



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W Estab. 2011

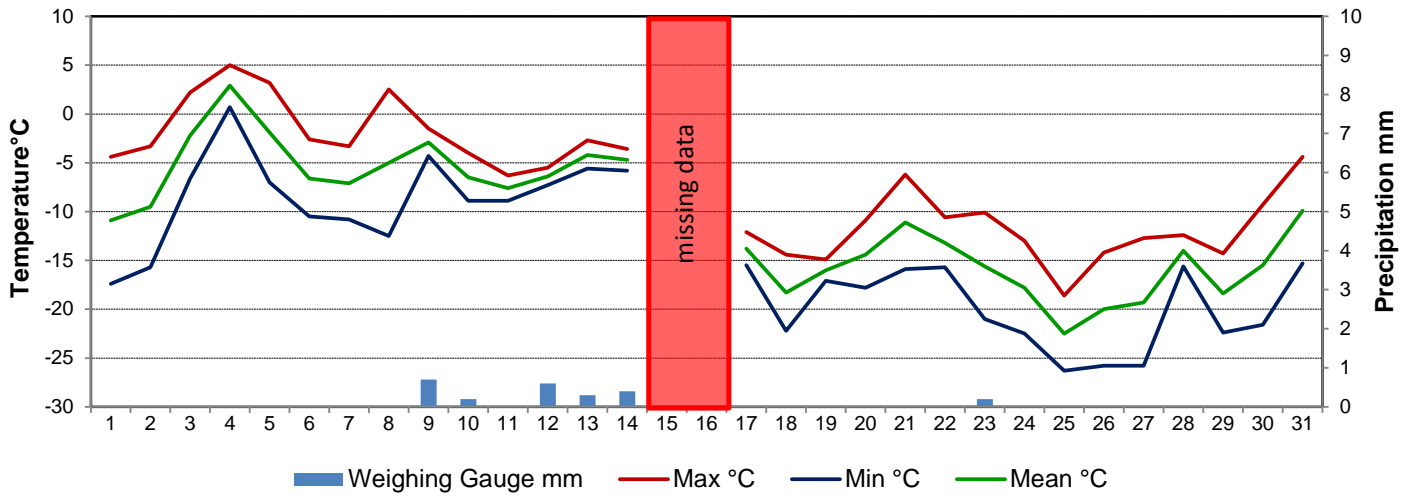
Preliminary **December 2015**

Day	Temperature			Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Min	Mean	Growing	Heating	Cooling	Weighing Gauge	Comments	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	°C	°C	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	-4.4	-17.4	-10.9	0.0	28.9	0.0	0.0		8	88	56	1010	1009
2	-3.3	-15.7	-9.5	0.0	27.5	0.0	0.0		8	89	71	1009	1004
3	2.2	-6.6	-2.2	0.0	20.2	0.0	0.0		9	78	64	1010	998
4	5.0	0.7	2.9	0.0	15.1	0.0	0.0		8	80	64	1004	995
5	3.2	-7.0	-1.9	0.0	19.9	0.0	0.0		8	90	56	1014	1005
6	-2.6	-10.5	-6.6	0.0	24.6	0.0	0.0		8	93	77	1014	1002
7	-3.3	-10.8	-7.1	0.0	25.1	0.0	0.0		8	93	81	1003	995
8	2.5	-12.5	-5.0	0.0	23.0	0.0	0.0		8	93	62	1001	995
9	-1.5	-4.3	-2.9	0.0	20.9	0.0	0.7		8	95	84	996	992
10	-4.0	-8.9	-6.5	0.0	24.5	0.0	0.2		8	94	85	1005	996
11	-6.3	-8.9	-7.6	0.0	25.6	0.0	0.0		8	93	85	1012	1005
12	-5.5	-7.3	-6.4	0.0	24.4	0.0	0.6		9	94	82	1014	1009
13	-2.7	-5.6	-4.2	0.0	22.2	0.0	0.3		10	94	88	1008	1001
14	-3.6	-5.8	-4.7	0.0	22.7	0.0	0.4		9	93	84	1014	1004
15													
16								manual SOG 15cm					
17	-12.1	-15.5	-13.8	0.0	31.8	0.0	0.0		10	79	65	1012	1010
18	-14.4	-22.2	-18.3	0.0	36.3	0.0	0.0		9	85	73	1016	1012
19	-14.9	-17.1	-16.0	0.0	34.0	0.0	0.0		10	85	80	1013	1009
20	-10.9	-17.8	-14.4	0.0	32.4	0.0	0.0		9	87	74	1010	1002
21	-6.2	-15.9	-11.1	0.0	29.1	0.0	0.0		10	92	82	1002	994
22	-10.6	-15.7	-13.2	0.0	31.2	0.0	0.0		10	91	85	998	994
23	-10.1	-21.0	-15.6	0.0	33.6	0.0	0.2		8	90	82	1001	998
24	-13.0	-22.5	-17.8	0.0	35.8	0.0	0.0		9	88	76	1013	1000
25	-18.6	-26.3	-22.5	0.0	40.5	0.0	0.0		9	79	64	1028	1014
26	-14.2	-25.8	-20.0	0.0	38.0	0.0	0.0		10	83	70	1030	1027
27	-12.7	-25.8	-19.3	0.0	37.3	0.0	0.0		10	83	77	1029	1017
28	-12.4	-15.6	-14.0	0.0	32.0	0.0	0.0		11	84	78	1020	1016
29	-14.3	-22.4	-18.4	0.0	36.4	0.0	0.0		10	83	66	1022	1020
30	-9.3	-21.6	-15.5	0.0	33.5	0.0	0.0		9	84	71	1020	1015
31	-4.4	-15.3	-9.9	0.0	27.9	0.0	0.0		10	88	64	1019	1011
Total				0.0	834.4	0.0	2.4	0					
Avg	<b>-7.0</b>	<b>-14.5</b>	<b>-10.8</b>				489.5	Cumulative ppt					
Extreme	5.0	-26.3		Solar panel and battery issues Dec 15&16, battery replaced Dec 16			0.7	0.0	11	95	56	1030	992
Date	4	25					9			9	1	26	9

