

**SANDFIRE RESOURCES AMERICA, INC.
BLACK BUTTE COPPER PROJECT
METEOROLOGICAL
MONITORING PROGRAM
Quarterly Data Report
Second Quarter 2022**

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CERTIFICATION OF DATA INTEGRITY

Bison Engineering, Inc., certifies the data in this report is an accurate summary of the meteorological conditions measured at the Black Butte Copper Project monitoring site. Every effort was made to obtain accurate and representative data and to comply with the procedures set forth in the project-specific *Quality Assurance Project Plan*, the *State of Montana Ambient Air Monitoring Program Quality Assurance Project Plan (April 2013)*, and the Environmental Protection Agency's *Quality Assurance Handbook for Air Pollution Measurement Systems: Volume I, A Field Guide to Environmental Quality Assurance (April 1994)*, *Volume II, Ambient Air Quality Program (May 2013)*, and *Volume IV, Meteorological Measurements (March 2008)*.

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APPENDICES

- Appendix A: Meteorological Data
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1.0 INTRODUCTION

Sandfire Resources America, Inc. established an ambient air monitoring site to measure wind speed, wind direction, standard deviation of wind direction, temperature at 9 meters and 2 meters, delta temperature, solar radiation, barometric pressure, and precipitation. The station was established to accurately characterize the local meteorology and collect baseline data in support of an operating permit application and various environmental studies.

The meteorological monitoring system was installed in April 2012. The site is operated by Bison Engineering, Inc., of Helena and Billings. Figure 1 shows the current location of the monitoring site, depicted by a red star. It is located to the west-southwest of the core shed buildings. On February 6, 2018, the tower was shut down and moved to a new location approximately 300 feet southwest of the original location, where monitoring resumed on March 7, 2018. Relocation activities were documented in the monitoring report for the first quarter of 2018.

This report presents the data collected during the second quarter (April through June) of 2022. In addition, a description of the monitoring system operations is presented, together with summaries of quality assurance activities, including calibrations and performance audits. Tabular summaries of the data completeness achieved, and the periods of missing data also are presented. Appendix A presents hourly meteorological data collected.

On June 23, 2015, an evaporation pan and manual precipitation gauge were installed adjacent to the existing meteorological system. The evaporation data will be used for hydrological / water balance studies. The manual rain gauge was installed to provide a backup data source for the existing automatic rain gauge, which has experienced occasional mechanical problems. Also, the automatic rain gauge is sometimes unreliable for measuring frozen precipitation. Neither the manual rain gauge nor the evaporation pan were operated during the second quarter of 2022. The automatic precipitation gauge generally operated well throughout second quarter of 2022.

Figure 1. Monitoring Site Location

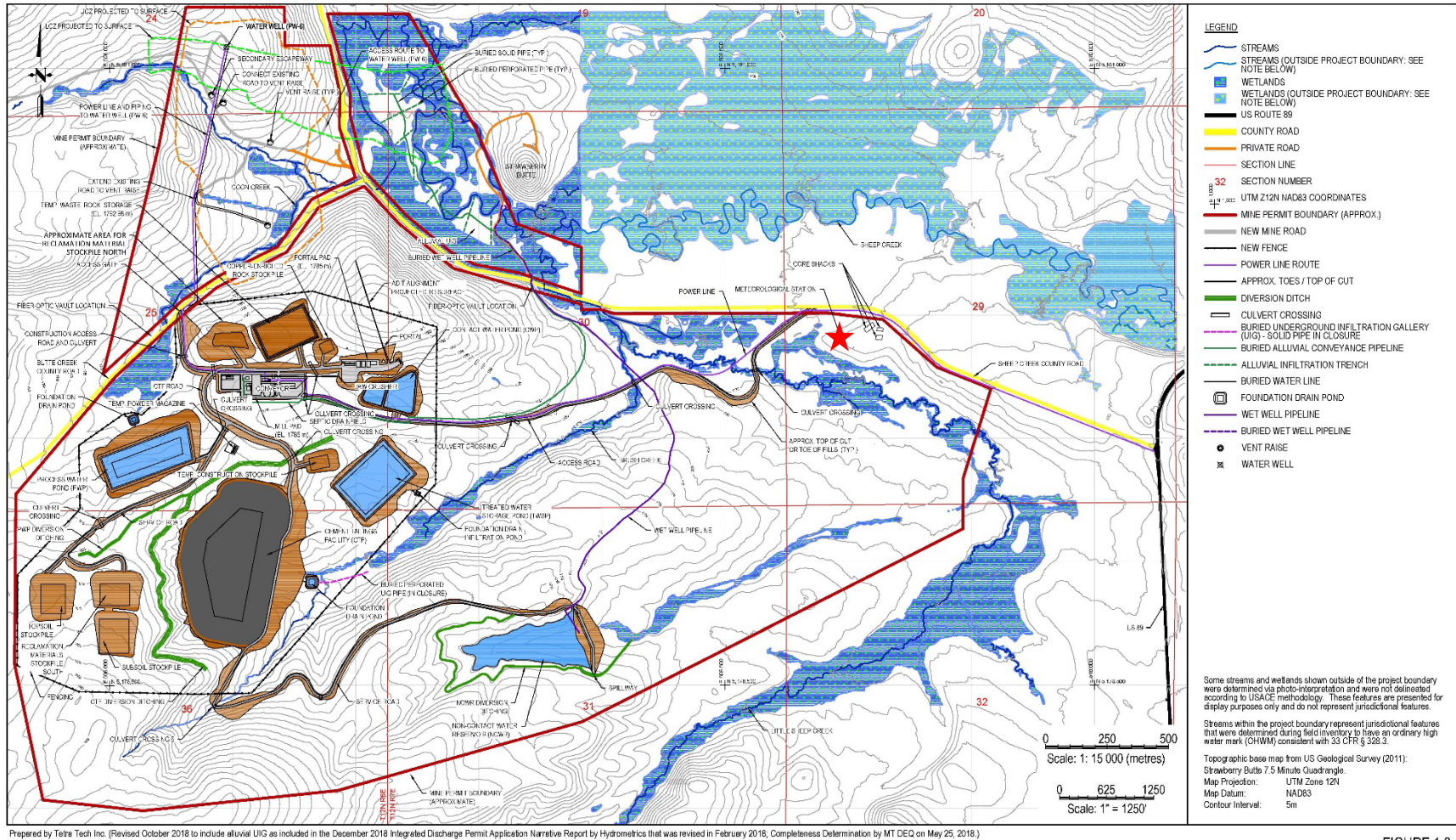


FIGURE 1.3
Facilities Site Plan
Black Butte Copper Project
Mine Operating Permit Application
Meagher County, Montana



2.0 MONITORING SYSTEM OPERATIONS

Monitoring activities continued in the normal manner during the second quarter of 2022. Data were downloaded and reviewed by Bison at least once a week and examined for suspect behavior. All instruments were operational throughout the quarter. However, the station battery power failed on two separate occasions during the second quarter of 2022; the first power failure occurred in May and resulted in the loss of 48 hours of data between May 7 and May 9. The second failure came in June and resulted in the loss of 84 hours of data between June 5 and June 9. Site personnel believe the problem may be with the buried AC power cable running from the core shed to the meteorological tower. Additional wind speed data loss occurred due to weather conditions (freezing the sensor) in April and intermittent problems with the wind speed sensor bearings in June.

Don Milmine and Kyle DeVerna of Bison conducted performance audits of the meteorological system on June 16, 2022. The wind speed and direction sensors and crossarm were replaced; as-found and as-left wind direction and speed responses, as well as bearing torque data, are provided in Appendix B. No other calibration adjustments were made to any of the instrumentation.

3.0 PERFORMANCE AUDIT DATA

Don Milmine and Kyle DeVerna of Bison conducted performance audits of the meteorological system on June 16, 2022. The wind speed and direction sensors and crossarm were replaced; as-found and as-left wind direction and speed responses, as well as bearing torque data, are provided in Appendix B. No other calibration adjustments were made to any of the instrumentation.

4.0 CALIBRATION DATA

Don Milmine and Kyle DeVerna of Bison conducted performance audits of the meteorological system on June 16, 2022, as discussed in Section 3.0. The wind speed and direction sensors and crossarm were replaced; as-found and as-left wind direction and speed responses, as well as bearing torque data, are provided in Appendix B. All other as-found audit results were satisfactory, and no other calibration adjustments were needed.

5.0 DATA COMPLETENESS

The meteorological percentages of data recovery achieved during the second quarter of 2022 are given in Tables 1 and 2. In these tables, the number of possible data values during each month of the quarter is given, together with the number of valid readings and the number of hours spent on quality assurance activities (such as calibrations, performance audits, and maintenance on the sensors). The quality assurance hours are added to the number of hours of valid data to compute the net percentage data recovery, which was 93.6 percent overall among all parameters.

All instruments were operational throughout the quarter. However, the station battery power failed on two separate occasions during the second quarter of 2022; the first power failure occurred in May and resulted in the loss of 48 hours of data between May 7 and May 9. The second failure came in June and resulted in the loss of 84 hours of data between June 5 and June 9. Additional wind speed data loss occurred due to weather conditions (freezing the sensor) in April and intermittent problems with the wind speed sensor bearings in June.

Table 1. Monthly Data Completeness

April 2022					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	720	702	97.5	3	97.9
Wind Direction	720	709	98.5	3	98.9
Standard Deviation	720	709	98.5	3	98.9
9-Meter Temperature	720	717	99.6	3	100.0
2-Meter Temperature	720	717	99.6	3	100.0
9-2 M Delta Temperature	720	717	99.6	3	100.0
Solar Radiation	720	717	99.6	3	100.0
Barometric Pressure	720	720	100.0	0	100.0
Relative Humidity	720	717	99.6	3	100.0
Precipitation	720	718	99.7	2	100.0
Total	7,200	7,143	99.2	26	99.6

Table 1. Monthly Data Completeness (Continued)

May 2022					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	744	696	93.5	0	93.5
Wind Direction	744	696	93.5	0	93.5
Standard Deviation	744	696	93.5	0	93.5
9-Meter Temperature	744	696	93.5	0	93.5
2-Meter Temperature	744	696	93.5	0	93.5
9-2 M Delta Temperature	744	696	93.5	0	93.5
Solar Radiation	744	696	93.5	0	93.5
Barometric Pressure	744	696	93.5	0	93.5
Relative Humidity	744	696	93.5	0	93.5
Precipitation	744	696	93.5	0	93.5
Total	7,440	6,960	93.5	0	93.5

Table 1. Monthly Data Completeness (Continued)

June 2022					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	720	594	82.5	4	83.1
Wind Direction	720	632	87.8	4	88.3
Standard Deviation	720	632	87.8	4	88.3
9-Meter Temperature	720	632	87.8	4	88.3
2-Meter Temperature	720	632	87.8	4	88.3
9-2 M Delta Temperature	720	632	87.8	4	88.3
Solar Radiation	720	632	87.8	4	88.3
Barometric Pressure	720	636	88.3	0	88.3
Relative Humidity	720	632	87.8	4	88.3
Precipitation	720	635	88.2	1	88.3
Total	7,200	6,289	87.3	33	87.8

Table 2. Quarterly Data Completeness

Second Quarter 2022					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	2,184	1,992	91.2	7	91.5
Wind Direction	2,184	2,037	93.3	7	93.6
Standard Deviation	2,184	2,037	93.3	7	93.6
9-Meter Temperature	2,184	2,045	93.6	7	94.0
2-Meter Temperature	2,184	2,045	93.6	7	94.0
9-2 M Delta Temperature	2,184	2,045	93.6	7	94.0
Solar Radiation	2,184	2,045	93.6	7	94.0
Barometric Pressure	2,184	2,052	94.0	0	94.0
Relative Humidity	2,184	2,045	93.6	7	94.0
Precipitation	2,184	2,049	93.8	3	94.0
Total	21,840	20,392	93.4	59	93.6

6.0 MONITORING DATA

The hourly data values collected at the monitoring site are given in the data tables in Appendix A. Each of these tables presents one month's data for one parameter in the monitoring system. In addition, the average, maximum, and minimum values for each parameter for each day are listed (for wind direction, the prevailing wind direction for the day is given). For those hours with missing data, a code is given that explains the reason the data were missing. These codes are given in Table 3.

Monthly and quarterly wind rose distributions from the monitoring site are presented in Tables 4 through 7. These tables give the percentage frequency of occurrence of winds from 16 cardinal directions and from 22 wind speed ranges. These same data are presented graphically in Figures 2 through 5. In the wind rose figures, the length of each "petal" of the rose is proportional to the percentage of time the wind blew from that direction. On the bottom of each figure is a histogram showing the average wind speed from each of the cardinal wind directions.

Table 3. Missing Data Codes

Mnemonic Code	Description	Equivalent AIRS Null Value Reason Code
Sc	Scheduled but not collected	9972
Ti	Sample time out of limits	9973
Fi	Filter damage	9976
Op	Voided by operator	9978
Mi	Miscellaneous void	9979
ND	Machine malfunction	9980
Wx	Bad weather	9981
Co	Collection error	9983
Lb	Lab error	9984
QA	Poor quality assurance results	9985
ZS	Manual zero/span check	9986
Wa	Monitoring waived	9987
Pw	Power failure	9988
Wi	Wildlife damage	9989
AZ	Automatic zero/span check	9991
Au	Performance audit	9992
Ma	Routine maintenance/repairs	9993
Ca	Multipoint calibration	9995
PZ	Precision/zero/span	9998

Table 4. Monthly Wind Rose Summary, Black Butte Copper Project Met Tower

April 2022																		
Direction>>>		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
Wind Speed (meters per second)	0.1 - 1.0	0.3	0.1	0.4	0.4	0.4	1.6	1.6	0.9	0.3	0.7	0.4	0.0	0.1	0.7	0.3	0.6	8.8
	1.1 - 2.0	0.9	0.9	0.6	1.6	2.4	2.9	2.9	3.1	0.9	0.1	0.1	1.0	0.4	1.1	1.6	0.4	20.8
	2.1 - 3.0	0.1	0.1	0.1	0.7	1.9	1.4	0.6	0.9	0.6	0.4	0.1	0.4	1.1	0.9	1.4	1.4	12.3
	3.1 - 4.0	0.3	0.1	0.0	0.4	0.3	0.9	1.0	1.4	0.3	0.0	0.4	0.6	2.0	1.6	1.9	0.6	11.7
	4.1 - 5.0	0.1	0.0	0.1	0.1	0.3	0.1	0.7	0.4	0.4	0.0	0.4	1.3	1.4	2.0	2.0	0.6	10.1
	5.1 - 6.0	0.0	0.0	0.6	0.3	0.9	0.3	1.1	0.7	0.1	0.4	0.4	1.0	1.0	3.0	1.1	0.6	11.6
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	0.3	0.4	0.3	0.3	0.4	1.7	1.9	1.3	0.6	8.6
	7.1 - 8.0	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.4	1.3	1.4	1.4	0.7	6.3
	8.1 - 9.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.3	0.3	1.3	1.0	0.1	0.1	4.1
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.3	0.4	0.0	0.0	1.9
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.1	1.0	0.3	0.0	0.0	1.9
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.6	1.0	0.0	0.0	1.7
	12.1 - 13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.3
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm																		0.0
Total		2.3	1.3	1.9	3.6	6.1	7.4	9.7	8.1	3.3	2.4	2.9	5.6	13.4	15.4	11.1	5.6	100.0
Average Speed		3.4	1.8	2.8	2.2	2.6	2.3	3.5	2.9	3.7	3.9	4.9	4.7	6.4	5.7	4.3	4.1	4.2

