand the relationship between natural processes and perturbations brought about by human activities, precipitation chemistry must be studied over a long-term period. By sampling on a continuous basis with consistent techniques, we are seeking to accumulate valuable chemical precipitation data that will enable the atmospheric science community to track atmospheric changes that come as a consequence of modifications in anthropogenic emissions and land use both regionally and globally.



Figure 1: Map of Washington State with NADP sites

Our methods on Mt. Rainier resemble those of the closely (National NADP existing Atmospheric Deposition Program) sites in the state of Washington (depicted in Figure 1): Hoh (WA14), La Grande (WA21), Marblemount (WA19) and Tahoma Woods (WA99). The Hoh site (WA14) is located on the Olympic Peninsula, and is assumed not to include anthropogenic contaminants from Seattle/Tacoma the area. Marblemount (WA19) is located only 60 miles east of the Puget Sound in northwestern Washington along state highway 20 and on the western face of the North Cascade Range at an elevation of 123 m. The two

closest sites to our Mt. Rainier Paradise Ranger Station (hereafter referred to as Mt. Rainier) site are: La Grande (WA21), which is located to the west of Mount Rainier just south of the town of Eatonville, at an elevation of 617 m, and nearby Tahoma Woods (WA99), at an elevation of 421 m and approximately 3 miles south east of the Paradise Ranger Station. While the first three sites have been operating since 1984, the Tahoma Woods site has only been active since fall 1999. Our site, Mt. Rainier Paradise Ranger Station, is located at 1654 m elevation and has been active for precipitation collection and analyses, on and off, since 1989.

# Experimental

#### **Precipitation Collection**

Collection of wet deposition in the form of rain and snow is carried out with large 5 gallon white plastic containers with an opening of 29 cm in diameter. During periods when there is no snow on the ground, a dry-wet collector of the same type as at the NADP sites is used, otherwise a bucket is placed on top of a collection tower at Paradise. During snowfall months, the bucket is capped with an inverted funnel with a smaller opening to prevent bucket over-filling during the one-week sampling period.

Weekly sample collection is performed by Mount Rainier National Park Biological Technician Rebecca Lofgren or assistants. This procedure consists of removal of the bucket containing 1-, and sometimes 2-weeks worth of precipitation, replacing it with a new cleaned one, and shipping the capped used bucket back to us for analysis. Buckets are received at CWU where the amount of collected precipitation is determined based on the mass difference of the full and empty bucket. It should be noted that beginning with Sample M-07-35 (12/5/07)

a new preservation procedure was implemented in order to assure that sample storage over longer time periods was feasible. For that purpose, the received sample is split among three 120 mL trace clean sample bottles. Conductivity, pH, and anions are determined from the original sample. Concentrated nitric acid is added to the second sample until a pH of 2.0 is reached to preserve the cations calcium, potassium, magnesium, and sodium until analysis. Similarly, concentrated sulfuric acid is added to the third sample until a pH of 2.0 is reached to ensure preservation of ammonium until analysis. The bucket is then thoroughly cleaned and boxed up for shipment back to Mt. Rainier. All procedures, including those described below are documented in detail in Standard Operating Procedures (SOPs) contained within our CWU Chemical Analysis Laboratory Quality Assurance/Quality Control Manual (QA/QC Manual, updated Feb. 2008).

#### Chemical and Data Analysis

Determination of inorganic cations (Na<sup>+</sup>, NH<sub>4</sub><sup>+</sup>, K<sup>+</sup>, Mg<sup>2+</sup>, Ca<sup>2+</sup>) is accomplished by using Ion Chromatrography (IC), with EPA Method 300.7. Inorganic anions (Cl<sup>-</sup>, NO<sub>3</sub><sup>-</sup>, SO<sub>4</sub><sup>2-</sup>) are quantified by IC in anion mode using EPA Method 300.0. Conductivity and pH are measured using an YSI 3200 Conductivity Meter and an Orion model 420A pH Meter (EPA Methods 120.1 and 150.1, respectively). While the CWU Chemical Analysis Laboratory had been EPA accredited for pH since at least 1999, accreditation for the additional eight components was completed in spring 2006 and the laboratory has passed proficiency tests satisfactorily since then.

Observed sample concentrations ( $C_i$ ) are corrected for the potential loss of water by evaporation by multiplication with the ratio of collected precipitation volume ( $V_i$ ) over the actual precipitation volumes as recorded at the Mt. Rainier ( $V_{Mt.Rainier}$ ) site by NPS staff:

$$C_{i,corr} = \frac{C_i V_i}{V_{Ml.Rainier}}$$
(Eqn. 1)

Note that when our measured volume,  $V_{i}$ , was larger than that predicted by the NOAA Paradise Station precipitation volume,  $V_{Mt,Rainier}$ , comparison was made with NRC data. If our volume still exceeded the predicted amount, we were not able to make corrections with Eqn. 1 and  $V_{Mt,Rainier}$  was equaled to  $V_i$ . During the current sampling period this occurred in 11 out of the 36 collected samples, i.e., 31% of cases (see grey shaded entries in Table 1).

Quarterly volume weighted average concentrations are computed analogously to the other NADP sites:

$$C_{i,corr,quarter} = \frac{\sum C_{i,corr} V_{Mt.Rainier}}{\sum V_{Mt.Rainier}}$$

Note that for pH, the quarterly volume weighted average value had been calculated analogously from the negative logarithm of the resulting volume weighted average proton ( $H^+$ ) concentration as calculated with Eqn. 2. From 2000 to present (for the time period that all raw data was available), however, the correction accounting for evaporation in the concentration of protons was removed. This was motivated by the discrepant pH values observed compared to Tahoma Woods when the correction was performed, and because it is unlikely that the pH changes significantly as a result of evaporation in a proton-buffered system such as these environmental samples are.

Included in the report are the current Method Detection Limits (MDL) for each inorganic species analyzed with Ion Chromatography (IC) (see SOP in QA/QC Manual). These detection limits are based on the standard deviations of the last 30 QC samples.

(Eqn. 2)

Detectable quantities (i.e., values other than 0) that fell below the current limits are highlighted in green in Table 1, and are still considered in the trend analysis portion of this report instead of omitting these completely or substituting these with zeros because either of the latter options would skew the data more strongly.

Deposition loads for all anions and cations for the years 1993-present are computed for each quarter and totaled annually where data is available for all four quarters of the year. The following equation was used to estimate quarterly deposition loads:

$$DepositionLoad_{Quarterly} = \sum \frac{C_i \cdot V_i \left(\frac{1\mu mol}{|z|}\right) \left(\frac{1mol}{100000\mu mol}\right) MW_{ion} \left(\frac{1kg}{1000g}\right)}{A_{Opening} \cdot \frac{1Hectare}{1000000cm^2}}$$
(Eqn. 3)

 $C_i$  is the sample concentration expressed in µeq/L, z is the charge of the ion, and  $A_{opening}$  is the area of the opening of the bucket, which varies with year and precipitation type. Where information was lacking, assumptions were made based on reports and bucket logs from previous years including the following: pre-10/98 bucket opening area=440.0 cm<sup>2</sup>, post-10/98 bucket opening area=660.5 cm<sup>2</sup>, funnel #2 opening area=146.3 cm<sup>2</sup>, funnel #3 opening area=128.7 cm<sup>2</sup>, and funnel #4 opening area = 201.1 cm<sup>2</sup>. Information was not available pertaining to the area of funnel #1, therefore, data prior to Summer 1993 was not included. Reference to critical load values could only be found for SO<sub>4</sub><sup>2-</sup> and these where specific for the Rocky Mountains [*Fox et al.*, 1989] where the reported value of 20.0 kg ha<sup>-1</sup> yr<sup>-1</sup> SO<sub>4</sub><sup>2-</sup> critical load is by a factor of 11.5 larger than the values that we determined in the reported period.

#### Statistical Analysis

#### Time Series Analysis and Student t-Test

A sequence of observations recorded over time, such as the present one, is known as a time series. Precipitation time series are affected by three basic components: the underlying trend (T), seasonal variations (S) and random events (residual, R). Estimates of T, S, and R, are obtained through the time series decomposition of quarterly volume weighted average concentrations,  $C_{i,corr,quarter}$  with the statistical software MINITAB16 [*MINITAB*, 2013]. Assumptions include a multiplicative model:

$$C_{i,corr,quarter} = \mathsf{T} \times \mathsf{S} \times \mathsf{R}$$
(Eqn. 3)

and a linear trend:

$$T = b + m^*year$$

Time series decomposition outputs (model and trend line with equation) and the observed data are plotted in Figures 2 through 7 for important anthropogenic species, in addition to pH and the ratio of cationic over anionic charges. The significance of the trend and seasonality for each component is computed by the model and can be judged by the P-values that are noted within each graph.

P-values represent the probability that the null hypothesis is true, e.g., a p-value of .05 indicates that there is a 5% probability for the null hypothesis, i.e., a significance of the observed trend or seasonal variation at the 95% confidence interval (C.I.). In this study, the standard P-value of  $\leq$  0.05 is used to determine if a significant trend is observed in the overall data.

(Eqn. 4)

Data for Tahoma Woods, which has been active for twelve years as of the current sampling period, are shown at the bottom of each Figure. Due to the proximity of this site to Mt. Rainier, data for the latter site are included in this plot (dotted) for direct visual comparison. Furthermore, paired student t-tests are performed on all ten components to determine if the two sites display significantly different chemical characteristics within the 95% C.I., i.e., P-values  $\leq 0.05$  demonstrate significant difference (see results below).

## **Results and Discussion**

## Data

Results from the 2011-2012 Mt. Rainier precipitation monitoring study are presented in Table 1, arranged in a quarterly format consistent with the NADP's quarter system: summer is June-August, fall is September-November, winter is December-February, and spring is March-May. During the 2011-2012 52-week period, 36 samples were collected. When precipitation was very low, e.g., in the summer, no sample was obtained. This occurred 11 times during the current report period. In other instances, for a variety of pertinent reasons, the bucket contained 2- or 3-week samples. Three 2-week samples and one 3-week sample were collected during this year. In addition, one sample was clearly contaminated and thus omitted from further analysis (yellow sample in Table 1). The resulting 4 new seasonal data points are plotted along with all previously determined seasonal results in the corresponding plots in Figures 2 through 7 for each of the parameters. Analogous data for the other 4 NADP sites are presented in Tables 3 through 7. Figure 8 shows the difference in the pH value with the precipitation volume corrected for evaporation and without correction, compared to data from Tahoma Woods.

Paired Student T-tests were performed on data from the two nearby locations, Mt. Rainier and Tahoma Woods. For comparison, results for quarterly averaged data from last year's report are presented in Table 8a and including this year's data in Table 8b:

Table 8a:Paired Studenresults for quarterly Mt. RTahoma Woods (1999-20)	t T-test Rainier and 011)											
Component	P-Value											
SO4 <sup>2-</sup>	0.249											
NO <sub>3</sub>	0.000											
H <sup>+</sup> 0.067*												
NH4 <sup>+</sup> 0.358												
Ca <sup>2+</sup> 0.000												
Cl <sup>-</sup> 0.090												
Mg <sup>2+</sup>	0.005											
Na⁺	0.150											
K <sup>+</sup>	0.069											
(+)/(-) 0.131												
Sample: n = 47 <b>Bold</b> indicates values are significantly different (i.e. P≤0.05). *Evaporation correction removed in 2011.												

Table 8b: Paired Studenfor quarterly Mt. Rainier aWoods (1999-2012)	t T-test results and Tahoma											
Component	P-Value											
SO4 <sup>2-</sup>	0.271											
SO4         0.271           NO3 <sup>-</sup> 0.000           H <sup>+</sup> 0.001*												
NO3 <sup>-</sup> 0.000           H <sup>+</sup> 0.001*           NH4 <sup>+</sup> 0.091												
NO3         0.000           H*         0.001*           NH4*         0.091           Ca <sup>2+</sup> 0.000												
NH4 <sup>+</sup> 0.091           Ca <sup>2+</sup> 0.000												
Ca <sup>2+</sup> 0.000           Cl <sup>−</sup> 0.160												
Mg <sup>2+</sup>	0.012											
Na⁺	0.064											
K <sup>+</sup>	0.051											
(+)/(-) 0.134												
Sample: n = 51 <b>Bold</b> indicates values are significantly different (i.e. P≤0.05). *Evaporation correction removed in 2011.												

These results reveal that nitrate, protons, calcium, and magnesium are significantly different in Tahoma Woods compared to Mt. Rainier. To further determine whether Tahoma Woods and Mt. Rainier are significantly different in their precipitation chemistry we intended to perform paired Student T-tests on weekly samples for the entire sampling period since 2000. However, since weekly sample container removal and placement dates did not match between the two sites, we decided to compare monthly weighted average values to reduce potential errors. The outcome of the paired Student T-tests applied to the monthly averages, which amounted to 131 samples, resulted in the same components to be significantly different as show in Table 8b in addition sodium showing a significant difference as well.

#### Trend and Seasonality Analyses

Trend and seasonality analyses of selected atmospheric pollutant indicators for the Hoh, La Grande, Marblemount, Mt. Rainier and Tahoma Woods sites are presented graphically in Figures 2 through 7. To ease comparative visual interpretation between each site, each figure presents the data for one species at all five sites with the same scale on both the x- and y-axes, with exception for the Tahoma Woods x-axis, which spans only over the twelve years of activity. Figures display observed and modeled data in addition to the linear trend line and its equation. Significance of the null hypothesis in the trend appears immediately after the trend line equation within the plot and the significance of seasonality is also reported. Each Figure, i.e., component, is presented and discussed separately in the following section.

 $SO_4^{2^-}$  is typically considered anthropogenic in nature, and can have volcanic, sea-salt, and biogenic components. The latter two sources are assumed to be of minor significance in the present case due to the distance from the coast. Volcanic activity was present from Mt. St. Helens during the fall of 2004, particularly in early October, but no clear signal was observed during the corresponding monitoring period [*Kittelson et al.*, 2006]. The anthropogenic source is mainly from sulfur contained in fossil fuel that is first oxidized to gaseous SO<sub>2</sub> during combustion and then further oxidized to SO<sub>4</sub><sup>2-</sup> thus generating two protons in the process and increasing acidity.

Concentrations are plotted in Figure 2 and show a decreasing trend for all sites except Hoh. There seem to be significant seasonal patterns at all sites, where minima occur in the winter, probably due to higher amounts of precipitation which lead to more rainout of pollutants and dilution of chemical components.

The paired student t-test on the Tahoma Woods and Mt. Rainier  $SO_4^{2^2}$  seasonal data shows that there is no significant difference between the two sites (Table 8b).

 $NO_3^-$  is an oxidation product of  $NO_x$  species produced in high temperature combustion processes and is thus predominantly anthropogenic in origin. These data, presented in Figure 3, show significant decreasing trends in La Grande, Marblemount, and Mt. Rainier and close to a significant negative trend at Tahoma Woods (P=0.055). Seasonal fluctuations are significant at all sites except Tahoma Woods. Analogous to  $SO_4^{2^-}$ , the Hoh site displays the lowest overall concentrations compared to the other sites, the seasonal fluctuations are small and there is no significant trend. Mt. Rainier and Tahoma Woods data show significant difference in  $NO_3^-$  concentrations over the complete 12-year period (Table 8b). Overall, concentrations for Tahoma Woods and Mt. Rainier are similar and fall between the low concentrations observed at Hoh and the higher concentrations observed at Marblemount and La Grande.

 $H^+$  and pH (the negative logarithm of the activity of  $H^+$ ), are direct measures of acidity in precipitation and are plotted in Figures 4a and 4b, respectively. The formation of SO<sub>4</sub><sup>2-</sup> and

 $NO_3^-$  in the atmosphere is associated with the production of 3 H<sup>+</sup>, thus lowering pH. Since  $SO_4^2$  and  $NO_3$  display decreased trends at all of the sites except Hoh, H<sup>+</sup> is expected to decrease and pH is expected to increase. These negative trends are significant in all sites except Hoh, where a significant positive H<sup>+</sup> trend and associated negative trend in pH is observed. La Grande and Marblemount display the lowest pH averaging around 5.1, which is significantly lower than the pH of unpolluted water in equilibrium with the current atmosphere (pH 5.6). The overall increasing trend in pH is the largest at Mt. Rainier, with 0.017 pH units per year. Seasonal patterns are significant for pH at all sites except Mt. Rainier and Tahoma Woods. Tahoma Woods and Mt. Rainier do not show significant differences in H<sup>+</sup> at the 95% CI according to the paired student t-test. Statistical analysis for pH changed as of 2011, as the evaporation correction factor was removed from the H<sup>+</sup> concentrations. Table 9 presents the pH at Mt. Rainier as it had been calculated before (by correcting for evaporation) and as it was measured directly, in addition to the pH at Tahoma Woods. Absolute differences between the Mt. Rainier and Tahoma Woods sites are calculated for each measure and based on the sum of these differences, as the bottom of the table, it was established that the measured pH was going to be used for all statistical evaluations. Figure 8 is also a graphic comparison of the corrected and uncorrected pH values as presented in Table 9.

 $NH_4^+$  is derived from gaseous ammonia (NH<sub>3</sub>), which is primarily emitted from soils, industry and animal waste, and it contributes to acid neutralization (NH<sub>3</sub> + H<sub>2</sub>O  $\rightarrow$  NH<sub>4</sub><sup>+</sup> + OH<sup>-</sup>). The Hoh and Marblemount sites show significant negative trends while at Mt. Rainier there is a significant positive trend (Figure 5). This latter observation is new since last year's report as last year's ammonium concentrations seem elevated compared to past years. Hoh also exhibits the smallest concentrations and fluctuations. Hoh and Tahoma Woods are the only sites that do not display a significant seasonal pattern. There is no significant difference between Mt. Rainier and Tahoma Woods from the paired student-t test.

 $Ca^{2+}$  is a tracer for limestone that can reach the atmosphere in the form of suspended dust, but it can also reach the atmosphere from emissions of coal combustion. It is typically associated with  $CO_3^{2-}$  or  $O^{2-}$ , which have the ability to take up protons thus buffering the system against pH drop.  $Ca^{2+}$  is plotted in Figure 6 and shows a significant upward trend at Hoh and downward trend at Mt Rainier. Seasonal trends are observed at Hoh and La Grande. Comparisons between the Mt. Rainier and Tahoma Woods data reveal significant differences between the two sites, however, the decreasing trend at Mt. Rainier has brought  $Ca^{2+}$  concentrations in the past 5 years closer to those observed at Tahoma Woods.

**[+]/[-]** is defined as the ratio between the summed up positive and summed up negative charges in precipitation. Figure 7 depicts this data for the five sites. Carbonate species, which cannot be detected by the IC, are the only missing major components that have not been taken into consideration in the determination of this parameter. Significant increases in the charge ratio are observed at La Grande, Marblemount, and Mt. Rainier, which can be explained by the drops in both  $SO_4^{2^-}$  and  $NO_3^-$  at these sites. Hoh and Tahoma Woods do not display clear trends in charge ratio. Mt. Rainier displays the most extreme charge ratio in that there is a downward trend up until 2003 followed by a continuous upward trend that is much steeper than that seen in La Grande and Marblemount. The decrease observed at Mt. Rainier prior to 2004 could be attributed to the samples having contained a contaminating amount of Cl<sup>-</sup> due to the acid cleaning procedure of the bucket, leading to a lowering of the charge ratio. Since then, the cleaning procedure was changed to only utilizing deionized water. The drastic upward trend since 2004 is not readily understood. Seasonal fluctuations are significant at La Grande, Marblemount and Mt. Rainier and display opposite maxima and minima to anionic species, thus also indicating that the negatively charged

anions play a major role in the seasonal variations observed for the charge ratio. Ratios for Mt. Rainier and Tahoma Woods are not significantly different.

#### Conclusions

In agreement with previous reports, precipitation chemistry at Paradise, Mt. Rainier, seems to fall between the low contaminant levels at Hoh and the higher levels at La Grande and Marblemount [*Agren et al.*, 2012; *Baker and Johansen*, 2004; *Bolstad and Duncan*, 2000; *Johansen and Lenington*, 2003; *Kittelson et al.*, 2006; *Lenington et al.*, 2005; *Sorey and Johansen*, 2007]. Significant negative trends can be identified for sulfate for all sites except Hoh. Nitrate also shows significant negative trends at all sites except (i) Tahoma Woods, where it is close to significant (P=0.055), and (ii) Hoh where it is neutral. Associated with these negative trends in acidic anions a positive trend is observed in pH at all sites except Hoh, where pH values have decreased significantly. These observations support the fact that emissions regulations are effective and apparent at this high elevation site.

Sulfate, nitrate and ammonium display a seasonal pattern with concentrations at a minimum during the winter months. In comparing the Tahoma Woods site with Mt. Rainier, there seem to be statistically significant differences for  $H^+$ ,  $Mg^{2+}$ ,  $Ca^{2+}$ , and  $NO_3^-$ . It is feasible that Tahoma Woods is closer to anthropogenic pollutant sources and thus concentrations for the anions and the proton are higher there. In the case of the two cations listed, however, the Mt. Rainier site displays larger concentrations possibly due to localized disturbed soils.

Although there is no direct evidence for Asian pollution reaching the Pacific Northwest, the continued collection and analysis of long-term and consistent data is essential in determining the impact that intercontinental atmospheric transport of pollutants exerts on pristine areas such as Mt. Rainier.

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**Tables and Figures** 

# Table 1: Summary of Weekly Precipitation Data for 2011/2012 at Mount Rainier Paradise Ranger Station Summer 2011

Sample ID	Collection Date	Week (sum.'11)	Collection Volume	Precipitation Volume	NOAA Paradise Precipitati on	Cond.	Measured pH	Adjusted pH	Adjusted H+	Unadjusted H <sup>+</sup>	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K⁺	NH4 <sup>+</sup>	SO42-	NO <sub>3</sub> -	CI	[+]/[-]
	(M/D/Y)		(L)	(L)	(cm)	(mS/cm)								µeq/L					
M-11-19	6/9/2011	1	2.37	3.25	4.93	4.02	4.93	5.07	8.57	11.75	1.27	1.84	8.61	0.81	3.51	7.28	2.42	9.88	1.42
M-11-20	6/15/2011	2	0.87	1.74	2.64	1.69	5.04	5.34	4.53	9.12	0.72	0.52	0.64	0.83	0.93	2.76	1.28	1.28	2.40
M-11-21	6/22/2011	3	2.45	2.45	1.80	2.96	5.03	5.03	9.33	9.33	1.74	0.42	4.18	0.83	3.40	5.13	5.36	3.86	1.39
M-11-22	6/29/2011	4	0.50	0.50	0.00	6.78	4.89	4.89	12.88	12.88	4.76	2.65	8.67	3.55	5.75	4.23	3.02	1.76	4.24
	7/6/2011	5																	
M-11-23	7/14/2011	6	0.64	0.84	0.48	4.55	5.05	5.17	6.82	8.91	3.38	3.69	2.99	7.91	63.86	10.04	7.04	5.37	4.04
M-11-24	7/20/2011	7	0.72	0.72	0.91	6.94	5.00	5.00	10.00	10.00	2.69	3.95	2.22	7.95	37.80	10.19	9.48	4.03	2.73
M-11-25	7/27/2011	8	1.19	1.34	0.20	4.79	5.10	5.15	7.07	7.94	4.78	2.45	4.39	4.67	19.69	9.17	9.52	3.44	1.98
	8/3/2011	9																	
	8/10/2011	10																	
	8/18/2011	11																	
M-11-26	8/24/2011	12	0.17	0.17	0.25	4.78	5.02	5.02	9.55	9.55	7.00	2.46	1.81	2.55	5.75	12.32	6.25	4.11	1.28
Volume we	eighted avera	ge concentra	ations Sum	mer 2011:		3.88	5.00	5.09	8.09	10.02	2.22	1.71	4.90	2.45	12.03	6.66	4.66	5.21	2.05
Total Volu	me:		8.92	11.02															
Sample co	unt:		8																

Fall 2011

Sample ID	Collection Date	Week (fall '11)	Collection Volume	Precipitation Volume	NOAA Paradise Precipitati on	Cond.	Measured pH	Adjusted pH	Adjusted H+	Unadjusted H+	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K+	NH4 <sup>+</sup>	SO4 <sup>2-</sup>	NO3 <sup>-</sup>	CI	[+]/[-]
	(M/D/Y)		(L)	(L)	(cm)	(mS/cm)								µeq/L					
	9/1/2011	13																	
	9/7/2011	14																	
	9/14/2011	15																	
M-11-27	9/21/2011	16	3.24	3.24	2.49	2.83	5.58	5.58	2.63	2.63	0.89	0.50	1.47	0.41	0.04	7.61	4.33	2.90	0.40
M-11-28	9/29/2011	17	3.39	4.76	7.21	2.37	6.76	6.91	0.12	0.17	1.24	1.07	3.63	0.48	1.01	2.61	1.29	4.05	0.96
M-11-29	10/5/2011	18	2.98	2.98	1.30	5.07	5.68	5.68	2.09	2.09	8.17	1.39	7.36	1.15	13.59	9.03	9.10	2.77	1.62
M-11-30	10/12/2011	19	6.73	6.73	5.11	3.38	5.33	5.33	4.68	4.68	1.95	1.63	7.44	0.49	15.07	4.55	1.22	7.65	2.33
	10/19/2011	20																	
M-11-31	10/26/2011	21	6.10	6.10	7.90	2.41	5.48	5.48	3.31	3.31	1.65	0.48	1.90	0.27	0.11	3.21	1.04	2.06	1.22
M-11-32	11/2/2011	22	4.02	4.02	0.74	2.20	5.49	5.49	3.24	3.24	0.88	1.04	4.27	0.32	5.76	3.76	1.09	5.99	1.43
M-11-33	11/9/2011	23	1.75	1.93	2.92	3.73	7.07	7.11	0.08	0.09	1.71	1.16	4.10	0.28	5.13	5.17	2.57	6.84	0.86
M-11-34	11/21/2011	24-25	5.87	15.18	22.99	1.98	5.72	6.13	0.74	1.91	0.77	1.40	7.05	0.90	1.17	2.00	1.35	7.49	1.22
M-11-35	11/30/2011	26	10.96	12.63	19.13	3.18	6.40	6.46	0.35	0.40	2.15	0.60	2.81	0.31	0.84	1.49	0.00	2.68	1.70
Volume we	eighted avera	ge concentra	ations Fall 2	2011:		2.77	5.70	5.78	1.66	1.99	1.77	1.04	4.75	0.54	3.63	3.27	1.59	4.96	1.41
Total Volu	me:		45.04	57.58															
Sample co	ount:		9																

Winter 2011 - 12

vvinter zu																			
Sample ID	Collection Date	Week (winter '11- '12)	Collection Volume	Precipitation Volume	NOAA Paradise Precipitati on	Cond.	Measured pH	Adjusted pH	Adjusted H+	Unadjusted H+	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K⁺	NH₄⁺	SO4 <sup>2-</sup>	NO3 <sup>-</sup>	CI	[+]/[-]
	(M/D/Y)		(L)	(L)	(cm)	(mS/cm)								µeq/L					
	12/8/2011	27																	
	12/14/2011	28																	
M-11-36	12/21/2011	29	0.18	1.06	8.26	0.39	5.62	6.39	0.41	2.40	1.10	0.27	0.19	0.08	0.17	0.48	0.50	0.19	3.58
M-11-37	1/11/2012	30-32	3.32	5.01	38.91	1.76	5.50	5.68	2.10	3.16	1.11	0.94	4.33	0.43	1.92	0.99	1.22	3.66	2.03
M-12-01	1/25/2012	33-34	3.73	4.38	19.74	4.58	6.37	6.44	0.36	0.43	1.57	3.46	16.43	0.86	3.37	2.86	0.00	17.47	1.28
M-12-02	2/1/2012	35	1.33	1.57	9.78	4.43	5.84	5.91	1.22	1.45	1.86	1.53	6.37	1.25	8.95	2.53	2.93	15.33	1.03
M-12-03	2/8/2012	36	0.21	0.24	1.88	4.92	6.00	6.06	0.86	1.00	38.76	10.71	4.13	6.23	0.49	2.09	0.00	10.52	4.86
M-12-04	2/15/2012	37	0.37	0.37	2.87	2.52	5.67	5.67	2.15	2.14	11.16	2.75	3.43	1.27	17.02	3.09	4.06	4.10	3.36
M-12-05	2/23/2012	38	3.43	3.73	29.01	1.90	5.60	5.64	2.31	2.51	2.58	1.05	5.26	0.60	15.46	1.64	1.44	4.87	3.45
M-12-06	2/29/2012	39	0.81	0.82	6.35	3.14	5.68	5.69	2.06	2.09	6.13	4.62	23.83	2.19	14.73	5.58	3.03	22.25	1.74
M-12-07	3/7/2012	40	1.25	1.25	9.32	3.18	5.53	5.53	2.95	2.95	7.05	3.11	11.08	0.94	3.00	4.59	2.24	12.40	1.46
Volume w	eighted avera	ge concentra	ations Wint	er 2011-12:		2.82	5.78	5.80	1.60	2.08	2.90	2.04	8.63	0.82	6.43	2.17	1.27	9.50	2.16
Total Volu	me:		14.63	18.42															