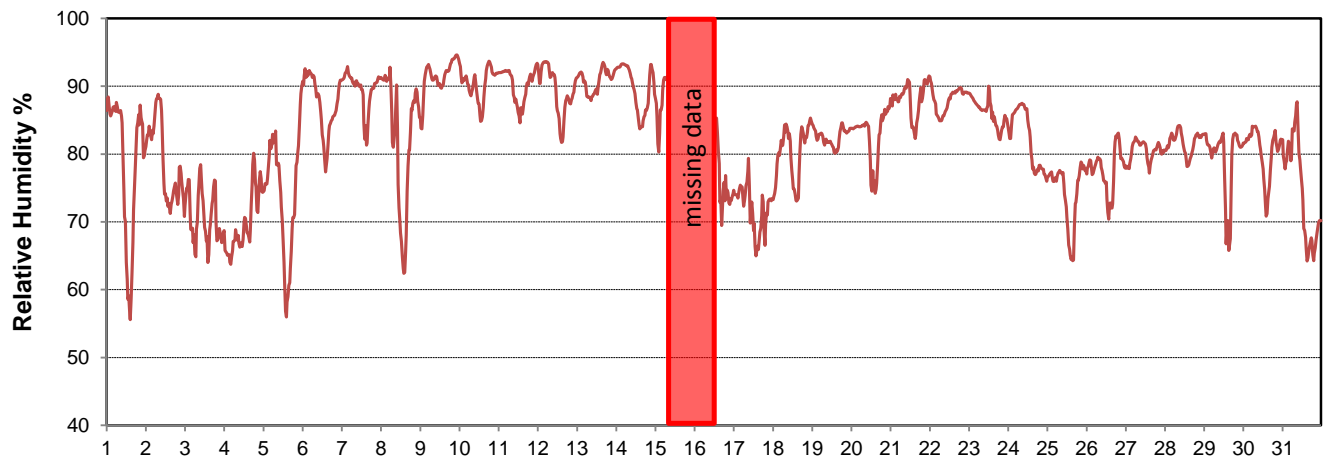
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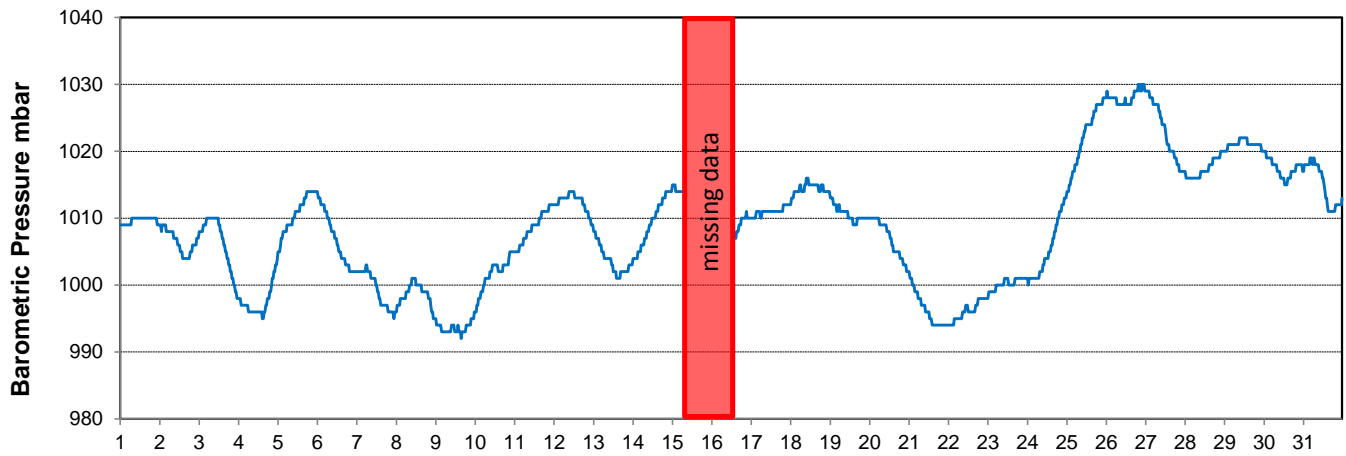
### Temperature and Precipitation for December 2015