Table 5. Monthly Wind Rose Summary, Black Butte Copper Project Met Tower

May 2022																		
Direction>>>		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
Wind Speed (meters per second)	0.1 - 1.0	0.9	0.1	0.4	0.9	0.9	1.0	1.7	0.6	0.9	0.1	0.6	0.0	0.4	0.3	0.4	0.3	9.5
	1.1 - 2.0	0.7	0.1	1.0	1.3	2.4	4.3	3.6	1.1	0.7	0.4	0.1	0.6	0.7	0.9	1.1	0.9	20.1
	2.1 - 3.0	0.3	0.1	0.0	0.9	2.3	1.0	0.7	1.1	0.6	0.4	0.3	0.9	0.7	0.6	1.6	2.3	13.8
	3.1 - 4.0	0.9	0.3	0.0	0.7	1.0	0.3	0.4	1.9	0.4	0.1	0.3	0.3	2.2	2.2	1.7	0.9	13.5
	4.1 - 5.0	0.4	0.3	0.1	0.3	0.3	0.0	1.3	0.9	0.3	0.0	0.6	0.6	2.0	2.0	1.1	1.1	11.4
	5.1 - 6.0	1.1	0.3	0.0	0.1	0.1	0.3	0.4	0.7	0.1	0.4	0.4	1.0	3.3	1.1	0.7	1.6	11.9
	6.1 - 7.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.1	0.3	1.1	0.6	1.6	1.6	0.6	0.1	6.9
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.0	0.3	0.3	0.1	2.2	0.0	0.3	0.7	4.9
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.6	1.6	0.7	0.1	0.1	3.9
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.3	1.0	0.0	0.0	2.0
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.1	0.0	1.1
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.6
	12.1 - 13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm																		0.0
Total		4.5	1.3	1.6	4.2	7.0	6.9	9.5	6.8	3.2	2.9	4.5	4.9	15.9	11.1	7.9	8.0	100.0
Average Speed		3.3	3.5	1.6	2.3	2.2	1.8	2.9	3.3	2.5	5.3	5.3	5.0	5.9	5.5	3.8	4.0	4.0

Table 6. Monthly Wind Rose Summary, Black Butte Copper Project Met Tower

June 2022																		
Direction>>>		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
Wind Speed (meters per second)	0.1 - 1.0	1.0	1.3	0.8	1.3	1.3	0.3	1.7	1.0	1.0	0.3	0.7	0.3	1.5	0.7	0.0	0.7	14.1
	1.1 - 2.0	3.5	3.9	2.2	0.8	3.4	2.9	2.0	1.3	1.2	1.5	1.3	1.3	0.3	0.8	0.8	2.2	29.6
	2.1 - 3.0	1.2	0.5	1.3	1.3	1.9	1.0	0.3	0.5	0.5	1.0	1.9	1.7	0.5	0.7	0.8	0.8	16.0
	3.1 - 4.0	0.2	0.3	0.3	0.8	0.7	0.2	1.2	0.5	1.0	1.7	1.3	1.2	1.5	0.5	0.2	0.3	12.0
	4.1 - 5.0	0.0	0.0	0.3	0.0	0.0	0.0	1.9	1.5	1.2	0.7	1.0	0.2	1.0	0.7	0.2	0.0	8.6
	5.1 - 6.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.5	0.8	0.3	0.5	1.0	2.0	0.3	0.0	0.0	5.9
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.3	0.3	0.3	1.3	0.8	0.2	0.0	4.2
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.5	0.2	1.0	1.3	0.3	0.0	0.0	4.2
	8.1 - 9.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.8	0.2	0.0	0.0	2.2
	9.1 - 10.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.5	0.0	0.0	0.0	1.5
	10.1 - 11.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.8	0.2	0.0	0.0	1.3
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.1 - 13.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm																		0.0
Total		5.9	6.1	6.1	4.4	7.2	4.4	7.4	5.7	7.4	6.7	7.4	8.1	11.8	5.2	2.2	4.0	100.0
Average Speed		1.6	1.6	3.2	1.9	1.7	1.7	2.6	3.1	4.2	3.7	3.3	4.5	5.4	4.1	2.6	1.8	3.2

Table 7. Quarterly Wind Rose Summary, Black Butte Copper Project Met Tower

Second Quarter 2022																		
Direction>>>		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
Wind Speed (meters per second)	0.1 - 1.0	0.7	0.5	0.6	0.9	0.9	1.0	1.7	0.8	0.7	0.4	0.6	0.1	0.7	0.6	0.3	0.5	10.6
	1.1 - 2.0	1.6	1.5	1.2	1.3	2.7	3.4	2.9	1.9	0.9	0.7	0.5	1.0	0.5	1.0	1.2	1.1	23.2
	2.1 - 3.0	0.5	0.3	0.5	1.0	2.0	1.2	0.6	0.9	0.6	0.6	0.7	1.0	0.8	0.7	1.3	1.6	13.9
	3.1 - 4.0	0.5	0.3	0.1	0.7	0.7	0.5	0.9	1.3	0.6	0.6	0.7	0.7	1.9	1.5	1.3	0.6	12.4
	4.1 - 5.0	0.2	0.1	0.2	0.2	0.2	0.1	1.3	0.9	0.6	0.2	0.7	0.7	1.5	1.6	1.2	0.6	10.1
	5.1 - 6.0	0.4	0.1	0.3	0.2	0.4	0.2	0.6	0.7	0.4	0.4	0.5	1.0	2.1	1.6	0.7	0.8	10.0
	6.1 - 7.0	0.1	0.0	0.0	0.0	0.0	0.1	0.7	0.3	0.4	0.3	0.6	0.5	1.6	1.5	0.7	0.3	6.7
	7.1 - 8.0	0.2	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.3	0.2	0.5	1.6	0.6	0.6	0.5	5.2
	8.1 - 9.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.2	0.4	1.3	0.7	0.1	0.1	3.5
	9.1 - 10.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.7	0.5	0.0	0.0	1.8
	10.1 - 11.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.7	0.3	0.1	0.0	1.5
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.8
	12.1 - 13.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.3
	13.1 - 14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	14.1 - 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
	15.1 - 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16.1 - 17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17.1 - 18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	18.1 - 19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	19.1 - 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	> 20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm																		0.0
Total		4.1	2.7	3.0	4.0	6.8	6.3	8.9	6.9	4.5	3.9	4.8	6.1	13.8	10.8	7.3	6.0	100.0
Average Speed		2.6	1.9	2.8	2.1	2.2	2.0	3.1	3.1	3.6	4.2	4.3	4.7	5.9	5.4	4.0	3.6	3.8