Total Volume:

Sample count:

Spring 2012

Sample ID	Collection Date	Week (spring '12)	Collection Volume	Precipitation Volume	NOAA Paradise Precipitati on	Cond.	Measured pH	Adjusted pH	Adjusted H+	Unadjusted H+	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K⁺	NH₄⁺	SO4 <sup>2-</sup>	NO3 <sup>-</sup>	CI	[+]/[-]
	(M/D/Y)		(L)	(L)	(cm)	(mS/cm)								µeq/L					1
M-12-08	3/14/2012	41	1.62	1.62	9.42	2.16	5.53	5.53	2.95	2.95	2.95	1.04	3.63	0.63	11.87	3.96	0.00	6.90	2.13
M-12-09	3/27/2012	42-43	1.86	1.95	15.14	2.47	5.64	5.66	2.19	2.29	4.95	2.18	5.87	0.89	15.87	3.84	2.78	7.72	2.24
M-12-10	4/4/2012	44	1.43	1.78	13.84	1.98	5.38	5.47	3.36	4.17	2.62	0.87	3.22	0.74	18.23	3.66	2.32	4.98	2.72
M-12-11	4/11/2012	45	0.08	0.20	1.55	ADL	5.68	6.06	0.88	2.09	9.18	4.70	11.06	3.60	9.39	10.61	7.59	8.94	1.47
M-12-12	4/17/2012	46	0.21	0.38	2.97	1.35	5.64	5.90	1.26	2.29	2.21	0.90	1.47	0.37	9.34	2.32	1.90	2.23	2.58
M-12-13	4/26/2012	47	0.99	1.26	9.78	1.90	5.55	5.65	2.22	2.82	3.45	0.87	1.97	0.66	6.93	2.54	3.02	3.13	1.92
M-12-14	5/2/2012	48	4.75	4.75	6.68	2.01	5.60	5.60	2.51	2.51	2.36	0.69	2.13	0.57	4.90	3.57	2.41	4.11	1.31
M-12-15	5/9/2012	49	3.36	3.86	5.84	2.09	5.58	5.64	2.29	2.63	3.37	1.10	3.17	0.92	3.85	3.95	2.29	3.40	1.56
	5/16/2012	50																	
M-12-16	5/23/2012	51	5.46	5.80	8.79	2.20	5.51	5.54	2.91	3.09	2.76	0.75	3.31	0.86	3.54	2.66	2.95	3.35	1.60
M-12-17	5/30/2012	52	1.04	1.16	1.75	3.05	5.27	5.32	4.84	5.37	11.46	1.79	7.86	3.17	5.88	6.15	4.92	3.71	2.40
Volume we	eighted avera	ge concentra	ations Sprin	g 2012:		2.14	5.53	5.57	2.71	2.98	3.50	1.05	3.47	0.91	7.13	3.58	2.58	4.31	1.78
Total Volur	me:		20.82	22.76															
Sample co	unt:		10																
Yellow hig	nlight indicat	es a contami	inated sam	ple, as the res	ults were w	ell above ou	ur detection	limit.											
Numbers in	n gray boxes	indicate cas	ses when co	ollection volum	ie was used	l as precipi	tation volum	ne because	numbers de	erived from NC	DAA Paradi	ise data we	re lower.						
Numbers in	h green indic	ate that value	es fell belov	v the Method E	Detection Li	mit before e	evaporation	correction.	See chart I	below for 2012	computed?	MDLs.							
					2012 Meth	od Detecti	ion Limits	(MDL)**			Са	Mg	Na	K	NH4	SO4	NO3	CI	
					** Derived	from last	30 QC.			MDL(ueq/L)	1.77	1.59	0.46	0.46	0.55	3.01	2.09	3.65	

9

2012 Method Detection Limit
** Derived from last 30 QC.

ι	below for 2012	2 computed	INDLS.						
		Ca	Mg	Na	K	NH4	SO4	NO3	CI
	MDL(ueq/L)	1.77	1.59	0.46	0.46	0.55	3.01	2.09	3.65
	M.W.	40.08	24.31	22.99	39.10	18.03	96.06	62.00	35.45
	Charge	2	2	1	1	1	2	1	1

Table 2: Quarterly and Annual Deposition Load Data for Mount Rainier Paradise Ranger Station (1)
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	6.		No		NUM	MILL A CROSS	604	504 (5)	HOR	102.00	Cire
1000	(ko/ha)	(ko/ba)	(ko/ha)	(ka/ha)	(ko/ha)	(ko/ha)	(ko/ha)	504 (S) (ka/ha)	(ko/ha)	(kg/ha)	(ko/ba)
Summer 1993	0.0816	0.0758	0.1382	0.0393	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fall 1993	0.1827	0.0550	0.5575	0.1783	0.1159	8000.0	0.7825	0.2612	0.7764	0.1754	0.3241
Spring 1994	0.5495	0.1005	0 3945	0.2217	0.2749	0.2136	1.9428	0.6484	1.2453	9.2813	0.8581
1993-1994 Total	2,4540	0.5888	2.0634	1,3956	0.9074	0,7049	5.9705	1.9927	5.4491	1.2311	3.5076
Deposition Load							-				
Summer 1994	0.1302	0.0246	0.1401	0.0893	0.0085	0.0688	0.4383	0.1463	0.5863	9 1325	0.1945
Fail 1994	0.5182	0.1256	0.2954	0 1285	0.1693	0.1315	1,2337	0.4118	1 0940	0.2472	1,0594
Spring 1995	0.3745	0.2407	1.2960	0.3201	0.2754	0.2139	2.8925	0.9854	1.8791	0.4245	3,3417
1994-1995 Total	2.4236	0.5443	2.5082	1.0814	2.0218	1.5707	6.9326	2.3137	5.6516	1.2768	9.2637
or position cours			-		-						_
Summer 1995	0.0451	0.0251	0.0941	0.0965	0.0716	0.0558	0.8217	0.2742	0.4021	0.0909	0.3067
Winter 95-96	0.0138	0.0657	0.6155	0.1850	0.0000	0.0000	1.3550	0.4522	0.2511	0.0530	0.4399
Spring 1995	0.2479	0.0258	0.0797	0.0417	0.0330	0.0257	0.3656	0 1220	0.1102	0.0249	0 1888
1995-1996 Total Deposition Load	0.4025	0.1457	0.9813	0,4350	0.1046	0.0813	3.0284	1.0107	0.9960	0.2255	1.8413
		_			_				-		_
Summer 1996 Evel 1006	0.0544	0.0465	0 1804	0.0256	0.0000	0.0000	0.9020	0.3010	0.4130	0.0015	0.6753
Winter 95-97	0 1266	0.0418	0.0946	0.0229	0.0213	0.0165	0.2065	0.0689	0.0798	0.0180	Ø 1906
Spring 1997 1996 1997 Total	-			Concession in the	-		-				
Deposition Load				1				111	1.13		
Summer 1997	0.0285	0.0075	0.0160	0.0323	0.0055	0.0050	15438	0.5152	9,7713	0.1743	0.8776
Fait 1997	0.1742	0.1602	1.0023	0.4081	0.0282	0.0219	1.3360	0.4459	0.6100	0.1378	2.1182
Winter 97-98 Spring 1998	0.1653	0.2315	18268	0.2205	0.0144	0.0112	0.5003	0.1670	0.5500	0.1243	3.6262
1997-1998 Total	0.5030	0.4495	3.4376	0.7745	0.2457	0.1917	4 2069	1.6043	3 3664	0.7605	7.5282
Deposition Load	0.0000	9.44.75	2.1319		0.2495	0.1211	+	1.504.5	3-3924	0.100.	1.2002
Summer 1998	0.0424	0.0329	0.1240	0.0484	0.1255	0.0975	1,0376	0.3463	0.7291	0.1647	0.2924
Fail 1998 Winter 99-99	0.0616	0.1252	0.9297	0.1342	0.0774	0.0501	2 0449	0.5825	1.7073	0.3857	2.5143
Spring 1999	0.3735	0,1482	1.0388	0 1846	0.2568	0.1995	2 1133	0.7053	1.6351	0.3694	2 1843
1989-1999 Total Deposition Lond	1.9937	0.6584	4.6151	0.6466	0.6137	0.4767	7.9665	2.6588	5.3537	1.2095	11.1821
esponion coad		_					-				_
Summer 1999	0.0838	0.0222	0 0877	0.0606	0.2130	0.1655	0.8363	0 2791	0.7976	0 1802	0 2962
Winter 99-00	0.1026	0.0499	0.6681	0.0022	0.0346	0.0269	0,8005	0.2566	0.4038	0 1232	2.0278
Spring 2000	0.1869	0.1825	0.8082	0.1818	0.1859	0.1452	2 1008	0.7011	1.4247	0.3219	4.1171
Deposition Load	0.4615	0.3274	1.7975	0,4421	0.4975	0.3865	4,3063	1.4372	3.1715	0.7165	7,0361
			0.074	0.000		A.C.11		A.2.14	A.C.1.	A	A
Summer 2000	0.0255	0.0660	0.0794	0.0534	0.0915	0.0711	0.5055	0.2024	0.5010	0.1132	0.3353
Winter 00-01			1	-	1				-	-	1
2009-2001 Total	-	_	-	-	_	-	-	-		_	-
Deposition Load				1	100		11.5	111			
Summar 2001	0.2629	0.1310	0.2636	0 1079	0.2695	0 1628	17921	0.5991	0.9132	0.2063	4 1707
Fall 2001	0.8440	0.2812	1.0092	0 1442	0.0596	0.0541	1,2619	0.4212	0.3326	0 0751	5.2454
Winter 01-02 Sering 2002	0.8507	0.4559	1.0755	0.1326	0.0554	0.0516	1,0656	0.6227	0.6258	0.1414	9.9752
2001-2002 Total	2 4257	1.0705	2 9227	6 4737	0.5069	0.3938	6.6284	2 2122	1,0952	0.6995	24 7744
Deposition Load	all		1.541		0.0000	0.00040				0.00000	
Summer 2002	0.0774	0.0975	0.0899	0.6477	0.0461	0.0358	0.5406	0.1804	0.5324	8 1293	2.0946
Fall 2002 Winter 02-03	0.2120	0 2973	0.6209	0.1143	0.0661	0.0514	2 2 3 0 3	0.4235	2.2459	0.1912	5.0569
Srping 2003	0.4895	0.3227	0.5379	0,1082	0.2198	0.1700	1.2987	0.4334	1.4640	0.3308	2.3397
Deposition Load	1.4982	1.3262	2.6772	0.4541	0.4513	0.3506	5,3388	1.7818	5,0888	1.1497	23.6943
Summer 2003 Fall 2003	0.0467	0.0554	0.1281	0.2319	0.0803	0.0524	0.3465	0.1156	0.2247	0.0508	0.3605
Winter 03-04	0.9225	0.4943	1.6170	0.4375	0.0513	0.0398	5.0624	1.6896	1.8411	0.4159	4.8337
Spring 2004 2003-2004 Total	0.3736	0.1243	0.4872	0.1534	0 1398	0.1088	2.1685	0.7237	1 1211	0.2533	1.1018
Deposition Load	2.0099	1.2128	4.269/	1.4138	0.3435	0.2715	10.7226	3.5/8/	4.2652	0.9636	10.0151
Summer 2004	0 1889	0 3742	0.5925	0.4282	0.3472	0.9816	1 1067	0.9174	0.6625	0.4589	0.3367
Fall 2004	0 3584	0.0764	1.3153	0.2078	0.0744	0.0578	1.9272	0.6432	1.0858	0 2455	2.0959
Winter 04-05 Sering 2005	0.2207	0.0258	0.5334	0.0601	0.0571	0.0443	2 4129	0.2706	0.4812	0 1087	2.5121
2004-2005 Total	1,1392	0.5133	3.1277	0.8101	0.7294	1.2715	6 2576	2.5365	4.0411	1.2221	5.4217
Deposition Load										_	
Symmer 2005	0.0852	0.0195	0.2104	0.0940	0.2050	0,1601	0.6005	0.2005	0.5404	0.1221	0.4909
Fall 2005 Winter 05-04	0.2041	0.0439	1,6000	0.1316	0.1085	0.0828	1,6880	0.5634	1.3547	0.3083	1.9468
Spring 2005	0.1263	0.1146	0.3278	0.0520	0.1944	0.1510	0.8500	0.2870	0.8323	0.1880	0.7121
2005-2006 Total Deposition Load	0.9942	0.4958	2.9078	0.4889	0.6142	0.4771	4.8756	1.6272	3.7944	0.8572	6.1568
se possion codo	_	-	_		_		_				
Summer 2006 Fall 2006	0.0357	0.0493	0.1366	0.0355	0.0935	0.0726	0.5391	0.1799	0.4117	0.0930	0.1594
Winter 06-07	0 1999	0.1845	1.0116	0.0761	0.0404	0.0314	0.8027	0.2679	D 3659	0.0827	1.5244
Spring 2007 2005-2002 Total	0.2765	0.0609	0.6034	0.2114	0.3246	0.2522	13507	0.4535	1.0683	0.2414	0.9903
Deposition Load	0.6642	0.5171	2.4927	0.5059	0.5418	0.4209	4.1887	1.3980	2.5418	0.5742	4.0104
Pummar AAA9	0.000	0.0557	0.40.75	0.0000	0.000	A 28.54	0.50.00	0.4754	0.000	0.000	0.537
Fail 2007	0 1172	0.0498	0 6491	0.0639	0.1137	0.0854	0.9139	0.3050	0.4907	0.1109	12358
Winter 07-08* Serios 2008	0.3093	0.3042	2.1684	0.1416	0.3013	0.2340	13835	0.4617	0.6369	0.1439	3.8760
2007-2008 Total	0 7054	0.734	3.6200	0.650	1.4400	1 1330	5 474	1 7370	2 6824	0.000	6 77.4
Deposition Load	4.1331	3-1210	2.0200	1.0.01	1,4,69	1.1330	2.1140	1.1210	e.0021	9.00.13	0.7143
Summer 2008	0,1453	0.0996	0.2862	0.1089	0.3414	0,2653	0.8360	0.2790	0.7674	0.1734	0.2944
Fail 2008 Winter 08-09	0.1190	0.0794	0.4073	0.0682	0.1352	0.1058	0.6186	0.2085	0.3407	0.0770	0.4570
Spring 2009	0.5785	0.2290	1.1358	0.1901	0,3160	0.2455	2,2685	0.7571	0.8157	0.1845	1.3716
2008-2009 Total	0.9498	0.5319	2.2042	0.4556	0.9703	0.7538	3,9667	1.3239	2.1924	0.4953	2.5855
ovposition Load			_	_			_				
Summer 2009	0 1394	0.0491	0 2665	0 2513	0.3244	0.2520	0.6892	0.2300	0.3515	0.0817	0.2705
Winter 09-10	0.4089	0.0693	0 5392	0.3338	0.1236	0.0961	0.5795	0 1934	0.7751	0 1751	0.5525
Spring 2010	0.4216	0.3024	2 5954	0.3533	0.3396	0.2638	2.3115	0.7715	1.2236	0.2764	3.7180
Deposition Load	1.6480	0.5980	6.4486	2.1719	1.0893	0.8462	5.1048	1.7037	3,5517	0.8024	6.6761
A commence of the set	0.000	0.000	0.004	0.007	activ		0.750	A.4.54	10 X 10 X 10	6.44.1	A crow
Fail 2010	0.1078	0.0167	0 1731	0.0558	0.0892	0.0593	1,3916	0.2580	0.5253	0.1187	0.1628
Winter 10-11	0.2864	0.0731	1.3639	0.2385	0.2595	0.2016	3.1755	1.0698	1.2046	0.2721	1.8354
2010-2011 Total	0.3705	0.1011	0.7404	0.0869	0.3278	0.2547	2 3588	0.7866	1.9621	0.4433	1.5512
Deposition Load	1.0299	0.2251	3.0418	0.5232	0.8763	0.6808	7,6969	2.5688	4.1545	0.9386	4.2692
Summer 2011	0.0647	0.0200	0.1664	0.1385	0.355+	0.2404	0.4460	0.1494	0.4263	0.094+	0.2475
Fall 2011	0.2711	0.0814	0.6863	0.1286	0.5308	0.4123	1.1844	0.3953	0.7216	0 1630	1.0903
Winter 10-12 Spring 2012	0.7332	0 3073	2.4551	0.3971	1.4847	1 1534	1.3006	0.4341	0.9503	0.2147	4.1755
opening and the	- A968	- 10.00	+ eyd3	- AAVS	- 30.19		-2191	- Avrily	- 5063	TRESP	- 30.58
2011-2012 Total	1.5678	0.5211	3,9001	0,8906	3,6765	2,8561	4,1493	1,3848	3,0794	0.6957	6,8250

Velow boxes indicate values that have changed from previous reports due to calculation error. Grey boxes indicate that data wang this time was missing or incometities. Therefore, Total Deposition Loads for these years were it was a start previous to the calculation and announces are any environment of the data for Writer 2007-00. \*\*\* Depiriming in 2004, the bocket was in longer channel with (High C) - concentrations prior to the data may have been due to