### Relative Humidity for December 2015



### Barometric Pressure Corrected to Sea Level for December 2015





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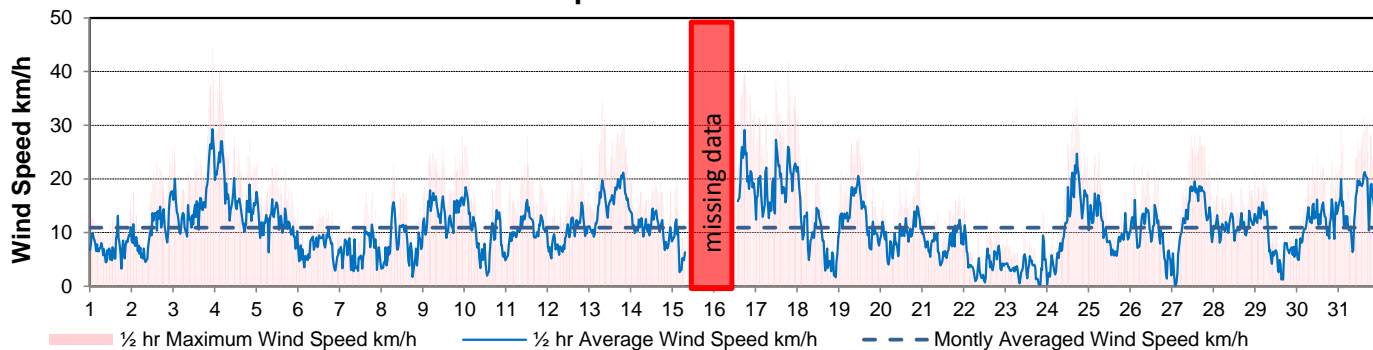
Preliminary **December 2015**