Figure 2. Monthly Wind Rose, Black Butte Copper Project Met Tower

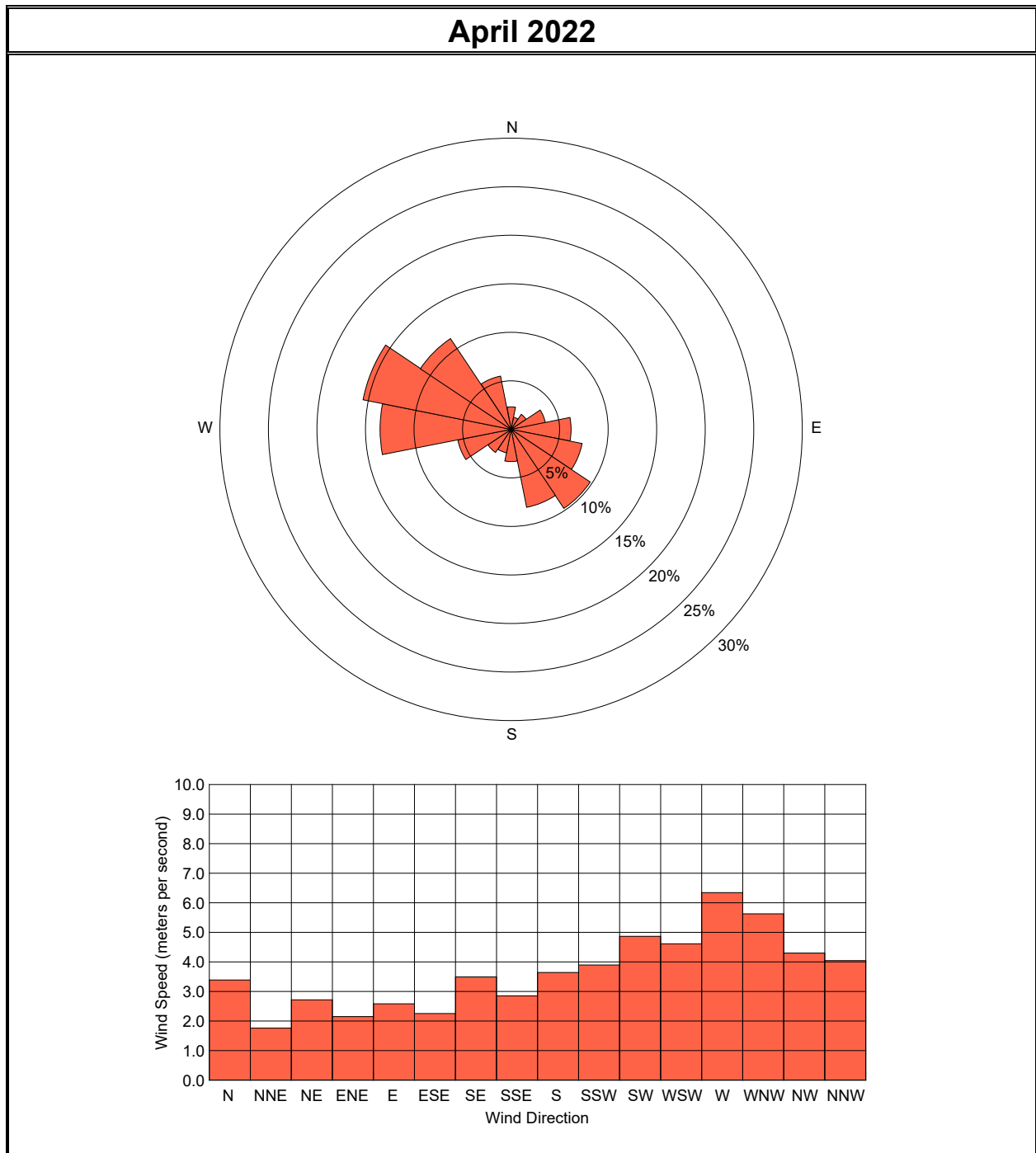


Figure 3. Monthly Wind Rose, Black Butte Copper Project Met Tower

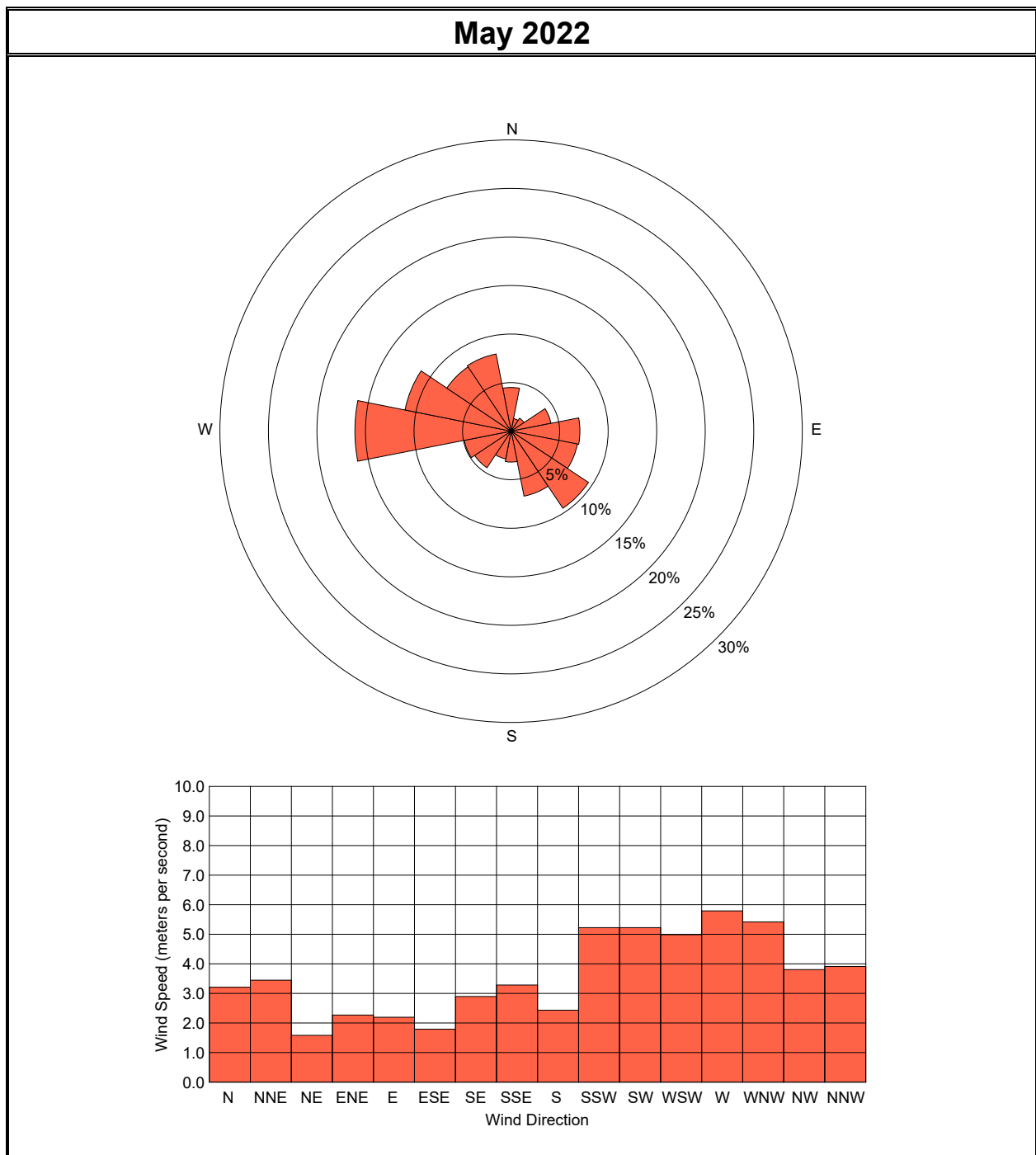


Figure 4. Monthly Wind Rose, Black Butte Copper Project Met Tower

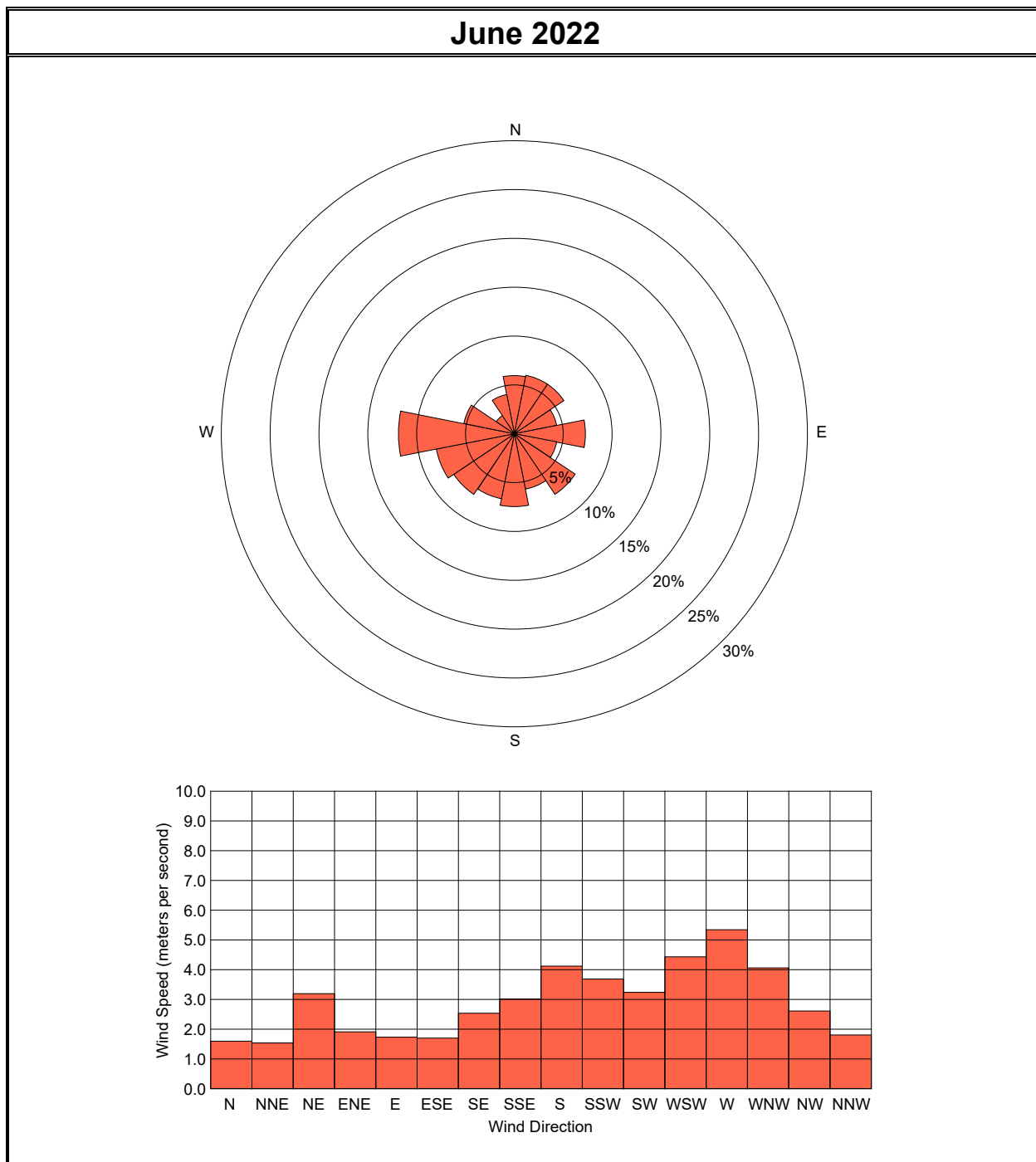
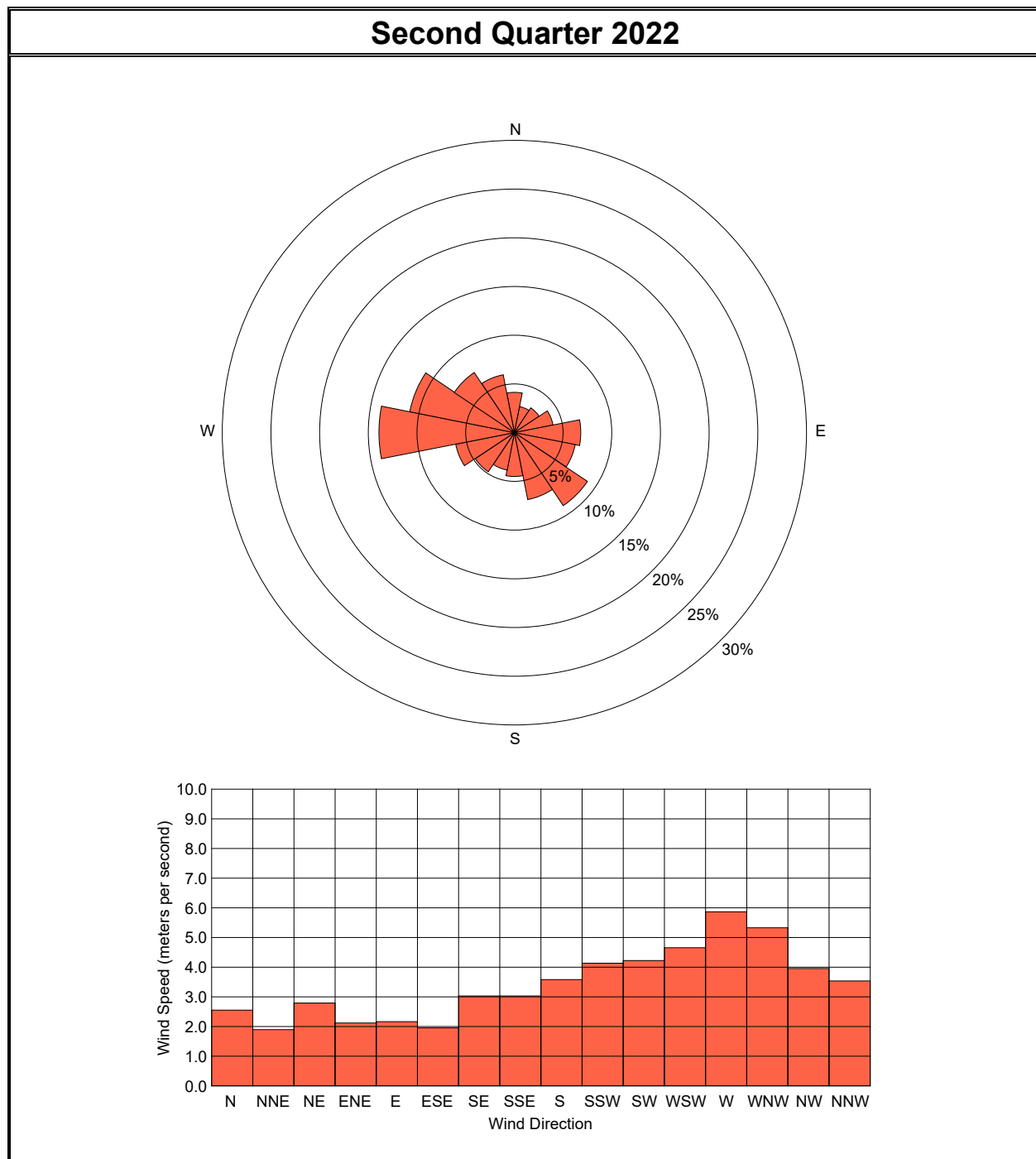


Figure 5. Quarterly Wind Rose, Black Butte Copper Project Met Tower



APPENDIX A: HOURLY AIR QUALITY AND METEOROLOGICAL DATA, SECOND QUARTER 2022

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
April 2022

A-1

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.7	1.9	0.8	0.8	0.7	0.9	0.8	2.1	5.2	5.1	7.2	8.4	6.7	8.2	6.9	6.2	5.4	4.4	2.6	1.5	1.2	1.4	1.5	1.3	3.5	8.4	0.7
2	1.4	1.4	1.4	1.5	1.3	1.2	1.1	0.8	0.8	1.7	4.5	5.2	7.4	8.3	5.8	4.8	7.7	9.0	5.3	5.9	7.7	6.1	6.5	6.1	4.3	9.0	0.8
3	4.4	2.1	0.7	1.0	2.2	1.6	1.8	1.1	2.0	4.0	4.2	3.1	4.8	4.3	3.8	3.7	3.7	3.2	2.1	1.0	1.7	2.1	0.8	1.8	2.6	4.8	0.7
4	1.5	1.4	0.8	0.9	1.1	0.8	4.2	5.8	6.7	8.6	10.9	8.8	10.5	8.0	4.4	4.5	9.0	6.5	9.0	10.6	12.7	11.3	11.0	11.9	6.7	12.7	0.8
5	12.0	9.3	9.0	8.1	9.3	8.5	9.3	9.2	9.9	9.7	11.3	11.7	12.4	11.8	11.6	11.3	11.1	12.0	10.8	8.5	4.8	5.2	5.3	5.6	9.5	12.4	4.8
6	6.1	5.9	6.2	5.5	5.2	5.8	5.2	4.8	6.8	7.1	8.0	7.5	6.1	7.2	7.9	7.8	7.5	5.9	5.8	3.8	2.5	1.5	1.2	1.6	5.5	8.0	1.2
7	1.7	1.2	1.0	0.9	1.2	1.0	0.7	1.0	1.2	2.7	3.4	4.0	4.4	3.6	4.0	4.2	4.5	4.0	2.1	2.4	3.0	2.8	1.6	0.9	2.4	4.5	0.7
8	1.3	1.0	1.3	1.4	1.5	1.6	1.3	0.8	1.8	Au	Au	Au	6.9	5.4	6.8	8.0	8.2	7.5	6.2	7.5	4.2	2.0	4.5	8.0	4.2	8.2	0.8
9	8.7	11.1	7.5	9.4	6.2	4.2	5.6	6.7	9.3	9.9	10.2	9.4	9.4	8.2	7.4	7.8	8.2	7.8	7.2	5.1	3.4	2.0	4.9	5.8	7.3	11.1	2.0
10	5.7	2.7	1.5	1.0	2.2	3.2	3.7	4.3	3.9	6.2	7.2	6.7	5.6	6.6	5.6	4.7	3.4	3.4	2.1	1.4	0.7	1.2	2.0	1.0	3.6	7.2	0.7
11	1.3	1.6	1.2	1.7	1.2	1.0	1.1	1.6	1.7	1.2	4.2	5.5	6.4	6.0	5.8	4.9	4.4	5.2	5.8	5.9	5.3	3.3	4.1	5.1	3.6	6.4	1.0
12	5.4	5.1	5.2	5.5	4.3	2.6	3.2	3.5	4.2	7.5	7.1	7.6	8.3	7.4	6.9	6.3	5.8	5.7	4.1	3.9	3.2	3.3	3.0	2.4	5.1	8.3	2.4
13	3.6	4.2	4.8	4.7	5.6	5.0	4.9	6.1	6.1	6.5	6.5	6.7	7.5	7.9	7.2	6.7	6.3	5.6	4.9	3.6	3.8	2.4	2.6	3.2	5.3	7.9	2.4
14	2.4	1.7	1.6	4.4	1.8	2.7	2.2	3.0	3.3	3.6	3.7	3.8	3.8	3.9	6.1	5.0	6.8	6.1	4.7	2.5	2.0	1.8	2.1	1.8	3.4	6.8	1.6
15	1.8	1.5	1.3	1.3	1.4	1.7	1.2	0.7	1.4	2.6	3.5	5.2	5.6	5.5	6.7	6.3	4.1	3.3	3.5	2.3	1.8	1.6	2.1	2.6	2.9	6.7	0.7
16	2.0	1.7	1.6	1.3	0.9	0.5	0.4	2.0	6.6	7.9	11.1	10.7	8.9	10.4	6.9	8.6	7.4	3.4	2.9	5.1	3.4	1.3	1.1	1.4	4.5	11.1	0.4
17	2.5	3.3	5.4	6.0	5.0	4.2	2.1	1.4	3.3	2.6	4.0	6.7	5.8	7.0	6.9	6.2	5.7	4.0	5.1	2.4	3.9	2.9	3.3	2.7	4.3	7.0	1.4
18	2.1	2.3	2.2	2.2	1.9	1.7	1.1	0.5	3.7	6.6	5.1	6.2	6.0	6.1	6.5	7.0	6.1	3.7	4.0	4.9	4.0	4.7	5.3	2.6	4.0	7.0	0.5
19	2.2	2.4	2.4	2.8	2.1	1.6	1.8	8.8	8.9	6.8	6.6	7.8	10.5	10.9	10.6	10.4	10.8	9.4	9.0	5.2	4.5	2.8	1.8	1.5	5.9	10.9	1.5
20	1.2	1.7	1.6	5.6	3.3	4.6	4.3	5.4	5.8	8.1	8.8	7.8	7.7	7.5	7.1	7.2	4.8	3.7	2.5	2.0	1.4	3.3	3.8	5.9	4.8	8.8	1.2
21	6.8	6.4	4.6	5.2	4.2	2.9	3.9	5.7	4.6	3.0	1.7	2.4	1.6	2.1	2.1	4.6	4.8	4.1	5.2	3.5	2.5	2.5	1.9	1.5	3.7	6.8	1.5
22	0.8	1.0	1.1	0.8	0.9	1.0	1.0	0.7	0.6	1.2	2.5	2.6	2.5	4.8	5.4	5.9	5.4	5.7	6.1	4.2	1.2	0.5	Wx	Wx	2.5	6.1	0.5
23	0.6	0.3	Wx	3.1	3.4	3.0	2.4	5.7	7.4	5.8	6.4	7.8	7.1	6.9	7.1	8.0	8.5	7.9	6.5	4.0	3.5	3.5	3.7	3.9	5.1	8.5	0.3
24	2.7	1.7	1.1	0.8	0.5	1.1	0.5	1.2	2.7	2.3	2.9	2.5	2.6	3.3	4.7	3.3	3.4	3.8	2.3	1.7	1.9	2.3	2.6	2.0	2.2	4.7	0.5
25	1.8	1.4	1.7	1.5	1.6	1.4	1.4	1.8	3.6	5.1	5.2	5.3	5.0	4.5	5.2	4.3	5.6	3.0	2.2	2.9	2.9	1.2	1.0	2.0	3.0	5.6	1.0
26	1.0	1.7	1.6	2.0	1.4	1.1	0.9	1.5	6.9	4.8	5.3	7.0	8.9	8.6	8.1	9.9	9.0	7.0	4.6	1.6	1.3	1.6	2.7	1.9	4.2	9.9	0.9
27	3.4	1.8	2.5	1.7	2.2	1.8	1.0	0.9	1.1	1.1	1.8	1.6	2.3	2.5	5.2	4.1	1.8	2.2	1.9	1.0	1.0	0.9	0.8	Wx	1.9	5.2	0.8
28	Wx	Wx	Wx	Wx	Wx	Wx	Wx	0.3	0.6	1.1	2.1	3.7	3.7	3.5	3.9	6.0	7.1	5.8	3.2	3.0	1.4	2.4	2.2	1.6	3.0	7.1	0.3
29	1.9	1.7	3.8	3.5	1.1	Wx	Wx	Wx	Wx	3.2	3.6	4.3	4.6	4.4	4.7	4.8	4.8	5.0	3.8	2.7	0.9	1.2	0.7	1.0	3.1	5.0	0.7
30	0.7	0.7	1.2	1.1	1.1	1.1	1.0	0.8	1.3	2.6	4.0	5.0	5.3	5.6	5.8	5.9	6.3	6.4	4.5	3.5	3.3	3.9	5.5	4.1	3.4	6.4	0.7
Avg	3.1	2.8	2.7	3.0	2.6	2.4	2.4	3.0	4.2	4.8	5.6	6.0	6.3	6.3	6.2	6.3	6.3	5.5	4.7	3.8	3.2	2.8	3.1	3.3	4.2	7.8	1.1
Max	12.0	11.1	9.0	9.4	9.3	8.5	9.3	9.2	9.9	9.9	11.3	11.7	12.4	11.8	11.6	11.3	11.1	12.0	10.8	10.6	12.7	11.3	11.0	11.9	9.5	12.7	4.8
Min	0.6	0.3	0.7	0.8	0.5	0.5	0.4	0.3	0.6	1.1	1.7	1.6	1.6	2.1	2.1	3.3	1.8	2.2	1.9	1.0	0.7	0.5	0.7	0.9	1.9	4.5	0.3