Log         Log <thlog< th=""> <thlog< th=""> <thlog< th=""></thlog<></thlog<></thlog<>			_		Adj. pH	Adjusted	Unadj	Ca	Ma	Na	к	NH	SO	NO	CI	Adjuste
Whete         1989 0         1989 0         5.33         2.86         3.76         3.36         1.416         4.80         0.80	Season	Year	Cond	M. pH (uS/cm)	ridi pri	H+	H+	04	ing	(uen	4)				0.	[+]/[-]
Sprog.         1988 25         5.00         8.34         1.00         0.92         2.50         0.11         1.34         5.00         3.74         1.74           More         1990 50         -         4.55         1120         2.27         1.70         5.44         0.25         0.54         8.59         0.34         4.77         1.70         5.44         0.25         0.54         8.59         0.34         4.77         1.70         5.44         0.25         0.54         4.57         1.70         5.44         0.25         0.54         0.71         0.56         0.72         2.84         0.64         1.85         0.77         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.77         0.76         0.77         0.76         0.77         0.76         0.77         0.76         0.77         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.76         0.77         0.74         0.78         0.77         0.78         0.78         0.78         0.78         0.78 <th0.78< th="">         0.78         0.78         <t< td=""><td>Winter</td><td>1989.00</td><td></td><td>(uorein)</td><td>5.53</td><td>2.95</td><td></td><td>3.78</td><td>3.36</td><td>14.10</td><td>4.36</td><td>0.50</td><td>8.30</td><td>2.72</td><td>12.14</td><td>1.25</td></t<></th0.78<>	Winter	1989.00		(uorein)	5.53	2.95		3.78	3.36	14.10	4.36	0.50	8.30	2.72	12.14	1.25
Sammer 1985 5 Sammer 1995 5 Sammer	Spring	1989.25			5.08	8.34		1.88	0.99	2.51	0.11	1.34	5.60	3.67	3.74	1.17
and the state         1990 b	Summer	1989.50														
mome         1993         1993         1	-all	1989.75			4.05	11.00		1.07	1 70	E 44	0.00	0.04	0.50	0.04	4 47	1.54
Service         1995 50         1         <	Vinter Spring	1990.00			4.95	6.80		2.15	1.70	5.44	0.25	0.64	8.59	0.84	4.17	1.51
and party         1990 75 (1)         100	Summer	1990.20			5.17	0.00		2.10	0.55				4.07	3.03	2.07	0.33
Where pare         1991 00 1991 00 1991 00 1990 00 199	Fall	1990.75														
phong         191 25         Image         Image <t< td=""><td>Vinter</td><td>1991.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Vinter	1991.00														
Summer         1995 50         Image         Summer         1995 50         Image         Summer         1995 70         Image         Summer         1992 70         Image         Summer         1995 70         Image         Summer<	Spring	1991.25														
all         1997.7         Image	Summer	1991.50														
Writer         1992 (b)         1         <	all	1991.75														
pmp         mp         mp<         mp< <td>Vinter</td> <td>1992.00</td> <td></td>	Vinter	1992.00														
alm         1922.70         5.44         9.60         -0.51         2.19         6.81         0.42         0.86         1.51         6.17           pring         1992.25         5.36         4.38         2.70         1.56         2.44         6.59         1.64         5.56         4.57         3.12         2.28         3.44         6.59         1.64         5.56         4.57         3.12         2.28         3.44         5.56         4.57         3.13         1.65         8.67         1.65         3.57         3.56         4.57         3.14         2.28         3.44         3.50         3.65         4.55	spring	1992.25			4 72	10.65		E 67	0.72	2.94	1.05	1.00	15.40	6 97	2.57	1 20
meter         1990.00         5.31         4.32         1.54         2.04         6.39         1.18         0.42         3.86         1.51         2.54           Jummer         1992.50         5.56         4.39         2.70         1.54         2.04         5.20         1.74         5.76         3.12         2.88         7.70         1.74         5.76         3.12         2.88         7.70         1.74         5.76         3.12         2.88         7.70         1.75         7.71         3.33         1.65         8.56         1.65         3.45         3.80         7.70         2.64         5.64         3.64         3.64         4.60         1.65         3.63         6.4         3.64         4.60         1.65         1.65         4.64         4.60         1.65         1.65         4.64         4.64         1.75         4.64         4.64         1.75         4.64         1.75         4.64         1.75         4.64         1.75         4.64         1.75         4.64         1.75         4.74         3.46         4.75         4.75         4.75         4.75         4.75         4.75         4.75         4.75         4.75         4.75         4.75         4.75         4.75	Summer	1992.50			4.75	3.60		0.61	2.10	2.04	0.41	0.63	3.81	5.07	6.23	1.29
ping         1992 5         5.36         4.38         2.70         1.96         2.44         5.56         1.12         2.88           all         1992 75         4.57         2.71         3.33         1.66         8.85         1.66         2.47         5.56         4.57         3.34         1.58           simm         1992 75         4.57         3.54         4.56         3.64         3.64         3.64         3.64         3.64         3.64         3.65         3.64         4.66         5.64         4.64         5.64         4.56         5.64         4.56         5.64         4.56         5.64         1.64         1.66         2.79         7.17         2.40         3.43         6.44         5.64         1.64         1.66         2.79         7.17         2.40         3.43         6.41         1.63         5.64         2.31         1.14         1.99         7.44         6.53         1.44         6.53         1.44         6.53         1.44         6.54         2.48         3.44         1.46         3.54         1.45         1.46         3.54         1.45         1.46         1.57         1.43         1.97         3.44         1.46         1.56         1.56 <t< td=""><td>Vinter</td><td>1993.00</td><td></td><td></td><td>5.31</td><td>4.92</td><td></td><td>1.54</td><td>2.04</td><td>6.39</td><td>1.18</td><td>0.42</td><td>3.86</td><td>1.51</td><td>6.17</td><td>1.43</td></t<>	Vinter	1993.00			5.31	4.92		1.54	2.04	6.39	1.18	0.42	3.86	1.51	6.17	1.43
Nummer         1995.0         Image         1995.0         Image         1995.0         Image         1995.0         Image         1995.0         Image         1995.0         157         2118         333         16.0         345         341         207         214         533         16.0         345         341         207         244         533         16.0         345         341         207         244         346         16.0         345         341         207         240         343         16.0         14.0         17.0         14.0         345         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         17.0         14.0         18.0         17.0         18.0         17.0         18.	Spring	1993.25			5.36	4.38		3.70	1.96	2.54	0.56	1.74	5.76	3.12	2.88	1.27
all       1993.75       4.57       27.18       3.33       165       8.65       1.66       2.37       6.96       4.34       5.33         piping       1992.25       6.30       4.36       6.67       1.99       4.03       1.16       3.50       9.89       4.66       5.46         all       1994.25       6.50       1.99       4.03       1.16       3.50       9.86       4.54       5.50         vice       1995.60       6.79       1.63       6.64       1.06       2.79       7.17       2.40       3.43       6.45       1.54       5.41       5.46       5.31       1.16       5.30       1.54       5.41       5.46       5.31       1.17       5.38       1.34       1.41       1.40       2.20       1.16       5.64       1.16       5.64       1.16       5.64       1.16       5.64       1.16       5.64       1.16       5.64       1.16       1.16       1.11       1.11       1.11       1.10       1.10       9.04       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00       1.00 </td <td>Summer</td> <td>1993.50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2.20</td> <td>3.44</td> <td>3.52</td> <td>0.69</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Summer	1993.50						2.20	3.44	3.52	0.69					
Winter         1996.00         5.50         3.19         9.63         3.46         3.81         2.07         2.64         6.96         4.38         5.83           Jummer         1998.40         6.44         3.85         4.480         1.49         4.50         1.67         3.82         6.74         6.54           Jummer         1995.25         6.66         2.31         2.45         6.97         1.11         1.99         7.44         3.76         8.16         6.31         6.44         9.90	all	1993.75			4.57	27.18		3.33	1.65	8.85	1.66	2.37	5.95	4.57	3.34	3.25
promg         1994 25         5.30         4.86         6.67         199         4.03         1.18         3.50         9.89         4.86         5.56           all         1995 60         6.79         3.83         6.80         1.70         4.10         3.50         6.80         4.61         5.56           summer         1995 60         6.56         2.51         2.46         6.97         1.18         3.14         1.410         2.36         1.51           summer         1995 60         5.63         2.34         1.05         1.18         5.66         0.83         6.15         0.89         1.86         5.50           vinner         1995 60         5.64         2.29         5.84         4.80         77         1.14         1.91         7.95         1.86         5.90           summer         1995 75         5.35         4.51         1.16         2.37         7.14         1.91         7.95         1.86         5.90           summer         1995 75         5.35         4.51         1.16         2.37         6.82         1.93         0.40         6.66         2.24         1.91         9.97         6.81           summer         1998 6.50 </td <td>Vinter</td> <td>1994.00</td> <td></td> <td></td> <td>5.50</td> <td>3.19</td> <td></td> <td>9.63</td> <td>3.45</td> <td>3.81</td> <td>2.07</td> <td>2.64</td> <td>5.96</td> <td>4.34</td> <td>5.93</td> <td>1.53</td>	Vinter	1994.00			5.50	3.19		9.63	3.45	3.81	2.07	2.64	5.96	4.34	5.93	1.53
Jummer         1984.80         4.40         1.89         1.43         6.40         1.89         6.43         6.40         6.40         6.40         6.40         6.40         6.40         6.40         6.40         6.40         6.40         6.40         6.40         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.2         6.40         7.7         7.40<	Spring	1994.25			5.30	4.96		6.67	1.99	4.03	1.18	3.50	9.89	4.86	5.56	1.10
mm         192.         0         2.57         0         100         170         0.77         150         3.43         3.44           summer         1995         5.0         4.49         100         171         150         3.44         3.76         1165           summer         1995         5.0         4.49         100         1.71         4.56         3.14         1410         2.36         5.31         1.14         191         199         5.16         5.31         1.17         4.56         5.66         0.53         6.54         2.29         5.84         4.83         12.07         9.47         3.43         6.92           summer         1995         5.6         4.51         1.16         2.37         1.44         191         7.9         9.47         3.43         6.92           summer         1995         5.5         4.51         1.16         2.37         6.42         1.93         0.40         0.60         2.24         1.03         1.01         9.56         1.07         1.07         1.03         0.04         0.66         2.24         1.03         1.01         1.09         1.01         1.09         1.016         1.01         1.01         1.	Summer	1994.50			5.40	3.95		4.80	1.49	4.50	1.69	3.63	6.74	6.98	4.05	1.13
Nome         Local bit         Local bit <thlocal bit<="" th=""> <thlocal bit<="" th=""> <thlocal< td=""><td>all Vinter</td><td>1994.75</td><td></td><td></td><td>5.44</td><td>3.59</td><td></td><td>0.69 5.04</td><td>1.78</td><td>4.11</td><td>0.87</td><td>1.62</td><td>3.43</td><td>3.56</td><td>9.12</td><td>1.15</td></thlocal<></thlocal></thlocal>	all Vinter	1994.75			5.44	3.59		0.69 5.04	1.78	4.11	0.87	1.62	3.43	3.56	9.12	1.15
Nummer         1996 50	Spring	1995.00			5.06	8.66		2.31	2.45	6.97	1.01	1.89	7.43	3.76	11.65	1.13
all         1995 75         5 4.4         3 31         1.11         1.10         2.65         4.74         2.05         6.63         7.37           spring         1996 25         5.44         3.29         12.30         2.28         3.77         1.14         1.91         7.55         1.86         5.50           all         1996 75         5.64         2.29         5.84         4.83         1.207         9.47         3.43         6.52           gring         1997 26         5.55         4.51         1.16         2.37         8.42         1.90         0.40         6.66         2.24         1.00         9.66           gring         1998 26         5.55         4.51         1.16         2.37         8.42         1.90         0.40         6.66         2.24         1.00         9.66           gring         1998 26         4.53         1.167         1.76         2.26         4.50         1.00         5.60         1.61         1.63         5.99         3.97         0.84         1.64         1.16         1.37         0.42         2.30         2.34         1.65         1.66         1.66         1.66         1.66         1.66         1.66         1.66	Summer	1995 50			4,99	10.20		1.30	1.71	5,38	1.34	1.00	14 10	2.36	8 15	0.81
Water         1996, 00         563         2.44         1.05         1.18         5.86         0.63         -         6.15         0.98         1.37           Jaumare         1996, 60         -         5.40         2.29         1.20         2.28         3.77         1.14         1.91         7.95         1.86         5.50           Vinter         1997, 00         -         5.64         2.29         5.84         4.83         1.207         9.42         1.83         5.92           Jummer         1997, 72         -         5.55         2.56         0.66         0.84         0.90         1.30         1.00         1.00         1.00         1.00         1.00         9.77         0.68         1.00         9.77         0.68         1.00         9.77         0.68         1.00         9.77         0.68         1.01         1.00         9.78         0.51         1.46         1.17         1.72         0.98         0.01         1.80         9.77         0.68         1.01         1.00         9.73         1.03         1.00         9.77         0.68         1.01         1.01         1.01         1.01         1.01         1.01         1.01         1.01         1.01	all	1995.75			5.48	3.31			1.71	4.05	2.65		4.74	2.00	5.63	1.13
ping         1996,25	Vinter	1996.00			5.63	2.34		1.05	1.18	5.86	0.63		6.15	0.89	1.37	1.32
Nummer         1996.50         - <t< td=""><td>Spring</td><td>1996.25</td><td></td><td></td><td>5.48</td><td>3.29</td><td></td><td>12.90</td><td>2.28</td><td>3.77</td><td>1.14</td><td>1.91</td><td>7.95</td><td>1.86</td><td>5.50</td><td>1.65</td></t<>	Spring	1996.25			5.48	3.29		12.90	2.28	3.77	1.14	1.91	7.95	1.86	5.50	1.65
all         1996,75         5.64         2.29         5.84         4.83         1.207         9.47         3.43         6.92           pring         1997,26	Summer	1996.50														
Winter         1997         1997         1997         1997         1997         1997         1997         1997         100	all	1996.75			5.64	2.29		5.84	4.83		12.07		9.47	3.43	6.92	1.26
prime         1997.42         Image         1997.75         5.35         4.51         Image         1997.76         C.10         6.06         2.24         10.67           all         1997.75         5.35         4.51         1.16         2.37         8.42         1.93         0.40         6.06         1.06         1.07         1.08.7         <	Vinter	1997.00														
Jummer 1997 5 . 5.36 4.51 1.16 2.37 8.42 1.93 0.40 6.06 2.24 10.67 1 Vinter 1986 0 . 5.68 2.66 0.88 1.83 6.89 0.58 0.10 1.30 1.10 9.56 1 Jummer 1998 5 . 6.51 5.45 1.45 1.7 2.98 0.40 0.51 1.00 9.58 1.7 1.9 9.54 1.45 1.55 1.55 1.55 1.55 1.55 1.55 1	Spring	1997.25														
am         122.00         2.20         4.31         1.10         2.37         0.42         1.33         0.43         0.43         0.244         0.10           pring         1986.25         6.58         6.50         1.72         0.68         0.56         0.56         0.56         0.56         0.56         0.57         0.69         6.78         0.59         6.77         0.60         0.57         0.60         0.58         0.59         0.57         0.60         0.57         0.60         0.57         0.60         0.57         0.60         0.54         0.54         0.59         3.67         0.60         0.54         0.54         0.59         3.67         0.60         0.57         0.53         0.51         0.66         0.57         0.53         0.54         0.57         0.56         0.57         0.56         0.57         0.56         0.57         0.57         0.56         0.57         0.57         0.56         0.57         0.57         0.56         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         0.57         <	oummer	1997.50			6.95	4.54		1.10	2.27	8 40	1.02	0.40	6.06	2.24	10.67	0.00
spmma         1980 25         5 20         5 07         1 17         1 16         2 36         3 0.1         2 30         3 2.4         1 11         1 10         1 10         1 10         1 16         2 36         3 10         1 10         1 10         1 16         2 36         1 10         0         1 10	'all Vintor	1997.75			5.35	4.51		1.10	1.83	6.89	1.93	0.40	1.30	2.24	0.67	1.09
Summer         198         50         493         1187         1.76         2.26         4.50         10.00         9.79         10.80           Water         1999 00         3.39         5.41         3.90         2.03         2.22         7.88         0.34         0.56         5.99         0.51         1.66         1.157           Summer         1999 50         5.16         5.12         7.66         2.16         0.34         1.97         0.90         6.00         8.98         6.63         4.31           Yuter         2000 70         3.40         5.35         6.06         0.90         4.50         0.67         3.78         0.31         0.46         7.60.27         7.60.2           Summer         2000 75         7.55         4.94         4.94         1.149         1.149         0.73         3.99         0.33         1.45         1.44         2.33         7.13         9.71         0.66         0.96         5.60         1.02         3.37         1.97         1.45         1.44         1.42         1.45         1.44         1.43         1.41         1.44         1.43         1.45         1.44         1.43         1.45         1.44         1.43         1.45 <td>Spring</td> <td>1998.25</td> <td></td> <td></td> <td>5.00</td> <td>2.00</td> <td></td> <td>1.72</td> <td>0.98</td> <td>3.01</td> <td>2.30</td> <td>3.24</td> <td>1.30</td> <td>6.39</td> <td>5.50</td> <td>0.94</td>	Spring	1998.25			5.00	2.00		1.72	0.98	3.01	2.30	3.24	1.30	6.39	5.50	0.94
imit         1998 75         5 34         4 62         0 44         1 52         5 56         0 50         0 51         5 99         3 97         1 0 60           ping         1999 25         4 40         5 17         6 74         3 33         2 18         8.08         0.54         2.56         3 41         1 10 1           ping         1999 25         4 40         5 17         6 74         3 33         2.16         8.08         0.54         2.05         3 41         1 10 1           ping         2000 25         5 29         5 11         6 60         2.06         7.86         1 0.1         1 56         0.77         1 68         7.06         3.72         1 87         4 59         5.37           ping         2000 25         5 29         5 11         5 6.0         6 70         7.6         3.66         3 16         1 4.48         2.33         7.13         1         1 4.49         0.73         0.57         3.99         0.33         1.45         1 4.48         2.33         7.13         1         1 4.49         1 7.3         1 50         1 38         3 4.6         1 1.0         3 3.3         1 6.1         1 4.94         1 4.8         2.31         1 4.1	Summer	1998 50			4 93	11.87		1.72	2.26	4 50	1.03	5.80	18.00	9.79	6.88	0.79
Witter         1999 00         3.39         5.41         3.90         2.03         2.02         7.89         0.34         0.56         5.51         1.46         1.157           Jummer         1999 50         5.16         5.12         7.66         2.16         0.33         2.18         0.80         6.24         0.80         6.26         0.80         6.20         6.20         7.80         0.31         0.44         0.80         6.20         7.80         7.7         6.02         1.60         1.67         1.33         3.31         0.91         0.80         6.20         7.85         7.7         6.02         1.75         1.80         7.22         8.74         0.31         0.44         1.40         1.14         0.14         0.73         0.57         3.99         0.33         1.45         1.44         1.30         1.23         1.171         1.43         1.134         0.33         3.07         3.29         0.76         3.16         0.44         3.33         1.45         1.44         1.43         2.24         2.42         4.49         1.171         1.43         1.43         1.45         1.44         1.43         1.45         1.44         1.44         1.43         1.45         1.45	all	1998.75			5.34	4.62		0.45	1.52	5.95	0.50	0.51	5.99	3.97	10.60	0.66
ipping         1992 55         4.90         5.17         6.74         3.33         2.18         8.00         0.84         2.47         7.66         4.71         1.01           ial         1999 75         4.31         5.21         6.10         1.67         1.33         3.31         0.91         6.09         8.70         6.20         3.77         6.02           ipping         2000 25         5.29         5.11         5.69         2.06         7.85         1.50         2.42         5.67         0.75         2.88         7.17         4.59         5.37         1           ial         2000 75         7.55         4.94         11.49         11.49         0.73         0.67         3.99         0.33         1.45         1.44         2.33         7.13           iverter         2001 75         5.85         5.44         4.94         11.49         1.430         3.93         3.07         3.25         0.76         3.16         1.049         4.38         3.26         1.33         3.07         3.25         0.76         3.16         1.049         4.38         3.26         1.30         1.33         1.05         1.18         1.10         1.33         3.07         3.218	Vinter	1999.00	3.39		5.41	3.90		2.03	2.02	7.89	0.34	0.58	3.51	1.46	11.57	1.01
Jummer         1999.50         5.16         5.12         7.65         2.16         0.94         1.97         0.90         6.09         8.98         6.63         4.31           Vinter         2000.00         3.40         5.35         6.05         0.90         4.50         0.67         0.78         3.78         0.31         0.45         1.63         1.16         1.16         7.13         3.31         0.91         0.80         6.20         3.77         6.75         1.68         7.06         3.72         1.74         1.74         1.50         3.72         1.74         1.50         3.72         1.74         1.50         3.72         1.74         1.50         3.72         1.74         1.45         1.448         2.33         7.13         1.74         1.45         1.448         2.33         7.13         1.74         1.45         1.448         2.33         1.71         1.40         3.33         3.07         3.25         0.76         1.66         0.66         0.66         1.10         2.337         1.71         1.40         3.33         3.07         3.25         0.76         1.10         2.337         1.36         1.35         1.10         1.23         1.11         1.13         1.10	Spring	1999.25	4.90		5.17	6.74		3.33	2.18	8.08	0.84	2.54	7.86	4.71	11.01	1.01
iail       1997 75       4.31       5.21       6.10       1.67       1.33       3.31       0.91       0.08       6.20       3.77       6.02         pring       2000 25       5.29       5.11       5.69       2.06       7.85       1.50       2.42       5.67       0.75       1.88       7.16       3.78       0.80       1.96       7.8       2.88       7.17       4.49       1.149       1.149       0.73       0.57       3.99       0.33       1.45       1.44       8.233       7.13         pring       2001 25       5.49       4.94       11.49       11.49       0.73       0.57       3.99       0.33       0.66       3.66       1.10       2.33       7.13         gring       2001 25       9.49       4.74       4.91       12.33       18.13       4.70       3.25       0.76       3.66       3.66       3.16       1.40       2.231       1.14       1.233       18.13       4.70       0.33       0.66       3.61       1.49       2.121       1.418       1.421       1.418       1.42       2.45       3.41       4.25       0.32       0.41       7.43       0.43       1.62       0.53       3.66       3.16	Summer	1999.50	5.16		5.12	7.65		2.16	0.94	1.97	0.90	6.09	8.98	6.63	4.31	0.99
Vinter         2000 00         3.40         6.35         6.05         0.90         4.50         0.67         0.78         3.78         0.31         0.45         1.63         1.16         7.14           Jummer         2000.50         5.29         5.17         5.17         6.74         6.74         0.72         3.08         1.96         0.78         2.88         7.17         4.59         5.37         1.91           Vinter         2000.50         5.29         5.17         5.17         6.74         6.74         0.72         3.99         0.33         1.45         1.448         3.23         7.13         1         1.99         0.73         1.45         1.448         3.43         7.13         1         1.74         1.30         3.33         0.77         3.25         0.76         0.76         0.76         0.76         0.74         0.71         1.31         4.70         3.22         9.71         0.66         0.96         0.50         1.10         2.33         1.36         1.33         3.30         5.13         2.72         0.91         2.44         7.44         1.42         1.43         3.43         1.42         5.43         3.19         1.42         2.45         3.16	all	1999.75	4.31		5.21	6.10		1.67	1.33	3.31	0.91	0.80	6.20	3.77	6.02	0.88
pring         2000.25         5.29         5.17         5.17         6.74         6.74         0.72         3.08         1.96         0.78         2.88         7.17         4.57         5.37         1         5.77         5.77         5.75         5.77         5.77         6.74         0.72         3.08         1.96         0.78         2.88         7.17         4.59         5.37         1           pring         2001.25         yee	Vinter	2000.00	3.40	5.35	6.05	0.90	4.50	0.67	0.78	3.78	0.31	0.45	1.63	1.15	7.44	0.67
Summer         2000.50         5.29         5.17         6.74         6.74         0.72         3.08         1.96         0.78         2.88         7.17         4.59         5.37         1           Vinter         2001.00         5         7.5         4.94         4.94         11.49         0.73         0.57         3.99         0.33         1.46         1.44         2.33         7.13         1           Symmer         2001.50         10.38         4.84         4.93         11.71         14.30         3.93         3.07         3.25         0.76         3.16         10.49         4.38         34.26         1         1.42         2.42         2.42         2.42         2.42         2.42         2.42         2.41         0.43         1.62         3.43         1.46         1.42         2.43         3.41         4.20         3.33         3.51         2.72         0.91         0.42         2.04         7.61         3.49         4.84         1.84         1.44         1.44         1.43         3.66         3.27         0.41         1.56         3.17         3.38         8.95           Vinter         2003.00         7.43         4.90         12.49         1.64	Spring	2000.25	5.29	5.11	5.69	2.06	7.85	1.50	2.42	5.67	0.75	1.68	7.06	3.72	18.74	0.48
ait         2000 /5         7.55         4.94         4.94         11.49         11.41         11.43         11.41         11.43         11.41         11.43         11.41         11.43         11.49         11.41         11.43         11.49         11.49         11.49         11.41         11.43         11.49         11.49         11.41         11.43         11.49         11	Summer	2000.50	5.29	5.17	5.17	6.74	6.74	0.72	3.08	1.96	0.78	2.88	7.17	4.59	5.37	0.94
Writer         Zol 102         Col 38         4.84         4.93         11.71         14.30         3.93         3.07         3.25         0.76         3.16         10.49         4.38         34.26         1           Vinter         2001.00         17         5.85         6.04         5.38         4.17         9.22         4.25         4.29         9.71         0.66         0.56         5.60         1.0         28.3         3.07         5.05         2.72         2.89         4.18         0.33         0.56         3.61         1.44         2.12         1.1         1.1         1.1         3.28         4.71         0.43         1.62         6.33         7.16         0.82         1.02         7.17         7.89         4.18         0.33         6.63         5.60         0.42         1.66         3.75         3.38         8.95           Spring         2003.00         7.43         4.90         12.49         16.42         2.44         3.44         1.450         3.25         0.42         1.56         0.47         1.266         3.39         9.71         0.44         1.50         2.407         1.265         3.19         1.55         1.507         1.41         1.452         0.42 <td>-all Minter</td> <td>2000.75</td> <td>7.55</td> <td>4.94</td> <td>4.94</td> <td>11.49</td> <td>11.49</td> <td>0.73</td> <td>0.57</td> <td>3.99</td> <td>0.33</td> <td>1.45</td> <td>14.48</td> <td>2.33</td> <td>7.13</td> <td>0.78</td>	-all Minter	2000.75	7.55	4.94	4.94	11.49	11.49	0.73	0.57	3.99	0.33	1.45	14.48	2.33	7.13	0.78
Dring         Zolo 1.50         10 38         4.84         4.93         11.71         14.30         3.93         3.07         3.25         0.76         3.16         10.49         4.38         34.26           all         2001 75         5.85         6.04         5.38         4.17         9.22         4.25         4.29         9.71         0.66         0.96         5.66         1.10         28.37           Spring         2002 25         9.44         4.74         4.91         12.33         18.13         4.70         3.28         4.71         0.43         1.62         6.33         3.66         31.36         1.33         0.66         3.16         1.44         2.12         2.31         1.33         1.36         1.33         1.42         2.42         3.11         1.71         3.43         3.66         3.66         3.16         1.04         7.61         3.32         3.33         3.33         3.33         3.33         3.35         3.36         4.32         1.34         3.42         3.42         3.42         3.43         3.46         3.45         3.44         4.44         3.33         3.42         3.43         3.42         3.43         3.44         4.45         3.33         3.33<	Prince	2001.00														
Londman         Loo         Loo <thloo< th="">         Loo         <thloo< th=""> <thloo< t<="" td=""><td>Summer</td><td>2001.25</td><td>10.38</td><td>4.84</td><td>4 93</td><td>11 71</td><td>1/ 30</td><td>3.03</td><td>3.07</td><td>3 25</td><td>0.76</td><td>3 16</td><td>10.49</td><td>4 38</td><td>34.26</td><td>0.53</td></thloo<></thloo<></thloo<>	Summer	2001.25	10.38	4.84	4 93	11 71	1/ 30	3.03	3.07	3 25	0.76	3 16	10.49	4 38	34.26	0.53
Writer         2002.00         4.84         5.30         5.42         3.77         5.05         2.72         2.89         4.18         0.33         0.56         3.61         1.48         21.21           Spring         2002.25         9.49         4.74         4.91         1.23         18.13         4.70         3.28         4.71         0.43         1.65         3.34         6.63         3.66         31.36         11.35           all         2002.75         7.74         5.04         5.13         7.43         9.06         2.60         6.33         7.16         0.82         1.02         7.17         3.89         4.188           Vinter         2003.25         3.26         5.13         5.31         4.91         7.41         3.43         3.66         3.56         0.42         1.56         3.75         3.38         8.95           Summer         2003.50         12.05         5.10         5.13         7.31         7.95         1.497         1.848         19.44         1.05         2.42         1.24         7.00         2.44         1.090         1.56         3.59         1.56         1.24         7.00         2.45         1.090         1.55         1.24	Fall	2001.75	5.85	5.04	5.38	4 17	9.22	4 25	4 29	9.71	0.66	0.96	5 60	1 10	28.37	0.69
Spring         2002.25         9.49         4.74         4.91         12.33         18.13         4.70         3.28         4.71         0.43         1.62         6.33         3.66         31.36           Summer         2002.75         7.74         5.04         5.13         7.43         9.06         2.80         6.33         7.16         0.82         0.45         3.19         2.49         2.60           Spring         2002.75         7.74         5.40         5.13         7.31         7.41         3.43         3.66         0.42         1.62         3.76         3.38         8.95           Summer         2003.50         12.05         5.10         5.13         7.38         8.03         7.95         14.97         18.44         15.03         7.63         3.38         8.95           Summer         2004.00         4.48         5.28         5.28         5.24         4.82         4.96         9.90         2.10         0.66         8.21         2.43         1.095           Spring         2004.25         3.39         4.99         5.28         5.21         5.26         7.61         2.30         0.27         3.86         0.29         0.36         2.44 <t< td=""><td>Vinter</td><td>2002.00</td><td>4.84</td><td>5.30</td><td>5.42</td><td>3.77</td><td>5.05</td><td>2.72</td><td>2.89</td><td>4.18</td><td>0.33</td><td>0.56</td><td>3.61</td><td>1.48</td><td>21.21</td><td>0.55</td></t<>	Vinter	2002.00	4.84	5.30	5.42	3.77	5.05	2.72	2.89	4.18	0.33	0.56	3.61	1.48	21.21	0.55
Summer         2002.50         9.18         4.51         4.90         12.70         31.23         3.30         5.13         2.72         0.91         2.04         7.61         6.75         99.42           Fall         2002.75         7.74         5.04         5.14         7.43         9.06         2.80         6.33         7.16         0.82         1.02         7.17         3.89         41.88           Spring         2003.25         1.26         5.13         5.31         4.91         7.41         3.43         3.66         3.56         0.42         1.56         3.75         3.88         4.85           Summer         2003.50         12.05         5.10         5.13         7.38         4.91         7.41         3.43         3.66         3.56         0.42         1.56         3.75         3.38         8.95           Vinter         2004.00         4.85         5.24         5.36         4.31         5.24         5.26         1.56         3.59         0.55         1.24         7.08         2.44         10.90         9.33         3.58         0.20         0.35         3.56         0.44         4.56         0.46         2.07         7.50         1.50         1.35	Spring	2002.25	9.49	4.74	4.91	12.33	18.13	4.70	3.28	4.71	0.43	1.62	6.33	3.66	31.36	0.65
Fail         2002.75         7.74         5.04         5.13         7.43         9.05         2.80         6.33         7.16         0.82         1.02         7.17         3.89         4.188           Spring         2003.25         3.26         5.13         5.31         4.91         7.41         3.43         3.66         3.66         0.42         1.56         3.75         3.38         8.95           Summer         2003.26         12.05         5.10         5.13         7.38         8.03         7.95         1.497         18.48         0.42         1.56         3.75         3.38         8.95           Vinter         2004.00         4.48         5.24         5.24         4.82         4.96         0.99         2.10         0.66         8.21         2.43         10.96           Spring         2004.20         4.33         5.16         5.29         1.63         5.55         5.66         5.26         7.61         2.03         0.27         3.37         3.84         1.96         2.30           Summer         2005.50         7.04         5.25         2.63         0.43         4.55         0.46         2.07         7.50         4.32         1.06         4.2	Summer	2002.50	9.18	4.51	4.90	12.70	31.23	3.30	5.13	2.72	0.91	2.04	7.61	5.75	39.42	0.51
