



***Weather INnovations Incorporated***

**January 2012:**  
Temperature & Icewine Hours Summary  
Lake Erie North Shore

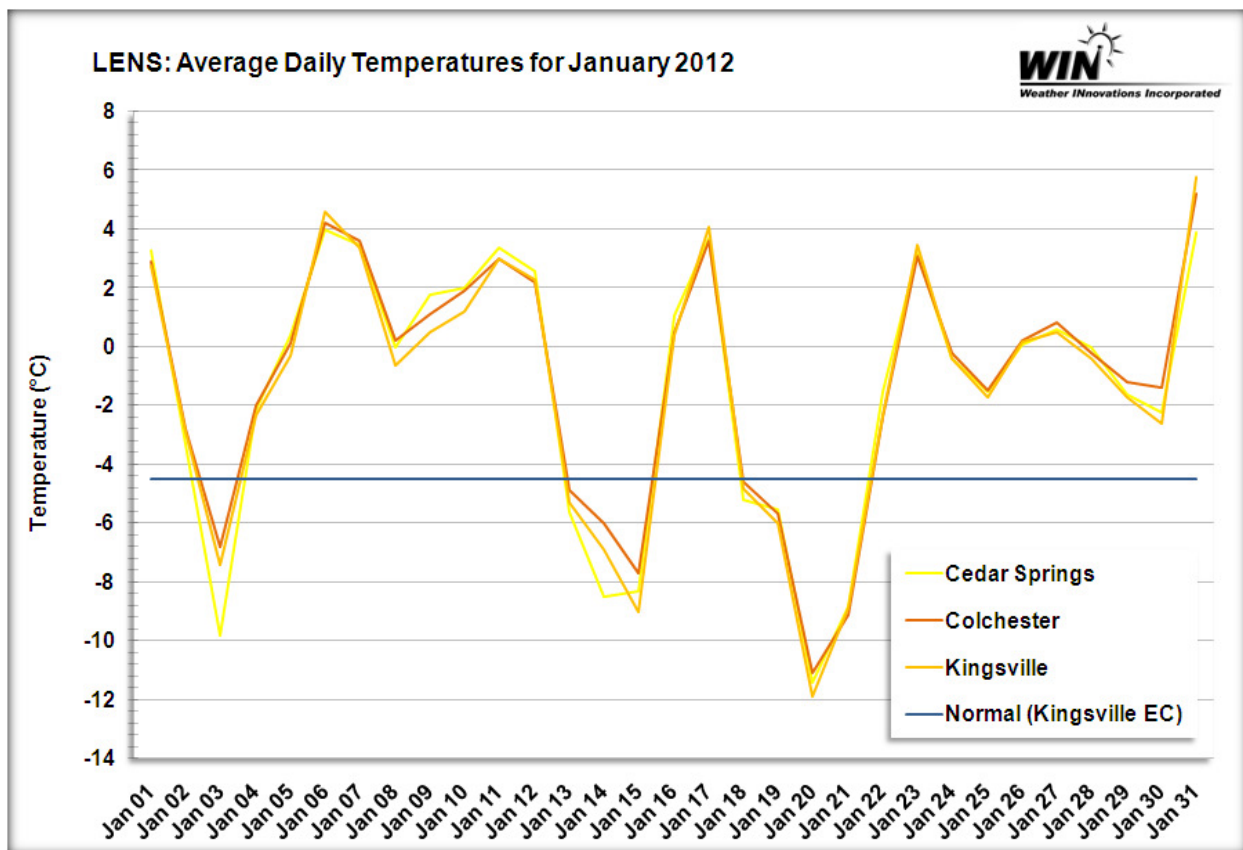


Wayne Heinen  
February 3, 2012



## OVERVIEW

The warmer-than-normal December temperatures experienced in the Lake Erie North Shore appellation continued into January 2012. Average monthly temperatures were  $-1.4^{\circ}\text{C}$  at Cedar Springs,  $-1.1^{\circ}\text{C}$  at Colchester and  $-1.4^{\circ}\text{C}$  at Kingsville (compared to  $-6.4^{\circ}\text{C}$ ,  $-5.8^{\circ}\text{C}$  and  $-5.9^{\circ}\text{C}$ , respectively, in 2011). Accordingly, the average monthly temperatures were  $3.1^{\circ}\text{C}$  –  $3.4^{\circ}\text{C}$  above normal for this appellation, compared to  $1.3^{\circ}\text{C}$  –  $1.9^{\circ}\text{C}$  below normal in 2011. These statistics are based on Environment Canada's 30-year normal for Kingsville. This summary illustrates minimum January 2012 temperatures, as well as the icewine harvest opportunities that arose. For this report, icewine hours are defined as instances when the average hourly temperature ranged between  $-8.0^{\circ}\text{C}$  and  $-12.0^{\circ}\text{C}$ , inclusive. Events in the appendix are focused at opportunities encompassing a minimum 6 hour period.





**TEMPERATURE ANALYSIS**

The January 2012 monthly minimum temperature for each site was: -18.5°C at the Cedar Springs station; -16.6°C at the Colchester station and -18.8°C at the Kingsville station (compared to -19.5°C, -18.6°C and -18.3°C, respectively, in 2011). These monthly minimum temperatures occurred