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
May 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.7	3.3	1.1	0.9	1.8	1.6	2.2	3.0	5.5	5.2	6.3	7.4	7.5	7.7	7.9	7.3	6.1	5.4	5.3	4.4	4.7	4.6	4.2	4.5	4.7	7.9	0.9
2	4.2	3.7	3.9	2.5	3.0	3.5	3.6	5.4	5.1	3.6	3.5	4.3	3.9	4.3	4.8	4.5	5.0	7.2	6.6	3.4	1.9	1.9	2.3	2.3	3.9	7.2	1.9
3	2.3	1.1	1.0	1.2	1.2	1.0	1.1	0.7	1.4	2.9	3.6	3.6	3.1	4.7	3.4	5.3	3.2	5.4	4.1	1.1	1.5	2.2	2.0	1.5	2.4	5.4	0.7
4	1.1	0.9	0.8	0.9	0.7	1.1	0.9	0.8	2.6	3.4	3.6	3.4	4.0	4.8	5.4	4.7	3.8	3.6	3.2	1.8	3.3	3.2	2.6	2.4	2.6	5.4	0.7
5	2.0	1.7	1.5	1.7	1.8	1.6	1.4	1.9	3.9	4.8	5.5	6.2	6.5	6.0	8.5	8.6	7.9	9.2	9.3	7.8	5.2	1.4	1.0	0.8	4.4	9.3	0.8
6	5.8	5.8	5.8	1.8	1.9	2.2	2.0	6.0	10.7	9.8	8.7	8.4	9.2	9.7	8.2	8.7	9.4	6.5	6.3	1.8	1.0	1.4	6.9	4.3	5.9	10.7	1.0
7	1.3	3.6	1.3	3.3	2.1	3.7	4.3	5.7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	3.2	5.7	1.3
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	5.2	4.3	5.4	6.5	7.3	8.2	8.4	7.5	8.1	7.1	6.6	5.9	4.1	2.2	1.8	1.5	5.6	8.4	1.5
10	1.4	2.9	1.4	3.1	1.7	2.0	3.3	6.6	6.2	6.5	6.3	5.6	5.6	5.6	5.9	4.8	5.7	5.9	5.8	5.2	3.9	1.9	1.5	1.8	4.2	6.6	1.4
11	1.5	1.0	1.2	1.0	0.6	1.4	0.8	0.8	1.3	2.2	4.9	6.5	6.2	7.1	5.9	4.7	3.9	3.1	3.7	1.8	1.5	1.7	1.2	2.9	2.8	7.1	0.6
12	2.2	2.8	1.4	1.7	3.1	1.3	3.2	4.6	3.8	4.7	6.2	5.9	5.1	5.8	6.3	6.5	6.7	5.8	4.8	2.6	1.4	1.9	2.3	1.6	3.8	6.7	1.3
13	1.0	1.0	0.7	0.7	0.5	1.1	1.2	3.2	7.3	8.5	9.5	8.8	10.6	12.3	14.4	13.9	11.5	11.3	11.5	8.3	6.8	6.1	6.0	5.7	6.7	14.4	0.5
14	4.9	2.5	1.4	2.5	1.2	1.3	0.9	1.0	2.4	1.6	1.5	5.8	8.8	8.5	7.1	6.6	6.4	5.5	5.2	5.7	6.1	5.3	3.9	3.8	4.2	8.8	0.9
15	1.5	1.5	1.1	1.1	0.8	1.2	1.0	3.0	4.8	5.0	4.5	4.5	5.7	6.1	6.0	4.4	3.4	3.0	2.4	3.0	5.1	4.9	2.8	1.4	3.3	6.1	0.8
16	2.1	1.8	3.9	2.0	1.4	2.3	2.1	0.8	2.8	4.2	3.0	3.6	4.7	7.3	5.4	5.0	4.7	3.3	1.9	1.3	1.5	2.5	1.9	2.5	3.0	7.3	0.8
17	1.3	1.3	0.9	1.6	1.5	1.6	1.4	4.7	6.0	6.1	5.1	6.0	6.2	7.3	8.4	7.3	6.7	5.7	6.4	4.5	4.4	3.7	4.7	4.9	4.5	8.4	0.9
18	7.0	6.6	4.4	4.5	1.3	1.3	2.0	3.1	3.9	5.4	5.3	5.9	5.0	5.5	6.8	10.6	6.5	6.2	7.5	6.5	8.9	9.2	8.4	11.9	6.0	11.9	1.3
19	11.0	8.1	7.6	7.9	7.9	6.7	9.6	11.0	11.0	10.6	9.9	9.3	9.3	9.5	10.0	8.3	10.5	8.8	6.9	8.5	5.5	5.6	7.6	7.1	8.7	11.0	5.5
20	6.4	5.8	5.4	4.2	3.3	3.2	1.7	3.1	4.8	4.9	5.3	5.4	6.2	8.2	7.9	7.8	7.9	7.5	5.3	4.1	1.7	2.2	1.8	1.1	4.8	8.2	1.1
21	0.6	0.8	0.4	0.2	1.0	0.9	0.7	0.8	1.9	2.8	2.6	1.8	2.6	2.6	3.6	3.4	3.2	2.8	2.6	2.2	1.0	2.5	1.6	1.2	1.8	3.6	0.2
22	0.6	0.6	0.7	0.8	0.5	0.7	3.1	5.1	5.0	3.6	2.6	1.7	1.7	3.1	4.2	1.5	2.8	2.5	3.8	3.2	2.2	2.9	2.3	1.9	2.4	5.1	0.5
23	1.5	0.8	1.4	0.8	0.9	1.0	0.4	0.8	2.3	3.7	4.1	4.8	4.3	3.8	3.3	3.3	3.3	2.1	2.2	1.1	1.7	3.2	2.5	1.5	2.3	4.8	0.4
24	1.4	1.5	1.5	1.6	0.8	1.4	0.9	0.8	2.9	3.9	4.4	6.5	5.6	4.8	4.2	5.1	4.7	3.6	2.6	3.8	2.1	3.4	2.6	2.5	3.0	6.5	0.8
25	1.6	1.1	0.9	1.2	0.4	0.8	0.8	1.0	0.9	1.8	4.0	3.1	6.2	8.5	8.2	8.6	7.8	8.2	6.7	4.8	2.8	1.9	1.6	1.7	3.5	8.6	0.4
26	2.2	1.7	1.7	1.3	1.8	3.4	1.5	2.2	5.3	5.5	5.1	6.1	6.2	5.8	3.6	3.3	3.2	2.7	2.1	1.9	2.9	1.8	2.8	2.1	3.2	6.2	1.3
27	1.8	2.0	1.7	1.7	1.3	1.6	4.6	1.9	4.4	4.9	6.7	7.9	7.5	8.0	8.0	8.6	7.8	6.1	4.6	2.4	1.9	3.6	3.0	4.3	4.4	8.6	1.3
28	2.5	1.1	0.9	1.9	2.6	1.2	2.1	2.1	3.2	3.8	4.2	4.5	4.9	4.1	3.2	2.5	3.7	4.5	2.3	2.1	3.3	3.3	2.8	2.5	2.9	4.9	0.9
29	0.6	0.5	0.4	0.3	0.8	1.1	0.5	1.8	2.1	3.3	3.5	2.8	3.7	3.3	1.6	2.4	4.2	2.0	1.8	2.3	1.8	2.5	2.9	4.2	2.1	4.2	0.3
30	4.6	3.9	3.9	5.5	5.1	5.9	6.0	5.9	5.5	6.0	5.5	5.1	5.2	7.0	7.5	5.3	4.0	3.3	2.7	2.7	5.9	5.0	4.8	4.6	5.0	7.5	2.7
31	2.6	3.0	2.2	3.4	1.6	3.4	4.6	4.8	6.0	5.1	5.4	5.9	5.6	4.9	3.3	2.0	2.6	2.7	2.3	2.4	2.6	3.8	3.5	3.9	3.6	6.0	1.6
Avg	2.8	2.5	2.1	2.1	1.8	2.1	2.3	3.2	4.4	4.8	5.0	5.4	5.8	6.4	6.3	5.9	5.7	5.2	4.7	3.7	3.3	3.3	3.2	3.2	4.0	7.4	1.1
Max	11.0	8.1	7.6	7.9	7.9	6.7	9.6	11.0	11.0	10.6	9.9	9.3	10.6	12.3	14.4	13.9	11.5	11.3	11.5	8.5	8.9	9.2	8.4	11.9	8.7	14.4	5.5
Min	0.6	0.5	0.4	0.2	0.4	0.7	0.4	0.7	0.9	1.6	1.5	1.7	1.7	2.6	1.6	1.5	2.6	2.0	1.8	1.1	1.0	1.4	1.0	0.8	1.8	3.6	0.2

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
June 2022

A-3

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	2.3	1.4	1.5	1.6	1.5	1.5	0.9	1.4	2.0	2.8	2.5	2.2	3.4	2.5	1.5	2.0	1.7	2.3	1.8	1.7	1.3	3.1	2.4	2.7	2.0	3.4	0.9
2	2.8	2.4	1.8	2.9	4.2	3.1	1.3	0.8	2.2	4.2	4.3	4.6	5.1	4.5	4.0	4.2	3.3	4.0	4.9	5.1	1.7	1.1	1.1	1.5	3.1	5.1	0.8
3	2.4	2.3	2.2	1.1	0.7	1.1	1.6	2.4	3.7	6.1	4.9	2.4	2.2	4.9	3.1	3.0	3.8	4.7	3.4	3.0	2.5	2.2	1.1	1.0	2.7	6.1	0.7
4	1.7	2.0	1.7	1.4	1.4	1.2	0.6	0.5	1.0	1.6	1.8	2.4	2.0	2.8	6.6	4.2	4.1	3.1	3.4	1.9	1.6	0.5	0.4	0.7	2.0	6.6	0.4
5	0.9	1.1	1.2	1.6	1.4	1.2	0.8	1.0	2.3	3.5	3.4	3.5	3.3	5.5	5.2	2.4	1.2	1.0	0.9	0.7	Pw	Pw	Pw	Pw	2.1	5.5	0.7
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	2.4	5.5	5.3	5.4	6.1	5.9	6.1	5.9	4.9	3.6	2.0	1.8	1.3	3.4	3.1	2.2	4.1	6.1	1.3
10	1.2	1.2	1.3	1.6	1.3	1.5	1.0	1.8	3.7	3.7	6.2	6.1	5.3	7.4	7.9	7.0	6.2	6.5	4.5	2.3	2.5	1.5	0.6	1.6	3.5	7.9	0.6
11	3.6	1.3	1.3	0.8	1.3	1.2	1.2	1.0	1.7	3.8	4.2	3.6	3.7	2.9	2.1	1.5	2.7	2.0	1.9	0.8	1.2	1.3	1.0	1.3	2.0	4.2	0.8
12	2.2	2.3	1.7	1.2	1.6	1.2	0.8	1.1	1.0	1.3	1.6	1.1	2.5	4.9	4.8	3.3	2.0	3.6	2.4	2.5	3.7	1.4	2.4	3.9	2.3	4.9	0.8
13	1.7	1.0	1.3	1.5	1.5	1.5	1.1	1.1	4.6	3.7	4.5	5.1	2.8	3.8	5.6	6.6	8.8	8.0	5.9	7.2	7.3	4.0	4.4	5.3	4.1	8.8	1.0
14	5.2	5.8	7.8	7.3	7.3	7.1	5.8	6.8	8.7	9.3	7.5	9.7	9.5	10.1	11.0	9.9	9.1	9.1	8.8	7.9	5.5	5.2	4.4	5.9	7.7	11.0	4.4
15	5.2	7.7	6.8	6.1	6.1	6.2	8.0	7.4	8.4	9.0	10.8	10.5	10.2	9.5	8.9	8.2	7.0	6.7	5.9	4.4	2.5	1.8	3.0	2.4	6.8	10.8	1.8
16	1.5	2.2	1.7	1.4	1.2	1.5	1.1	2.0	4.3	Au	Au	Au	Au	8.5	5.8	0.8	3.3	3.3	9.7	12.2	12.5	10.1	2.1	2.7	4.4	12.5	0.8
17	2.2	2.1	0.8	1.6	1.8	2.0	1.1	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	0.9	1.0	1.6	3.0	1.7	3.2	0.7
18	2.2	1.2	1.2	0.8	1.7	0.5	1.0	2.5	2.9	0.4	ND	ND	ND	ND	ND	ND	ND	0.9	3.6	3.1	4.7	2.1	1.8	1.6	1.9	4.7	0.4
19	3.3	1.3	1.1	2.6	1.7	1.6	2.1	5.2	4.1	1.9	2.9	4.2	3.6	3.2	2.2	2.8	1.6	1.8	10.3	4.1	2.9	2.9	2.8	1.1	3.0	10.3	1.1
20	1.0	0.7	0.6	0.6	0.9	4.5	5.0	4.7	4.4	4.2	6.2	7.5	7.8	6.6	7.8	8.8	8.3	7.7	6.5	5.0	4.9	4.7	5.0	6.0	5.0	8.8	0.6
21	5.7	2.4	2.0	1.1	1.3	1.6	1.7	2.3	4.2	3.6	3.9	4.4	5.5	5.4	3.9	4.0	5.1	4.9	4.9	2.5	1.1	2.4	3.0	2.9	3.3	5.7	1.1
22	1.6	1.6	1.2	1.4	1.0	0.6	0.4	0.6	3.7	4.8	5.6	5.5	4.5	3.1	0.3	0.6	ND	0.4	0.7	1.9	3.5	3.5	3.4	2.2	2.3	5.6	0.3
23	1.9	1.5	1.6	1.7	1.1	1.1	1.0	0.9	2.7	3.3	1.3	0.4	0.3	0.5	ND	1.1	1.2	1.7	6.7	4.3	1.1	2.4	2.1	1.5	1.8	6.7	0.3
24	1.6	1.4	1.7	1.9	1.2	1.1	0.6	0.5	0.8	2.4	4.3	4.2	4.9	5.7	8.4	10.1	7.4	6.6	8.0	3.5	2.4	3.2	5.5	3.9	3.8	10.1	0.5
25	2.7	1.6	1.6	1.6	1.0	1.5	0.6	0.9	2.8	2.6	4.5	3.4	2.9	3.3	3.0	4.5	3.7	4.3	3.8	2.8	1.0	2.0	1.6	1.5	2.5	4.5	0.6
26	1.4	1.4	0.8	0.5	1.0	1.3	0.7	1.4	3.3	1.9	2.2	2.4	3.1	2.9	0.8	ND	ND	ND	ND	0.4	1.8	1.2	1.5	2.2	1.6	3.3	0.4
27	2.4	1.3	1.4	0.8	1.3	0.7	0.5	0.6	0.5	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	0.3	2.6	2.1	1.2	1.8	1.2	2.6	0.3
28	1.9	1.8	1.8	1.7	1.8	1.5	0.7	0.9	ND	ND	0.4	0.4	ND	ND	ND	1.2	4.8	1.7	2.2	3.9	3.1	1.2	2.0	2.2	1.9	4.8	0.4
29	1.5	1.6	0.9	1.1	0.9	1.0	0.7	2.3	5.9	5.2	7.5	8.9	8.5	7.6	6.8	6.8	7.7	7.7	6.2	7.1	9.1	4.3	3.4	2.3	4.8	9.1	0.7
30	2.0	1.7	1.4	1.7	1.5	0.8	0.8	0.7	3.1	3.9	3.9	3.1	3.7	3.8	3.9	3.4	3.6	2.8	2.6	2.3	2.2	1.1	2.4	1.8	2.4	3.9	0.7
Avg	2.4	2.0	1.9	1.8	1.8	1.9	1.6	2.1	3.4	3.9	4.3	4.4	4.4	5.0	5.0	4.4	4.6	4.1	4.6	3.5	3.3	2.7	2.4	2.5	3.2	6.5	0.9
Max	5.7	7.7	7.8	7.3	7.3	7.1	8.0	7.4	8.7	9.3	10.8	10.5	10.2	10.1	11.0	10.1	9.1	9.1	10.3	12.2	12.5	10.1	5.5	6.0	7.7	12.5	4.4
Min	0.9	0.7	0.6	0.5	0.7	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.5	0.3	0.6	1.2	0.4	0.7	0.3	0.9	0.5	0.4	0.7	1.2	2.6	0.3