Day	Wind Gust			Soil Temperatures at 0900hrs								Soil Moisture	Radiation		
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	0900hrs	Bright Sunshine	Global	Diffuse
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	%	hours	MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	16.4	S	23:41	-11.5	0.5	0.5	1.5	3.0	5.0	6.5	8.0	33	6.9	6.0	1.0
2	25.5	WSW	23:36	-10.5	0.0	0.5	1.5	3.0	5.0	6.5	8.0	32	3.1	3.6	2.4
3	44.7	SSW	22:41	-6.5	0.0	0.5	1.0	2.5	4.5	6.0	7.5	32	4.5	3.9	0.9
4	39.9	SW	2:57	0.0	0.0	0.5	1.0	2.5	4.5	6.0	7.5	33	0.0	2.3	2.0
5	23.1	W	0:31	-4.0	0.5	0.5	1.0	2.5	4.5	6.0	7.5	33	4.9	3.7	0.7
6	14.8	E	16:49	-6.5	0.0	0.5	1.0	2.5	4.5	6.0	7.5	33	0.0	2.7	2.0
7	17.9	E	15:41	-10.0	0.0	0.5	1.0	2.5	4.5	6.0	7.5	33	1.7	3.5	1.7
8	22.9	WSW	7:13	-3.5	0.0	0.0	1.0	2.5	4.5	5.5	7.5	33	5.2	4.6	0.8
9	28.3	NE	22:44	-2.0	0.0	0.0	1.0	2.0	4.0	5.5	7.5	33	0.0	1.0	0.9
10	26.2	NE	1:24	-5.0	0.0	0.0	0.5	2.0	4.0	5.5	7.0	33	0.0	1.6	1.5
11	27.7	ESE	12:14	-6.0	0.0	0.0	1.0	2.0	4.0	5.5	7.0	33	0.0	1.4	1.3
12	24.7	ESE	19:40	-4.5	0.0	0.0	0.5	2.0	4.0	5.5	7.0	33	0.2	2.8	2.1
13	34.8	ESE	7:52	-3.5	0.0	0.0	0.5	1.5	3.5	5.0	7.0	33	0.0	1.1	1.0
14	19.7	ENE	0:29	-3.5	0.0	-0.5	0.5	1.5	3.5	5.0	6.5	33	0.0	1.4	1.3
15															
16															
17	42.1	NNW	18:53	-10.0	0.0	0.0	0.5	2.0	3.5	5.0	7.0	32	0.0	2.2	1.9
18	31.9	NW	0:31	-12.0	0.0	0.0	1.0	2.0	3.5	5.0	7.0	32	3.6	4.7	1.0
19	27.9	E	11:46	-8.0	0.0	0.0	0.5	2.0	3.5	5.0	7.0	32	0.0	1.7	1.6
20	26.0	ESE	22:05	-8.0	-0.5	0.0	0.5	2.0	3.5	5.0	7.0	32	0.0	2.9	1.5
21	17.2	WNW	21:55	-7.0	-0.5	0.0	0.5	2.0	3.5	5.0	7.0	32	0.0	2.0	1.7
22	12.7	E	13:44	-9.0	-0.5	0.0	0.5	2.0	3.5	5.0	7.0	32	0.0	1.8	1.5
23	13.7	S	22:08	-6.5	-0.5	0.0	0.5	1.5	3.5	4.5	7.0	32	0.0	2.4	1.3
24	34.4	NNW	17:11	-9.0	-0.5	0.0	0.5	1.5	3.5	4.5	7.0	32	2.1	2.2	1.3
25	25.1	NW	5:35	-20.0	-0.5	0.0	0.5	1.5	3.5	4.5	7.0	31	4.6	5.0	1.0
26	22.9	SSW	2:40	-15.0	-0.5	0.0	0.5	1.5	3.5	4.5	7.0	30	1.3	3.4	1.3
27	28.3	E	11:03	-14.0	-0.5	0.0	0.5	1.5	3.0	4.5	7.0	30	0.0	2.5	1.9
28	21.5	ESE	2:14	-10.0	-0.5	-0.5	0.5	1.5	3.0	4.5	6.5	30	0.0	1.9	1.7
29	21.1	N	0:03	-14.0	-0.5	-0.5	0.0	1.5	3.0	4.5	6.5	29	0.0	3.0	1.1
30	24.2	SW	11:33	-14.5	-0.5	-0.5	0.5	1.5	3.0	4.5	6.5	29	4.6	4.6	1.6
31	38.9	NW	23:35	-9.5	-0.5	-0.5	0.0	1.5	3.0	4.5	6.5	29	2.0	8.2	3.0
Total													44.7	88.1	43.0
Mean				-8.4	-0.2	0.0	0.7	2.0	3.8	5.2	7.1	31.9			
Extreme	44.7	SSW	22:41												
Date	3														