on the 15<sup>th</sup> and 20<sup>th</sup> of January. There were 8 days, compared to 22 days in January 2011, when temperatures at one or more stations, dipped into icewine temperature ranges. Note that there was only approximately half the normal number of days when the minimum temperature fell below -10°C. These temperature characteristics are shown in the following figures.

<b>LENS: January 2012 Daily Temperatures Compared to Normal</b>				
	<b>Cedar Springs</b>	<b>Colchester</b>	<b>Kingsville</b>	<b>Normal (Kingsville)</b>
<b>Days with Maximum Temperature:</b>				
<= 0 °C	11	10	10	16.6
> 0 °C	20	21	21	14.5
> 10 °C	0	0	1	0.4
> 20 °C	0	0	0	0
> 30 °C	0	0	0	0
> 35 °C	0	0	0	0
<b>Days with Minimum Temperature:</b>				
> 0 °C	4	4	4	2
<= 2 °C	30	29	30	30.4
<= 0 °C	27	27	27	29
<= -2 °C	20	20	22	25
<= -10 °C	6	5	5	11.6
<= -20 °C	0	0	0	0.8
<= -30 °C	0	0	0	0

## LENS: January 2012 Daily Minimums

Date	Cedar Springs	Colchester	Kingsville
01-Jan	-1.4	-1.6	-1.6
02-Jan	-7.8	-6.3	-6
03-Jan	-14.3	-8.3	-9.6
04-Jan	-4.7	-5.2	-5.4
05-Jan	-3.6	-3.8	-4.8
06-Jan	2.3	2.1	2
07-Jan	0	1	0.2
08-Jan	-2.5	-2.5	-4.1
09-Jan	-0.8	-2.9	-4.7
10-Jan	-0.2	-1.1	-2.7
11-Jan	1.8	-1.3	-0.8
12-Jan	-3.6	-5.2	-5.2
13-Jan	-7.2	-6.9	-7.5
14-Jan	-14.4	-10.4	-12.3
15-Jan	-18.3	-15.3	-18.8
16-Jan	-3.3	-3.5	-3.9
17-Jan	-2.9	-2.7	-3
18-Jan	-6.5	-6.6	-6.5
19-Jan	-13.9	-14	-14.9
20-Jan	-18.5	-16.6	-18.4
21-Jan	-13.5	-15.9	-14.3
22-Jan	-9.8	-7.4	-7.2
23-Jan	0.4	0.3	0.3
24-Jan	-1.1	-0.9	-1.1
25-Jan	-2	-2	-2.2
26-Jan	-1.3	-1.4	-1.5
27-Jan	-0.4	-0.2	-0.6
28-Jan	-2.5	-1.7	-2.3
29-Jan	-4.7	-4	-6.8
30-Jan	-9.1	-6	-9.9
31-Jan	1.4	2.3	2.3