Winter         2003.00         7.43         4.90         4.90         16.42         2.45         3.41         4.25         0.22         0.45         3.19         2.49         26.05           Summer         2003.50         12.05         5.10         5.13         7.38         8.03         7.95         14.97         18.48         19.44         15.03         24.07         12.65         3.38         8.95           Summer         2003.75         2.67         5.28         5.38         4.22         5.24         4.82         4.96         9.09         2.10         0.66         8.21         2.43         10.96         11.93         11.93         12.05         1.66         0.94         0.02         8.87         2.49         10.90         1         11.91         2.45         1.16         3.59         1.24         1.96         2.49         10.90         1         11.91         2.45         1.15         3.10         2.44         1.96         2.30         11.91         11.91         2.25         1.50         3.37         1.26         2.45         1.00         5.66         1.00         5.69         1.71         1.31         2.45         1.30         2.45         1.30         2.45 <t< td=""><td>all</td><td>2002.75</td><td>7.74</td><td>5.04</td><td>5.13</td><td>7.43</td><td>9.06</td><td>2.80</td><td>6.33</td><td>7.16</td><td>0.82</td><td>1.02</td><td>7.17</td><td>3.89</td><td>41.88</td><td>0.48</td></t<>	all	2002.75	7.74	5.04	5.13	7.43	9.06	2.80	6.33	7.16	0.82	1.02	7.17	3.89	41.88	0.48
Spring         2003 25         3 26         5 3 51         4 91         7 41         3 43         3 66         3 56         0 42         1 56         3 75         3 38         8 95           Summer         2003 50         1 2 05         5 10         5 31         7 38         8 03         7 59         14 37         14 88         19 44         15 03         24 07         12 65         3 33           Sinter         2000 75         2 267         5 28         5 38         4 22         5 24         4 82         4 96         9 90         2.10         0.66         8 2.1         2.43         10 90           Spring         2004 25         3 39         4 99         5 28         5 21         10 12         2.65         1.56         3.59         0.55         1.24         7.08         2.64         1.90           Summer         2004 .50         4.53         5 14         5 75         1.59         0.35         3.58         0.23         4.45         1.00         2.30           Summer         2005 .50         7.04         5 15         5 23         5 87         7.14         2.72         0.85         5 20         1.43         7.05         7.52         0.71         1.35	Vinter	2003.00	7.43	4.90	4.90	12.49	16.42	2.45	3.41	4.25	0.32	0.45	3.19	2.49	26.05	0.74
Summer         2003.50         12.05         5.10         5.13         7.38         8.03         7.95         18.48         9.09         2.10         0.03         24.07         12.65         33.39           Winter         2004.00         4.48         5.24         5.24         4.24         4.96         9.09         2.10         0.65         8.21         2.43         10.95           Spring         2004.25         3.39         4.99         5.28         5.21         11.12         2.66         1.56         3.59         0.55         1.24         7.08         2.44         10.62         2.43         10.95         10.95           Summer         2004.50         4.53         5.12         5.28         5.21         1.11         3.34         4.56         0.46         2.07         7.50         4.32         1.00         5.69         1.00         5.65         1.00         5.69         1.00	Spring	2003.25	3.26	5.13	5.31	4.91	7.41	3.43	3.66	3.56	0.42	1.56	3.75	3.38	8.95	1.09
all         2003, fo         2.67         5.28         5.38         4.22         5.24         4.62         4.90         9.19         2.10         0.68         6.21         2.43         10.99         1           pring         2004.25         3.39         4.99         5.28         5.21         10.12         2.65         1.56         3.59         0.55         1.24         7.08         2.64         5.06         5.01         1.24         7.08         2.64         5.06         5.01         1.24         7.08         2.64         5.06         5.01         1.96         3.37         1.26         0.27         3.56         0.27         5.56         5.11         1.94         2.75         1.59         0.35         3.68         0.29         0.36         2.45         1.00         5.69         7.44         1.50         5.20         1.41         7.05         7.29         5.17         7.67         7.61         3.20         0.44         3.54         0.41         3.70         7.29         5.17         7.67         7.61         1.39         2.20         0.85         3.20         0.84         3.42         0.42         0.22         0.28         1.41         3.56         0.33         5.66	Summer	2003.50	12.05	5.10	5.13	7.38	8.03	7.95	14.97	18.48	19.44	15.03	24.07	12.65	33.39	1.19
Writer         2004 20         3.4         9.30         5.24         5.34         5.34         5.35	·all Mintor	2003.75	2.67	5.28	5.38	4.22	5.24	4.82	4.96	9.09	2.10	0.65	0.21	2.43	10.95	1.20
pring         2004.50         4.35         5.12         5.26         7.61         2.03         3.37         1.26         1.27         3.84         1.96         2.30           rail         2004.75         4.14         5.27         5.28         5.25         7.61         2.03         0.27         3.58         0.29         0.35         3.50         2.20         7.41         9.44         5.05         2.10         7.41         9.05         3.53         3.58         0.29         0.35         2.20         7.41         9.42         5.56         5.71         1.94         2.75         1.99         0.35         3.58         0.29         0.36         2.45         1.00         5.69         1.00         5.69         1.7         7.67         7.50         4.32         7.50         4.32         7.50         7.50         4.32         7.66         4.32         7.50         7.50         7.50         7.57         7.67         7.50	Spring	2004.00	3 30	/ 00	5.28	6.21	10 12	2.65	1.54	3.60	0.54	1.24	7.08	2.45	5.06	1.00
all         2004.75         4.14         5.27         5.35         4.51         5.39         2.25         0.82         7.52         0.71         0.53         5.05         2.10         7.41           Vinter         2005.00         2.75         5.56         5.71         1.94         2.75         1.59         0.35         3.58         0.29         0.36         2.45         1.00         5.69           Jummer         2005.50         7.04         5.16         5.23         5.87         7.14         2.72         0.85         5.20         1.43         7.05         7.29         5.17         7.67           all         2006.75         3.25         5.26         5.47         3.38         5.66         1.18         1.73         4.27         0.22         0.28         1.97         1.13         5.27           pring         2006.75         3.25         5.86         5.94         1.15         2.09         0.65         1.38         2.46         0.42         0.28         1.92         0.67         2.72           pring         2006.75         5.86         5.94         1.15         2.09         0.65         1.38         2.46         0.42         0.28         0.67	Summer	2004.50	4.53	5.12	5.28	5.25	7.61	2.03	0.27	3.37	1.26	2.77	3.84	1.96	2.30	1.84
Winter         2005 00         2.75         5.56         5.71         1.94         2.75         1.59         0.35         3.58         0.29         0.36         2.45         1.00         5.69           Spring         2005.25         5.46         5.26         5.36         4.42         5.52         2.83         0.43         4.56         0.46         2.07         7.50         4.32         10.81           Vinter         2005.55         7.04         5.15         5.22         5.41         3.92         5.99         1.23         0.44         3.54         0.41         0.72         4.25         2.66         6.65         1.13         5.27           Spring         2006.25         5.80         5.12         5.22         5.97         7.53         1.50         2.33         3.94         0.22         2.51         4.34         3.18         5.57           Spring         2006.75         1.73         5.68         5.94         1.15         2.09         0.65         1.38         2.46         0.42         0.28         1.32         0.47         2.22         0.67         2.72           Winter         2006.75         5.77         5.82         5.90         1.27         1.51<	all	2004.75	4.14	5.27	5.35	4.51	5.39	2.25	0.82	7.52	0.71	0.53	5.05	2.10	7.41	1.12
Spring         2005.25         5.64         5.26         5.36         4.42         5.55         2.83         0.43         4.56         0.46         2.07         7.50         4.32         10.81           Summer         2005.50         7.04         5.15         5.23         5.87         7.14         2.72         0.85         5.20         1.43         7.06         7.29         5.17         7.67           Vinter         2005.00         3.39         5.26         5.47         3.38         5.56         1.18         1.73         4.22         0.28         1.97         1.13         5.53           Spring         2006.75         5.12         5.22         5.97         7.53         1.50         2.33         9.44         4.27         0.66         3.73         8.06         4.79         3.20           Summer         2006.75         1.73         5.68         5.79         1.61         2.62         1.40         2.02         6.28         8.12         2.07         3.38         0.42         2.88         4.20         2.88         4.20         2.88         4.20         2.88         4.20         2.88         4.20         2.88         4.21         1.82         2.41         3.42 <td>Vinter</td> <td>2005.00</td> <td>2.75</td> <td>5.56</td> <td>5.71</td> <td>1.94</td> <td>2.75</td> <td>1.59</td> <td>0.35</td> <td>3.58</td> <td>0.29</td> <td>0.36</td> <td>2.45</td> <td>1.00</td> <td>5.69</td> <td>0.89</td>	Vinter	2005.00	2.75	5.56	5.71	1.94	2.75	1.59	0.35	3.58	0.29	0.36	2.45	1.00	5.69	0.89
Jummer         2005.50         7.04         5.15         5.23         5.87         7.14         2.72         0.85         5.20         1.43         7.05         7.29         6.17         7.67           all         2006.75         3.25         5.22         5.41         3.92         5.98         1.23         0.44         3.54         0.41         0.72         4.25         2.66         6.66         6           Writer         2006.25         6.80         5.12         5.22         5.97         7.53         1.50         2.33         3.44         0.32         2.51         4.34         3.18         5.53           Jummer         2006.50         6.80         5.92         1.15         2.09         0.65         1.38         2.46         0.42         0.28         1.92         0.67         2.72           Vinter         2007.50         5.57         1.51         2.62         1.38         2.46         0.42         0.28         1.27         2.58         2.01         3.44         3.41         4.34         3.62         4.27         2.58         4.20           Summer         2007.50         5.57         5.50         1.27         1.51         4.32         2.01	Spring	2005.25	5.46	5.26	5.36	4.42	5.55	2.83	0.43	4.56	0.46	2.07	7.50	4.32	10.81	0.65
all         2005.75         3.25         5.22         5.41         3.92         5.98         1.23         0.44         3.54         0.41         0.72         4.25         2.66         6.66         1.13         5.27           Spring         2006.25         5.80         5.12         5.22         5.97         7.53         1.50         2.33         3.94         0.22         2.51         4.34         3.18         5.53           Jummer         2006.50         6.68         5.02         9.51         9.63         1.27         2.94         4.27         0.66         3.73         8.06         4.79         3.20           Vinter         2007.00         2.26         5.58         5.79         1.61         2.62         1.40         2.46         0.42         0.42         1.52         0.62         5.07         5.62         5.90         1.27         1.51         4.32         2.61         0.78         3.24         0.67         2.72         5.80         5.07         1.61         2.32         2.80         3.34         2.54         0.80         3.41         5.43         2.56.2         8.12         5.97         1.51         4.32         2.01         3.14         5.43         2.56.2	Summer	2005.50	7.04	5.15	5.23	5.87	7.14	2.72	0.85	5.20	1.43	7.05	7.29	5.17	7.67	1.15
Vinter         2006.00         3.39         5.26         5.47         3.38         5.56         1.18         1.73         4.27         0.22         0.28         1.97         1.13         5.27           spring         2006.55         5.60         5.12         5.22         5.97         7.53         1.50         2.33         3.94         0.32         2.21         4.31         3.16         5.53           summer         2006.75         1.73         5.66         5.94         1.15         2.09         0.65         1.38         2.46         0.42         0.28         1.92         0.67         2.72           Vinter         2007.25         2.98         5.48         5.53         2.92         3.34         2.51         0.78         3.86         0.43         3.02         4.27         2.58         4.20           Jummer         2007.55         3.07         5.03         5.04         9.03         9.42         1.32         0.80         5.36         0.35         1.49         4.21         1.82         6.48         3.33         0.52         2.86         8.42         2.24         6.72         2.97         7.99         0.31         1.38         2.46         0.34         3.33 <td>all</td> <td>2005.75</td> <td>3.25</td> <td>5.22</td> <td>5.41</td> <td>3.92</td> <td>5.98</td> <td>1.23</td> <td>0.44</td> <td>3.54</td> <td>0.41</td> <td>0.72</td> <td>4.25</td> <td>2.66</td> <td>6.65</td> <td>0.76</td>	all	2005.75	3.25	5.22	5.41	3.92	5.98	1.23	0.44	3.54	0.41	0.72	4.25	2.66	6.65	0.76
pummer         2006.25         0         0         0.22         2.51         4.54         3.18         5.53           vinter         2006.50         6.68         5.02         5.12         9.63         1.72         2.94         4.27         0.66         3.73         8.06         4.79         3.20           vinter         2006.75         1.73         5.68         5.94         1.15         2.09         0.65         1.38         2.46         0.42         0.28         1.92         0.67         2.72           Vinter         2007.05         5.56         5.57         1.61         2.62         1.40         2.02         6.26         0.28         0.31         2.14         0.69         6.26           Syming         2007.50         5.57         5.80         1.27         1.51         4.32         2.01         3.14         4.31         4.27         2.58         4.20           Vinter         2008.00         2.33         5.00         5.23         5.87         9.92         1.25         2.22         7.59         3.31         1.38         2.36         0.82         2.48           Vinter         2008.00         2.33         5.00         9.22         2.56	Vinter	2006.00	3.39	5.26	5.47	3.38	5.56	1.18	1.73	4.27	0.22	0.28	1.97	1.13	5.27	1.32
Dummer         2000.50         0.00         5.02         9.51         9.51         2.03         1.27         2.39         4.27         0.00         5.13         5.10         5.71         5.20           Vinter         2007.00         2.26         5.58         5.79         1.61         2.62         1.40         2.02         6.26         0.42         0.42         0.42         0.42         0.42         0.42         0.42         0.42         0.42         0.42         0.58         0.41         0.67         2.72           pring         2007.00         5.26         5.48         5.53         2.92         3.34         2.51         0.78         3.86         0.94         3.02         4.27         2.58         4.20           ummer         2007.50         5.57         5.82         5.90         1.27         1.51         4.32         2.01         3.14         5.43         2.56         6.72         5.37         3.00         5.36         0.35         1.49         4.21         1.82         6.72           yrinter         2008.50         2.22         5.67         5.32         3.20         3.23         3.23         3.23         5.24         2.33         3.33         3.37	pring	2006.25	5.80	5.12	5.22	5.97	1.53	1.50	2.33	3.94	0.32	2.51	4.34	3.18	5.53	1.27
am         2001.5         11.0         0.00         0.5-4         1.10         2.00         0.55         1.30         2.400         0.42         0.43         0.42         0.42         0.43         0.42         0.42         0.43         0.42         0.43         0.42         0.43         0.42         0.43         0.43         0.42         0.43         0.42         0.43         0.44         0.41         0.42         0.43         0.44         0.41         0.42         0.44         0.41         0.43         0.41         0.43         0.41         0.43         0.43         <	ourninter oll	2006.50	0.00	5.02	5.02	9.51	3.63	1.2/	2.94	4.21	0.66	3.73	0.06	4.79	3.20	1.39
Inter         2007.25         2.96         5.63         2.92         3.34         2.51         0.73         2.43         0.53         2.44         0.53         6.42           jummer         2007.56         5.57         5.62         5.90         1.27         1.51         4.32         2.01         3.14         2.54         4.20         5.57         5.82         5.90         1.27         1.51         4.32         2.01         3.14         5.43         2.56         5.72         5.90         5.07         5.12         5.00         5.60         0.35         1.49         4.21         1.82         6.72           Vinter         2008.00         2.33         5.00         5.23         5.87         9.92         1.25         2.22         7.59         0.31         1.38         2.36         0.82         8.77           pring         2008.50         2.92         5.51         5.53         2.92         3.09         2.35         2.47         3.74         0.88         6.00         5.40         3.95         2.48           all         2008.75         2.91         5.37         5.42         3.79         4.27         2.60         2.75         7.34         0.74         3.31	Vinter	2000.75	2.26	5.00	5.54	1.10	2.09	1.05	2.02	6.26	0.42	0.20	2 14	0.07	6.26	1 31
Summer         2007.50         5.57         5.82         5.90         1.27         1.51         4.32         2.01         3.14         5.43         2.56         8.12         5.29         5.07         1.51           aill         2007.75         3.07         5.03         5.04         9.03         9.42         1.32         0.80         5.36         0.35         1.49         4.21         1.82         6.72           Spring         2008.02         2.33         5.00         5.23         5.87         9.92         1.25         2.22         7.59         0.31         1.38         2.36         0.82         8.87           Summer         2008.50         2.92         5.51         5.53         2.92         3.09         2.35         2.47         3.74         0.86         6.00         5.40         3.95         2.48           Summer         2009.00         1.14         5.56         5.62         2.42         2.60         2.75         7.34         0.74         1.33         1.65         2.60         3.31         5.54         2.39         5.33           Vinter         2009.00         1.34         5.56         5.22         1.32         1.48         1.41         1.38 <td>Spring</td> <td>2007.25</td> <td>2.98</td> <td>5.48</td> <td>5.53</td> <td>2.92</td> <td>3.34</td> <td>2.51</td> <td>0.78</td> <td>3,86</td> <td>0.94</td> <td>3.02</td> <td>4.27</td> <td>2.58</td> <td>4.20</td> <td>1.27</td>	Spring	2007.25	2.98	5.48	5.53	2.92	3.34	2.51	0.78	3,86	0.94	3.02	4.27	2.58	4.20	1.27
all         2007.75         3.07         5.03         5.04         9.03         9.42         1.32         0.80         5.36         0.35         1.49         4.21         1.82         6.72           Vinter         2008.00         2.33         5.00         5.23         5.87         9.92         1.25         2.22         7.59         0.31         1.38         2.36         0.82         8.77           pring         2008.00         2.23         6.486         5.00         9.92         1.25         2.22         7.59         0.31         1.38         2.36         0.82         5.48         8.77           jummer         2008.50         2.92         5.51         5.53         2.92         3.09         2.35         2.47         3.74         0.88         6.00         5.40         3.95         2.48           vinter         2009.00         1.14         5.58         5.65         2.44         2.63         0.99         1.65         2.60         0.34         1.43         0.92         0.57         2.09         2.3           vinter         2009.05         5.53         5.71         5.78         1.88         1.74         1.38         11.34         1.33         1.65	Summer	2007.50	5.57	5.82	5.90	1.27	1.51	4.32	2.01	3.14	5.43	25.62	8.12	5.29	5.07	2.26
Winter         2008 00         2.33         5.00         5.23         5.87         9.92         1.25         2.22         7.59         0.31         1.38         2.36         0.82         8.77           Spring         2008 25         2.68         4.86         5.00         9.92         13.85         1.46         3.34         3.33         0.52         2.86         6.48         2.23         4.43           Summer         2008 50         2.92         5.51         5.63         2.92         3.09         2.35         2.47         7.34         0.74         3.31         5.64         2.23         4.43           Vinter         2009 00         1.4         5.56         5.62         2.42         2.60         9.74         3.31         5.64         2.99         5.33           Vinter         2009 00         1.4         5.57         5.73         4.42         2.60         0.34         1.43         0.92         0.57         2.09         5.6         5.44         3.93         1.01         6.64         3.93         1.01         6.64         3.93         1.01         6.64         1.93         1.01         6.64         1.93         1.01         6.47         6.56         2.24	all	2007.75	3.07	5.03	5.04	9.03	9.42	1.32	0.80	5.36	0.35	1.49	4.21	1.82	6.72	1.44
Spring         2008 25         2.68         4.66         5.00         9.92         13.85         1.46         3.34         3.33         0.52         2.85         5.48         2.23         4.43           Summer         2008 50         2.92         5.51         5.53         2.92         3.09         2.35         2.47         3.74         0.88         6.00         5.40         3.96         2.48           Vinter         2009 00         1.14         5.58         5.66         2.24         2.63         0.99         1.65         2.60         9.43         1.43         0.92         0.57         2.09         1.86         5.45         5.66         2.24         2.63         0.99         1.65         2.60         9.9         7.4         1.43         0.92         0.57         2.09         1.86         5.45           Summer         2009.75         2.36         5.71         5.73         1.88         1.97         6.45         3.93         10.10         6.64         17.98         13.07         5.47         6.59           Summer         2009.75         2.36         5.52         1.83         3.03         2.19         2.80         13.25         1.80         5.18         1.92<	Vinter	2008.00	2.33	5.00	5.23	5.87	9.92	1.25	2.22	7.59	0.31	1.38	2.36	0.82	8.77	1.56
Jummer         2008 50         2.92         5.51         5.53         2.92         3.09         2.35         2.47         3.74         0.88         6.00         5.40         3.95         2.48           Vinter         2009.05         1.537         5.42         3.79         4.27         2.50         2.75         7.34         0.74         3.31         5.54         2.39         5.33           Vinter         2009.05         1.14         5.56         5.65         2.24         2.63         0.99         1.65         2.60         0.34         1.43         0.92         0.57         2.09         2           jpring         2009.50         6.53         5.71         5.73         1.88         1.74         1.38         11.34         1.14         5.45         5.49           jummer         2009.75         2.36         5.73         5.88         1.32         1.86         1.74         1.38         11.34         1.165         2.99         1.66         5.65           jummer         2010.25         3.32         5.26         5.52         1.83         3.03         2.19         2.80         1.32         1.86         5.18         1.92         1.21           jummer </td <td>Spring</td> <td>2008.25</td> <td>2.68</td> <td>4.86</td> <td>5.00</td> <td>9.92</td> <td>13.85</td> <td>1.46</td> <td>3.34</td> <td>3.33</td> <td>0.52</td> <td>2.85</td> <td>5.48</td> <td>2.23</td> <td>4.43</td> <td>1.76</td>	Spring	2008.25	2.68	4.86	5.00	9.92	13.85	1.46	3.34	3.33	0.52	2.85	5.48	2.23	4.43	1.76
all         2008 75         2.91         5.37         5.42         3.79         4.27         2.60         2.75         7.34         0.74         3.31         5.54         2.39         5.33           pring         2009 25         2.64         5.58         5.65         2.24         2.63         0.99         1.65         2.60         0.34         1.34         0.92         0.57         2.09         5.33           pring         2009 25         2.64         5.25         5.33         4.04         5.60         4.22         2.62         6.99         0.74         2.30         7.29         1.86         5.46           ummer         2009 55         2.65         5.73         5.88         1.32         1.85         1.74         1.38         1.34         3.13         1.66         2.56           vinter         2010.00         6.66         5.97         6.50         0.32         1.07         1.68         0.48         1.91         1.01         0.39         0.66         0.68         1.02         1.12         1.2           ummer         2010.50         2.19         5.41         5.45         3.58         3.08         1.91         0.48         2.62         0.49	Summer	2008.50	2.92	5.51	5.53	2.92	3.09	2.35	2.47	3.74	0.88	6.00	5.40	3.95	2.48	1.55
vinter         vulue         1.14         5.86         5.66         2.24         2.63         0.99         1.65         2.60         0.34         1.43         0.92         0.57         2.09         2.09           pring         2009.50         6.53         5.71         5.73         1.86         5.60         4.22         2.62         6.69         0.74         1.23         7.29         1.86         5.45           summer         2009.50         6.53         5.71         5.73         1.88         1.97         6.45         3.93         10.10         6.64         17.98         13.07         5.47         6.59           vinter         2010.05         2.36         5.71         5.65         0.32         1.07         1.68         0.48         1.91         1.01         0.39         0.66         0.68         1.03         2.50         5.52         1.83         3.03         2.19         2.80         1.32         1.30         1.34         3.10         5.18         1.92         1.22         1.22         1.32         1.33         1.30         5.18         1.92         1.22         1.32         1.33         1.30         1.43         3.66         1.66         1.66         1.91	all	2008.75	2.91	5.37	5.42	3.79	4.27	2.50	2.75	7.34	0.74	3.31	5.54	2.39	5.33	1.54
pring         200.20         2.04         5.20         5.33         4.44         5.00         4.22         2.62         6.99         0.14         2.30         7.29         1.86         5.45           all         2009.75         2.36         5.71         5.73         1.88         1.13         1.14         1.13         1.14         1.15         5.11         5.11         5.13         1.13         1.13         1.15         5.10         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.15         5.10         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.14         1.15         1.15         1.15         1.15         <	vinter	2009.00	1.14	5.58	5.65	2.24	2.63	0.99	1.65	2.60	0.34	1.43	0.92	0.57	2.09	2.58
Nummer         2010.26         0.53         0.73         1.90         1.97         0.49         5.93         10.10         0.64         1.96         1.97         6.49         5.93         10.10         0.64         1.96         1.97         6.49         5.93         10.10         0.64         1.96         1.97         6.49         5.93         10.10         0.64         1.96         5.47         5.58         1.32         1.34         3.13         1.65         2.99         1.66         5.66         2.90         1.34         3.13         1.66         2.90         1.66         5.66         1.92         1.21         1.73         1.88         1.74         1.88         1.94         1.91         1.01         0.39         0.66         0.68         1.92         1.21           ummer         2010.25         3.32         5.26         5.45         3.58         3.83         1.91         0.48         6.22         0.49         1.75         5.59         2.62         1.60           all         2010.75         1.67         5.39         5.44         3.50         5.20         1.47         0.37         4.63         0.47         1.34         3.64         1.16         3.16         1.65	pring	2009.25	2.64	5.25	5.39	4.04	5.60	4.22	2.62	6.99	0.74	2.30	12.07	1.86	5.45	1.43
Ammer         200.75         2.30         5.10         1.22         1.00         1.74         1.30         1.1.34         1.103         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         2.30         1.00         0.60         0.81         1.01         0.03         0.60         0.68         1.03         1.00         1.00         2.30         0.60         0.68         1.03         1.00         1.00         2.30         0.60         0.68         1.03         1.00         1.00         2.30         0.60         0.68         1.03         1.00         1.00         1.00         1.00         1.00         2.30         1.00         1.00         1.01         0.03         0.66         0.68         1.01         0.01         1.00         1.104         1.20         1.104         1.20         1.104         1.20         1.104         1.20         1.01         1.03         1.00         1.104         1.01         1.01         1.03         1.03         1.00         1.10	oummer all	2009.50	0.53	5.73	5.73	1.00	1.97	0.45	3.93	11.10	0.64	1.98	2 00	1.66	0.59	2.00
Intro         Intro <th< td=""><td>/inter</td><td>2010 00</td><td>0.68</td><td>5.97</td><td>6.50</td><td>0.32</td><td>1.05</td><td>1.68</td><td>0.48</td><td>1,91</td><td>1.01</td><td>0.39</td><td>0.66</td><td>0.68</td><td>1.03</td><td>2.00</td></th<>	/inter	2010 00	0.68	5.97	6.50	0.32	1.05	1.68	0.48	1,91	1.01	0.39	0.66	0.68	1.03	2.00
ummer         2010.50         2.13         5.41         5.45         3.83         3.99         1.91         0.48         2.62         0.49         1.75         5.59         2.62         1.60           all         2010.75         1.67         5.28         5.46         3.50         5.20         1.47         0.37         4.63         0.47         1.34         3.56         1.05         2.57           Vinter         2011.05         1.67         5.28         5.46         3.50         5.20         1.47         0.37         4.63         0.47         1.34         3.56         1.05         2.57           Vinter         2011.05         2.32         5.20         5.26         5.46         6.37         1.62         0.73         2.99         0.23         1.89         5.11         3.07         4.10           ummer         2011.50         3.88         5.09         5.09         8.09         10.02         2.22         1.71         4.90         2.45         12.03         6.66         4.66         5.21           ummer         2011.50         3.88         5.00         5.09         8.09         10.02         2.22         1.71         4.90         4.45         0.63	pring	2010.25	3,32	5.26	5.52	1.83	3,03	2.19	2,80	13.25	1.03	1.80	5,18	1,92	12.12	1.19
all         2010.75         1.67         5.28         5.46         3.50         5.20         1.47         0.37         4.63         0.47         1.34         3.56         1.05         2.57           Vinter         2011.00         1.73         5.39         5.49         3.22         4.03         0.99         0.54         4.30         0.37         0.80         3.84         1.15         3.16           pring         2011.50         3.88         5.00         5.09         8.09         10.02         2.22         1.71         4.90         0.23         1.89         5.11         3.07         4.10           ummer         2011.75         2.77         5.70         5.78         1.66         1.99         1.77         1.04         4.75         0.54         3.63         3.27         1.59         4.66         4.66         5.21           all         2011.75         2.77         5.70         5.78         1.66         1.99         1.77         1.04         4.75         0.54         3.63         3.27         1.59         4.96           Vinter         2120         2.82         5.78         5.60         1.60         2.90         2.04         8.63         0.82	ummer	2010.50	2.19	5.41	5.45	3.58	3.89	1.91	0.48	2.62	0.49	1.75	5.59	2.62	1.60	1.10
Vinter         2011 00         1.73         5.39         5.49         3.22         4.03         0.99         0.54         4.30         0.37         0.80         3.84         1.15         3.16           pring         2011.25         2.32         5.20         5.26         5.46         6.37         1.62         0.73         2.99         0.23         1.89         5.11         3.07         4.10           ummer         2011.50         3.86         5.09         8.09         10.02         2.22         1.71         4.90         2.45         12.03         6.66         4.66         5.21           all         2011.75         2.77         5.70         5.78         1.66         1.99         1.77         1.04         4.75         0.54         3.63         3.27         1.59         4.96           Vinter         212.02         2.82         5.78         5.80         1.60         2.08         2.90         2.04         8.63         0.82         4.31         1.27         9.50           ipring         2012.25         2.14         5.53         5.57         2.71         2.98         3.50         1.05         3.47         0.91         7.13         3.58         2.58	all	2010.75	1.67	5.28	5.46	3.50	5.20	1.47	0.37	4.63	0.47	1.34	3.56	1.05	2.57	1.64
pring         2011.25         2.32         5.20         5.26         5.46         6.37         1.62         0.73         2.99         0.23         1.89         5.11         3.07         4.10           ummer         2011.50         3.88         5.00         5.09         8.09         10.02         2.22         1.71         4.90         2.45         12.03         6.66         4.66         5.21           all         2011.75         2.77         5.70         5.78         1.66         1.99         1.77         1.04         4.75         0.54         3.63         3.27         1.59         4.96           Vinter         2012.00         2.82         5.78         5.80         1.60         2.08         2.90         2.04         8.63         0.82         6.43         2.17         1.27         9.50           pring         2012.02         2.14         5.53         5.57         2.71         2.98         3.50         1.05         3.47         0.91         7.13         3.58         2.58         4.31	Vinter	2011.00	1.73	5.39	5.49	3.22	4.03	0.99	0.54	4.30	0.37	0.80	3.84	1.15	3.16	1.25
ummer         2011.60         3.88         5.00         5.09         8.09         10.02         2.22         1.71         4.90         2.45         12.03         6.66         4.66         5.21           all         2011.75         2.77         5.70         5.78         1.66         1.99         1.77         1.04         4.75         0.54         3.63         3.27         1.59         4.96           Vinter         212.02         2.82         5.78         5.60         1.60         2.90         2.90         2.04         863         0.82         6.43         2.17         1.27         9.50           pring         2012.25         2.14         5.53         5.57         2.71         2.98         3.50         1.05         3.47         0.91         7.13         3.58         2.58         4.31	pring	2011.25	2.32	5.20	5.26	5.46	6.37	1.62	0.73	2.99	0.23	1.89	5.11	3.07	4.10	1.05
all         2011.75         2.77         5.70         5.78         1.66         1.99         1.77         1.04         4.75         0.54         3.63         3.27         1.59         4.96           Vinter         2012.00         2.82         5.78         5.80         1.60         2.08         2.90         2.04         8.63         0.82         6.43         2.17         1.27         9.50           pring         2012.26         2.14         5.53         5.57         2.71         2.98         3.50         1.05         3.47         0.91         7.13         3.68         2.58         4.31	ummer	2011.50	3.88	5.00	5.09	8.09	10.02	2.22	1.71	4.90	2.45	12.03	6.66	4.66	5.21	1.90
Viniter         2012.00         2.82         5.78         5.80         1.60         2.08         2.90         2.04         8.63         0.82         6.43         2.17         1.27         9.50           pring         2012.25         2.14         5.53         5.57         2.71         2.98         3.50         1.05         3.47         0.91         7.13         3.58         2.58         4.31         1	all	2011.75	2.77	5.70	5.78	1.66	1.99	1.77	1.04	4.75	0.54	3.63	3.27	1.59	4.96	1.36
pring 2012.25 2.14 5.53 5.57 2.71 2.98 3.50 1.05 3.47 0.91 7.13 3.58 2.58 4.31	Vinter	2012.00	2.82	5.78	5.80	1.60	2.08	2.90	2.04	8.63	0.82	6.43	2.17	1.27	9.50	1.73
	pring	2012.20	2.14	0.00	5.01	4.11	2.30	0.00	1.00	J.41	0.01	1.13	0.00	2.00	4.01	1.19