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
April 2022

A-4

Day	<< Hour >>																								Prev
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	95	99	104	96	133	118	129	305	272	288	265	258	275	264	295	277	295	311	280	167	136	124	133	131	206
2	139	81	123	116	82	149	145	332	208	163	238	249	286	288	276	285	276	311	279	283	281	285	283	280	257
3	292	286	223	141	94	97	95	55	305	274	255	243	233	238	231	230	174	162	158	269	248	213	111	114	211
4	78	148	112	163	159	54	184	195	214	232	234	237	251	272	275	261	282	290	280	279	279	281	284	285	244
5	280	268	273	271	276	282	283	285	281	283	279	287	283	289	280	284	298	302	292	291	292	294	291	290	285
6	288	284	284	288	290	290	295	304	292	314	315	321	320	308	314	298	298	316	311	327	341	247	108	81	305
7	90	59	104	106	60	72	78	320	3	310	271	244	303	298	279	248	272	263	245	120	86	102	143	117	39
8	147	159	163	145	151	138	184	156	106	Au	Au	Au	201	190	202	209	213	240	225	241	258	241	11	296	192
9	282	286	297	278	273	262	299	282	268	278	264	269	271	273	281	278	275	287	274	289	297	278	271	283	279
10	281	263	173	212	294	273	279	290	302	262	260	272	262	309	310	284	28	2	74	29	285	54	86	154	291
11	158	152	160	154	156	183	157	129	126	8	122	100	114	93	84	89	101	99	85	79	76	71	58	59	110
12	56	55	44	36	45	34	69	82	340	345	350	351	3	3	331	346	344	339	343	354	339	336	343	330	6
13	306	307	311	304	310	305	305	307	305	304	305	301	295	281	296	299	308	298	294	312	323	321	325	326	306
14	353	14	14	319	357	74	73	344	325	294	242	271	260	282	268	271	264	262	255	237	270	114	347	289	302
15	293	303	302	319	305	309	287	55	12	273	271	289	293	292	287	300	288	281	295	267	159	109	79	80	301
16	69	60	87	116	134	147	125	123	169	156	131	140	147	145	142	144	152	123	179	162	164	153	81	290	135
17	272	294	293	291	302	308	287	293	302	306	265	262	272	257	265	243	248	234	255	255	94	95	71	83	278
18	108	92	80	99	112	121	150	207	138	145	143	143	141	142	144	142	153	142	147	142	148	145	136	136	136
19	157	152	126	107	71	255	24	280	286	293	266	242	268	271	269	269	263	261	266	257	260	267	172	155	250
20	184	101	316	272	266	277	279	255	256	263	287	286	304	286	321	330	318	299	293	251	138	151	140	152	271
21	143	147	150	143	136	148	165	164	169	181	181	217	289	102	201	189	217	222	218	152	98	111	110	105	162
22	31	90	6	115	142	120	8	143	177	310	303	309	322	327	318	305	307	308	337	328	328	235	317	316	328
23	305	301	306	316	305	335	327	331	324	327	315	315	316	314	333	337	347	339	330	315	313	325	303	299	320
24	321	353	20	346	288	165	126	326	316	332	29	339	325	268	259	163	123	109	144	94	102	114	116	133	41
25	140	145	142	142	143	129	147	119	136	199	202	239	251	246	228	248	220	208	134	110	88	83	42	115	159
26	102	103	73	100	139	178	194	60	175	165	155	170	175	177	201	215	228	258	296	217	313	333	284	240	185
27	249	260	259	70	72	61	91	335	48	101	348	9	334	183	300	315	36	100	258	290	139	136	286	Wx	1
28	Wx	Wx	Wx	Wx	Wx	Wx	Wx	Wx	344	164	171	191	131	155	138	122	121	118	108	103	117	88	157	315	131
29	200	320	323	306	310	305	295	314	308	318	331	322	324	320	302	289	292	300	280	276	214	149	62	104	303
30	211	356	66	110	64	114	137	150	100	158	160	162	144	138	152	130	136	137	124	116	126	110	131	127	128
Prev	195	35	58	119	92	139	156	307	285	273	260	265	276	266	270	264	268	275	264	261	231	134	72	116	265

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
May 2022

A-5

Day	<< Hour >>																								Prev
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	131	149	103	135	100	192	161	174	147	122	134	137	133	132	144	146	146	149	150	153	148	143	142	146	142
2	143	147	158	161	151	140	136	143	153	149	170	159	159	138	139	139	138	139	129	115	58	54	89	97	136
3	111	319	358	334	91	290	191	200	310	326	341	346	26	39	19	311	325	7	345	45	124	92	110	104	11
4	119	123	107	107	92	140	160	10	262	261	269	275	270	280	266	260	263	268	247	167	90	78	95	77	193
5	110	134	119	137	157	134	142	128	153	183	180	186	202	200	192	206	201	195	200	217	271	140	100	179	169
6	275	282	246	275	305	101	144	223	224	224	212	225	243	267	244	230	229	224	223	252	121	97	288	309	239
7	100	286	194	288	201	269	275	264	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	251
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	248	251	248	251	246	248	264	259	254	227	232	227	233	190	141	108	234
10	260	261	251	258	271	115	181	234	235	233	232	259	262	241	232	262	206	130	113	74	87	110	117	54	217
11	100	144	142	130	296	135	144	323	302	258	161	150	147	149	140	62	329	343	74	319	329	311	111	87	115
12	128	128	217	309	107	313	339	329	285	289	268	266	285	286	303	318	321	308	300	300	239	105	75	96	299
13	76	146	105	113	109	116	117	305	271	277	272	284	284	269	281	275	275	281	286	286	287	284	284	271	274
14	257	116	97	92	34	65	326	234	332	353	8	266	257	269	270	264	275	278	267	280	278	271	275	297	290
15	174	120	91	112	78	72	2	317	270	267	280	251	267	274	265	261	229	173	144	86	84	97	126	179	179
16	226	283	311	67	111	94	357	275	299	285	243	281	282	264	260	186	168	74	57	95	102	72	98	85	312
17	36	110	159	127	142	50	21	281	272	268	271	249	268	264	259	276	291	294	284	284	287	289	307	307	282
18	312	294	302	308	65	154	349	309	285	261	261	241	221	206	199	240	243	221	208	249	280	283	284	285	263
19	291	281	266	262	263	268	286	283	279	281	282	292	294	294	291	281	314	311	295	293	299	301	320	317	289
20	323	322	321	297	292	307	341	311	287	317	327	8	349	333	343	345	344	348	348	5	5	226	171	117	329
21	173	136	85	138	77	37	61	3	303	320	309	1	346	330	356	359	10	330	330	342	173	88	144	142	21
22	101	277	42	359	79	227	147	153	159	165	189	310	60	263	13	344	321	14	166	154	118	99	95	102	105
23	131	144	139	152	132	134	216	46	300	286	268	252	228	265	280	267	304	343	331	156	109	85	93	102	191
24	100	136	57	117	143	131	4	341	309	272	277	256	289	283	290	326	312	291	284	276	212	95	75	90	304
25	103	139	131	149	228	66	184	148	16	274	296	293	272	267	265	276	280	286	287	289	254	209	296	153	249
26	108	84	172	249	114	97	86	344	277	270	256	268	287	271	224	136	203	250	253	121	116	327	104	153	199
27	163	144	103	101	116	132	84	135	221	265	275	279	280	259	264	275	278	283	290	280	117	78	62	70	208
28	111	82	326	259	305	329	358	315	333	296	280	268	282	338	4	314	296	339	155	160	156	160	156	138	304
29	169	62	89	180	339	143	265	164	270	191	164	340	325	308	282	328	1	65	84	306	296	343	334	347	324
30	334	299	319	336	349	348	344	346	338	342	355	348	349	336	328	327	326	296	325	330	335	323	304	337	332
31	244	269	328	305	34	358	7	15	24	21	358	349	354	342	10	89	156	209	346	75	82	88	87	70	17
Prev	134	152	114	158	98	106	60	293	280	271	264	274	278	275	276	280	277	286	272	268	149	91	100	99	265

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
June 2022

A-6

Day	<< Hour >>																								Prev
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	64	80	118	92	94	31	101	360	317	346	42	99	272	8	4	331	304	334	258	350	150	91	69	83	38
2	67	52	94	63	52	70	108	151	161	138	147	139	150	134	126	142	138	144	140	141	178	277	185	210	131
3	80	103	114	149	81	298	120	88	137	148	153	116	41	298	72	62	149	143	169	288	291	145	126	105	117
4	96	93	112	142	135	93	184	276	19	16	34	6	329	191	174	153	141	203	246	299	100	185	125	131	130
5	184	156	202	147	110	350	190	6	306	271	277	267	261	244	258	321	333	269	297	274	Pw	Pw	Pw	Pw	264
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	273	257	268	261	261	274	259	260	259	272	240	214	116	89	86	93	250
10	133	140	96	131	93	166	182	290	241	257	275	291	298	296	298	309	294	289	285	285	76	125	171	82	246
11	67	49	101	142	142	357	254	102	267	272	277	314	296	239	162	44	294	232	175	151	99	161	136	119	164
12	114	92	118	116	99	113	360	162	264	355	22	304	188	142	157	156	174	146	143	113	110	91	90	83	118
13	123	127	122	64	130	97	128	97	290	264	275	268	268	257	272	279	264	270	264	259	280	272	267	262	252
14	234	248	248	248	255	242	236	249	258	252	247	241	249	269	268	260	256	260	268	274	272	270	264	268	256
15	267	272	273	278	278	273	268	275	275	277	287	273	271	268	272	284	283	293	300	320	322	94	94	52	284
16	90	44	111	129	115	141	151	111	136	Au	Au	Au	Au	42	46	40	37	37	37	38	42	44	212	34	75
17	85	58	9	34	28	38	13	74	78	71	72	75	82	71	74	94	76	89	86	62	51	230	23	26	61
18	190	195	118	259	50	83	276	249	248	214	113	110	117	115	120	122	138	160	179	205	179	243	174	214	169
19	207	49	66	203	211	251	228	255	283	338	239	277	283	290	256	334	198	245	178	237	203	227	86	24	247
20	133	17	84	62	63	137	156	150	151	137	142	161	185	171	175	175	184	187	194	195	190	212	213	197	161
21	199	216	227	251	210	206	248	229	189	202	177	178	172	148	170	164	184	162	167	154	69	14	1	358	190
22	29	19	52	42	67	7	46	287	195	186	172	168	172	144	141	141	142	134	168	184	352	344	329	5	104
23	348	16	12	30	28	40	75	233	115	131	118	131	159	161	194	210	227	231	226	225	30	253	316	297	170
24	49	6	28	346	35	289	332	87	269	228	218	222	216	218	255	267	276	249	243	232	207	182	246	235	256
25	232	187	196	219	257	66	42	344	239	220	212	252	245	225	210	186	213	235	223	219	97	31	3	350	228
26	319	349	334	359	360	9	54	4	57	57	79	224	209	211	194	201	202	226	265	220	16	9	4	353	338
27	344	329	342	348	360	32	75	300	256	265	197	180	198	213	235	206	173	213	282	14	27	38	343	347	304
28	7	2	354	13	30	25	91	60	57	62	98	32	87	150	110	84	39	344	307	28	14	33	28	11	39
29	353	323	30	32	13	275	301	218	181	175	180	192	195	200	195	190	192	198	218	230	233	219	221	66	216
30	214	344	4	358	341	30	63	270	199	195	183	227	212	216	242	235	241	252	263	233	339	247	47	53	259
Prev	96	45	76	69	65	37	117	265	235	230	188	218	222	210	200	200	213	225	228	237	72	188	79	40	196