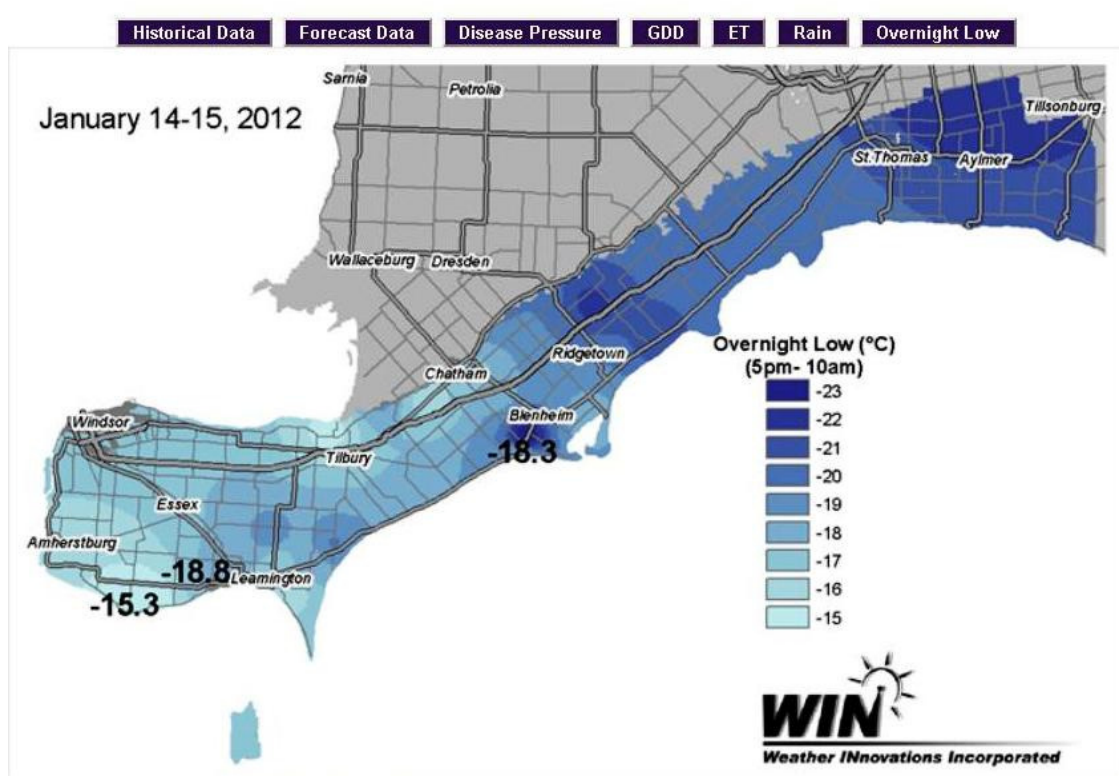
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	Days with Icewine Temperatures
	Monthly Minimum