Table 4:	LaGrand	e NADP	Site S	easona	Precip	oitation	Data						
		Cond	pН	H⁺	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K+	NH4 <sup>+</sup>	SO42-	NO <sub>3</sub> <sup>-</sup>	CI	[+]/[-]
Season	Year	(uS/o	cm)					(ueq/L)					
Winter	1989.00	6.76	5.00	9.93	1.60	2.80	12.79	0.23	0.55	10.00	4.32	14.89	0.95
Spring	1989.25	5.63	5.15	7.16	2.25	1.81	7.13	0.31	2.94	10.17	6.90	7.67	0.87
Fall	1909.50	9.50	4.92	8 30	4.79	2.14	0.55	0.64	7.54	21.20	6.40	7.00	0.64
Winter	1990.00	4.33	5.28	5.25	0.85	2.14	10.18	0.20	1.94	5.06	2.52	11.99	1.05
Spring	1990.25	9.29	4.83	14.76	1.80	1.81	6.74	0.36	3.88	16.21	7.87	7.56	0.93
Summer	1990.50	8.47	4.85	14.16	1.10	1.07	4.52	0.33	4.93	14.48	7.24	5.44	0.96
Fall	1990.75	5.04	5.20	6.34	1.65	1.40	6.00	0.26	3.99	8.56	4.27	6.88	1.00
Winter	1991.00	4.61	5.22	6.01	1.05	1.40	6.61	0.26	1.22	6.27	2.94	7.62	0.98
Summer	1991.25	5.77 12.66	5.07 4.68	20.80	2.30	1.50	6.74 5.13	0.41	5.82	25 39	0.0Z	5 39	0.97
Fall	1991.75	9.19	4.87	13.49	1.70	3.62	17.75	1.20	1.16	13.56	5.39	20.28	0.99
Winter	1992.00	4.02	5.26	5.55	0.95	1.48	6.83	0.20	0.94	4.71	3.44	7.50	1.02
Spring	1992.25	6.64	5.05	8.85	2.10	1.40	4.79	0.49	5.10	14.10	7.23	5.08	0.86
Summer	1992.50	11.74	4.70	20.14	1.75	0.99	4.44	0.38	5.71	24.64	11.34	4.03	0.83
Fall	1992.75	4.65	5.27	5.37	1.10	1.81	8.35	0.46	2.00	7.52	3.18	9.08	0.96
Spring	1993.00	4.10 5.45	5.32	4.75	2.05	1.73	6.70	0.54	3 00	4.92	3.24 6.21	6.76	1.01
Summer	1993.50	14.41	4.59	25.88	1.40	1.48	6.87	0.59	7.76	25.87	15.02	6.49	0.93
Fall	1993.75	7.52	5.01	9.89	1.40	1.32	6.18	0.64	5.99	16.21	7.87	6.07	0.84
Winter	1994.00	4.81	5.19	6.52	1.50	1.97	9.22	0.82	2.27	6.50	3.27	9.96	1.13
Spring	1994.25	9.18	4.91	12.19	2.30	4.20	17.88	0.56	3.49	11.73	7.02	19.78	1.05
Summer	1994.50	10.45	4.74	18.11	1.25	1.48	6.87	0.59	4./1	17.08	8.52	6.63	1.02
Winter	1994.75	0.20 4.45	5.05	7.28	0.80	0.90	5 31	0.69	1.05	5.48	2.86	6.04	1.12
Spring	1995.25	7.02	4.97	10.74	1.55	1.48	6.09	0.51	6.43	9.37	7.95	5.84	1.16
Summer	1995.50	10.11	4.78	16.67	1.95	1.81	8.27	0.89	6.04	14.31	9.57	8.86	1.09
Fall	1995.75	4.79	5.14	7.33	0.85	1.56	8.83	0.43	2.72	5.64	3.05	9.34	1.20
Winter	1996.00	3.74	5.28	5.25	0.70	1.48	8.48	0.28	1.83	3.12	2.45	8.69	1.26
Summer	1996.25	10.04	4.93	18.07	∠.05 1.10	1.73	0.27 6.70	0.33	3.55	11.12	5.// / Q/	0.//	1.08
Fall	1996 75	6.53	5.01	9,77	1,15	2.30	10.96	0.38	1.22	8,64	2.87	12 19	1.09
Winter	1997.00	5.33	5.20	6.25	0.80	2.88	14.49	0.38	1.11	4.83	3.39	16.70	1.04
Spring	1997.25	6.22	5.02	9.66	1.35	1.48	6.09	0.49	3.10	9.35	4.77	6.91	1.05
Summer	1997.50	9.82	4.77	16.90	1.30	1.07	4.22	0.41	5.16	15.98	9.02	4.65	0.98
Fall	1997.75	5.74	5.15	7.13	1.00	2.80	13.31	0.46	1.22	6.02	3.10	15.26	1.06
Spring	1996.00	9.97	5.22 4.82	5.97	3.49	2 14	9.05	0.30	0.55	3.92	2.44	7.62	0.99
Summer	1998.50	7.11	4.87	13.43	1.65	0.74	2.13	0.87	2.33	12.69	4.47	3.22	1.04
Fall	1998.75	4.19	5.18	6.65	0.50	0.82	3.61	0.26	1.11	4.40	2.58	4.15	1.16
Winter	1999.00	3.92	5.29	5.09	0.85	2.14	10.05	0.33	1.00	3.29	1.94	11.51	1.16
Spring	1999.25	8.79	4.88	13.21	3.99	2.47	8.70	0.54	3.38	15.19	6.37	9.73	1.03
Summer	1999.50	12.56	4.65	22.18	2.20	1.32	4.61	0.33	5.16	23.43	2.09	5.28	0.99
Winter	2000.00	4.55	5.21	6.14	0.50	1.48	7 35	0.20	0.83	4 31	3.00	8.43	1.00
Spring	2000.25	8.74	4.86	13.84	1.75	1.89	8.57	0.79	2.33	14.33	5.26	9.70	1.00
Summer	2000.50	12.41	4.68	20.70	1.75	2.06	10.18	0.49	4.44	19.25	10.81	10.49	0.98
Fall	2000.75	9.88	4.74	18.28	1.25	0.74	3.09	0.23	3.10	17.04	6.29	3.58	0.99
Winter	2001.00	7.60	5.04	9.14	2.20	3.21	16.27	0.43	2.22	7.08	6.19	17.77	1.08
Summer	2001.25	8.4Z 7.38	4.95	11.22	4.29	2.63	10.27	0.69	3.10	13.35	7.45	2 40	1.01
Fall	2001.50	5.08	5.12	7.62	1.20	0.99	4.92	0.51	2.00	5.77	3.86	5.78	1.12
Winter	2002.00	4.21	5.27	5.33	1.10	1.56	8.61	0.26	0.72	3.27	2.68	9.93	1.11
Spring	2002.25	6.20	5.12	7.53	1.55	1.89	9.35	0.38	4.10	7.67	6.18	10.78	1.01
Summer	2002.50	8.38	4.93	11.70	1.85	1.56	5.13	0.66	8.15	12.83	10.05	5.81	1.01
Fall Mintor	2002.75	6.93	5.06	8./1	1.55	1.97	9.79	0.38	4.05	7.10	7.02	11.82	1.02
Spring	2003.00	8 33	4 99	10.23	2.50	2 22	8.48	2 30	7.54	2.40	10.63	11 14	1.10
Summer	2003.50	11.04	4.78	16.41	3.49	1.73	6.00	0.95	11.86	14.75	16.90	6.88	1.05
Fall	2003.75	4.82	5.24	5.78	1.40	1.32	6.96	1.00	1.77	5.60	3.69	8.18	1.04
Winter	2004.00	4.44	5.27	5.37	1.10	1.48	7.87	0.51	1.66	3.37	3.90	9.65	1.06
Spring	2004.25	5.28	5.16	6.97	1.85	1.23	5.26	0.61	3.71	7.08	5.27	6.07	1.07
Fall	2004.50	4.35	5.14 5.09	8.09	1.00	1 73	3.31 7.92	0.20	2.30	5.50	4.02	3.01 9.73	1.05
Winter	2005.00	5.55	5.14	7.24	1.45	1.32	7.35	0.33	1.11	3.19	4.05	10.69	1.05
Spring	2005.25	6.32	5.04	9.06	2.35	1.23	4.87	0.46	4.32	7.46	7.32	6.35	1.06
Summer	2005.50	7.73	4.89	12.91	2.30	0.90	3.35	0.51	4.82	7.27	9.21	5.87	1.11
Fall Winter	2005.75	5.67	5.18	6.64	1.65	1.81	9.09	0.61	1.83	5.04	3.24	11.99	1.07
Spring	2006.00	4.53	5.30 4 99	4.34	2.14	2.00	3.53	0.49	5.60	2.92	2.24	6 9/1	1.25
Summer	2006.50	8.42	4.85	14.26	2.40	0.91	2.35	0.64	6.71	8.96	10.60	5.02	1.11
Fall	2006.75	4.65	5.19	6.52	1.30	1.48	7.53	0.49	1.44	4.81	3.05	8.91	1.12
Winter	2007.00	4.49	5.29	5.13	1.55	1.97	10.05	0.77	0.50	3.37	2.36	12.07	1.12
Spring	2007.25	4.73	5.16	6.93	2.20	1.48	5.87	0.87	2.05	4.54	4.79	7.19	1.17
Summer	2007.50	6.35 5.52	4.97	10.69	1.70	1.07	4.00	0.54	5.21	6.98 7.10	8.02	5.45	1.14
Winter	2007.75	4.92	5.39	4.08	2.00	2.72	13 62	1.40	∠.10 0.67	4.00	2.98	16 11	1.12
Spring	2008.25	6.49	5.12	7.67	3.09	2.22	9.48	0.72	5.82	9.31	6.78	11.23	1.06
Summer	2008.50	6.39	5.00	9.93	1.55	1.73	7.66	0.69	1.33	7.65	5.16	8.89	1.05
Fall	2008.75	4.09	5.31	4.93	1.70	1.40	6.26	0.72	2.27	3.96	3.82	7.42	1.14
VVinter	2009.00	3.61	5.26	5.55	1.50	0.74	3.18	0.38	0.78	2.71	3.18	5.81	1.04
Summer	2009.25	4.03	5.20 5.10	5.26	2.35	1.73	1.35	0.41	1.67	5.25	3.15 5.49	0.41 2.00	1.15
Fall	2009.50	4.03	5,16	6,98	2,20	2,55	11.48	1,94	5.22 1,28	5,75	3.48 4,63	2.00	1.11
Winter	2010.00	3.10	5.36	4.32	2.05	0.91	4.26	0.51	1.05	2.06	2.19	4.85	1.44
Spring	2010.25	5.12	5.18	6.56	2.79	1.89	7.48	0.67	2.88	5.71	5.29	8.66	1.13
Summer	2010.50	6.63	5.00	10.00	1.75	1.65	7.18	0.67	5.10	7.06	8.05	8.24	1.13
Fall	2010.75	4.04	5.18	6.67	1.00	0.82	3.52	0.44	1.77	3.92	3.84	4.06	1.20
Spring	2011.00	4.03	5.23 5.25	5.60	1 90	2 20	0.31 9.1/I	0.28	1.10	2.83	3.08	10.59	1.13
Summer	2011.25	5.15	5.11	7.78	1.15	1.32	5.00	0.69	4.99	6.65	4.95	5.78	1.20
Fall	2011.75	4.13	5.29	5.12	1.05	2.06	9.27	0.38	0.67	3.19	1.92	10.89	1.16
Winter	2012.00	5.56	5.30	5.02	1.50	3.62	16.36	0.49	2.05	4.17	3.66	19.18	1.07
ISpring	2012.25	3.34	5.29	5.09	1.50	1.07	3.65	0.33	3.11	3.27	3.31	4.18	1.37