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
April 2022

A-7

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	33	56	52	62	87	47	48	64	12	15	13	11	14	13	16	16	17	13	63	63	60	16	36	22	35	87	11
2	22	42	54	50	63	47	58	76	88	49	30	21	22	20	14	17	12	18	18	13	11	10	10	10	32	88	10
3	21	40	83	70	26	49	36	39	87	23	26	46	28	25	27	15	26	13	38	93	44	30	66	30	41	93	13
4	75	44	83	24	33	77	44	23	13	15	16	15	11	13	18	23	24	12	10	11	12	12	13	10	26	83	10
5	13	9	12	12	11	11	11	11	11	12	12	14	13	12	13	12	12	11	10	9	9	7	9	9	11	14	7
6	9	8	9	8	8	8	8	12	10	22	15	16	20	23	24	14	13	15	12	15	8	97	39	14	18	97	8
7	32	53	23	43	21	40	57	46	43	58	30	22	23	32	38	33	22	16	51	26	17	24	12	62	34	62	12
8	16	25	24	17	20	26	32	66	72	Au	Au	Au	19	22	18	21	17	14	10	17	12	99	80	17	31	99	10
9	11	10	15	12	16	27	22	18	17	14	14	17	14	16	13	16	12	13	10	12	7	30	11	10	15	30	7
10	12	89	80	82	31	17	14	18	41	15	19	20	22	44	23	35	48	61	20	60	72	78	36	29	40	89	12
11	20	14	33	8	21	33	26	33	52	55	83	37	27	15	18	16	15	14	15	11	14	15	13	15	25	83	8
12	11	12	12	11	10	19	27	36	49	14	13	15	14	20	12	13	16	16	15	13	10	8	10	18	16	49	8
13	10	7	8	10	10	10	9	10	9	12	15	19	17	14	17	14	14	11	10	10	9	21	14	7	12	21	7
14	47	55	63	21	54	25	41	35	29	38	35	42	35	24	17	20	12	16	11	32	44	48	56	12	34	63	11
15	25	15	12	77	25	39	12	95	54	37	35	18	19	28	22	17	36	25	13	21	61	27	26	14	31	95	12
16	32	36	31	26	31	35	84	69	9	17	9	10	13	11	16	12	21	26	27	6	17	83	71	15	29	84	6
17	18	8	9	7	12	10	24	23	12	18	11	11	23	13	15	20	13	23	10	63	24	19	20	44	19	63	7
18	18	19	23	17	15	15	29	64	41	9	13	11	11	10	8	8	8	19	16	14	13	11	11	20	18	64	8
19	18	15	21	23	68	80	57	10	9	17	15	15	14	14	14	14	14	12	11	11	14	54	26	67	26	80	9
20	78	32	62	13	16	12	16	11	15	21	16	27	25	36	15	11	23	22	23	77	41	19	22	8	27	78	8
21	11	12	16	13	23	22	19	14	11	32	69	79	66	34	74	36	30	29	26	58	18	31	24	42	33	79	11
22	80	76	97	82	21	52	87	25	78	36	20	12	10	8	9	8	9	9	15	13	18	99	48	23	39	99	8
23	11	8	10	9	8	17	14	9	8	11	9	10	10	9	15	11	13	12	9	11	9	10	11	12	11	17	8
24	14	20	54	47	71	28	67	19	18	34	32	85	63	52	65	66	53	37	17	26	23	19	15	16	39	85	14
25	13	19	13	12	8	15	16	27	18	29	24	30	27	22	29	33	21	32	13	24	14	47	92	26	25	92	8
26	61	31	45	34	32	67	69	87	18	16	14	16	15	13	20	12	20	33	52	82	90	75	31	52	41	90	12
27	14	20	17	47	58	26	96	68	52	86	33	67	64	57	27	24	74	24	59	68	54	32	50	Wx	49	96	14
28	Wx	Wx	Wx	Wx	Wx	Wx	Wx	64	64	68	53	22	23	28	24	14	14	17	15	11	43	32	92	41	37	92	11
29	87	24	28	28	10	10	9	13	14	14	15	17	14	16	22	19	16	12	14	25	81	55	83	38	28	87	9
30	73	86	55	64	49	56	25	34	63	39	29	21	26	17	20	12	12	10	11	14	11	15	11	33	33	86	10
Avg	31	31	36	32	30	32	36	37	34	28	25	26	23	22	22	19	21	20	21	30	29	37	35	25	28	75	10
Max	87	89	97	82	87	80	96	95	88	86	83	85	66	57	74	66	74	61	63	93	90	99	92	67	49	99	14
Min	9	7	8	7	8	8	8	9	8	9	9	10	10	8	8	8	8	9	9	6	7	7	9	7	11	14	6

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
May 2022

A-8

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	10	13	61	39	17	42	22	17	14	18	16	12	18	16	11	13	11	11	8	9	10	8	9	8	17	61	8
2	9	11	8	10	10	9	21	11	13	27	24	31	32	25	25	20	21	9	9	34	27	38	22	17	19	38	8
3	23	53	53	55	56	65	70	85	66	22	15	14	25	17	67	35	26	24	17	81	28	14	15	28	40	85	14
4	33	96	53	53	84	36	90	70	53	34	30	43	30	33	18	18	28	25	21	65	26	20	22	18	42	96	18
5	17	24	32	19	26	25	12	21	21	17	18	21	20	18	17	16	15	14	9	12	43	47	96	65	26	96	9
6	26	23	9	57	59	30	51	24	11	16	15	13	14	14	20	15	15	19	31	39	55	43	37	23	27	59	9
7	79	44	79	78	60	16	20	14	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	49	79	14
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	23	67	11
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	18	36	23	21	24	19	19	16	17	31	15	11	11	24	22	67	23	67	11
10	63	16	34	24	87	37	80	13	20	20	24	24	32	37	23	37	62	26	22	12	16	27	27	31	33	87	12
11	37	47	44	41	93	35	96	70	49	80	38	19	23	20	28	48	70	46	11	68	39	56	66	14	47	96	11
12	38	26	87	92	30	53	33	8	24	11	11	10	11	8	16	14	12	11	10	16	60	49	29	32	29	92	8
13	41	47	69	59	64	77	56	57	15	17	16	17	16	16	12	14	13	12	11	11	11	11	10	11	28	77	10
14	12	57	58	22	78	74	78	91	12	52	68	24	16	13	17	12	15	14	10	13	12	10	14	15	33	91	10
15	44	39	63	73	58	60	91	50	24	24	38	28	27	24	24	23	32	28	20	15	8	17	34	51	37	91	8
16	99	61	41	91	69	38	64	99	38	24	42	32	30	22	21	26	75	17	82	68	41	19	21	13	47	99	13
17	62	53	70	41	80	50	77	18	19	23	33	21	31	20	16	18	20	20	12	10	11	12	7	9	31	80	7
18	10	13	8	30	70	88	30	20	26	20	23	22	18	20	19	18	14	19	11	20	11	14	9	9	23	88	8
19	11	13	11	9	8	13	13	15	15	12	14	15	12	11	11	16	21	12	11	11	8	9	8	8	12	21	8
20	5	8	10	8	13	12	31	23	12	9	13	19	19	9	12	13	13	15	13	15	53	55	85	69	22	85	5
21	61	35	93	48	76	42	58	81	24	23	39	58	43	32	23	19	35	32	18	33	93	32	49	20	44	93	18
22	95	80	95	82	89	93	11	8	11	20	52	75	79	72	20	77	45	60	10	11	33	16	14	32	49	95	8
23	30	54	32	57	35	41	76	95	66	35	30	26	46	46	28	42	21	29	23	93	36	9	15	34	42	95	9
24	41	36	70	63	65	33	70	59	37	27	30	27	29	26	28	13	16	31	14	10	89	14	25	19	36	89	10
25	26	32	24	63	93	85	92	101	66	72	20	17	20	14	15	15	15	11	12	17	28	75	54	81	44	101	11
26	29	61	68	43	70	20	43	57	21	18	27	24	23	31	46	37	54	37	26	51	46	52	33	27	39	70	18
27	17	18	86	66	83	49	11	44	32	16	16	12	19	13	14	15	14	16	11	22	55	10	23	13	28	86	10
28	41	85	71	72	29	20	22	43	20	27	23	25	23	20	32	40	30	55	33	14	9	7	12	11	32	85	7
29	56	83	81	86	38	55	50	43	53	35	51	42	18	25	23	15	18	28	77	47	21	12	10	12	41	86	10
30	14	14	18	16	16	16	13	13	11	11	15	18	17	8	10	10	9	17	12	12	13	22	24	18	14	24	8
31	55	77	35	18	55	14	13	17	16	28	24	20	18	21	35	85	26	33	75	10	11	17	25	13	31	85	10
Avg	37	42	50	49	56	42	48	44	28	27	27	25	25	22	22	26	26	24	22	29	31	25	28	26	33	80	10
Max	99	96	95	92	93	93	96	101	66	80	68	75	79	72	67	85	75	60	82	93	93	75	96	81	49	101	18
Min	5	8	8	8	8	9	11	8	11	9	11	10	11	8	10	10	9	9	8	9	8	7	7	8	12	21	5

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
June 2022

A-9

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	31	41	21	29	35	41	62	49	17	21	40	39	86	27	99	65	46	63	36	49	76	16	45	26	44	99	16
2	21	22	18	13	15	14	90	36	27	21	18	29	14	25	22	23	19	13	8	8	57	57	39	84	29	90	8
3	50	37	30	30	100	86	70	57	62	10	12	54	67	18	61	34	21	11	14	55	68	17	35	45	44	100	10
4	27	34	26	37	25	64	60	94	67	56	50	41	65	70	27	12	12	55	74	62	26	60	36	44	47	94	12
5	65	25	74	57	69	60	86	48	37	21	31	29	24	25	15	18	39	55	56	77	Pw	Pw	Pw	Pw	46	86	15
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	19	21	22	22	20	25	23	23	22	23	23	34	35	21	10	27	23	35	10
10	16	14	64	31	79	77	71	81	12	17	15	15	15	15	13	14	12	14	13	47	16	53	89	61	36	89	12
11	19	36	69	41	22	83	90	97	92	15	16	15	22	65	47	82	40	37	48	81	84	54	39	32	51	97	15
12	12	19	55	62	28	35	75	96	90	73	51	96	62	13	17	30	21	11	14	14	16	88	42	10	43	96	10
13	45	51	28	55	29	39	68	68	12	33	14	12	21	14	20	21	10	13	15	12	10	25	24	17	27	68	10
14	16	10	10	12	14	16	13	12	12	12	12	12	15	12	10	12	12	12	12	12	12	13	11	12	12	16	10
15	12	11	11	11	10	12	11	11	12	12	10	12	13	11	15	13	12	14	20	9	17	89	33	42	18	89	9
16	44	48	25	25	31	22	32	34	20	Au	Au	Au	Au	10	11	10	9	9	8	7	7	11	92	50	25	92	7
17	68	24	65	42	32	33	66	17	13	14	11	11	12	13	14	15	14	15	10	10	43	72	47	66	30	72	10
18	40	88	94	88	45	52	91	14	14	60	21	19	15	15	15	14	12	20	24	42	20	85	63	63	42	94	12
19	55	94	50	44	49	66	38	13	17	84	21	10	11	18	35	30	69	74	16	20	36	69	28	63	42	94	10
20	76	32	51	75	18	31	12	11	17	12	13	11	14	13	11	11	11	10	10	13	13	14	11	12	21	76	10
21	12	17	23	22	24	20	35	52	18	29	23	24	19	21	30	32	20	23	11	14	57	33	15	18	25	57	11
22	22	20	19	20	19	57	85	67	45	19	22	18	31	24	31	27	33	25	39	18	67	18	18	35	32	85	18
23	28	36	38	19	34	46	58	60	59	18	18	19	19	21	21	18	15	12	9	16	80	70	97	87	37	97	9
24	48	65	23	49	39	36	82	86	62	35	35	32	25	13	23	16	18	23	17	16	19	24	17	17	34	86	13
25	15	47	48	25	79	20	77	70	22	42	35	21	32	34	41	17	19	16	19	17	85	37	39	50	38	85	15
26	60	33	47	89	58	27	33	87	19	55	52	81	46	48	56	46	42	38	35	94	28	39	39	27	49	94	19
27	21	28	39	45	55	46	66	67	43	56	59	27	26	34	20	34	50	37	98	78	16	30	39	27	43	98	16
28	31	27	30	37	26	25	94	45	68	24	66	45	26	43	79	15	54	19	70	66	45	50	32	25	43	94	15
29	69	49	66	48	47	88	79	101	16	20	20	14	15	16	14	16	14	10	22	8	6	24	76	68	38	101	6
30	90	54	76	34	52	52	51	70	45	25	41	47	30	29	30	27	18	17	24	56	90	69	20	30	45	90	17
Avg	38	37	42	40	40	44	61	56	35	31	28	29	29	25	30	25	25	25	28	35	40	44	40	40	36	84	12
Max	90	94	94	89	100	88	94	101	92	84	66	96	86	70	99	82	69	74	98	94	90	89	97	87	51	101	19
Min	12	10	10	11	10	12	11	11	12	10	10	10	11	10	10	10	9	9	8	7	6	11	10	10	12	16	6

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-Meter Temperature (Degrees Celsius)
April 2022