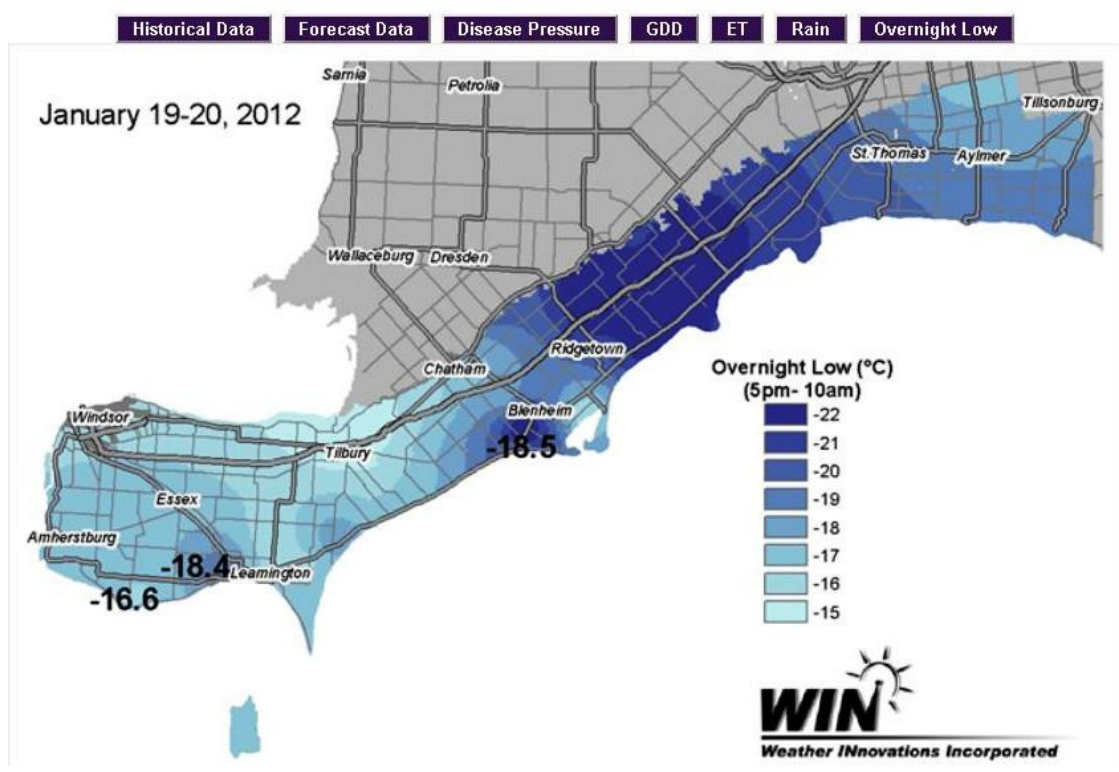


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### Lake Erie North Shore - Overnight Low