Data acquired from Http://nadp.sws.uiuc.edu/nadpdata Each entry is a volume weighted average concentration of a three month period (Eqn. 2). Winter 199x is defined as Dec 199x-1 through Feb 199x. Spring is defined as Mar 199x through May 199x. Summer is defined as June 199x through Aug 199x. Fall is defined as Sept 199x through Nov 199x. The column headed "[+/](-]" is the ratio of cation to anion concentration.

Cand         PP         Ca         PP         Ca         PP         Ca         PP         Ca         PP           Winter         1000         1000         55         2.3         2.4         2.0         10.4         2.0         2.0         1.0.0         2.0         1.0.0         2.0         1.0.	Table 5:	Hoh NA	DP Site	Seasor	nal Pred	cipitatio	n Data							
Basem         Year         (162)         5.2         1.34         2.00         0.00 <t< th=""><th></th><th></th><th>Cond</th><th>pН</th><th>H⁺</th><th>Ca<sup>2+</sup></th><th>Mg<sup>2+</sup></th><th>Na+</th><th>K+</th><th>NH₄⁺</th><th>SO42-</th><th>NO3<sup>-</sup></th><th>CI</th><th>[+]/[-]</th></t<>			Cond	pН	H⁺	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na+	K+	NH₄⁺	SO42-	NO3 <sup>-</sup>	CI	[+]/[-]
Whete         1983.00         1.5.8         4.32         4.33         4.33         4.33         4.33         4.33         4.33         4.33         4.33         4.33         4.34	Season	Year	(uS	/cm)					(ueq/L)					
Symp         Test         1         2         4         4         1 </td <td>Winter</td> <td>1988.00</td> <td>11.02</td> <td>5.36</td> <td>4.34</td> <td>2.89</td> <td>10.94</td> <td>48.37</td> <td>1.10</td> <td>0.55</td> <td>8.92</td> <td>1.35</td> <td>59.78</td> <td>0.97</td>	Winter	1988.00	11.02	5.36	4.34	2.89	10.94	48.37	1.10	0.55	8.92	1.35	59.78	0.97
Fail         1982 7         5.60         2.40         3.84         1.80         5.70         2.24         1.60         0.65         4.20         0.61         2.75         1.10           Shring         1983 22         4.35         4.41         3.41         1.60         3.25         1.81         2.05         0.55         4.20         6.11         0.25         4.75         1.03         1.74         1.50           Shring         1990 20         2.42         5.34         0.50         0.55         2.60         0.55         4.20         2.41         0.50         2.45         0.50         2.45         0.50         2.45         0.50         0.50         2.46         0.51         0.57         2.45         0.50         0.57         2.45         0.50         0.57         2.45         0.50         0.57         2.45         0.50         0.57         0.50         0.57         0.50         0.57 <th0.57< th=""> <th0.57< th=""> <th0.57< th=""></th0.57<></th0.57<></th0.57<>	Summor	1988.25	6.24	5.32	4.82	2.50	5.18	23.06	0.49	0.61	0.69	1.32	27.08	1.04
Numer         1989.0         4.41         3.74         1.10         3.95         18.91         2.20         0.55         4.20         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.26         0.75         4.27         0.75         4.27         1.17         0.75         1.25	Fall	1988 75	5.66	5.25	3.94	1 35	4.20	21.04	0.55	0.55	4.60	0.61	27.56	1.12
Spring         1980 20         1.54         3.64         3.61         6.60         3.29         1.42         2.15         5.60         4.75         1.30         1.72         1.80           Fall         1980 75         4.16         5.47         3.40         6.70         2.55         1.10         6.40         1.42         1.79         1.60           Summer         1990 75         4.16         5.47         3.40         1.70         2.56         1.70         4.30         6.71         4.46         1.70         4.66         1.70         1.70         4.46         1.70         4.47         1.70	Winter	1989.00	4.81	5.43	3.74	1.10	3.95	18.31	0.28	0.55	4.23	0.97	21.61	1.04
Summer         1985 0         3.78         4.68         9.29         1.21         5.26         1.21         1.24         5.49         2.49         1.81         1.92           Spring         1992 0         4.45         6.47         3.24         1.17         0.45         1.29         0.41         1.27         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.17         0.45         1.35         0.76         1.16         0.35         1.35         0.45         1.35         0.45         1.35         0.46         0.46         0.41         1.10         0.35         0.35         0.41         1.10         0.35         0.45         1.35         0.46         0.45         1.35         0.46         0.45         1.35         0.46         0.47         1.45         1.32         1.10         1.33         1.33         1.33         1.33         1.33         1.33         1.33 <th1.33< th=""></th1.33<>	Spring	1989.25	4.35	5.44	3.61	1.60	3.29	14.92	0.31	1.05	4.75	1.03	17.24	1.08
Fall         198075         4.16         6.47         3.40         0.75         2.56         1.10         0.40         1.42         1.70         1.60           Summer         1990.50         4.66         2.25         5.20	Summer	1989.50	3.78	5.39	4.06	0.90	1.23	5.26	0.23	1.55	5.69	2.60	6.18	0.92
Winter         1990.00         8.2.4         3.7.5         1.9.0         8.6.4         3.7.0         1.7.1         1.8.6         6.7.1         1.1.0         6.7.0         1.1.0         1.0.0           Fail         1990.76         4.7.5         6.4.6         5.3.0         1.0.0 <th< td=""><td>Fall</td><td>1989.75</td><td>4.16</td><td>5.47</td><td>3.40</td><td>0.75</td><td>2.55</td><td>11.79</td><td>0.43</td><td>1.50</td><td>4.04</td><td>1.42</td><td>13.79</td><td>1.06</td></th<>	Fall	1989.75	4.16	5.47	3.40	0.75	2.55	11.79	0.43	1.50	4.04	1.42	13.79	1.06
Spring         1990         1         1         0         0         0         1         0         1         1         0         0         1         1         1         0         1         1         0         1         1         0         1         0         1         1         0         1         1         0         1	Winter	1990.00	8.25	5.43	3.75	1.90	8.64	38.72	0.79	4.32	6.77	1.18	46.69	1.06
Data         1990 76         4.78         5.47         1.878         0.58         0.89         5.47         1.8         1.00         0.14           Spring         1993 126         4.75         5.39         4.06         1.75         3.62         1.68         0.59         0.57         2.72         1.91         1.01           Spring         1993 126         5.39         4.06         1.75         3.62         1.68         0.51         0.51         1.68         2.39         1.14         1.01         4.38         0.01         0.41         0.16         2.33         1.15         4.35         0.01         0.41         0.16         0.13         1.15         4.35         0.10         0.41         0.10         0.13         1.16         0.13         0.16         0.13         0.16         0.10         0.11         0.13         0.16         0.10         0.11         0.13         0.16         0.12         0.14         0.11         0.15         0.14         0.11         0.15         0.14         0.11         0.15         0.14         0.11         0.16         0.17         0.14         0.11         0.16         0.11         0.16         0.11         0.16         0.11         0.16	Spring	1990.25	6.42	5.33	4.71	1.90	4.61	20.18	0.56	1.33	6.87	2.66	23.75	1.00
Winter         1981 (a)         4.66         5.47         1.62         3.95         1.722         0.38         0.55         3.54         1.19         20.79         1.10           Summer         1991 (5)         2.89         5.45         3.56         1.56         0.67         0.57         2.73         1.94         1.01           Summer         1992 (2)         5.45         5.45         2.56         5.45         2.64         0.56         3.77         5.74         1.46         3.39         1.33         1.41           Winter         1992 (2)         5.25         5.41         3.44         1.90         5.76         2.88         0.65         5.77         1.46         3.32         1.05           Summer         1992 (2)         5.25         5.21         3.44         1.32         1.05         5.77         1.45         2.93         1.05         1.05         5.77         1.45         1.05         5.76         2.88         0.67         5.76         1.46         1.05         5.77         1.45         1.05         5.77         1.45         1.05         5.77         1.45         1.15         1.05         1.16         5.76         2.71         1.05         1.14         5	Summer	1990.50	4.66	5.26	5.50	0.55	2.06	9.66	0.41	0.83	5.73	2.84	11.06	0.97
Spring         1991 52         4.97         5.39         4.66         1.78         3.62         1.64         0.57         5.27         2.13         10.41           Fall         1991 75         5.19         5.41         5.49         1.44         3.20         0.61         3.27         1.68         3.39           Gamp         1992 26         4.52         5.49         2.98         1.44         2.11         1.14         0.33         1.64         2.98         1.07           Spring         1993 26         4.52         5.27         2.18         1.45         2.11         1.14         0.33         1.64         2.10         1.64         2.10         1.64         2.10         1.64         2.10         1.64         2.10         1.64         0.51         1.45         2.17         1.69         1.44         2.11         1.14         0.61         1.45         2.14         1.45         2.11         1.46         2.14         1.45         2.14         1.45         2.14         1.45         2.29         1.01         1.14         1.44         1.45         2.14         1.45         2.29         1.01         1.14         1.44         1.14         1.14         1.14         1.14	Winter	1991.00	4.75	5.44	3.00	1.05	3.95	17.62	0.30	0.05	3.54	1 39	20.00	1.14
Symmer         1991 50         2.8         5.45         2.26         0.74         3.18         0.20         0.61         3.21         1.68         3.39         1.30           Winter         1992 20         6.8         5.40         3.99         1.31         1.64         3.05         1.64         3.32         1.04           Winter         1993 20         6.40         5.41         1.34         0.60         1.65         5.37         1.64         3.30         1.04           Symmer         1993 20         5.32         5.41         3.40         0.65         5.41         3.40         1.05         5.47         3.40         1.05         5.47         1.08         5.58         1.06         5.44         1.02         0.61         2.64         3.77         2.77         1.05         5.99         7.98         1.26         2.65         3.77         1.05         5.99         7.98         1.05         0.64         1.57         1.05         5.99         7.98         1.05         2.65         1.09         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11	Spring	1991.25	4.97	5.39	4.06	1.75	3.62	16.49	0.51	0.67	5.27	2.13	19.41	1.01
Fail         1991.75         5.19         5.39         4.10         1.15         4.36         2.00         0.43         0.55         4.35         1.16         2.38         1.01           Spring         1992.25         1.65         5.33         2.86         2.71         1.14         0.33         1.65         2.84         0.66         0.67         5.71         1.65         2.84         0.66           Spring         1993.26         5.12         5.39         5.41         3.50         1.05         5.84         0.66         0.51         5.27         1.65         2.84         0.61         0.35         2.71         1.65         2.84         0.61         0.35         2.71         1.65         2.84         0.51         0.55         2.84         0.51         0.55         2.71         0.91         1.14 </td <td>Summer</td> <td>1991.50</td> <td>2.89</td> <td>5.45</td> <td>3.56</td> <td>2.69</td> <td>0.74</td> <td>3.18</td> <td>0.20</td> <td>0.61</td> <td>3.21</td> <td>1.68</td> <td>3.39</td> <td>1.33</td>	Summer	1991.50	2.89	5.45	3.56	2.69	0.74	3.18	0.20	0.61	3.21	1.68	3.39	1.33
Winter         1992.00         6.5         5.40         5.30         7.20         6.66         6.77         5.73         1.45         3.26         1.67           Summer         1992.20         3.72         5.71         1.15         6.00         0.28         1.55         5.57         3.06         5.47         0.85           Symmer         1993.25         5.12         5.39         4.06         2.00         3.70         1.55         5.59         3.06         1.05         5.47         1.05         5.77         1.05         5.77         1.05         5.77         1.05         5.77         1.05         5.77         1.05         5.77         1.05         5.77         1.05         5.77         1.05         2.77         0.58         2.77         0.54         2.77         0.54         2.77         0.54         2.77         0.54         2.77         0.55         2.16         0.77         0.77         0.75         2.16         0.77         1.16         0.80         2.77         1.16         0.80         1.16         2.80         1.16         2.80         1.16         2.80         1.16         2.80         1.16         2.80         1.16         2.80         1.80         1.60	Fall	1991.75	5.19	5.39	4.10	1.15	4.36	20.10	0.43	0.55	4.35	1.16	23.98	1.04
Spring         1992.25         4.66         5.37         2.76         1.76         2.64         1.03         1.16         4.46         2.04         1.08           Gal         1992.26         6.23         6.24         1.38         1.60         5.76         2.58         0.64         0.55         2.15         5.63         0.25         2.15         5.65         2.18         1.60         5.76         2.58         0.64         0.55         2.18         1.61         5.77         1.58         0.05         0.72         0.44         1.63         2.17         0.59           Summer         1933.50         6.57         2.58         1.46         4.62         2.07         0.59         0.72         0.44         1.45         2.27         1.14           Winter         1934.40         4.56         2.55         5.28         2.28         1.03         1.14         0.66         1.27         0.39         1.14         0.30         1.14         0.46         0.22         0.31         1.14         0.30         1.14         0.46         0.22         0.31         1.14         0.30         1.15         0.41         0.46         0.30         1.12         0.30         1.12         0.31	Winter	1992.00	6.82	5.40	3.99	2.25	6.58	29.02	0.66	0.67	5.73	1.45	33.26	1.07
Summer         1992, 261         3./2         5./4         1.13         1.6         6.00         2.8         5.35         3.102         5.4/         0.85           Spring         1993, 25         6.28         5.41         1.34         1.65         5.76         2.58         0.61         0.57         1.54         0.57         1.54         0.58         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.54         0.57         1.57         0.56         0.72         0.54         0.50         0.72         0.58         0.72         0.58         0.72         0.58         0.72         0.58         0.72         0.58         0.70         0.53         0.77         0.54         0.75         0.77         0.71         0.77         0.71         0.72         0.54         0.76         0.72         0.74         0.75         0.71         0.77         0.71         0.77         0.71         0.77         0.71         0.75         0.71         0.73         0.71         0.71	Spring	1992.25	4.06	5.53	2.96	1.45	2.71	11.14	0.33	1.16	4.46	2.08	12.64	1.03
relation         1220 (a)         6.20         5.41 (b)         1.42 (b)         5.43 (b)         1.45 (b) <th< td=""><td>Summer</td><td>1992.50</td><td>3.72</td><td>5.70</td><td>1.98</td><td>0.75</td><td>1.15</td><td>6.00</td><td>0.28</td><td>1.55</td><td>5.35</td><td>3.02</td><td>5.47</td><td>0.85</td></th<>	Summer	1992.50	3.72	5.70	1.98	0.75	1.15	6.00	0.28	1.55	5.35	3.02	5.47	0.85
nume         1933         22         5.2         2.3         1.66         2.00         3.7         1.62         0.41         1.33         1.56         2.33         2.73         2.80         1.30         1.56         2.33         2.73         2.77         0.59         0.72         0.54         0.53         2.77         0.59         0.72         0.54         0.53         2.77         0.59         0.72         0.54         0.53         2.277         0.59           Fall         1993.75         6.77         5.45         3.42         0.55         2.42         0.56         0.52         0.54         1.45         2.277         0.59           Symme         1994.52         5.25         5.30         1.65         5.30         1.65         5.30         1.45         3.32         1.26         3.33         1.26         3.33         1.26         3.33         1.26         3.33         1.26         3.33         1.26         3.33         1.27         1.30         3.32         1.26         3.33         1.27         1.33         1.31         1.41         3.32         1.26         3.33         1.21         1.45         3.32         1.26         1.11         1.14         3.32         1	Fall	1992.75	6.28	5.41	3.94	1.60	5./6	25.66	0.66	0.55	5.37	1.45	29.34	1.06
Symme         1935         0         1         4         4         4         2         2         0         4         3         2         7         2         7         0         9           Winter         1934         0         1         0	Spring	1993.00	5.33	5.41	3.90	2.00	3.70	24.00	0.51	1 33	4.34	2.18	18 36	1.05
Fail         1933 72         6.77         6.84         1.30         4.68         21.97         0.58         0.72         5.04         1.45         2.247         1.14           Spring         1934 25         5.25         5.23         4.84         2.05         3.78         19.84         0.65         5.08         4.84         2.05         3.78         1.654         0.64         0.64         5.39         4.27         1.91           Fail         1934 25         5.25         5.32         4.48         0.55         5.42         0.66         0.78         5.98         1.45         5.62.9         1.11         4.50         5.93         1.45         3.62.91         1.11         5.53         4.27         1.11         5.53         2.21         5.76         5.30         2.11         1.11         6.50         1.52         3.03         1.61         1.65         1.13         3.03         1.61         1.52         3.03         1.61         1.65         1.13         3.03         1.61         1.55         3.03         1.61         1.52         3.03         1.61         1.55         3.03         1.61         1.55         3.12         1.61         1.51         1.53         3.03         1.61 <td>Summer</td> <td>1993.50</td> <td>6.63</td> <td>5.27</td> <td>5.36</td> <td>1.45</td> <td>4.52</td> <td>20.49</td> <td>0.72</td> <td>0.94</td> <td>8.33</td> <td>2 73</td> <td>22 77</td> <td>0.99</td>	Summer	1993.50	6.63	5.27	5.36	1.45	4.52	20.49	0.72	0.94	8.33	2 73	22 77	0.99
Winter         1994.00         495         7.8         4.45         7.9         7.9         8.0         0.65         7.00         7.45         7.17         7.9           Summer         1994.50         8.8         5.05         8.31         1.40         5.38         1.64         0.72         8.81         2.29         2.7.31         1.17           Final         1994.50         8.86         5.05         5.53         2.54         5.84         2.58         0.66         0.78         8.81         2.29         2.21         1.64         0.38         1.04         2.038         1.04         1.11         6.46         1.82         0.38         1.04         1.14         5.08         1.05         1.06         1.02         1.14         0.74         1.11         6.48         3.22         1.24         1.11	Fall	1993 75	6 77	5.45	3.58	1.30	4 69	21.97	0.59	0.72	5.04	1.45	22.40	1.14
Spring         1994.25         6.25         5.27         1.48         2.05         3.78         16.44         0.41         1.66         5.31         2.28         18.00         1.14           Fall         1994.76         7.76         5.28         5.30         2.42         0.60         0.78         5.98         1.22         5.40         1.11         6.60         1.53         6.42         3.42         1.11         6.60         1.64         3.32         1.11         6.60         1.64         3.32         1.11         6.60         1.64         3.32         1.11         6.60         1.11         6.60         1.11         6.60         1.11         1.66         1.64         3.32         1.14         1.14         5.30         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75         1.10         4.75	Winter	1994.00	4.95	5.36	4.40	1.05	3.78	19.58	0.66	2.05	3.69	1.45	21.27	1.19
Summer         1994.60         8.86         5.05         8.83         1.40         5.35         2.42         0.96         0.72         8.11         2.99         2.73         1.71           Winter         1995.00         4.82         5.41         3.88         0.90         3.70         18.44         0.80         0.99         3.88         1.14         20.03         1.14           Summer         1995.50         5.66         5.10         7.98         1.05         2.30         1.122         0.11         6.44         3.32         1.24         1.11         6.44         3.32         1.24         1.11         6.46         1.32         1.01         1.35         1.11	Spring	1994.25	5.25	5.32	4.84	2.05	3.78	16.44	0.41	1.66	5.31	2.26	18.03	1.14
Fail         1994.75         7.76         5.28         5.30         1.55         6.42         3.43         0.66         0.78         5.89         1.46         36.80         1.11           Spring         1995.25         7.09         5.27         5.36         2.15         5.44         2.50         0.74         1.11         6.48         3.24         1.24         1.11           Fail         1995.75         5.53         5.50         5.50         5.50         5.50         5.51         1.44         1.11         7.81         7.83         3.83         1.05           Spring         1996.20         7.49         5.20         5.76         2.60         1.33         1.11         7.81         5.86         1.04         1.92         3.05         3.64         1.20         3.05         3.64         1.13         1.13           Spring         1997.25         5.34         5.22         6.40         1.45         3.07         1.70         0.43         0.85         6.16         1.41         1.13         1.11           Spring         1997.25         3.34         5.24         5.44         1.46         2.46         1.41         1.45         0.46         1.14         1.16	Summer	1994.50	8.86	5.05	8.83	1.40	5.35	24.27	0.59	0.72	8.81	2.29	27.31	1.07
Winter         199b. UI         4.82         5.41         3.88         0.90         3.70         18.44         0.88         0.99         3.88         1.16         20.083         1.04           Summer         1996.56         5.66         5.10         7.98         1.05         2.30         11.22         0.31         2.11         6.48         3.32         12.48         1.11           Spring         1996.25         7.43         5.53         2.20         5.76         2.66         1.63         2.11         7.48         1.66         1.61         2.31         1.16         1.61         1.66         1.61         1.51 </td <td>Fall</td> <td>1994.75</td> <td>7.76</td> <td>5.28</td> <td>5.30</td> <td>1.55</td> <td>6.42</td> <td>34.32</td> <td>0.66</td> <td>0.78</td> <td>5.98</td> <td>1.45</td> <td>36.59</td> <td>1.11</td>	Fall	1994.75	7.76	5.28	5.30	1.55	6.42	34.32	0.66	0.78	5.98	1.45	36.59	1.11
oprime         resp. r	Winter	1995.00	4.82	5.41	3.88	0.90	3.70	18.44	0.38	0.89	3.08	1.16	20.48	1.14
comme         issue         issue <th< td=""><td>Spring</td><td>1995.25</td><td>7.09</td><td>5.27</td><td>5.35</td><td>2.15</td><td>5.84</td><td>25.80</td><td>0.74</td><td>1.11</td><td>6.60</td><td>1.82</td><td>30.83</td><td>1.04</td></th<>	Spring	1995.25	7.09	5.27	5.35	2.15	5.84	25.80	0.74	1.11	6.60	1.82	30.83	1.04
	Fall	1995.50	5,90	5.10	7.98 5.01	1.05	2.3U 1.36	20 02	0.51	2.11	0.40	3.3Z	23.16	1.11
Symmet         196         517         5.17         7.46         1.40         3.01         1.22         3.03         6.16         7.79         1.66         6.50         1.12           Winker         1997.00         5.80         5.31         4.47         1.15         5.02         25.22         0.51         0.55         5.36         1.40         20.07         1.10           Symmer         1997.50         3.98         5.24         6.74         0.50         1.48         7.09         0.28         0.83         4.17         2.06         7.6         1.68         4.75         1.18           Symmer         1998.20         6.97         5.40         4.01         1.76         6.68         31.32         0.61         0.65         6.44         1.68         4.75         1.18         5.66         1.08         5.66         1.08         5.66         1.08         5.66         1.08         5.66         1.08         5.66         1.07         1.08         5.00         1.09         5.66         1.07         1.05         5.00         1.09         5.00         1.01         5.00         1.01         1.21         1.71         4.55         1.10         5.01         1.01         1.02	Spring	1996 25	7 49	5.26	5.53	2 20	5 76	20.52	1.50	2 11	7.81	2 79	30.58	1.12
Fail         1996 75         5.38         5.31         4.54         1.15         5.02         6.25         0.45         3.56         1.40         20.07         1.10           Spring         1997 25         5.34         5.22         6.64         1.45         3.70         7.70         0.43         0.89         5.15         1.40         20.07         1.13           Fail         1997 75         9.12         5.33         4.69         2.10         8.72         4.346         0.89         6.55         4.54         1.66         1.66         2.69         1.16         3.56         1.06           Spring         1998 25         5.56         2.56         2.59         4.77         2.232         0.69         0.50         0.90         3.67         1.09           Spring         1998 25         5.56         3.14         4.52         1.15         4.51         2.47         1.09         0.36         5.00         0.41         1.72         6.52         1.71         1.42         1.12         1.12         1.16         1.12         1.12         1.12         1.12         1.13         1.12         1.13         1.12         1.12         1.10         1.11         1.12         1.10 <td>Summer</td> <td>1996.50</td> <td>6.17</td> <td>5.13</td> <td>7.46</td> <td>1.40</td> <td>3.04</td> <td>15.23</td> <td>0.38</td> <td>1.61</td> <td>7.19</td> <td>1.66</td> <td>16.95</td> <td>1.13</td>	Summer	1996.50	6.17	5.13	7.46	1.40	3.04	15.23	0.38	1.61	7.19	1.66	16.95	1.13
Winter         197.00         5.80         5.37         4.27         1.15         5.02         2.52.2         0.51         0.55         3.96         1.40         2.07         1.12           Summer         1997.50         3.98         5.24         5.74         0.50         1.48         7.09         0.43         0.89         5.15         1.94         1.92.7         1.12           Summer         1998.00         6.97         5.40         4.01         1.75         6.83         3.132         0.61         0.55         4.47         1.08         2.66         1.08         1.08         4.57         1.11           Summer         1998.50         3.99         5.14         7.28         0.50         4.47         1.01         0.10         0.55         4.65         2.47         1.08         5.50         0.90         3.67         1.08         5.67         1.05         5.00         1.01         1.25         1.12         1.55         1.12         1.55         1.12         1.55         1.12         1.55         1.12         1.55         1.05         1.05         1.05         1.05         1.05         1.05         1.05         1.05         1.05         1.05         1.05         1.05 </td <td>Fall</td> <td>1996.75</td> <td>5.38</td> <td>5.31</td> <td>4.94</td> <td>1.15</td> <td>3.70</td> <td>17.97</td> <td>0.43</td> <td>1.05</td> <td>4.65</td> <td>1.35</td> <td>20.09</td> <td>1.12</td>	Fall	1996.75	5.38	5.31	4.94	1.15	3.70	17.97	0.43	1.05	4.65	1.35	20.09	1.12
Spring         1972         5         3         5         22         6         4         145         370         7         05         083         4.17         2.06         7.81         1.13           Fall         1997.75         9         22         6.34         1.68         4.76         1.06           Spring         1998.25         6.56         5.26         5.56         2.59         4.77         2.23         0.66         0.67         6.46         2.69         2.41         1.16           Fall         1998.75         5.78         5.34         4.52         1.15         4.61         2.142         0.54         6.55         4.59         1.09         0.36         5.00         0.41         1.08         6.55         4.27         1.08         5.53         6.49         1.06         6.75         2.22         0.69         5.00         1.71         7.25         1.05         5.31         1.05         5.03         1.72         5.23         3.08         1.22         1.10           Spring         1997.5         4.18         5.31         1.60         1.22         3.04         1.05         5.31         1.60         1.22         1.12         1.08         1	Winter	1997.00	5.80	5.37	4.27	1.15	5.02	25.32	0.51	0.55	3.96	1.40	28.07	1.10
Summer         197.50         3.98         5.24         5.74         0.50         1.48         7.09         0.28         0.83         4.17         2.06         7.81         1.13           Winter         1998.00         6.97         5.40         4.01         1.75         6.58         31.32         0.61         0.55         4.57         1.16         5.66         1.08           Symmer         1998.50         3.99         5.14         7.28         0.50         0.41         0.55         4.65         2.47         1.08         2.53         1.07           Winter         1999.50         7.24         5.34         4.52         1.15         4.61         1.67         1.22         0.69         0.89         5.60         0.90         8.67         1.05           Summer         1999.50         1.52         3.54         1.65         2.47         1.09         0.55         3.60         1.17         4.72         5.61         1.90         1.14           Winter         2.000.00         4.67         5.27         5.88         1.15         2.05         1.16         1.14         1.34         1.18           Winter         2.000.00         1.67         5.22         5.	Spring	1997.25	5.34	5.22	6.04	1.45	3.70	17.05	0.43	0.89	5.15	1.94	19.27	1.12
Fail         1997,75         9,12         5,33         4,69         2,10         8,72         4,346         0,89         0,55         6,34         1,68         7,75         6,68         1,08           Sping         1998,25         6,56         5,26         5,56         2,59         4,77         22,93         0,56         0,67         6,46         2,69         2,41         1,11           Fail         1998,25         6,57         8,53         4,49         1,10         1,60         0,89         5,50         0,99         8,66         1,19           Sping         1999,25         9,56         5,31         4,91         3,19         8,80         41,63         0,87         1,50         8,50         1,17         1,12           Sping         2000,25         5,27         1,20         3,13         1,52         3,30         1,55         3,33         1,48         1,69         1,99           Sping         2000,25         5,28         5,31         1,20         3,33         1,81         0,55         3,31         1,68         1,99           Sping         2000,25         5,28         5,31         1,20         3,31         1,50         1,31         1,50	Summer	1997.50	3.98	5.24	5.74	0.50	1.48	7.09	0.28	0.83	4.17	2.06	7.81	1.13
Winter         199         0.0         9.97         5.40         4.01         1.7.5         5.58         3.1.2         0.61         0.55         4.6         2.65         2.61         1.111           Summer         1998.50         3.99         5.14         7.28         0.50         0.41         1.70         0.18         0.55         4.65         2.47         1.08         2.53         1.07           Winter         1999.00         7.24         5.34         4.42         1.15         4.61         0.67         3.22         0.69         0.89         5.00         0.90         2.66         1.11         4.7         1.7         1.7         1.7         1.7         1.55         3.05         3.08         1.21         1.37         1.14           Winter         2000.00         4.67         5.37         4.25         1.20         3.04         1.40         0.55         3.38         1.69         1.114           Winter         2000.00         4.67         5.42         2.35         1.68         1.19         3.34         1.40         1.34         1.80           Spring         2010.50         6.34         5.66         1.10         5.36         3.66         1.99	Fall	1997.75	9.12	5.33	4.69	2.10	8.72	43.46	0.89	0.55	6.94	1.68	47.56	1.08
cpanng         1930-29         0.30         2.30         2.30         2.30         0.30         0.30         0.30         0.40         2.41         0.11         1.16           Fall         1988.75         5.78         5.34         4.52         1.16         1.70         0.18         0.55         4.47         1.80         0.57         0.50         0.80         5.50         0.90         36.67         1.99           Spring         1999.25         3.56         4.31         1.80         0.57         0.22         0.80         0.55         3.68         1.71         7.55         1.12           Spring         1999.75         4.18         5.37         4.25         1.10         1.14         1.90         0.55         3.31         1.65         1.12           Spring         2000.25         5.29         5.28         5.31         1.52         3.31         1.52         2.31         1.31         1.32           Spring         2001.25         7.44         5.28         5.31         2.35         8.33         5.50         0.83         7.79         2.05         1.00           Spring         2001.26         7.44         5.28         5.51         2.68         0.31<	VVinter	1998.00	6.97	5.40	4.01	1.75	6.58	31.32	0.61	0.55	4.75	1.16	35.66	1.08
Fall         1988 75         5.78         5.34         4.52         1.15         4.61         2.14         6         6.44         0.55         4.27         1.08         2.536         1.07           Winter         1999.05         5.78         5.31         4.91         1.90         6.57         32.32         0.69         0.56         3.00         1.90         5.57         1.92         5.12         1.12         1.31         4.153         0.87         1.15         6.50         1.71         4.725         1.12         5.12         1.12         1.31         1.14         Winter         1.99.35         5.12         7.67         1.65         2.30         1.52         0.64         0.78         5.42         2.33         1.14         1.93         1.14         Winter         2.000.00         4.67         5.37         4.25         1.12         3.17         1.68         0.41         0.55         3.31         1.66         1.93	Summer	1990.25	3 99	5.20	5.50	2.59	4.77	22.93	0.56	0.67	4 65	2.69	24.10	1.11
Winter         199 00         7.24         5.36         4.49         180         6.75         32.32         0.69         0.89         5.50         0.00         36.67         1.09           Summer         1999.50         5.92         5.12         7.67         1.65         2.47         10.96         0.36         1.72         6.52         3.13         1.25         1.12           Fall         1999.75         4.18         5.39         4.04         1.05         2.30         1.27         0.36         0.55         3.08         1.21         1.31         1.25         1.12           Spring         2000.25         5.29         5.28         5.27         1.90         3.13         15.27         0.64         0.76         5.42         2.34         1.08           Winter         2000.75         5.66         5.28         5.31         2.35         6.83         3.506         0.60         0.44         6.00         0.83         7.29         2.63         0.50         1.10           Spring         2002.26         7.20         5.30         1.00         3.65         1.01         1.03         Spring         2.002.25         5.00         1.00         Spring         2.002.25	Fall	1998 75	5.33	5.34	4.52	1 15	4 61	21.45	0.10	0.55	4.03	1.08	25.36	1.10
Spring         1999 25         9.56         5.12         7.67         1.65         8.50         1.16         8.50         1.17         4.72         1.15           Fall         1999 75         5.42         7.67         1.65         2.30         1.227         0.36         0.55         3.08         1.11         1.13           Fall         2000 25         5.29         5.27         1.90         3.13         1.527         0.64         0.76         5.42         2.35         1.695         1.09           Summer         2000 50         6.34         5.06         1.20         3.04         1.05         0.28         7.12         2.44         1.34         1.08           Spring         2011.00         8.25         5.28         5.61         1.00         1.07         5.31         1.60         1.92         1.01           Symmer         2011.50         4.05         5.25         5.66         0.90         9.04         4.66         0.20         0.55         4.37         1.79         5.50         1.10           Symmer         2002.00         7.09         5.40         3.56         1.60         2.70         2.46         2.70         1.04           Syming </td <td>Winter</td> <td>1999.00</td> <td>7.24</td> <td>5.35</td> <td>4.49</td> <td>1.80</td> <td>6.75</td> <td>32.32</td> <td>0.69</td> <td>0.89</td> <td>5.50</td> <td>0.90</td> <td>36.67</td> <td>1.09</td>	Winter	1999.00	7.24	5.35	4.49	1.80	6.75	32.32	0.69	0.89	5.50	0.90	36.67	1.09
Summer         199.50         5.92         5.12         7.67         1.66         2.47         10.96         0.36         1.72         6.52         3.13         12.65         1.12           Winter         2000.00         4.67         5.37         4.25         1.20         3.04         14.96         0.33         0.55         3.23         1.44         16.96         1.12           Syming         2000.50         6.34         5.68         5.27         1.90         3.13         15.27         0.44         1.64         1.65         5.42         2.24         1.66         1.12           Spring         2001.00         8.25         5.28         5.27         1.90         3.13         1.66         0.44         6.50         3.1         1.60         1.92         1.10           Spring         2001.75         5.66         1.20         3.04         1.66         0.20         0.55         4.37         1.79         5.50         1.05           Summer         2001.75         5.62         5.66         0.90         4.66         0.20         0.55         4.37         1.02         5.61         1.06           Winter         2001.75         6.65         5.39         1	Spring	1999.25	9.56	5.31	4.91	3.19	8.80	41.63	0.87	1.05	8.50	1.71	47.25	1.05
Fail         1997.75         4.18         5.39         4.04         1.05         2.30         122.77         0.36         0.55         3.28         1.21         13.79         1.14           Spring         2000.25         5.29         5.28         5.27         1.90         3.13         15.27         0.64         0.78         5.42         2.35         16.58         1.19           Spring         2000.50         6.34         5.66         5.25         5.68         1.12         3.37         16.88         0.41         0.55         5.71         2.24         1.08           Winter         2001.50         7.44         5.28         5.22         2.59         5.61         26.88         0.79         0.83         7.29         2.05         30.35         1.05           Summer         2001.50         7.44         5.28         5.65         0.09         0.90         4.66         0.20         4.55         4.52         1.10         5.5         1.03         1.06         1.00         1.02         3.61         1.03         1.03         1.04         0.55         4.10         1.02         3.61         1.04         3.61         1.05         5.10         1.63         3.61         1.0	Summer	1999.50	5.92	5.12	7.67	1.65	2.47	10.96	0.36	1.72	6.52	3.13	12.55	1.12
Winter         2000.00         4.67         5.37         4.25         1.20         3.04         1.496         0.33         0.55         3.23         1.48         16.98         1.19           Summer         2000.50         6.34         5.06         8.69         1.15         2.39         11.75         0.28         0.55         7.12         2.44         13.43         10.8           Winter         2001.00         8.25         5.28         5.61         2.28         0.80         0.40         0.55         4.31         1.79         5.00         1.02           Spring         2001.25         7.44         5.25         5.65         0.90         0.90         4.66         0.20         0.55         4.37         1.79         5.50         1.10           Summer         2001.75         6.29         5.46         0.60         3.05.40         0.40         0.46         0.40         0.40         0.46         0.43         0.40         0.40         0.43         0.41         0.44         0.46         0.40         0.46         0.55         4.33         1.03         0.56         4.33         0.79         0.27         0.56         1.00         0.56         4.32         1.06         0	Fall	1999.75	4.18	5.39	4.04	1.05	2.30	12.27	0.36	0.55	3.08	1.21	13.79	1.14
Spnmg         2000 25         5 29         5 27         1 30         3 13         1 5 27         0 44         0.76         5 42         2 35         16 34         1 108           Fail         2000 75         5 66         5 25         5 58         1 120         3.37         16 88         0.41         0.55         5 7.12         2 44         1 343         1 08           Spring         2001 25         7.64         5 28         5 22         2 59         5 51         2 88         0.79         0.83         7.29         1.75         5 50         1 10           Spring         2001 75         6 29         5 36         4 36         1.75         5 02         2 480         0.72         0.55         4 52         1.15         2 9.48         1 06           Winter         2002.00         7.09         5.40         3.96         1.60         6.00         30.54         0.84         0.55         4.92         1.03         3.97.5         1.03           Spring         2002.50         5.00         5.17         6.84         1.76         4.52         2.77         1.48         3.97.5         1.03           Spring         2003.25         6.06         5.38         4.16	Winter	2000.00	4.67	5.37	4.25	1.20	3.04	14.96	0.33	0.55	3.23	1.48	16.98	1.12
Summer         2000.90         6.34         5.06         6.89         1.15         2.39         11.75         0.28         0.41         0.55         5.11         1.08           Winter         2001.00         8.25         5.28         5.81         1.23         37         16.88         0.41         0.55         5.11         1.60         39.24         1.07           Syring         2001.50         4.05         5.25         5.66         0.90         0.90         4.66         0.20         0.55         4.52         1.15         5.11         5.66         1.00         5.02         24.60         0.20         0.55         4.52         1.15         5.94         1.02         30.35         1.06           Winter         2002.20         7.09         5.40         3.96         1.60         6.00         30.54         0.55         4.50         1.02         36.7         0.84         1.05         5.10         1.04         39.75         1.03           Spring         2002.25         7.20         5.38         4.16         1.60         4.85         2.27         0.51         0.55         4.40         9.77         7.86         1.03           Spring         2002.35         6	Spring	2000.25	5.29	5.28	5.27	1.90	3.13	15.27	0.64	0.78	5.42	2.35	16.95	1.09