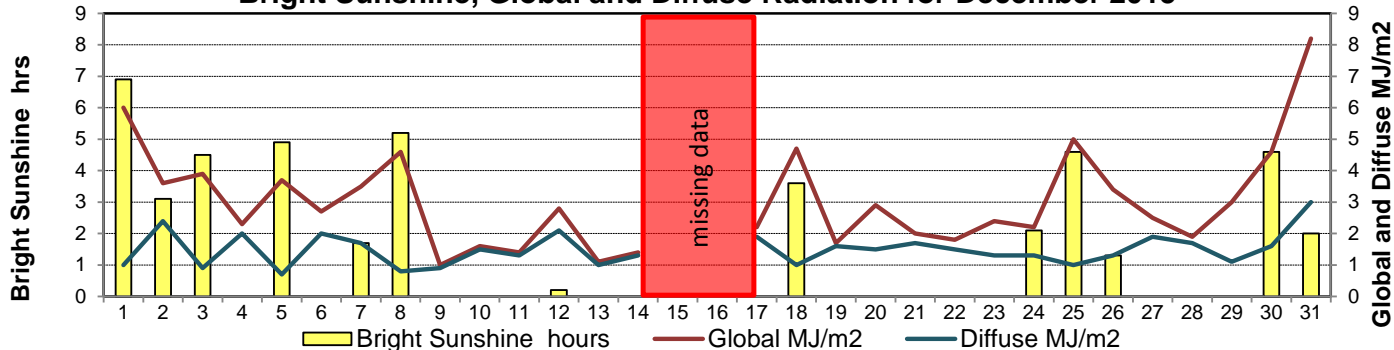
### GLOSSARY OF TERMS

<b>Degree-days</b>	<b>Radiation</b>
Tm Mean Temperature	Bright Sunshine is the unobstructed direct radiation from the sun, as opposed to the shading of a location by clouds or by other atmospheric obstructions.
Growing (Tm-5°C); if Tm ≤ 5°C then GDD = 0	
Heating (18°C-Tm); if Tm ≥ 18°C then HDD = 0	Diffuse is radiation reaching the earth's surface after having been scattered from the direct solar beam
Cooling (Tm-18°C); if Tm ≤ 18°C then CDD = 0	Global is the sum of the direct solar and diffuse radiation
T Trace of Precipitation	<b>Relative Humidity</b> The ratio of the air's water vapour content of its water vapour capacity which changes with temperature.
<b>SOG</b> Depth of snow-on-the-ground	
<b>Red Cell</b> no data available	<b>Air Pressure</b> The force exerted by the weight of a column of air above a given point
<b>Red Number</b> manual calculation	<b>Wind Gust</b> The daily highest instantaneous value recorded irrespective of direction and/or duration

### Wind Speed for December 2015

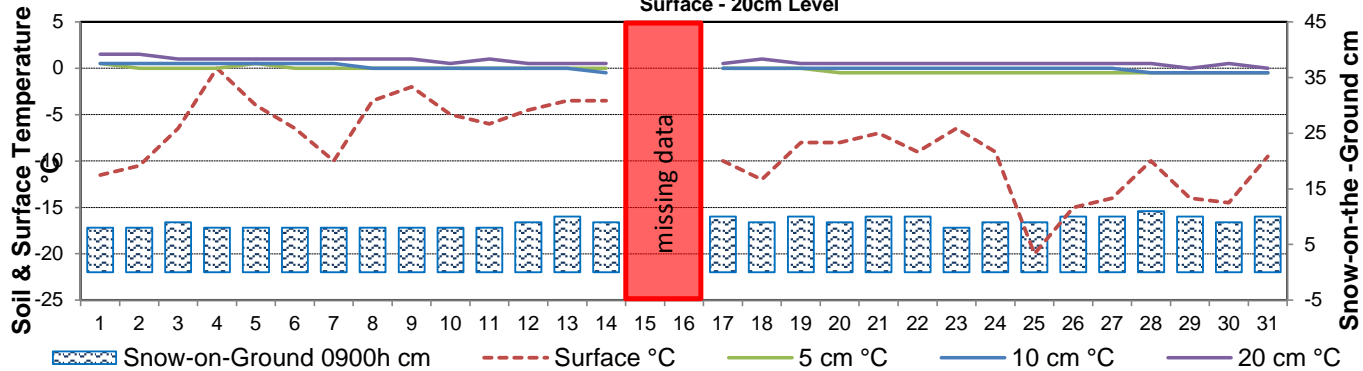


### Bright Sunshine, Global and Diffuse Radiation for December 2015



### Soil Temperatures for December 2015

Surface - 20cm Level



### Soil Temperatures for December 2015

50 - 300cm Level