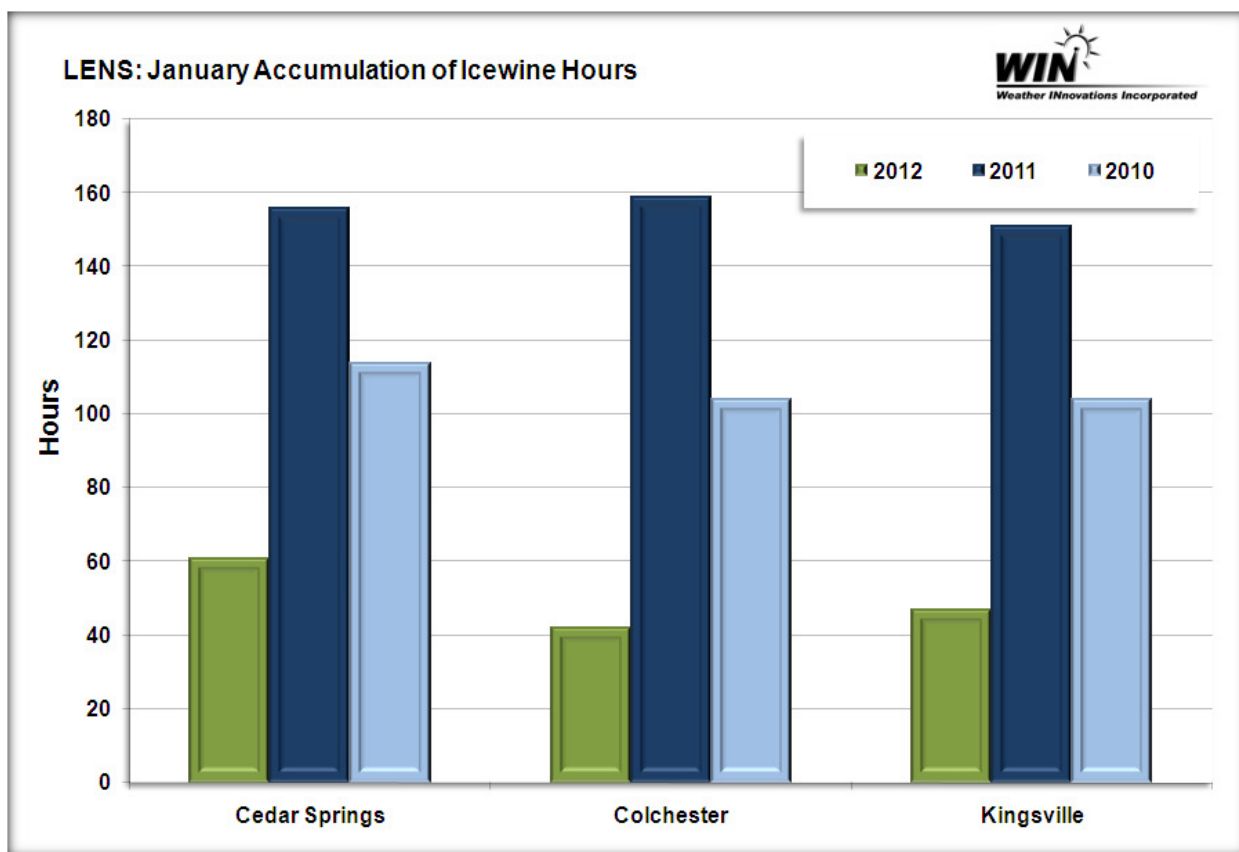


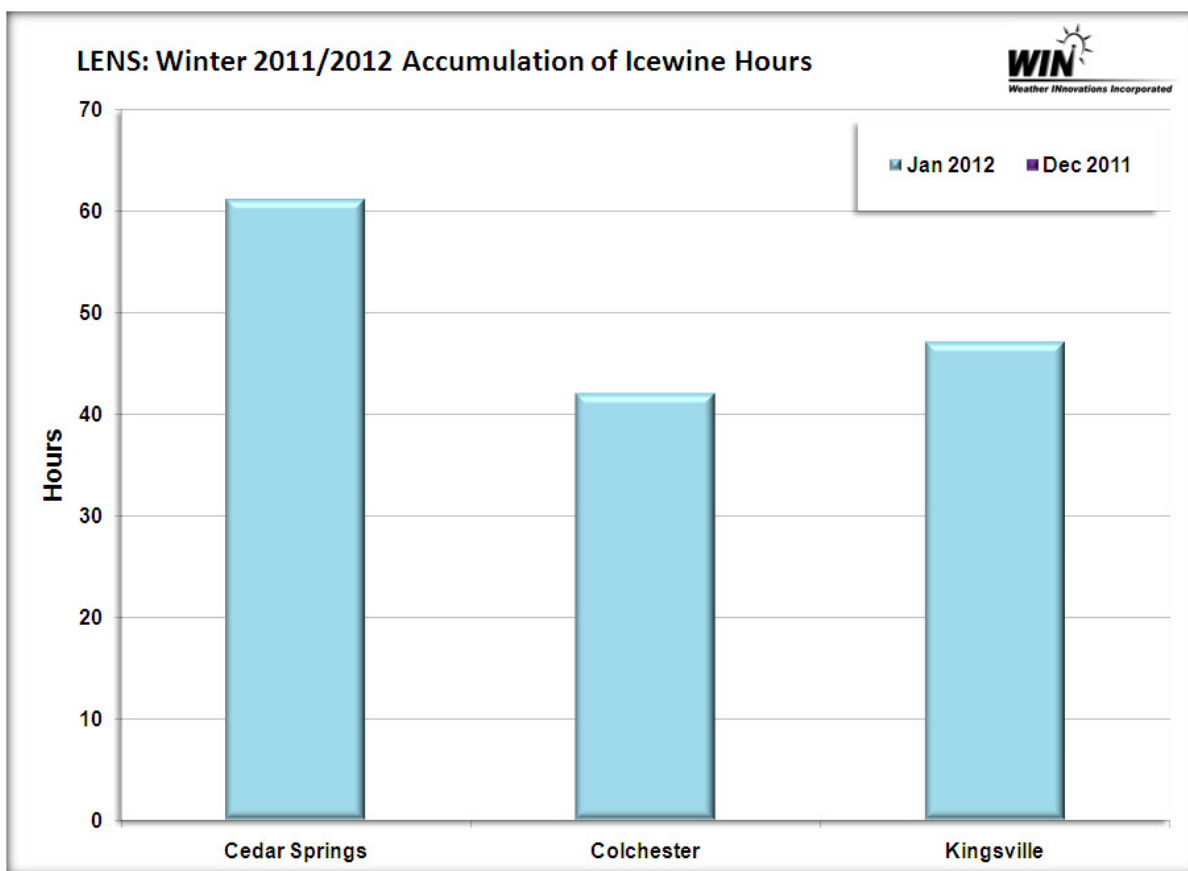
### Lake Erie North Shore - Overnight Low