A-10

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	-7.6	-8.3	-7.8	-8.1	-8.2	-8.6	-7.9	-4.0	-2.5	-1.6	-1.0	-0.2	0.3	0.8	1.2	1.7	2.1	2.0	1.5	-0.6	-1.4	-2.1	-4.7	-5.2	-2.9	2.1	-8.6
2	-6.8	-7.5	-8.3	-8.7	-8.9	-8.5	-7.7	-5.3	-1.9	3.6	6.1	7.0	5.9	2.3	2.1	2.8	3.5	0.0	-0.2	-0.1	-0.1	-0.4	-0.7	-1.4	-1.4	7.0	-8.9
3	-2.1	-3.0	-3.3	-4.4	-5.9	-8.4	-8.7	-6.4	-1.6	0.3	2.1	3.4	4.9	5.2	5.3	5.4	6.1	6.2	5.4	2.9	3.9	3.6	0.7	-1.6	0.4	6.2	-8.7
4	-2.9	-3.4	-3.7	-3.8	-3.6	-3.3	2.1	4.6	5.3	5.4	4.7	5.6	6.2	3.6	2.7	5.4	2.9	0.7	0.3	0.4	0.0	-2.1	-2.3	-2.8	0.9	6.2	-3.8
5	-3.6	-4.3	-4.3	-4.6	-4.5	-4.5	-4.5	-4.4	-3.7	-2.7	-1.7	-1.0	-0.4	-0.1	0.0	0.1	-0.1	-0.4	-1.2	-2.1	-3.1	-3.7	-3.4	-3.1	-2.6	0.1	-4.6
6	-3.0	-3.1	-3.0	-3.2	-3.2	-3.3	-3.9	-3.4	-2.0	-0.8	0.0	0.8	0.9	1.4	2.5	2.6	2.7	2.4	1.9	0.9	-1.4	-3.6	-4.5	-6.7	-1.2	2.7	-6.7
7	-8.1	-8.9	-10.2	-10.9	-10.7	-11.8	-11.4	-7.6	-1.7	1.6	3.5	5.0	6.5	8.0	9.5	10.3	10.5	10.4	8.8	4.2	1.7	-0.7	-2.7	-3.0	-0.3	10.5	-11.8
8	-4.0	-4.3	-4.8	-5.4	-5.6	-5.6	-5.0	-1.4	6.5	Au	Au	Au	15.5	16.1	17.1	18.0	18.7	17.7	16.4	14.4	12.0	9.3	6.9	5.8	6.6	18.7	-5.6
9	2.7	1.0	0.3	-0.6	-1.8	-2.6	-2.8	-2.3	-1.6	-1.3	-0.7	-0.5	-0.5	0.1	0.3	0.6	0.4	0.5	-0.4	-1.9	-2.4	-2.9	-3.0	-3.6	-1.0	2.7	-3.6
10	-4.6	-6.0	-6.7	-6.6	-6.3	-6.6	-6.3	-6.0	-5.7	-4.6	-3.6	-2.9	-2.9	-2.7	-2.5	-2.5	-2.9	-2.7	-3.1	-4.4	-5.1	-5.6	-6.3	-6.8	-4.7	-2.5	-6.8
11	-6.6	-6.5	-7.3	-8.7	-9.8	-11.5	-11.3	-7.6	-5.3	-4.6	-3.8	-3.6	-2.9	-3.1	-3.2	-3.4	-3.9	-4.2	-4.6	-5.1	-5.5	-6.2	-6.3	-6.6	-5.9	-2.9	-11.5
12	-7.0	-7.9	-8.5	-9.2	-9.9	-10.1	-10.1	-10.5	-10.5	-11.0	-11.4	-11.1	-11.0	-10.7	-11.1	-11.0	-11.6	-12.0	-12.8	-13.4	-13.7	-13.9	-14.2	-14.4	-11.1	-7.0	-14.4
13	-14.5	-14.6	-14.4	-14.4	-14.6	-14.7	-14.8	-14.5	-13.9	-12.8	-12.0	-11.3	-11.0	-11.1	-10.7	-10.8	-11.5	-11.5	-12.0	-13.1	-13.5	-14.0	-14.1	-14.5	-13.1	-10.7	-14.8
14	-15.5	-17.2	-17.7	-15.8	-17.3	-19.1	-17.4	-14.4	-12.9	-11.3	-9.7	-8.4	-7.3	-6.1	-6.0	-5.4	-6.4	-8.8	-10.2	-10.9	-11.0	-11.0	-11.8	-12.7	-11.8	-5.4	-19.1
15	-13.1	-13.1	-13.6	-13.9	-14.3	-14.6	-15.0	-13.4	-11.6	-10.2	-8.5	-7.0	-5.7	-5.1	-3.8	-3.4	-3.3	-3.0	-3.2	-5.4	-7.7	-8.7	-10.2	-10.8	-9.1	-3.0	-15.0
16	-11.2	-12.2	-13.6	-14.2	-15.0	-15.3	-14.4	-8.7	-5.6	-4.2	-3.1	-3.5	-3.9	-4.0	-4.5	-4.3	-4.9	-5.3	-4.5	-4.9	-5.2	-5.4	-5.5	-5.4	-7.5	-3.1	-15.3
17	-5.7	-6.0	-5.6	-6.0	-6.3	-6.3	-6.6	-6.5	-6.2	-5.5	-4.6	-3.3	-2.5	-1.6	-1.3	-1.4	-1.1	-1.0	-1.3	-3.2	-6.1	-8.2	-9.7	-11.1	-4.9	-1.0	-11.1
18	-12.4	-12.8	-13.0	-13.7	-14.3	-14.0	-12.1	-7.9	-1.4	0.6	1.9	2.9	3.3	3.7	4.1	3.7	3.2	3.1	2.9	2.3	2.4	2.5	2.4	2.1	-2.5	4.1	-14.3
19	2.0	1.6	-0.1	-0.6	-0.8	-0.8	1.2	2.9	1.8	2.2	2.7	3.4	3.6	3.4	4.4	4.5	4.6	4.1	3.3	1.8	0.8	-0.6	-3.6	-4.1	1.6	4.6	-4.1
20	-5.5	-4.9	-4.7	-2.0	-2.4	-2.4	-2.2	-1.8	-1.1	-0.1	1.0	0.6	1.6	1.8	2.0	2.5	3.0	3.1	2.7	0.0	-1.4	-1.5	-0.6	-1.9	-0.6	3.1	-5.5
21	-1.5	-1.7	-2.0	-2.2	-2.2	-2.0	-1.5	-1.7	-1.2	0.5	2.1	2.5	2.5	3.5	6.3	8.3	7.9	7.2	6.2	3.8	3.1	1.3	-0.6	-1.6	1.5	8.3	-2.2
22	-3.2	-3.4	-3.2	-2.4	-2.7	-3.1	-2.9	-0.8	1.2	1.6	1.3	0.5	0.6	1.1	1.2	1.0	0.6	0.6	0.8	0.7	0.3	0.2	0.1	0.0	-0.4	1.6	-3.4
23	0.0	-0.2	-0.2	0.0	-0.3	-0.7	-0.8	-0.9	-0.9	-0.8	-0.4	0.1	0.2	1.0	1.7	2.2	1.8	1.3	1.0	0.7	0.6	0.4	0.5	0.6	0.3	2.2	-0.9
24	0.4	-0.2	-1.0	-1.8	-2.6	-3.9	-3.9	-1.2	1.1	2.3	3.4	4.2	4.9	5.7	5.3	6.2	6.4	5.8	4.1	3.5	2.1	0.2	-1.9	-2.9	1.5	6.4	-3.9
25	-4.1	-4.6	-5.1	-5.6	-6.5	-6.9	-5.2	-0.1	4.6	7.0	8.0	9.1	9.9	10.7	11.4	11.7	11.8	11.4	11.1	6.7	5.7	3.8	1.6	0.4	3.6	11.8	-6.9
26	-1.7	-2.5	-3.4	-3.2	-2.4	-2.3	-1.5	4.4	9.6	9.9	11.0	11.9	12.0	11.8	11.7	11.7	10.7	6.4	3.6	2.6	1.3	1.4	1.5	1.2	4.4	12.0	-3.4
27	0.2	-0.9	-0.8	-1.9	-2.9	-4.6	-4.7	-2.7	0.3	2.2	3.9	6.1	7.8	8.4	6.3	1.7	0.3	1.2	1.4	1.0	0.4	0.3	-0.2	-0.9	0.9	8.4	-4.7
28	-1.4	-1.6	-1.9	-2.7	-3.6	-4.4	-3.9	-2.3	0.0	2.7	4.9	6.4	7.1	7.8	7.8	7.8	7.2	5.7	5.2	4.7	3.7	4.0	3.5	1.4	2.4	7.8	-4.4
29	0.7	0.5	0.5	0.5	0.2	-0.1	-0.7	-0.7	-0.9	-0.2	0.7	1.2	1.2	1.7	2.8	3.8	4.1	3.9	3.1	1.5	0.3	-2.1	-2.5	-3.7	0.7	4.1	-3.7
30	-4.6	-5.3	-5.3	-6.3	-6.4	-6.9	-5.3	-1.4	2.4	4.7	5.9	6.7	7.3	7.7	8.1	8.2	8.2	7.9	7.3	6.5	5.8	5.0	4.4	3.8	2.4	8.2	-6.9
Avg	-4.8	-5.4	-5.8	-6.0	-6.4	-6.9	-6.3	-4.2	-2.0	-0.9	0.1	0.8	1.8	2.0	2.4	2.6	2.4	1.8	1.1	-0.2	-1.1	-2.0	-2.9	-3.6	-1.8	3.4	-7.8
Max	2.7	1.6	0.5	0.5	0.2	-0.1	2.1	4.6	9.6	9.9	11.0	11.9	15.5	16.1	17.1	18.0	18.7	17.7	16.4	14.4	12.0	9.3	6.9	5.8	6.6	18.7	-0.9
Min	-15.5	-17.2	-17.7	-15.8	-17.3	-19.1	-17.4	-14.5	-13.9	-12.8	-12.0	-11.3	-11.0	-11.1	-11.1	-11.0	-11.6	-12.0	-12.8	-13.4	-13.7	-14.0	-14.2	-14.5	-13.1	-10.7	-19.1

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-Meter Temperature (Degrees Celsius)
May 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	3.6	2.3	1.7	1.8	1.7	2.0	2.4	2.9	3.6	4.6	4.9	5.3	5.5	5.8	5.3	5.3	4.8	4.5	4.0	3.2	2.7	2.3	2.2	1.9	3.5	5.8	1.7
2	1.7	1.6	1.5	1.3	1.2	1.4	1.9	2.4	3.5	4.9	7.1	8.5	9.2	9.8	10.6	11.0	11.1	10.5	9.1	8.1	7.7	7.6	7.1	6.6	6.1	11.1	1.2
3	5.4	1.9	1.8	0.8	0.1	0.1	0.8	2.1	4.0	5.4	5.8	6.0	6.5	8.1	9.2	8.7	9.8	10.4	9.9	7.8	3.4	1.3	-0.6	-1.8	4.5	10.4	-1.8
4	-2.7	-3.1	-3.3	-4.0	-4.0	-4.7	-2.6	2.3	6.4	7.9	9.3	10.8	11.8	12.7	12.8	12.7	13.5	13.6	12.8	9.6	5.8	4.1	2.4	1.7	5.2	13.6	-4.7
5	-0.2	-0.7	-1.0	-1.6	-1.5	-0.9	1.9	9.0	12.6	13.5	14.9	16.3	16.5	17.0	17.6	17.3	17.2	16.3	14.8	13.1	10.2	7.8	5.5	4.6	9.2	17.6	-1.6
6	8.3	6.7	5.6	4.4	4.1	1.4	3.3	7.9	9.1	9.5	9.8	10.7	12.6	13.7	14.0	14.6	15.2	15.1	14.2	12.8	9.8	9.7	9.4	7.6	9.6	15.2	1.4
7	5.0	4.5	4.4	3.3	2.1	2.2	2.3	1.5	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	3.2	5.0	1.5
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	-0.4	0.2	1.8	2.8	3.1	4.1	4.7	4.2	4.6	3.8	3.0	1.9	0.7	-0.7	-2.4	-3.3	1.8	4.7	-3.3
10	-2.2	-1.4	-1.7	-1.8	-2.4	-5.0	-1.8	0.4	1.6	3.0	3.8	4.5	5.6	6.0	6.5	6.8	6.2	5.5	4.0	2.0	0.7	-1.4	-3.0	-3.6	1.3	6.8	-5.0
11	-4.9	-6.0	-7.2	-8.1	-8.6	-8.5	-5.2	0.5	5.2	7.2	8.6	9.3	9.7	10.2	9.9	8.5	5.3	4.5	6.3	5.7	3.7	3.4	3.4	4.7	2.4	10.2	-8.6
12	5.5	5.4	5.1	4.1	4.0	3.1	3.4	4.0	4.5	4.6	3.9	3.5	3.7	3.8	4.2	5.9	7.0	7.4	7.5	6.4	3.6	2.3	-0.8	-2.1	4.2	7.5	-2.1
13	-3.7	-4.4	-5.3	-5.6	-6.2	-5.9	-2.6	3.3	5.1	5.8	2.7	4.8	4.7	5.3	5.2	5.0	4.7	4.0	3.1	2.0	1.2	0.6	0.4	0.4	1.0	5.8	-6.2
14	-0.5	-2.3	-4.4	-5.2	-5.3	-3.1	-0.6	1.6	2.7	2.5	3.7	6.9	8.6	10.1	8.9	8.9	8.1	7.2	7.4	7.5	7.2	6.5	5.4	4.5	3.6	10.1	-5.3
15	3.3	0.9	-1.1	-2.3	-3.5	-3.7	-0.2	5.7	8.1	9.3	10.5	11.7	12.9	14.1	14.8	14.4	14.6	14.8	14.8	13.6	10.6	8.4	7.2	9.5	7.8	14.8	-3.7
16	9.7	8.3	9.1	7.2	5.8	5.7	6.6	8.5	11.5	12.7	13.5	14.9	16.5	17.2	16.6	16.4	13.7	12.1	12.3	11.0	9.2	7.7	6.3	5.9	10.8	17.2	5.7
17	4.5	4.6	4.6	3.3	1.9	1.1	3.6	7.4	8.7	9.8	10.7	11.5	12.7	13.6	14.3	14.9	15.1	14.9	14.3	13.1	11.8	10.5	9.8	8.3	9.4	15.1	1.1
18	7.8	7.7	6.8	6.5	5.0	4.6	6.5	7.8	8.7	10.1	11.3	11.7	11.7	12.0	13.8	13.8	12.9	12.4	11.5	11.1	9.7	7.0	5.9	6.2	9.3	13.8	4.6
19	5.6	4.8	3.7	2.3	1.3	0.9	0.8	1.5	2.2	2.5	2.6	3.2	3.0	3.6	3.1	3.8	2.4	0.8	-0.3	-1.0	-1.3	-1.3	-1.6	-2.5	1.7	5.6	-2.5
20	-2.8	-2.4	-2.2	-2.4	-2.4	-2.0	-1.5	-0.6	-0.4	0.0	0.4	0.5	1.1	1.3	1.2	1.1	1.2	1.3	0.8	0.3	-0.6	-1.1	-2.6	-3.5	-0.6	1.3	-3.5
21	-4.5	-5.2	-6.2	-6.6	-5.8	-6.0	-5.6	-2.9	-0.4	0.7	0.8	1.4	1.8	2.3	2.6	3.0	3.4	3.7	3.5	2.3	0.1	-0.5	-2.1	-2.4	-0.9	3.7	-6.6
22	-3.2	-3.9	-5.2	-5.2	-5.0	-4.2	-0.9	0.6	1.9	3.1	4.4	4.8	5.8	6.6	6.2	6.9	7.9	7.6	6.8	5.9	3.3	0.4	-1.1	-2.3	1.7	7.9	-5.2
23	-2.9	-2.8	-3.1	-4.0	-4.8	-5.1	-1.8	2.4	6.1	7.4	8.0	8.5	8.6	9.0	9.4	9.9	9.8	9.7	9.6	8.3	3.9	1.8	-0.6	-2.2	3.5	9.9	-5.1
24	-2.7	-3.6	-2.3	-1.9	-2.4	-2.9	-1.1	3.7	7.5	8.4	9.2	10.2	10.9	11.0	11.3	11.4	11.7	11.6	11.3	10.7	7.0	3.7	2.1	0.8	5.2	11.7	-3.6
25	-0.8	-1.6	-1.4	-2.0	-1.5	-0.5	1.1	3.7	5.6	8.3	9.5	10.0	11.8	13.3	14.2	14.8	15.2	15.6	14.5	13.0	11.6	9.8	8.3	7.9	7.5	15.6	-2.0
26	6.2	4.2	4.5	6.1	5.0	4.6	7.2	10.8	12.6	13.5	14.4	16.0	17.3	17.9	17.9	18.6	19.6	19.9	19.4	16.4	13.3	14.6	15.2	13.8	12.9	19.9	4.2
27	12.8	11.9	11.1	10.1	8.3	8.2	8.9	9.9	10.8	11.1	12.5	13.4	13.8	15.4	15.9	16.2	16.2	16.3	15.7	14.4	10.8	9.8	8.8	7.5	12.1	16.3	7.5
28	6.6	7.0	6.5	6.7	6.8	6.4	7.2	8.1	9.0	10.0	10.6	10.8	10.6	9.2	10.0	11.1	11.5	10.4	8.6	7.8	7.0	6.2	6.2	5.9	8.3	11.5	5.9
29	5.3	4.5	3.7	3.7	3.8	3.5	5.1	6.3	7.4	6.6	6.1	6.0	5.6	6.5	7.0	7.3	8.1	6.1	5.6	5.4	5.3	4.9	4.9	5.3	5.6	8.1	3.5
30	5.8	6.2	6.0	6.2	6.1	5.7	5.3	4.8	4.1	4.2	4.5	4.5	5.3	5.0	5.2	5.2	5.5	5.5	5.3	5.0	4.7	4.7	4.5	4.1	5.1	6.2	4.1
31	4.4	4.6	4.4	4.1	3.6	3.8	4.1	4.9	5.7	6.6	7.1	7.8	8.6	9.6	9.8	10.3	10.5	10.1	9.8	8.9	7.4	5.0	3.2	2.5	6.5	10.5	2.5
Avg	2.4	1.7	1.2	0.7	0.3	0.1	1.7	4.2	5.8	6.7	7.3	8.1	8.8	9.5	9.7	9.9	9.9	9.5	9.0	7.8	5.9	4.7	3.6	3.0	5.5	10.4	-0.9
Max	12.8	11.9	11.1	10.1	8.3	8.2	8.9	10.8	12.6	13.5	14.9	16.3	17.3	17.9	17.9	18.6	19.6	19.9	19.4	16.4	13.3	14.6	15.2	13.8	12.9	19.9	7.5
Min	-4.9	-6.0	-7.2	-8.1	-8.6	-8.5	-5.6	-2.9	-0.4	0.0	0.4	0.5	1.1	1.3	1.2	1.1	1.2	0.8	-0.3	-1.0	-1.3	-1.4	-3.0	-3.6	-0.9	1.3	-8.6