nm         2000 10         0         5         5         0         1         0<	Summer	2000.50	6.34 6.66	5.06	8.69	1.15	2.39	11.75	0.28	0.55	7.12 5.31	2.44	13.43	1.08
Spring         2001 25         7.4         5.25         2.25         5.51         2.88         0.79         0.87         7.29         2.05         3.0.2         1.05           Summer         2001 150         4.05         5.25         5.66         0.90         0.90         4.66         0.20         0.55         4.37         1.79         5.50         1.10           Summer         2002 25         7.20         5.34         3.63         1.76         5.02         2.48         0.72         0.55         4.52         1.15         2.54           Spring         2002 25         7.20         5.34         4.60         1.60         4.60         4.85         2.31         0.64         0.55         4.52         1.51         1.64         2.01         1.03           Spring         2002 25         7.00         5.15         5.37         4.28         1.75         7.16         3.05         0.74         0.72         5.77         1.48         39.75         1.03           Spring         2003 25         6.75         5.38         4.16         1.76         4.28         2.023         0.46         0.65         3.50         1.04         2.03           Spring         2003	Winter	2000.75	5.00 8.25	5.25	5.00	2.35	6.83	35.06	0.69	0.55	6.60	1.00	39.24	1.00
Summer         2001 50         4.05         5.25         5.65         0.90         0.90         4.66         0.20         0.55         4.37         1.79         5.60         1.10           Fall         2001 75         6.29         5.36         4.36         1.75         5.02         24.80         0.72         0.55         4.37         1.79         5.60         1.03           Spring         2002 25         7.20         5.38         4.19         2.30         4.85         2.371         0.61         1.00         5.98         2.16         27.00         1.04           Summer         2002 25         8.15         5.37         4.28         1.76         7.16         3.58         0.74         0.72         5.5         1.03         7.87         1.03           Syming         2003 25         6.66         5.38         4.16         1.75         4.22         2.53         0.74         1.05         5.15         1.68         2.446         1.04           Syming         2003 20         5.78         5.38         4.16         1.60         3.29         2.03         0.61         4.60         1.62         2.86         1.00           Syming         2004 25         6.7	Spring	2001.00	7.44	5.28	5.22	2.59	5.51	26.88	0.79	0.83	7.29	2.05	30.35	1.05
Fall         2001 75         6 29         5 36         4 36         1 75         5 02         2 4 80         0 72         0 55         4 52         1 15         2 9.48         1 106           Winter         2002 20         7 7.09         5 30         3.96         1 60         6 00         30.54         0.64         0.55         4 79         1 0.2         36.19         1 0.3           Summer         2002 25         7.20         5 38         0.74         4.85         23.71         0.61         1.00         5.80         3.00         7.84         1 0.77           Fall         2003 25         6 0.5         5.83         1.75         4.52         22.27         0.51         0.56         1.40         0.97         27.36         1 0.3           Spring         2003 25         6 0.73         5.15         7.16         1.60         3.29         1.627         0.56         2.00         8.08         2.76         18.96         1.04           Syming         2004 20         5.73         5.33         4.16         1.60         3.29         2.06         0.55         3.50         1.40         2.37         1.01         2.33         1.40         1.40         2.37         1.30	Summer	2001.50	4.05	5.25	5.65	0.90	0.90	4.66	0.20	0.55	4.37	1.79	5.50	1.10
Winter         2002 00         7.09         5.40         3.96         1.60         6.04         0.64         0.64         0.79         1.02         36.19         1.03           Spring         2002 25         7.00         5.38         4.19         2.30         4.85         2.311         0.61         1.00         5.89         3.00         7.84         1.07           Fall         2002 25         8.15         5.37         4.28         1.75         7.16         3.56         0.74         0.72         6.77         1.48         39.75         1.03           Winter         2003 05         6.05         5.38         4.16         1.76         4.28         2.05 3         0.74         1.05         5.40         0.97         2.736         1.03           Spring         2003 50         6.73         5.13         4.16         1.60         3.87         2.02 3         0.61         0.61         6.61         4.60         1.40         2.87         1.07           Spring         2004 50         5.78         5.38         4.16         1.60         3.87         2.02         0.61         6.52         1.81         1.34         1.02           Spring         2004 55 <t< td=""><td>Fall</td><td>2001.75</td><td>6.29</td><td>5.36</td><td>4.36</td><td>1.75</td><td>5.02</td><td>24.80</td><td>0.72</td><td>0.55</td><td>4.52</td><td>1.15</td><td>29.48</td><td>1.06</td></t<>	Fall	2001.75	6.29	5.36	4.36	1.75	5.02	24.80	0.72	0.55	4.52	1.15	29.48	1.06
Spring         2002 25         7.20         5.38         4.19         2.30         4.85         23.71         0.61         1.00         5.98         2.16         27.00         1.04           Fall         2002 50         5.00         5.17         6.84         0.60         1.32         6.87         0.28         1.55         5.50         3.00         7.84         1.03           Winter         2003 00         5.81         5.43         3.68         1.75         4.22         2.053         0.74         0.72         5.15         1.58         2.446         1.04           Summer         2003 75         7.05         5.39         4.07         1.86         4.94         2.467         0.61         0.61         4.60         1.62         2.66         1.04           Spring         2004 25         6.71         5.32         4.80         2.30         4.36         2.079         0.54         0.94         6.57         2.56         2.539         1.00           Summer         2004 50         5.29         5.23         5.83         1.15         2.66         1.04         3.03         3.27         1.03         3.267         1.04         3.04         1.04         3.04	Winter	2002.00	7.09	5.40	3.96	1.60	6.00	30.54	0.64	0.55	4.79	1.02	36.19	1.03
Summer         2002 56         5.00         5.17         6.84         0.60         1.32         6.87         0.28         1.55         5.50         3.00         7.84         1.07           Winter         2003 20         5.81         5.43         3.68         1.75         4.62         22.27         0.51         0.55         4.44         0.97         27.36         1.03           Spring         2003 25         6.06         5.38         4.16         1.75         4.52         22.27         0.56         2.00         8.08         2.76         18.96         1.04           Summer         2003 35         6.73         5.15         5.30         4.07         1.85         4.94         2.46         0.61         0.61         4.60         1.10         29.66         1.04           Winter         2004 05         5.79         5.32         4.80         1.36         2.80         0.61         5.92         3.83         1.15         2.60         1.13         0.28         0.61         5.92         1.31         1.34         1.02           Spring         2004 50         5.95         5.16         6.97         1.50         2.30         1.061         3.38         1.31	Spring	2002.25	7.20	5.38	4.19	2.30	4.85	23.71	0.61	1.00	5.98	2.16	27.00	1.04
Fail         2002 / 15         5 / 5 / 7         4 / 28         1 / 5         7 / 16         3 / 3 / 88         1 / 7         4 / 28         0 / 7         7 / 36         1 / 03           Spring         2003 00         5 / 81         5 / 33         8 / 16         1 / 75         4 / 28         20 / 75         4 / 10         1 / 75         4 / 28         2 / 7         0 / 7         1 / 10         1 / 10           Spring         2003 20         5 / 7         5 / 5         3 / 7         1 / 10	Summer	2002.50	5.00	5.17	6.84	0.60	1.32	6.87	0.28	1.55	5.50	3.00	7.84	1.07
Winter         2003 26         6.6         5.36         1.75         4.32         22.27         0.51         0.56         1.44         0.97         27.36         1.03           Summer         2003 26         6.6         5.38         4.16         1.75         4.28         20.53         0.74         1.05         5.16         7.16         1.04           Fall         2003 75         7.05         5.39         4.07         1.86         4.94         2.467         0.61         4.06         0.56         3.50         1.16         2.66         1.04           Spring         2004 25         6.71         5.32         4.80         2.30         4.36         0.54         0.94         6.57         2.56         2.539         1.00           Summer         2004 50         5.29         5.23         5.83         1.15         2.06         1.13         0.33         3.27         1.9         1.56         1.10           Summer         2005 50         5.55         5.16         6.97         1.50         2.30         1.061         0.38         0.78         6.25         2.84         1.251         1.04           Fail         2005 50         5.55         5.16         6.97	Fall	2002.75	0.15 5.94	5.37	4.28	1.75	7.16	33.58	0.74	0.72	5.77	1.48	39.75	1.03
Dyning         2003 50         6 73         5 50         7 16         1.03         3.20         1.27         0.56         2.00         0.80         2.76         1.30         2.44         0         1.04           Fail         2003 56         6 73         5 53         4.07         1.85         4.94         2.46         0.61         0.61         0.61         4.60         1.16         2.96         1.04           Winter         2004 00         5 73         5.33         4.16         1.60         3.87         2.02         0.46         0.55         3.50         1.04         2.37         1.07           Spring         2004 50         5 29         5.23         5.83         1.15         2.06         1.03         0.28         0.61         5.57         1.10         Spring         2005 25         7.95         5.29         5.14         2.69         0.99         2.94         0.69         1.05         7.35         2.19         3.49         1.04         1.03           Spring         2005 75         5.25         5.16         6.97         1.50         2.30         1.06         0.33         0.31         3.35         1.10         2.51         3.11         1.04         1.10 <td>Spring</td> <td>2003.00</td> <td>10.C</td> <td>5.45</td> <td>3.00</td> <td>1.75</td> <td>4.52</td> <td>20.53</td> <td>0.51</td> <td>1.05</td> <td>4.04 5.15</td> <td>1.58</td> <td>21.30</td> <td>1.03</td>	Spring	2003.00	10.C	5.45	3.00	1.75	4.52	20.53	0.51	1.05	4.04 5.15	1.58	21.30	1.03
Fail         2003 75         7.05         5.39         4.07         1.85         4.94         24.67         0.61         0.61         4.00         1.62         1.07           Winter         2004 25         6.71         5.32         4.16         1.60         3.87         20.23         0.46         0.55         3.50         1.16         29.65         1.01           Summer         2004 25         6.71         5.32         5.83         1.15         2.06         11.53         0.28         0.61         4.58         1.21         2.065         1.06           Winter         2004 75         5.41         5.37         4.30         1.65         3.45         17.66         0.43         0.61         4.58         1.21         2.065         1.06           Winter         2005 50         5.55         5.16         6.97         1.50         2.30         1.061         0.38         0.73         2.18         1.02         Summer         2006 50         5.546         6.97         1.50         2.211         0.54         0.33         3.44         1.19         2.6.71         1.04           Winter         2006 50         5.65         5.28         5.27         2.44         3.62	Summer	2003.50	6,73	5,15	7,16	1,60	3,29	16.27	0.56	2.00	8.08	2.76	18.96	1.04
Winter         2004 00         578         5.38         4.16         1.60         3.87         20.23         0.46         0.55         3.50         1.40         2.387         1.07           Spring         2004 25         6.71         5.23         4.80         2.30         4.36         20.79         0.54         0.94         6.77         2.56         25.39         1.00           Summer         2004 50         5.29         5.23         5.83         1.15         2.06         1.153         0.24         0.61         5.52         1.81         1.33         4         1.00           Winter         2005 50         7.95         5.29         5.14         2.69         6.09         2.94.5         0.69         1.05         7.35         2.19         4.56         1.10           Spring         2005 50         5.55         5.16         6.97         1.50         2.30         1.061         0.38         0.78         6.25         2.84         1.01         1.04           Fail         2005 75         5.92         5.35         5.77         2.44         4.61         2.71         0.54         0.13         3.43         1.11         2.66         1.55         5.10         1.07	Fall	2003.75	7.05	5.39	4.07	1.85	4.94	24.67	0.61	0.61	4.60	1.16	29.68	1.04
Spring         2004 25         6 71         5 52         4 80         2.30         4.36         20.79         0.54         0.94         0.57         2.56         2.53         1.100           Fall         2004 50         5 29         5 23         5 83         1.15         2.06         11.53         0.28         0.61         5.52         1.81         1.33         1.02           Spring         2005 25         7 55         5 29         5.14         2.69         6.09         2.94         0.69         0.61         5.22         1.93         1.04         1.04           Summer         2005 75         5 25         5.16         6.97         1.50         2.30         1.061         0.38         0.78         6.25         2.84         1.04           Fall         2006 75         5 29         5.35         4.47         1.66         4.20         1.946         0.54         0.33         4.94         1.12         2.61         1.04           Spring         2006 50         6.05         5.28         5.27         2.84         3.62         16.70         0.49         1.28         6.21         2.66         1.07         1.17           Spring         2007 75         5.	Winter	2004.00	5.78	5.38	4.16	1.60	3.87	20.23	0.46	0.55	3.50	1.40	23.87	1.07
Summer         2004 50         5.29         5.83         1.15         2.06         11.53         0.28         0.61         4.59         1.81         13.34         10.02           Fall         2004 75         5.41         5.37         4.30         1.65         3.45         17.66         0.43         0.61         4.58         1.21         20.65         1.06           Spring         2005 50         5.55         5.16         0.67         1.50         2.30         1.061         0.38         0.73         6.25         2.19         34.59         1.02           Summer         2005 50         5.55         5.16         6.97         1.50         1.01         0.38         0.73         6.23         2.44         1.11         2.67         1.04           Winter         2006 50         6.56         5.28         5.77         2.44         3.62         1.67         0.49         1.28         6.21         2.66         19.35         1.07           Spring         2006 50         3.86         5.24         5.78         1.35         0.74         3.22         0.49         0.50         4.48         2.60         1.30         1.10           Summer         2006 75 <t< td=""><td>Spring</td><td>2004.25</td><td>6.71</td><td>5.32</td><td>4.80</td><td>2.30</td><td>4.36</td><td>20.79</td><td>0.54</td><td>0.94</td><td>5.77</td><td>2.56</td><td>25.39</td><td>1.00</td></t<>	Spring	2004.25	6.71	5.32	4.80	2.30	4.36	20.79	0.54	0.94	5.77	2.56	25.39	1.00
rai         zuvu.r.b         5.41         5.37         4.30         1.56         3.45         17.66         0.43         0.61         4.38         1.21         20.65         1.06           Wrinter         2005 00         4.41         5.36         4.36         1.30         0.247         1.30         0.33         3.27         1.39         15.26         1.10           Spring         2005 50         5.55         5.16         6.97         1.50         2.30         10.61         0.38         0.78         6.25         2.84         1.10         2.56           Spring         2006 50         6.30         5.46         3.43         2.54         4.61         2.71         0.54         0.13         3.85         1.11         26.77         1.07           Spring         2006 50         3.86         5.24         5.78         1.35         0.74         3.22         0.49         0.50         4.48         2.66         1.35         1.11         26.71         1.10           Spring         2007 50         3.52         5.77         8.44         3.67         0.77         1.16         1.23         3.27         4.406         1.10           Summer         2007 50         <	Summer	2004.50	5.29	5.23	5.83	1.15	2.06	11.53	0.28	0.61	5.92	1.81	13.34	1.02
vrime         zous. vi         4.01         5.30         4.30         1.30         2.47         1.30         0.31         0.33         2.27         1.30         1.30         1.30         0.31         0.33         2.27         1.39         15.26         1.10           Summer         2005.25         755         5.16         6.97         1.50         2.30         10.61         0.38         0.78         6.25         2.84         1.62         1.04         1.04         1.04         1.04         1.04         1.04         1.04         1.04         1.04         1.04         1.04         1.06         0.33         4.94         1.62         1.04         1.05         0.33         4.21         2.66         1.05         0.10         1.15         0.51         0.33         0.33         4.33         2.11         6.57         1.15         0.51         0.33         0.33         4.33         2.11         0.55	Fall Minto-	2004.75	5.41	5.37	4.30	1.65	3.45	17.66	0.43	0.61	4.58	1.21	20.65	1.06
Summer         2005 50         5.55         5.16         6.97         1.50         2.39         0.037         1.03         0.73         2.18         1.02           Fail         2005 50         5.55         5.16         6.97         1.50         2.30         1.061         0.38         0.73         2.28         1.23         1.104           Fail         2006 75         5.92         5.35         4.47         1.66         4.20         19.66         0.54         0.33         4.94         1.19         2.67         1.04           Winter         2006 50         6.65         5.28         5.27         2.84         3.62         1.70         0.48         1.28         6.21         2.66         19.35         1.07           Summer         2006 75         0.36         5.24         5.78         1.35         0.74         3.22         0.49         0.50         4.48         2.66         1.33         2.77         0.16         1.33         2.77         0.17         0.66         1.03           Summer         2007 75         5.512         7.59         1.95         3.70         18.05         0.92         0.83         8.23         2.13         2.06         1.01         1.3	Spring	2005.00	4.61 7 QE	05.C	4.30	1.30	∠.47 6.09	20.45	0.01	1.05	3.21 7.35	1.39	15.26 3/1 FO	1.10
Fail         2005 75         592         5.35         4.47         1.65         4.20         19.66         0.54         0.13         4.43         1.15         2.13         1.04           Winter         2006 50         6.30         5.46         3.43         2.54         4.61         22.71         0.54         0.13         4.44         1.11         26.77         1.07           Spring         2006 50         3.86         5.24         5.78         1.35         0.74         3.22         0.49         0.50         4.48         2.66         1.35         1.11         26.7         1.11         1.23         3.27         44.06         1.03           Winter         2007 50         3.92         5.21         1.95         3.70         1.16         1.23         3.27         44.06         1.03           Spring         2007 50         3.25         2.521         1.52         1.75         3.17         17.79         0.51         0.83         4.33         3.33         4.33         2.11         6.57         1.16           Spring         2007 50         3.22         5.21         6.12         0.95         1.15         5.61         0.33         0.33         4.33         1.	Summer	2005.25	5.55	5.16	6.97	1.50	2.30	10.61	0.38	0.78	6.25	2.84	12.53	1.02
Winter         2006 00         6.30         5.46         3.43         2.54         4.61         22.71         0.54         0.11         3.65         1.11         26.77         1.07           Spring         2006 50         6.05         5.28         5.27         2.84         3.62         16.70         0.49         1.28         6.21         2.66         19.35         1.07           Summer         2006 50         3.66         5.24         5.78         1.35         0.74         3.22         0.49         0.50         4.48         2.60         3.70         1.12         3.57         4.10         1.03           Winter         2007 00         **	Fall	2005.75	5.92	5.35	4.47	1.65	4.20	19.66	0.54	0.33	4.94	1.19	23.61	1.04
Spring         2006 25         6.05         5.28         5.27         2.84         3.62         16.70         0.49         12.8         6.21         2.66         19.35         1.07           Summer         2006 57         10.79         5.01         1.35         0.74         3.22         0.49         0.50         4.48         2.60         3.70         1.12           Fall         2007 75         10.79         5.01         9.71         2.60         8.14         38.76         0.97         1.16         12.35         3.27         44.06         1.03           Spring         2007 25         7.50         5.12         7.59         1.95         3.70         1.60         0.92         0.83         8.23         2.13         20.68         1.06           Summer         2007.75         5.56         5.32         4.84         1.75         3.87         17.79         0.51         0.83         8.23         2.13         20.68         1.05         1.11           Fall         2007.75         5.56         5.32         4.84         1.75         3.87         17.79         0.51         0.89         6.37         1.65         2.17         1.03           Winter	Winter	2006.00	6.30	5.46	3.43	2.54	4.61	22.71	0.54	0.11	3.85	1.11	26.77	1.07
Summer         2006 50         3.86         5.24         5.78         1.35         0.74         3.22         0.49         0.50         4.48         2.60         3.70         1.12           Fall         2006 75         10.79         5.01         9.71         2.60         8.14         38.76         0.97         1.16         12.35         3.27         44.06         1.03           Winter         2007 00         **	Spring	2006.25	6.05	5.28	5.27	2.84	3.62	16.70	0.49	1.28	6.21	2.66	19.35	1.07
Fail         2006, 75         10.79         5.01         9.71         2.60         8.14         38.76         0.97         1.61         2.35         3.27         44.06         10.3           Winter         2007 00         **	Summer	2006.50	3.86	5.24	5.78	1.35	0.74	3.22	0.49	0.50	4.48	2.60	3.70	1.12
viniter         2007, 20         7.5         5.4         7.5         7.7         9.38         45.07         1.00         0.71         6.58         7.7         1.65         2.17         2.10         1.03           Winter         2008 09         9.30         5.24         5.70         3.09         8.06         3.67         1.00         0.71         6.58         1.19         5.23         6.10         1.01           Summer         2008 50         4.54         5.21         6.19         1.10         1.66         8.70         0.44         1.72         1.01         1.03           Winter         2009 00         3.71         5.47         3.40         1.22         2.08         0.22 <td>Fall</td> <td>2006.75</td> <td>10.79</td> <td>5.01</td> <td>9.71</td> <td>2.60</td> <td>8.14</td> <td>38.76</td> <td>0.97</td> <td>1.16</td> <td>12.35</td> <td>3.27</td> <td>44.06</td> <td>1.03</td>	Fall	2006.75	10.79	5.01	9.71	2.60	8.14	38.76	0.97	1.16	12.35	3.27	44.06	1.03
cpum         covr.co         r.sv         s.r.         r.sv         s.r.         r.sv         s.r.         r.sv         s.r.         r.sv         s.r.	vVinter Serie -	2007.00	7.00	E 40	7 50	1.00	2 70	10.00		0.02	0.00	2 42	20.00	1 00
Summer         2007         75         5.6         5.22         5.21         0.12         0.33         1.13         0.33         0.33         0.33         0.33         2.11         6.17         1.11           Fall         2007         75         5.6         5.32         4.84         1.75         3.87         1.79         0.51         0.89         5.37         1.65         2.17         1.03           Winter         2008 20         9.30         5.24         5.70         3.98         45.07         1.00         0.17         6.58         1.19         52.36         1.05           Spring         2008 25         9.30         5.24         5.70         3.98         8.671         0.97         1.50         9.44         3.22         1.05         5.40         1.01           Summer         2008 25         9.30         5.74         3.55         2.45         4.85         2.26         0.59         1.05         5.48         1.03         Winter         2009.00         3.71         5.47         3.40         1.20         2.06         1.22         0.28         0.22         2.18         5.11         1.03         Summer         2009.55         5.49         5.41         3.33	Summer	2007.25	7.50	5.12	6.12	1.95	3.70 1.15	10.05	0.92	0.83	0.23	2.13	20.6ŏ 6.57	1.06
Summer         2009 25         5.49         5.44         2.79         9.38         45.50         1.10         0.31         0.031         0.031         0.031         1.19         5.236         1.10         5.11         1.19         5.236         1.19         5.236         1.19         5.236         1.19         5.236         1.10         5.37         1.19         5.236         1.10         5.36         1.19         5.236         1.10         5.36         1.10         5.36         1.19         5.236         1.10         5.38         1.10         5.38         1.10         5.38         1.10         5.38         1.10         1.11         1.10         1.10         1.11         1.10         1.10         1.11         1.10	Fall	2007.50	5.52	5.21	4.84	1 75	3.87	17 70	0.55	0.35	4.33	1.65	21 72	1.03
Spring         2008 25         9.30         5.24         5.70         3.09         8.06         36.71         0.97         1.60         9.44         2.32         4.15.0         1.00           Summer         2008 56         4.54         5.21         6.19         1.10         1.66         8.71         0.97         1.60         9.44         2.32         4.15.0         1.00           Summer         2008 75         6.29         5.45         3.55         2.44         4.85         2.26         0.50         1.05         5.48         1.23         1.02         1.06         5.44         0.17         5.62         1.23         1.02         1.06         5.48         0.22         3.05         2.44         1.00         2.06         12.22         0.62         0.22         3.07         5.41         1.03         Nome           Spring         2009.50         5.18         5.09         8.20         2.15         1.23         5.00         0.51         1.05         7.25         2.48         6.04         1.15           Summer         2010.00         4.77         7.43         3.36         2.00         3.37         1.64         0.51         1.01         1.24         1.03	Winter	2008 00	9,49	5,35	4,45	2.79	9,38	45 07	1.00	0.17	6,58	1,19	52.36	1.05
Summer         2008 50         4.54         5.21         6.19         1.10         1.56         8.70         0.44         0.17         5.62         1.23         10.27         10.6           Fall         2008 75         6.29         5.45         3.55         2.45         4.85         22.66         0.59         1.05         5.43         1.48         27.14         1.03           Writer         2009 00         3.71         5.47         3.40         1.20         2.06         1.22         0.28         0.22         2.35         6.50         6.12         7.1         1.03           Spring         2009.50         5.18         5.09         8.20         2.15         1.23         5.00         0.51         1.05         7.25         2.48         6.04         1.15           Fall         2009.50         5.49         5.41         3.93         1.75         4.11         2.1.2         0.61         0.17         4.21         0.95         2.46         6.10         1.07           Spring         2010.25         12.16         5.40         3.96         4.49         12.92         59.33         1.36         0.78         9.87         1.65         68.66         1.03      <	Spring	2008.25	9.30	5.24	5.70	3.09	8.06	36.71	0.97	1.50	9.44	2.32	43.50	1.01
Fall         2008 75         6 29         5 45         3 55         2.45         4 85         22 66         0.59         1.05         5.48         1.48         27.14         1.03           Winter         2009 00         3.71         5.47         3.40         1.20         2.06         122         2.08         0.22         2.35         0.52         14.27         1.13           Spring         2009 20         10.29         5.26         5.66         3.84         9.95         45.55         1.20         1.33         10.79         2.23         51.91         1.04           Summer         2009.75         5.49         5.41         3.93         1.75         4.11         2.06         1.01         7.25         2.48         6.04         1.15           Fall         2010.00         4.77         5.43         3.69         2.00         3.37         16.84         0.51         0.28         3.13         1.19         19.24         1.13           Spring         2010.00         4.77         5.43         3.69         2.00         3.37         16.84         0.51         0.28         3.13         1.19         1.24         1.13           Spring         2010.05 <td< td=""><td>Summer</td><td>2008.50</td><td>4.54</td><td>5.21</td><td>6.19</td><td>1.10</td><td>1.56</td><td>8.70</td><td>0.44</td><td>0.17</td><td>5.62</td><td>1.23</td><td>10.27</td><td>1.06</td></td<>	Summer	2008.50	4.54	5.21	6.19	1.10	1.56	8.70	0.44	0.17	5.62	1.23	10.27	1.06
Winter         2009 00         3.71         5.47         3.40         1.20         2.06         1.22         0.28         0.22         3.50         0.52         1.13           Spring         2009 25         10.2         5.25         5.66         3.84         9.95         4.55         1.20         1.33         10.79         2.23         5.19         1.04           Summer         2009,50         5.18         5.09         8.20         2.15         1.23         5.00         0.51         1.05         7.25         2.48         6.04         1.15           Fail         2009,75         5.49         5.41         3.93         1.75         4.11         2.12.2         0.61         0.17         A.21         0.95         2.4.66         1.07           Winter         2010.00         4.77         5.43         3.69         2.00         3.37         1.64         0.51         0.28         3.13         1.9         1.24         1.13           Spring         2010.50         6.43         5.17         6.84         2.10         3.13         1.51         1.07         2.45         1.36         1.89         1.06           Fall         2011.05         5.07         5.34	Fall	2008.75	6.29	5.45	3.55	2.45	4.85	22.66	0.59	1.05	5.48	1.48	27.14	1.03
Spring         2009 25         10.29         5.25         5.66         3.84         9.95         45.55         1.20         1.33         10.79         2.23         5.19         1.04           Summer         2009,50         5.18         5.09         8.20         2.15         1.23         5.00         0.51         1.05         7.25         2.48         6.04         1.15           Fall         2009,75         5.49         5.41         3.39         1.75         4.11         21.32         0.61         0.17         4.21         0.95         24.66         1.07           Winter         2010.00         4.77         5.43         3.69         2.00         3.37         16.84         0.51         0.26         0.78         9.87         1.65         68.66         1.03           Spring         2010.50         6.43         5.17         6.84         2.10         3.13         1.19         1.24         1.13           Summer         2010.55         5.07         5.34         4.59         1.25         3.29         15.62         0.41         0.33         3.58         1.24         2.17         1.06           Summer         2011.05         4.39         5.37 <t< td=""><td>Winter</td><td>2009.00</td><td>3.71</td><td>5.47</td><td>3.40</td><td>1.20</td><td>2.06</td><td>12.22</td><td>0.28</td><td>0.22</td><td>2.35</td><td>0.52</td><td>14.27</td><td>1.13</td></t<>	Winter	2009.00	3.71	5.47	3.40	1.20	2.06	12.22	0.28	0.22	2.35	0.52	14.27	1.13
Summer         2.009.75         5.49         8.20         2.13         1.23         5.00         0.51         1.05         7.25         2.48         6.04         1.15           Fall         2009.75         5.49         5.41         3.93         1.75         4.11         21.22         0.61         0.17         4.21         0.95         24.66         1.07           Winter         2010.00         4.77         5.43         3.69         2.00         3.37         1.684         0.51         0.28         3.13         1.19         19.24         1.13           Spring         2010.50         6.43         5.17         6.84         2.10         3.13         1.36         0.78         8.55         2.77         1.752         1.06           Fall         2010.57         5.07         5.34         4.59         1.25         3.29         15.62         0.49         0.72         8.85         2.77         1.752         1.06           Winter         2011.00         4.93         5.37         4.22         1.20         3.67         6.32         0.41         0.33         3.58         1.24         20.17         1.08           Spring         2011.25         6.05 <th< td=""><td>Spring</td><td>2009.25</td><td>10.29</td><td>5.25</td><td>5.66</td><td>3.84</td><td>9.95</td><td>45.55</td><td>1.20</td><td>1.33</td><td>10.79</td><td>2.23</td><td>51.91</td><td>1.04</td></th<>	Spring	2009.25	10.29	5.25	5.66	3.84	9.95	45.55	1.20	1.33	10.79	2.23	51.91	1.04
and         2002,7.9         5.49         5.41         5.33         1.75         4.11         21.32         0.01         0.17         4.11         0.13         0.14         0.21         0.21         0.21         0.11         0.11         0.11         0.12         3.13         1.15         19.24         1.13           Spring         2010.00         1.77         5.43         3.369         2.00         3.37         1.644         0.51         0.28         3.13         1.19         19.24         1.13           Spring         2010.05         1.21         5.40         3.36         4.49         12.92         53.31         1.36         0.78         3.65         6.66         1.03           Summer         2010.05         5.07         5.34         4.59         1.25         3.29         15.62         0.49         0.72         4.25         1.36         1.06           Spring         2011.26         6.5         5.20         1.52         3.29         1.62         0.41         0.33         5.88         1.24         20.17         1.08           Spring         2011.26         6.5         5.20         1.52         1.23         5.09         0.36         0.67         5	Summer	2009.50	5.18	5.09	8.20	2.15	1.23	5.00	0.51	1.05	/.25	2.48	6.04	1.15
symme         2010.25         12.16         5.05         2.00         5.07         10.84         0.51         0.28         5.13         1.19         19.24         1.13           Spring         2010.25         12.16         5.40         3.96         4.49         12.92         53.31         1.36         0.78         9.87         1.65         68.66         1.03           Summer         2010.50         6.43         5.17         6.84         2.10         3.13         15.18         1.07         2.50         8.85         2.77         17.52         1.06           Fail         2010.75         5.07         5.34         4.59         1.25         3.29         15.62         0.49         0.72         4.25         1.36         18.96         1.06           Winter         2011.05         4.37         5.28         5.20         1.85         4.52         20.23         0.61         1.39         6.06         2.08         23.10         1.08           Summer         2011.75         8.43         5.13         7.36         1.10         1.23         5.09         0.36         0.66         2.08         23.10         1.08           Summer         2011.75         4.34	Minter	2009.75	5.49	5.41	3.93	1.75	4.11	21.32	0.61	0.1/	4.21	0.95	24.66	1.07
Summer         2011.59         4.33         5.13         1.03         5.13         1.03         5.16         1.03         60.60         1.03           Fall         2010.50         6.43         5.17         1.31         1.13         1.13         2.50         8.85         2.77         1.72         1.06           Fall         2010.75         5.07         5.34         4.59         1.25         3.29         15.62         0.49         0.72         4.25         1.36         1.06           Winter         2011.00         4.93         5.37         4.22         1.20         3.87         16.92         0.41         0.33         3.58         1.24         20.17         1.08           Spring         2011.25         6.05         5.28         5.20         1.85         4.52         2.0.23         0.61         1.39         6.06         2.08         23.10         1.08           Summer         2011.50         4.34         5.13         7.36         1.10         1.23         5.09         0.36         0.67         5.27         2.58         5.67         1.17           Fall         2011.75         8.43         5.28         5.22         2.10         7.90         5.5	Spring	2010.00	12 16	5 40	3.05	2.00	12 92	59.22	1 36	0.20	9.15	1.15	68 66	1.15
Fall         2010.75         5.07         5.34         4.59         1.25         3.29         15.62         0.49         0.72         4.25         1.36         18.96         1.06           Winter         2011.00         4.93         5.37         4.22         1.20         3.87         16.92         0.41         0.33         5.88         1.24         20.17         1.08           Spring         2011.25         6.05         5.28         5.20         1.85         4.52         0.23         0.61         1.39         6.06         2.08         23.10         1.08           Summer         2011.50         4.34         5.13         7.36         1.10         1.23         5.09         0.36         0.67         5.27         2.58         5.67         1.17           Fall         2011.75         8.34         5.28         5.22         2.10         7.90         35.88         8.40         1.00         7.12         1.47         41.50         1.06           Summer         2011.75         8.34         5.28         5.22         2.10         7.90         35.88         1.00         7.12         1.47         41.50         1.06           Winter         2012.00 <td< td=""><td>Summer</td><td>2010.50</td><td>6.43</td><td>5.17</td><td>6.84</td><td>2.10</td><td>3.13</td><td>15.18</td><td>1.07</td><td>2.50</td><td>8.85</td><td>2.77</td><td>17.52</td><td>1.06</td></td<>	Summer	2010.50	6.43	5.17	6.84	2.10	3.13	15.18	1.07	2.50	8.85	2.77	17.52	1.06
Winter         2011.00         4.93         5.37         4.22         1.20         3.87         16.92         0.41         0.33         3.58         1.24         20.17         1.08           Spring         2011.25         6.05         5.28         5.20         1.85         4.52         20.23         0.61         1.39         6.06         2.08         23.10         1.08           Summer         2011.50         4.34         5.13         7.36         1.10         1.23         5.09         0.36         0.67         5.27         2.58         5.67         1.17           Fall         2011.75         8.43         5.22         2.10         7.90         35.98         0.84         1.00         7.12         1.47         41.50         1.06           Winter         2012.00         17.08         5.38         4.21         4.44         20.57         91.57         2.02         0.39         12.54         1.37         104.43         1.04	Fall	2010.75	5.07	5.34	4.59	1.25	3.29	15.62	0.49	0.72	4.25	1.36	18.96	1.06
Spring         2011.25         6.05         5.28         5.20         1.85         4.52         20.23         0.61         1.39         6.06         2.08         23.10         1.08           Summer         2011.50         4.34         5.13         7.36         1.10         1.23         5.09         0.36         0.67         5.27         2.58         5.67         1.17           Fail         2011.75         8.43         5.28         5.22         2.10         7.90         35.89         0.84         1.00         7.12         1.47         41.50         1.06           Winter         2012.00         17.08         5.38         4.21         4.44         20.57         91.57         2.02         0.39         12.54         1.37         104.43         1.04	Winter	2011.00	4.93	5.37	4.22	1.20	3.87	16.92	0.41	0.33	3.58	1.24	20.17	1.08
Summer         2011.50         4.34         5.13         7.36         1.10         1.23         5.09         0.36         0.67         5.27         2.58         5.67         1.17           Fall         2011.75         8.43         5.22         2.10         7.90         35.98         0.84         1.00         7.12         1.47         41.50         1.06           Winter         2012.00         17.08         5.38         4.21         4.44         20.57         91.57         2.02         0.39         12.54         1.37         10.4.3         1.04	Spring	2011.25	6.05	5.28	5.20	1.85	4.52	20.23	0.61	1.39	6.06	2.08	23.10	1.08
H=all         2011.75         8.43         5.28         5.22         2.10         7.90         35.98         0.84         1.00         7.12         1.47         41.50         1.06           Winter         2012.00         17.08         5.38         4.21         4.44         20.57         91.57         2.02         0.39         12.54         1.37         104.43         1.04	Summer	2011.50	4.34	5.13	7.36	1.10	1.23	5.09	0.36	0.67	5.27	2.58	5.67	1.17
vvnter 2012.00 17.08 5.38 4.21 4.44 20.57 91.57 2.02 0.39 12.54 1.37 104.43 1.04	Fall	2011.75	8.43	5.28	5.22	2.10	7.90	35.98	0.84	1.00	7.12	1.47	41.50	1.06
	vvinter Spring	2012.00	17.08	5.38	4.21	4.44	20.57	91.57	2.02	0.39	12.54	1.37	104.43	1.04