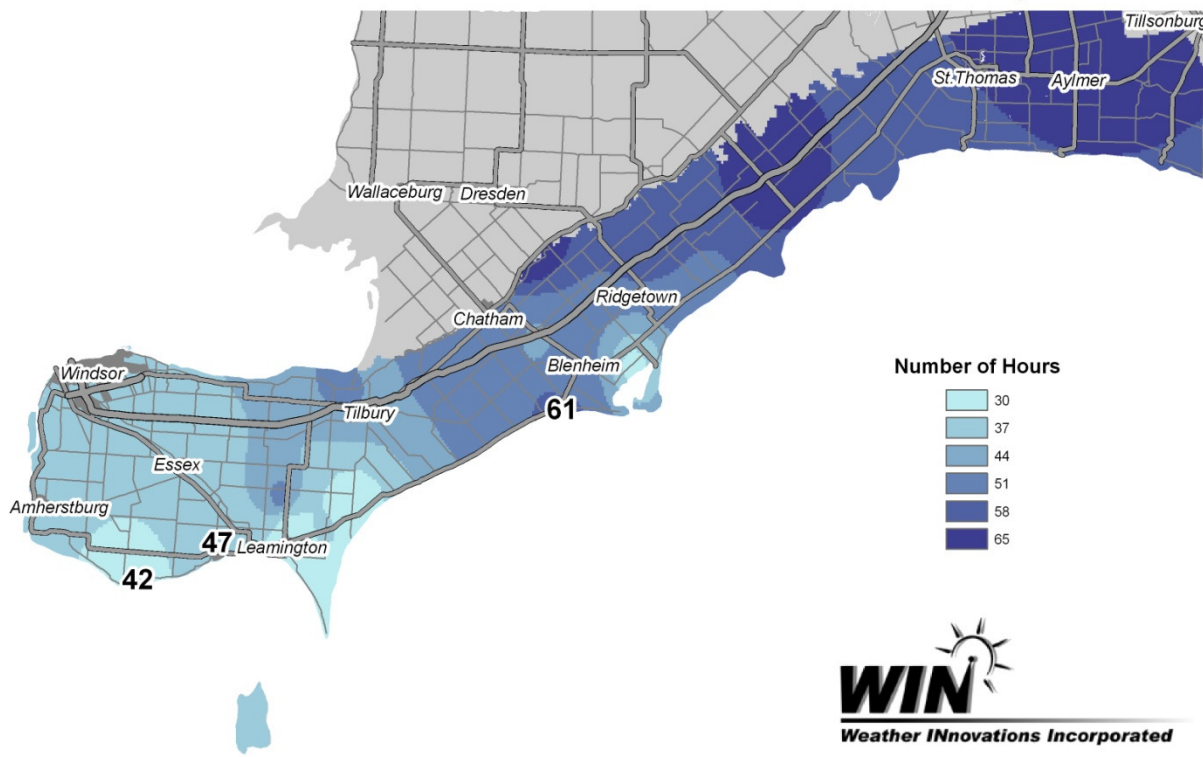
## ICEWINE HOURS ANALYSIS

As seen in the following figures, the number of icewine hours has been lacking this winter. All of the stations accumulated fewer icewine hours in January 2012, as compared to 2011 and 2010. A total of 61 icewine hours were recorded at the Cedar Springs station (compared to 156 in 2011), while the Colchester station recorded 42 hours (compared to 159 hours in 2011) and the Kingsville station recorded 47 hours (compared to 151 hours in 2011). In fact, these are the totals for December 2011 and January 2012 combined, since there were no icewine hours accumulated at any of these stations in December. This is significantly lower than the previous season, where the hours for the combined two months totaled between 207 and 219! The following figures illustrate the icewine harvesting hour variability across the appellation.





Lake Erie North Shore: Accumulation of Icewine Hours in January 2012



## **SUMMARY**

January 2012 temperatures were above normal in the Lake Erie North Shore appellation; average temperatures for the month were 3.1 °C to 3.4 °C above the 30-year normal. The coldest events took place on the 15<sup>th</sup> and the 20<sup>th</sup>, with the coldest January temperature reaching -18.8°C at the Cedar Springs station. January 2012 provided a minimal number of opportunities for harvesting icewine grapes, following zero hours accumulated in December 2011. These conditions provided few windows of opportunity for growers who chose to produce icewine this year.

APPENDIX – Potential Icewine Harvest Opportunities for the Lake Erie North Shore Appellation

<b>LENS: Icewine Opportunities (6 Hour Minimum)</b>			
<b>Date &amp; Time</b>	<b>Cedar Springs</b>	<b>Colchester</b>	<b>Kingsville</b>
<b>Potential Icewine Opportunity</b>			
01/02/2012 23:00	-6.5	-5.2	-5.7
01/03/2012 0:00	-7.4	-6.1	-5.8
01/03/2012 1:00	-8.2	-6.6	-6.3
01/03/2012 2:00	-8.5	-6.8	-7
01/03/2012 3:00	-8.6	-7.2	-7.4
01/03/2012 4:00	-9.2	-7.6	-7.9
01/03/2012 5:00	-9.9	-8.1	-8.4
01/03/2012 6:00	-10.2	-8	-8.6
01/03/2012 7:00	-10.3	-7.4	-8.1
01/03/2012 8:00	-9.8	-7.4	-7.8
01/03/2012 9:00	-9.3	-7.6	-7.5
01/03/2012 10:00	-8.3	-7.1	-7.3
01/03/2012 11:00	-8.3	-6.4	-7
01/03/2012 12:00	-8.3	-6.3	-6.4
01/03/2012 13:00	-8.3	-6.7	-7.2
01/03/2012 14:00	-10.5	-6.5	-6.8
01/03/2012 15:00	-11.1	-6	-6.6
01/03/2012 16:00	-11.1	-5.7	-6.8
01/03/2012 17:00	-11.5	-6.6	-7.4
01/03/2012 18:00	-13.7	-7.8	-9.1
01/03/2012 19:00	-14.2	-8.2	-9.3
01/03/2012 20:00	-13.6	-7.9	-8.6
01/03/2012 21:00	-12.4	-7.4	-8.8
01/03/2012 22:00	-9.2	-5.2	-7.9
01/03/2012 23:00	-6.6	-5.1	-5.6
01/04/2012 0:00	-5	-5	-5.2
<b>Potential Icewine Opportunity</b>			
01/14/2012 16:00	-7.2	-5.2	-6.9
01/14/2012 17:00	-7.3	-5.5	-7.2
01/14/2012 18:00	-8.3	-6.5	-7.4
01/14/2012 19:00	-8.9	-6.9	-7.8
01/14/2012 20:00	-9.5	-7.1	-8.9
01/14/2012 21:00	-11	-7.7	-8.7
01/14/2012 22:00	-11.9	-8	-9
01/14/2012 23:00	-12.8	-8.7	-10
01/15/2012 00:00	-14.1	-10	-11.8
01/15/2012 01:00	-14.9	-10.7	-12.4