 Spring
 2012.25
 7.01
 5.34
 4.52
 2.60
 6.33
 27.06
 0.77
 1.28
 6.62
 1.81
 3

 Data acquired from Hitp/inade, we suice edu/madpdata
 Each entry is a volume weighted average concentraion of a three month period (Eqn. 2). Winter 199x is defined as Dec 199x.1
 Transport from the prinade fillend as Mar 199x through May 199x. Summer is defined as June 199x through Aug 199x.
 Fall is defined as Sept 199x through Nov 199x.

 Fall is defined as Mar 199x through Nov 199x.
 The ratio of cation to anion concentration.
 \*\* Winter 2007 data not available due to extensive flooding and road washout.
 \*\*

Table 6:	Marblen	nountl	NADP Si	te Seas	onal Pr	recipitat	ton Dat	ta					
C	Veee	Cond	pH	H+	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K*	NH4 <sup>+</sup>	SO42-	NO <sub>3</sub> <sup>-</sup>	CI	[+]/[-]
Winter	1988.00	5.31	5,14	7.28	1.45	2.39	11.01	0.23	0.55	6.71	3.48	12.61	1.00
Spring	1988.25	5.42	5.05	8.87	1.20	2.06	5.00	0.13	0.55	6.81	3.61	6.38	1.06
Summer	1988.50	7.18	4.90	12.47	2.05	2.14	3.09	0.10	0.55	10.73	4.37	3.72	1.08
Fall Winter	1988.75	4.66	5.11	7.73	0.65	3.62	5.31	0.15	0.72	5.89	2.95	9.1/	1.01
Spring	1989.25	5.40	5.07	8.41	1.95	1.15	3.87	0.20	2.22	7.89	5.19	4.09	1.04
Summer	1989.50	8.81	4.85	14.00	1.30	0.82	2.65	0.49	5.88	16.00	11.36	3.02	0.83
Fall	1989.75	5.38	5.07	8.59	0.80	0.90	4.61	0.13	2.44	7.37	5.13	4.85	1.01
Spring	1990.00	4.87	5.20	6.25 7.33	1.55	2.06	9.57	0.51	3.44	4.75	3.05	8.15	1.47
Summer	1990.50	7.24	4.98	10.45	1.25	0.99	3.35	0.69	6.87	11.66	9.68	4.09	0.93
Fall	1990.75	4.35	5.21	6.11	0.75	1.15	5.18	0.15	2.55	4.50	3.73	5.75	1.14
Winter	1991.00	4.49	5.18	6.68	0.60	1.07	4.87	0.28	0.61	4.00	3.82	5.98	1.02
Spring	1991.25	5.62	5.10	10.45	2.50	1.48	5.39	0.28	2.94	7.62	7.45 9.73	5.78	0.98
Fall	1991.75	5.43	5.09	8.15	0.65	1.65	9.05	0.33	1.11	6.87	4.37	8.97	1.03
Winter	1992.00	4.93	5.19	6.41	0.70	1.48	6.74	0.20	0.72	5.39	3.32	7.67	0.99
Spring	1992.25	6.67	5.05	8.85	2.40	1.81	5.53	0.33	2.88	11.06	8.69	5.73	0.86
Summer	1992.50	7.24	5.03	9.29	1.75	0.49	2.35	0.28	5.43	9.75	10.11	1.86	0.90
Winter	1993.00	4.03	5.17	6.71	0.50	0.66	3.26	0.10	0.67	4.10	4.02	3.98	0.98
Spring	1993.25	4.73	5.11	7.71	1.50	0.82	2.70	0.36	3.33	7.27	6.86	2.60	0.98
Summer	1993.50	5.61	5.11	7.73	0.95	0.82	3.65	0.31	4.82	9.02	8.58	3.55	0.86
Fall	1993.75	6.47	4.99	10.14	1.00	1.32	6.05	0.31	2.66	9.27	7.13	6.77	0.93
Spring	1994.00	4.07	5.19	6.44 12.85	1.75	1.23	5.87	0.15	2.27	4.42 9.58	4.03	6.18	1.21
Summer	1994.50	30.90	4.23	58.88	1.50	1.23	5.70	0.61	17.74	52.91	28.23	7.62	0.97
Fall	1994.75	6.37	5.04	9.16	0.80	1.81	8.22	0.20	1.11	6.14	3.98	9.59	1.08
Winter	1995.00	4.80	5.18	6.65	3.89	1.73	5.53	0.49	1.33	3.92	3.50	6.26	1.43
Spring	1995.25	5.42	5.01	9.79	1.40	0.90	3.65	0.23	3.27	5.77	6.87	3.72	1.18
Fall	1995.50	4.86	4.00	7,66	0.65	1.32	5.57 6.74	0.20	4.00	0.05 5,23	2,98	7.44	1,15
Winter	1996.00	3.66	5.22	6.08	0.55	0.82	5.05	0.10	2.11	2.79	3.37	4.82	1.34
Spring	1996.25	6.47	5.02	9.46	1.65	1.48	7.18	0.28	4.82	7.02	7.87	7.36	1.12
Summer	1996.50	8.81	4.81	15.31	0.80	0.99	5.48	0.28	4.93	11.04	9.74	5.13	1.07
r all Winter	1995.75	5.04 4 37	5.08	0.38	1.00	1.23	5.70	0.20	0.61	5.42	4.08	0.40 6.52	1.12
Spring	1997.25	5.82	5.05	8.87	1.05	1.81	7.87	0.36	2.11	6.79	5.36	8.77	1.05
Summer	1997.50	5.71	4.97	10.69	0.80	0.58	2.61	0.26	2.99	6.21	7.03	2.62	1.13
Fall	1997.75	5.61	5.10	7.93	0.90	1.81	8.87	0.26	1.39	4.92	4.53	9.82	1.10
Spring	1998.00	4.22	5.14	12 76	2.45	1.23	5.39	0.13	2.66	3.56	3.29	6.21 5.05	1.17
Summer	1998.50	10.05	4.72	19.14	1.55	0.82	2.78	0.26	3.99	11.69	13.87	3.41	0.99
Fall	1998.75	3.97	5.16	6.95	0.50	0.74	3.05	0.13	1.05	3.75	3.40	3.47	1.17
Winter	1999.00	3.75	5.16	6.95	0.55	0.74	3.31	0.10	0.89	3.15	3.45	3.84	1.20
Summer	1999.25	7.34	4.91	12.30	2.40	2.06	4.03	0.20	2.10	8.06	8.86	2 74	1.02
Fall	1999.75	5.01	5.11	7.82	1.30	1.07	5.31	0.20	0.72	5.08	3.94	5.84	1.10
Winter	2000.00	4.69	5.17	6.73	0.90	1.32	6.35	0.15	0.61	3.77	3.87	7.00	1.10
Spring	2000.25	6.97	4.95	11.14	1.90	1.23	5.00	0.33	2.27	8.08	7.94	5.56	1.01
Summer	2000.50	6.79	4.85	14.00	1.30	0.66	2.57	0.18	2.22	8.79 9.25	9.63 5.45	2.93	0.98
Winter	2001.00	7.19	4.95	11.19	1.40	1.81	9.22	0.23	1.16	6.21	7.34	10.61	1.04
Spring	2001.25	6.99	4.96	10.96	2.69	1.56	6.40	0.38	2.99	8.85	7.42	7.14	1.07
Summer	2001.50	6.00	4.97	10.67	1.10	0.49	1.44	0.23	3.83	6.98	8.15	1.69	1.06
Winter	2001.75	5.30	5.12	6.32	0.60	0.74	4 79	0.31	0.94	3.06	3.79	0.94 5.61	1.04
Spring	2002.25	6.89	5.02	9.53	1.90	1.56	6.96	0.33	4.44	7.48	10.02	7.53	0.99
Summer	2002.50	5.73	5.07	8.51	1.70	0.74	2.31	0.56	4.55	7.02	6.81	2.48	1.13
Fall	2002.75	5.83	5.08	8.24	0.90	1.73	9.01	0.28	2.11	5.33	5.37	10.41	1.05
Spring	2003.00	4.93	5.32	4.79	1.05	0.99	2.96	0.10	2 44	2.57	2.01	3.47	1.10
Summer	2003.50	11.19	4.81	15.35	2.84	2.30	9.79	0.82	13.31	15.31	15.92	10.32	1.07
Fall	2003.75	3.92	5.28	5.22	1.10	0.99	5.48	0.18	0.83	3.27	2.71	6.49	1.11
Winter	2004.00	4.33	5.17	6.71	1.10	0.82	4.31	0.20	0.55	2.48	4.47	5.05	1.14
Summer	2004.25	5.43	4.99	9.62	4.79	1.48	5.00	0.43	2.61	6.89 5.19	8.23	6.04 1.69	1.16
Fall	2004.75	4.87	5.12	7.60	0.95	0.99	5.26	0.20	1.22	4.79	3.92	6.43	1.07
Winter	2005.00	4.11	5.14	7.31	0.70	0.49	3.09	0.13	0.72	3.23	3.79	4.09	1.12
Spring	2005.25	5.28	5.07	8.43	1.60	1.07	4.61	0.23	1.94	5.85	5.39	5.61	1.06
Summer Fall	2005.50	4 21	4.85	14.13	1.50	0.74	2.65	0.38	3.33 1.05	7.62	3 40	3.13 4.68	1.07
Winter	2006.00	4.33	5.31	4.94	1.80	1.07	5.61	0.36	1.44	2.42	3.47	6.52	1.23
Spring	2006.25	6.22	5.19	6.46	3.04	1.73	6.48	1.07	8.43	7.48	7.29	7.73	1.21
Summer	2006.50	7.02	4.91	12.39	1.40	0.49	1.48	0.28	4.38	6.92	10.18	1.89	1.08
ra⊪ Winter	2006.75	4.73	5.13	7.50 5.24	1.30	1.15	5.87 6.66	0.31	0.61	4.69	3.86 2.86	0.88 7.65	1.11
Spring	2007.25	3.83	5.19	6.46	1.50	0.74	2.70	0.31	1.50	3.58	4.57	3.24	1.16
Summer	2007.50	7.01	4.90	12.50	1.70	0.74	2.70	1.46	3.77	7.42	10.21	3.47	1.08
Fall	2007.75	4.21	5.17	6.75	1.05	0.82	3.96	0.21	1.44	4.00	3.98	4.91	1.10
Spring	2008.00	4.57	5.22	9.05	3.29	1.73	9.14 4 92	0.28	0.50	2.96 8.17	3.57	6 15	1.08
Summer	2008.50	6.01	4.96	10.84	1.50	0.49	1.74	0.28	4.10	7.44	7.68	2.17	1.10
Fall	2008.75	3.50	5.29	5.14	0.80	0.74	4.48	0.21	1.11	3.46	2.31	5.16	1.14
Winter	2009.00	4.13	5.22	6.08	1.15	1.15	6.26	0.31	0.44	3.15	3.66	7.56	1.07
opring Summer	2009.25	4.29	5.19 5.18	0.41 12.27	1.90	0.99	4.18	0.26	1.16	4.6/ 7.19	4.19 7.76	4.82	1.09
Fall	2009.75	3.25	5.49	5.11	0.85	0.66	0.15	4.22	0.50	2.58	2.07	4.85	1.21
Winter	2010.00	2.76	5.56	4.72	1.30	0.41	0.15	2.09	0.33	1.65	2.44	2.37	1.40
Spring	2010.25	4.39	5.36	5.56	2.65	1.48	0.28	6.00	3.11	4.21	5.21	6.97	1.16
Summer	2010.50	5.63	5.00	10.00	1.75	0.82	2.96	0.36	4.88	5.85	7.10	3.47	1.26
i an Winter	2010.75	3.09	5.25 5.27	5.82 5.33	0.65	0.41	1.91	0.18	0.50	2.31	2.61	∠.45 3.89	1.20
Spring	2011.25	3.67	5.20	6.27	1.15	0.74	2.39	0.21	1.94	3.25	4.26	2.82	1.23
Summer	2011.50	7.31	4.84	14.35	1.10	0.66	2.05	0.36	4.55	7.69	10.57	2.60	1.11
Fall	2011.75	4.71	5.18	6.55	1.10	1.81	8.31	0.36	1.83	4.35	3.76	9.45	1.14
Spring	2012.00	4./1	5.30 5.28	5.04 5.21	2.00	∠.55 0.91	2.87	0.36	0.78	3.42 3.21	3.00	13.40 3.30	1.00
Data acquir	ed from Http	://nadp.s	ws.uiuc.edu	i/nadpdata	1				- 400				
⊨acn entry is through Feb	s a volume v 199x. Sprir	veighted 1g is defi	average co ned as Mar	ncentraion 199x throu	i of a three igh May 1	e month pe 99x. Sumr	enoa (Eqr mer is del	n. 2). Winte fined as Ju	ne 199x is ne 199x ti	uefined as hrough Au	uec 199) g 199x.	(-1	
Fall is defin	ed as Sept 1	199x throu	ugh Nov 199	)x.									
The column headed "[+V]-]" is the ratio of cation to anion concentration.													

Central Washington University Chemical Analysis Laboratory Ellensburg, WA 9892 Report completed 7/24/13

		Table 7: Tahoma Woods NADP Site Seasonal Precipitation Data								
Cond pH H <sup>+</sup> Ca <sup>2+</sup> Mg <sup>2+</sup> Na <sup>+</sup> K <sup>+</sup> NH <sub>4</sub> <sup>+</sup> SO <sub>4</sub> <sup>2-</sup>	NO3 <sup>-</sup> CI <sup>-</sup>	[+]/[-]								
Season Year (uS/cm) Tahoma (ueg/L)	-									
Fall 1999 75 2 99 5 33 4 67 0 60 0 33 1 65 0 13 0 55 2 23	184 192	1.32								
Winter 2000.00 3 97 5 26 5 52 0 90 0 82 4 39 0 13 0 72 2 77	2 79 4 80	1.21								
Spring 2000 25 6 78 5 05 8 95 1 75 2 63 12 31 0 43 1 94 8 44	4 52 13 91	1.04								
Summer 2000 50 10 12 4 78 1641 1 45 2 47 12 44 0 46 1 33 14 58	4 77 13 88	1.04								
Eall 2000.75 7.05 4.89 12.94 0.95 0.66 3.31 0.15 0.83 10.54	3.60 3.98	1.04								
Winter 2001/00 6.02 5.08 8.36 2.00 1.73 8.70 0.28 1.39 5.79	5 36 9 73	1.04								
Spring 200125 6.95 4.99 10.35 1.90 1.73 7.22 0.41 1.83 9.44	5.44 8.10	1.00								
Summer 2001 50 5.41 5.01 9.73 1.30 0.49 1.83 0.28 1.88 7.87	3.69 2.31	1 12								
Eall 2001 75 5 39 5 09 8 13 1 10 1 07 5 26 0 26 1 66 6 48	3 26 6 23	1.09								
Winter 2002.00 4.21 5.28 5.25 1.00 1.48 7.79 0.20 0.83 2.92	2.65 9.39	1 11								
Spring 2002 25 5 45 5 21 6 18 1 35 1 89 9 44 0 38 1 66 5 33	4 13 10 89	1.03								
Summer 2002 50 541 524 577 125 173 579 601 238 579	5 32 7 36	1.03								
Eall 2002.75 10.34 4.79 16.11 2.00 1.15 5.61 0.28 7.21 12.85	14.50 6.15	0.97								
Winter 2003.00 3.28 5.34 4.59 0.75 0.82 4.00 0.13 0.83 2.00	2 00 4 85	1.26								
Spring 2003 25 4.61 5.27 5.40 1.70 1.32 5.87 0.38 2.94 4.35	4 94 6 88	1.09								
Summer 2003.50 7.91 5.13 7.43 3.94 1.32 3.67 0.50 2.54 4.55	17 10 3 67	1.03								
E-all 2003.75 4.89 5.23 5.87 1.50 1.65 8.44 0.36 1.83 1.14	3.56 9.85	1.19								
Winter 2004.00 3.68 5.30 5.05 0.85 0.90 5.31 0.18 7.8 2.02	2.89 6.26	1.03								
Spring 2004.25 4.82 5.20 6.37 1.70 1.23 6.09 0.46 3.49 5.60	5 11 6 97	1.09								
Summer 2004.50 3.52 5.26 5.55 0.75 0.33 1.74 0.31 1.66 3.94	3 29 2 17	1.00								
E-all 2004.75 5.61 5.15 7.08 1.45 2.22 10.96 0.41 0.89 5.00	3.48 13.77	1.10								
Winter 2005.00 651 5.00 10.05 1.25 1.48 7.53 0.26 1.33 2.75	3 11 14 36	1.03								
Spring 2005.25 3.95 5.29 5.13 2.50 18.03 1.20 1.30 2.13 2.51 1.40 7.55 0.20 1.35 2.13	3.24 5.05	1.00								
Summer 2005.50 6.83 5.00 10.00 1.90 1.32 5.05 0.54 4.71 8.62	739 5.05	1.10								
Eall 2005.75 5.55 5.12 7.60 1.50 1.52 5.05 0.34 4.02	2 92 11 17	1.08								
Winter 2006.00 3.81 5.32 4.75 2.40 0.99 5.13 0.20 0.28 2.02	1.63 7.28	1.00								
Spring 2006.25 5.56 5.12 7.66 2.25 0.90 2.92 0.51 3.77 5.44	6.61 4.85	1.07								
Summer 2006 50 5 54 5 07 8 55 2 79 0 66 2 22 0 77 2 94 5 04	4 39 5 53	1 20								
Eall 2006 75 4.03 5.21 6.17 0.85 1.23 6.09 0.33 0.67 4.00	2 10 7 59	1 12								
Winter 2007 00 4 56 5 34 4 58 1 90 2 63 13 09 0 36 0 44 3 46	1 87 15 74	1.09								
Spring 2007 25 5 15 5 12 7 66 1 85 1 48 6 57 0 56 2 11 4 79	5.36 7.70	1 13								
Summer 2007 50 6 60 4 99 10 33 1 80 1 07 4 13 0 84 5 99 7 96	7 66 5 92	1 12								
Eall 2007 75 4 55 5 19 6 40 1 30 1 32 6 96 0 38 1 77 5 08	2 95 8 44	1 10								
Winter 2008 00 3 35 5 36 4 38 1 00 99 6 09 0 21 0 39 1 79	1.65 7.53	1 19								
Spring 2008 25 5 76 5 19 6 49 2 00 2 14 9 88 0 44 2 44 6 90	4 11 12 81	0.98								
Summer 2008 50 6 12 4 98 10 57 1 30 0 91 4 44 0 56 0 67 7 73	4 23 4 88	1 18								
Fall 2008 75 3 48 5 27 5 33 0 80 0 82 4 09 0 31 1 16 2 88	2 82 5 28	1.24								
Winter 2009.00 3.00 5.32 4.78 0.90 0.82 4.44 0.21 0.50 2.35	1 73 12 75	1.08								
Spring 2009.25 4.89 5.32 4.81 3.14 2.47 11.01 0.51 1.77 6.21	2.92 2.40	1 14								
Summer 2009 50 5 67 5 06 8 77 1 55 0 66 2 18 0 46 7 76 8 73	7 61 2 40	1 14								
Fall 2009 75 4 35 5 27 5 42 1 35 1 81 9 44 0 36 1 00 3 81	2 40 11 12	1 12								
Winter 2010 00 2 94 5 36 4 37 1 90 0 91 4 35 0 18 0 78 1 98	2 08 5 05	1.37								
Spring 2010 25 5 09 5 34 4 59 3 44 2 55 11 31 0 51 3 33 5 67	4 79 12 98	1 10								
Summer 2010.50 6.39 5.03 9.44 1.55 1.56 6.92 0.46 3.94 7.62	6.73 7.98	1.07								
Fall 2010.75 4.02 5.26 5.45 1.00 1.48 7.31 0.31 0.55 3.31	2.15 9.00	1.11								
Winter 2011.00 3.52 5.34 4.53 0.75 1.65 7.57 0.26 0.67 2.48	1.90 8.94	1.16								
Spring 2011.25 4.12 5.32 4.75 1.70 1.81 7.05 1.05 3.38 4.29	3.27 8.18	1.25								
Summer 2011.50 6.42 5.04 9.23 1.45 1.89 6.96 0.74 5.77 8.52	7.13 8.04	1.10								
Fall 2011.75 4.68 5.29 5.15 0.95 2.88 12.53 0.38 0.89 3.94	1.97 14.61	1.11								
Winter 2012.00 5.42 5.40 4.00 1.70 4.11 18.92 0.59 0.83 3.75	2.24 22.43	1.06								
Spring 2012.25 2.91 5.37 4.27 1.40 0.91 3.39 0.28 1.94 2.63	2.26 4.03	1.37								

Data acquired from Http://nadp.sws.uiuc.edu/nadpdata Each entry is a volume weighted average concentraion of a three month period (Eqn. 2). Winter 199x is defined as Dec 199x-1 through Feb 199x. Spring is defined as Mar 199x through May 199x. Summer is defined as June 199x through Aug 199x. Fall is defined as Sept 199x through Nov 199x. The column headed "[+]/[-]" is the ratio of cation to anion concentration.

Table 9: pH Evaporation Correction Comparison									
		MtR pH	MtR pH	pН	ABS (MtR pH	- Tahoma pH )			
Season	Year	Not-Corrected	Corrected	Tahoma	Not Corrected	Corrected			
Winter 2	2000.00	5.35	6.05	5.26	0.088374548	0.787344552			
Spring 2	2000.25	5.11	5.69	5.05	0.057348132	0.638637126			
Summer 2	2000.50	5.17	5.17	4.78	0.38638925	0.38638925			
Fall 2	2000.75	4.94	4.94	4.89	0.05167682	0.05167682			
Winter 2	2001.00			5.08					
Spring 2	2001.25			4.99					
Summer 2	2001.50	4.84	4.93	5.01	0.16743857	0.080521537			
Fall 2	2001.75	5.04	5.38	5.09	0.054607649	0.289505249			
Winter 2	2002.00	5.30	5.42	5.28	0.016431227	0.144034361			
Spring 2	2002.25	4.74	4.91	5.21	0.467445035	0.299906263			
Summer 2	2002.50	7.51	4.90	5.24	2.266463825	0.342732752			
Fall 2	2002.75	5.04	5.13	4.79	0.249690745	0.33579471			
Winter 2	2003.00	4.90	4.90	5.34	0.434542316	0.434542316			
Spring 2	2003.25	5.13	5.31	5.27	0.137596604	0.040844874			
Summer 2	2003.50	5.10	5.13	5.13	0.033644463	0.002831396			
Fall 2	2003.75	5.28	5.38	5.23	0.049610313	0.144189803			
Winter 2	2004.00	5.24	5.36	5.30	0.058280966	0.065064385			
Spring 2	2004.25	4.99	5.28	5.20	0.201088315	0.087229849			
Summer 2	2004.50	5.12	5.28	5.26	0.13737234	0.023827666			
Fall 2	2004.75	5.27	5.35	5.15	0.11862461	0.195667914			
Winter 2	2005.00	5.56	5.71	5.00	0.562149927	0.714617249			
Spring 2	2005.25	5.26	5.36	5.29	0.034072307	0.064999296			
Summer 2	2005.50	5.15	5.23	5.00	0.146132894	0.231565521			
Fall 2	2005.75	5.22	5.41	5.12	0.10410582	0.288024467			
Winter 2	2006.00	5.26	5.47	5.32	0.067762489	0.147783952			
Spring 2	2006.25	5.12	5.22	5.12	0.007114895	0.108277619			
Summer 2	2006.50	5.02	5.02	5.07	0.05144199	0.04613218			
Fall 2	2006.75	5.68	5.94	5.21	0.470295871	0.730528903			
Winter 2	2007.00	5.58	5.79	5.34	0.243332044	0.455157557			
Spring 2	2007.25	5.48	5.53	5.12	0.360497481	0.418452597			
Summer 2	2007.50	5.82	5.90	4.99	0.834723428	0.91185838			
Fall 2	2007.75	5.03	5.04	5.19	0.168074981	0.149665867			
Winter 2	2008.00	5.00	5.23	5.36	0.355416154	0.127590768			
Spring 2	2008.25	4.86	5.00	5.19	0.329596058	0.184521169			
Summer 2	2008.50	5.51	5.53	4.98	0.533741661	0.558750205			
Fall 2	2008.75	5.37	5.42	5.27	0.099836409	0.15102/294			
Winter 2	2009.00	5.58	5.65	5.32	0.2595/91/4	0.329815205			
Spring 2	2009.25	5.25	5.39	5.32	0.068438405	0.074076566			
Summer 2	2009.50	5.71	5.73	5.06	0.649038769	0.668829283			
Fall 2	2009.75	5.73	5.88	5.27	0.46/11659	0.613114352			
VVinter 2	2010.00	5.97	6.50	5.36	0.611060158	1.13924396			
Spring 2	2010.25	5.26	5.52	5.34	0.079807416	0.18035256			
Summer 2	2010.50	5.41	5.45	5.03	0.385414334	0.421514487			
Fail 2	2010.75	5.28	5.46	5.26	0.020254021	0.192259935			
Spring 2	2011.00	5.39	5.49	5.34	0.050258869	0.146077656			
Spring 2	2011.25	5.20	5.26	5.32	0.126892656	0.059878813			
Summer 2	2011.50	5.00	5.09	5.04	0.035853743	0.05/202866			
rali 2	2011.75	5.70	5./ŏ	5.29	0.413925581	0.491301827			
Spring 2	2012.00	5./0 5.20	0.0U	5.40 5.27	0.304005437	0.396463/99			
oping 2	2012.20	5.55	sum of dif	ference	12 06278053	13 46685686			



**Figure 1:** Observed, Modeled and Trend including Trend Line Equation for Cl precipitation concentrations at 4 NADP sites and at Mt. Rainier.



**Figure 2**: Observed, Modeled and Trend including Trend Line Equation for  $SO_4^{2-}$  precipitation concentrations at 4 NADP sites and at Mt. Rainier.



**Figure 3**: Observed, Modeled and Trend including Trend Line Equation for  $NO_3^{-}$  precipitation concentrations at 4 NADP sites and at Mt. Rainier.



**Figure 4a**: Observed, Modeled and Trend including Trend Line Equation for H<sup>+</sup> precipitation concentrations at 4 NADP sites and at Mt. Rainier.



**Figure 4b:** Observed, Modeled and Trend including Trend Line Equation for pH values of precipitation at 4 NADP sites and at Mt. Rainier.



**Figure 5**: Observed, Modeled and Trend including Trend Line Equation for  $NH_4^+$  precipitation concentrations at 4 NADP sites and at Mt. Rainier.



**Figure 6**: Observed, Modeled and Trend including Trend Line Equation for Ca<sup>2+</sup> precipitation concentrations at 4 NADP sites and at Mt. Rainier.



**Figure 7:** Observed, Modeled and Trend including Trend Line Equation for [+]/[-] charge ratio in precipitation at 4 NADP sites and at Mt. Rainier.