	Icewine Temperatures
	Below Icewine Temperatures



### LENS: Icewine Opportunities (6 Hour Minimum)

Date & Time	Cedar Springs	Colchester	Kingsville
	01/15/2012 02:00	-15	-11.5
01/15/2012 03:00	-15.4	-11.9	-15.4
01/15/2012 04:00	-15.3	-13.9	-17.3
01/15/2012 05:00	-16.2	-13.7	-18.1
01/15/2012 06:00	-17.1	-14.5	-17.6
01/15/2012 07:00	-17.7	-14.7	-17.4
01/15/2012 08:00	-14.2	-13	-16.4
01/15/2012 09:00	-11.8	-11.4	-13.3
01/15/2012 10:00	-8.3	-9.3	-10
01/15/2012 11:00	-6	-6.9	-5.7
01/15/2012 12:00	-5.2	-5.2	-6.3
01/15/2012 13:00	-4	-3.4	-4.1
<b>Potential Icewine Opportunity</b>			
01/19/2012 16:00	-4.4	-6.3	-6
01/19/2012 17:00	-6.6	-7.1	-6.9
01/19/2012 18:00	-8.4	-8.4	-8.8
01/19/2012 19:00	-9.8	-9.6	-10
01/19/2012 20:00	-11.1	-10.9	-10.9
01/19/2012 21:00	-12	-11.7	-12.4
01/19/2012 22:00	-12.7	-12.4	-13
01/19/2012 23:00	-13.2	-13.3	-13.6
01/20/2012 00:00	-13.7	-13.9	-14.7
01/20/2012 01:00	-14.3	-14.1	-15
01/20/2012 02:00	-14.6	-14.2	-15.1
01/20/2012 03:00	-14.9	-14.6	-16.4
01/20/2012 04:00	-15.4	-15.3	-16.8
01/20/2012 05:00	-16.2	-15.4	-17.4
01/20/2012 06:00	-17.4	-15.4	-17.6
01/20/2012 07:00	-17.2	-16.4	-17.6
01/20/2012 08:00	-17.5	-15.6	-18.2
01/20/2012 09:00	-15	-14.5	-16
01/20/2012 10:00	-12	-11.6	-11.8
01/20/2012 11:00	-10.4	-8.7	-8.7
01/20/2012 12:00	-7.9	-8.4	-8.8
01/20/2012 13:00	-8.6	-8.4	-8.7
01/20/2012 14:00	-8.8	-8.7	-8.8
01/20/2012 15:00	-8.3	-8.5	-8.5
01/20/2012 16:00	-7.9	-8.1	-8.2



	Icewine Temperatures
	Below Icewine Temperatures



### LENS: Icewine Opportunities (6 Hour Minimum)

Date & Time	Cedar Springs	Colchester	Kingsville
01/20/2012 17:00	-7.4	-7.7	-7.8
01/20/2012 18:00	-7	-7.3	-8.5
01/20/2012 19:00	-7.1	-8.7	-9.3
01/20/2012 20:00	-7.8	-9.2	-9.3
01/20/2012 21:00	-9.3	-9.2	-8.9
01/20/2012 22:00	-9.7	-8.8	-9.2
01/20/2012 23:00	-9.6	-9	-9.6
01/21/2012 00:00	-9.4	-9.3	-9.6
01/21/2012 01:00	-9.3	-9.3	-9.5
01/21/2012 02:00	-9.3	-9.2	-9.5
01/21/2012 03:00	-9.3	-9.3	-9.5
01/21/2012 04:00	-9.4	-9.1	-9.5
01/21/2012 05:00	-10.2	-8.7	-9
01/21/2012 06:00	-11.4	-8.7	-8.9
01/21/2012 07:00	-10.4	-9.1	-8.9
01/21/2012 08:00	-12.1	-9.4	-9.1
01/21/2012 09:00	-12.6	-10	-8.9
01/21/2012 10:00	-9.2	-9.9	-8.5
01/21/2012 11:00	-6.9	-9.1	-8.5
01/21/2012 12:00	-6.2	-7.4	-6.6
01/21/2012 13:00	-5.9	-6	-6.1
01/21/2012 14:00	-5.9	-5.3	-5.4
<b>Potential Icewine Opportunity</b>			
01/21/2012 15:00	-5.4	-4.7	-5.2
01/21/2012 16:00	-5.2	-4.6	-5.1
01/21/2012 17:00	-6.3	-5.3	-6
01/21/2012 18:00	-8.4	-7.7	-8.8
01/21/2012 19:00	-9.2	-11.2	-11.1
01/21/2012 20:00	-9.2	-14.4	-12.4
01/21/2012 21:00	-9.5	-15.4	-12.9
01/21/2012 22:00	-10.2	-14.4	-13.9
01/21/2012 23:00	-10.2	-10.8	-12.8
01/22/2012 00:00	-9.7	-8.4	-8.2
01/22/2012 01:00	-9.6	-7.2	-7
01/22/2012 02:00	-8.4	-6.6	-6.8
01/22/2012 03:00	-3.1	-3.7	-4.7
01/22/2012 04:00	-3	-4	-3.6
01/22/2012 05:00	-3.7	-4.5	-4.5



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	Icewine Temperatures
	Below Icewine Temperatures



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