A-11

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-Meter Temperature (Degrees Celsius)
June 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	2.2	1.8	0.5	1.5	1.7	1.9	3.2	5.7	7.1	7.7	7.8	8.6	8.7	8.6	9.8	10.9	11.2	11.4	11.5	10.6	8.3	6.4	4.7	3.7	6.5	11.5	0.5
2	3.3	3.8	2.9	3.1	2.9	3.4	5.2	7.4	10.5	11.3	11.8	12.2	12.2	12.4	13.3	13.7	14.0	14.0	13.5	12.5	10.8	9.6	8.9	9.4	9.3	14.0	2.9
3	8.5	7.6	6.4	6.3	4.7	4.7	6.5	7.9	11.3	13.0	13.5	13.9	14.9	13.2	11.1	13.4	14.8	14.6	13.5	11.7	10.3	9.6	8.8	7.1	10.3	14.9	4.7
4	5.4	4.5	3.4	2.7	2.4	2.5	4.9	9.3	12.4	14.0	15.6	16.7	17.4	18.4	16.3	13.6	13.9	11.8	10.9	10.0	9.5	8.7	8.5	8.7	10.1	18.4	2.4
5	8.9	8.4	8.0	6.0	4.3	3.6	6.4	9.1	10.6	11.7	12.8	13.9	14.4	13.1	10.5	9.6	9.9	10.4	10.5	9.9	Pw	Pw	Pw	Pw	9.6	14.4	3.6
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	13.5	13.9	14.8	15.7	16.5	17.2	18.0	18.7	19.0	19.1	18.4	16.9	14.2	11.9	10.7	10.0	15.5	19.1	10.0
10	9.2	9.0	8.7	7.6	7.1	7.5	9.0	13.1	16.0	16.4	17.4	17.4	18.3	19.5	19.3	17.7	16.5	15.6	14.0	12.8	11.5	10.6	10.1	10.0	13.1	19.5	7.1
11	9.9	9.7	8.9	7.8	7.0	7.8	9.8	11.2	12.6	13.0	13.1	11.5	11.3	11.0	11.0	11.5	12.0	12.2	11.3	10.9	10.0	9.3	8.5	7.4	10.4	13.1	7.0
12	7.0	6.6	5.6	4.5	3.8	4.0	5.5	8.7	11.1	12.0	12.7	13.2	13.7	12.2	11.6	11.8	12.2	11.6	11.4	11.1	10.6	9.4	8.8	8.7	9.5	13.7	3.8
13	8.4	8.3	7.5	7.1	6.5	6.6	7.1	8.6	8.8	8.8	7.3	6.7	6.8	8.0	9.3	10.5	10.6	10.3	9.4	8.6	7.4	5.5	4.7	3.9	7.8	10.6	3.9
14	3.9	4.2	4.4	4.0	3.6	3.1	2.5	3.3	3.3	3.0	3.0	3.5	4.3	4.5	4.0	3.3	3.3	3.8	3.7	2.7	1.8	1.9	1.9	2.2	3.3	4.5	1.8
15	2.2	2.8	2.8	3.3	3.7	3.8	4.1	4.7	5.8	6.8	8.1	9.4	10.9	11.8	12.7	13.2	13.4	13.9	13.8	12.7	9.9	6.5	4.2	3.0	7.6	13.9	2.2
16	1.9	1.4	0.8	-0.1	-0.1	0.0	4.8	10.8	14.3	Au	Au	Au	Au	20.1	21.1	22.0	22.0	22.1	21.4	20.5	19.1	18.2	17.2	16.6	12.7	22.1	-0.1
17	15.5	14.0	13.6	12.0	12.1	11.7	14.9	19.9	22.8	24.9	25.7	25.3	25.5	26.7	27.4	28.1	28.1	28.0	27.1	24.6	21.6	17.9	16.7	17.0	20.9	28.1	11.7
18	14.9	12.9	10.4	9.1	8.2	7.2	8.6	13.8	17.1	20.0	22.3	22.9	24.0	24.8	25.6	25.3	24.2	23.4	21.2	18.1	16.7	15.8	13.6	12.8	17.2	25.6	7.2
19	12.4	11.4	10.3	9.6	9.0	9.3	10.9	10.9	10.9	11.8	12.0	11.6	11.4	11.4	11.6	12.0	12.6	13.0	7.3	7.1	7.3	7.2	6.2	5.0	10.1	13.0	5.0
20	4.6	5.1	5.6	5.8	5.9	5.9	5.2	5.3	5.6	6.3	7.0	7.5	7.1	7.1	7.8	7.9	7.2	6.4	5.8	5.7	5.9	6.0	5.9	6.2	6.2	7.9	4.6
21	6.3	5.7	5.9	5.9	5.6	6.0	6.7	7.9	9.1	10.2	11.5	12.6	13.4	13.6	14.2	15.2	15.8	15.8	15.8	14.7	10.5	7.5	6.4	5.1	10.1	15.8	5.1
22	3.1	2.3	1.9	1.5	1.3	1.6	4.9	10.3	15.0	16.4	17.3	18.2	19.2	19.9	20.7	21.2	21.8	21.9	21.9	19.4	15.4	12.8	11.9	9.0	12.9	21.9	1.3
23	7.7	6.4	5.5	4.3	4.1	4.4	8.2	13.0	18.6	20.0	20.8	21.9	22.4	22.6	22.9	22.4	21.9	21.2	19.6	17.8	16.3	14.9	13.7	11.1	15.1	22.9	4.1
24	8.9	7.0	5.0	6.4	6.3	6.5	7.5	8.9	10.7	13.0	14.3	14.8	15.1	14.4	12.6	9.8	8.2	8.4	6.1	5.4	5.0	5.1	5.0	4.7	8.7	15.1	4.7
25	4.7	3.9	4.2	3.7	2.8	1.4	2.9	5.0	6.8	8.1	9.0	9.8	10.8	11.7	12.4	13.0	13.4	13.5	13.1	12.2	9.5	5.9	3.9	3.1	7.7	13.5	1.4
26	1.6	0.9	0.2	-0.1	-0.7	-0.4	3.1	9.3	12.3	13.7	15.2	16.5	17.6	18.3	19.2	19.9	20.5	20.7	20.8	18.9	13.8	10.7	7.6	6.9	11.1	20.8	-0.7
27	6.1	4.2	3.6	3.1	2.0	2.7	6.3	11.6	16.6	19.6	20.7	21.6	22.3	22.8	23.6	24.3	24.6	24.6	24.1	22.4	17.2	13.5	11.3	9.9	14.9	24.6	2.0
28	8.7	7.9	7.2	6.0	5.3	6.2	9.7	15.7	21.6	23.5	23.0	23.6	25.8	25.5	25.6	24.5	20.7	21.4	20.5	18.2	16.9	14.9	13.1	10.8	16.5	25.8	5.3
29	8.7	9.1	7.4	5.8	5.1	5.5	8.6	12.7	15.1	16.0	17.1	18.0	18.8	19.3	19.6	19.7	19.6	19.8	18.8	17.3	15.8	14.8	13.1	11.6	14.1	19.8	5.1
30	9.5	7.3	5.1	3.5	2.2	1.6	5.1	10.0	13.1	13.8	14.8	15.9	17.0	17.3	17.5	17.9	18.0	18.1	17.7	15.9	13.8	11.5	9.0	6.8	11.8	18.1	1.6
Avg	7.1	6.4	5.6	5.0	4.5	4.6	6.6	9.8	12.3	13.4	14.2	14.7	15.4	15.8	15.9	16.0	15.9	15.8	14.9	13.7	11.9	10.2	9.0	8.1	11.2	17.1	4.0
Max	15.5	14.0	13.6	12.0	12.1	11.7	14.9	19.9	22.8	24.9	25.7	25.3	25.8	26.7	27.4	28.1	28.1	28.0	27.1	24.6	21.6	18.2	17.2	17.0	20.9	28.1	11.7
Min	1.6	0.9	0.2	-0.1	-0.7	-0.4	2.5	3.3	3.3	3.0	3.0	3.5	4.3	4.5	4.0	3.3	3.3	3.8	3.7	2.7	1.8	1.9	1.9	2.2	3.3	4.5	-0.7

A-12

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
2-Meter Temperature (Degrees Celsius)
April 2022

A-13

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	-8.5	-8.6	-7.9	-8.6	-8.8	-9.4	-8.5	-3.9	-2.3	-1.3	-0.8	0.4	0.7	1.2	1.7	2.2	2.6	2.1	1.2	-1.4	-2.0	-3.1	-5.9	-6.7	-3.1	2.6	-9.4
2	-8.5	-8.8	-9.4	-9.6	-9.7	-9.3	-8.0	-4.9	-1.6	3.9	6.6	7.7	6.1	2.8	2.5	3.1	3.7	-0.1	-0.4	-0.3	-0.2	-0.5	-0.9	-1.6	-1.6	7.7	-9.7
3	-2.5	-3.5	-3.6	-5.5	-7.4	-8.8	-9.2	-5.8	-1.2	1.0	2.8	4.0	5.5	5.7	5.6	5.6	6.4	6.3	4.5	2.0	3.0	2.4	-0.6	-2.7	0.2	6.4	-9.2
4	-4.2	-4.5	-4.5	-4.5	-4.2	-4.2	1.5	4.4	5.3	5.4	4.9	5.9	6.7	3.7	2.9	5.7	2.7	0.6	0.2	0.1	-0.3	-2.3	-2.6	-3.1	0.7	6.7	-4.5
5	-3.7	-4.4	-4.3	-4.6	-4.6	-4.6	-4.6	-4.4	-3.6	-2.4	-1.1	-0.2	0.4	0.5	0.6	0.5	0.1	-0.2	-1.1	-2.3	-3.5	-4.1	-3.5	-3.2	-2.4	0.6	-4.6
6	-3.0	-3.2	-3.1	-3.2	-3.4	-3.5	-4.1	-3.2	-1.5	-0.2	0.6	1.5	1.5	2.1	3.4	3.3	3.4	2.5	1.7	-0.1	-3.1	-5.5	-6.3	-7.6	-1.3	3.4	-7.6
7	-9.4	-9.8	-11.3	-12.2	-11.9	-12.9	-11.9	-6.9	-0.8	2.4	4.3	5.7	7.7	9.1	10.5	11.1	11.2	10.7	7.7	2.9	1.4	-1.5	-4.2	-4.5	-0.5	11.2	-12.9
8	-5.7	-6.3	-6.5	-7.2	-7.1	-7.1	-6.1	-1.2	7.1	Au	Au	Au	16.1	16.6	17.6	18.6	19.0	17.8	16.2	14.2	11.0	8.3	6.1	5.7	6.1	19.0	-7.2
9	2.7	1.0	0.3	-0.6	-2.0	-2.8	-2.9	-2.0	-1.2	-0.8	0.1	0.2	0.0	0.7	0.7	0.9	0.7	0.9	-0.4	-2.3	-3.1	-3.3	-3.1	-3.8	-0.8	2.7	-3.8
10	-4.8	-6.6	-7.3	-7.0	-6.4	-6.6	-6.2	-5.7	-5.4	-4.3	-3.0	-2.0	-2.2	-2.1	-2.1	-2.0	-2.6	-2.5	-3.1	-5.0	-5.4	-5.7	-6.4	-7.1	-4.6	-2.0	-7.3
11	-6.8	-6.6	-7.5	-9.2	-10.5	-12.4	-11.6	-7.3	-4.9	-4.1	-3.3	-2.9	-2.2	-2.5	-2.8	-3.0	-3.7	-4.0	-4.4	-5.0	-5.4	-6.1	-6.2	-6.5	-5.8	-2.2	-12.4
12	-6.9	-7.8	-8.4	-9.1	-9.7	-10.0	-10.0	-10.3	-10.1	-10.7	-10.9	-10.5	-10.5	-10.1	-10.4	-10.5	-11.1	-11.7	-12.6	-13.3	-13.6	-13.8	-14.2	-14.3	-10.9	-6.9	-14.3
13	-14.5	-14.5	-14.3	-14.4	-14.5	-14.6	-14.7	-14.1	-13.2	-12.0	-10.9	-10.1	-9.8	-9.8	-9.4	-9.6	-10.6	-11.0	-11.7	-13.3	-13.6	-14.2	-14.2	-14.9	-12.7	-9.4	-14.9
14	-16.1	-18.3	-18.2	-16.3	-17.7	-19.6	-17.2	-13.9	-12.1	-10.3	-8.8	-7.5	-6.2	-4.9	-4.8	-4.2	-5.5	-8.3	-9.9	-10.8	-10.8	-10.8	-11.6	-12.7	-11.5	-4.2	-19.6
15	-13.1	-13.2	-13.5	-13.8	-14.1	-14.6	-14.8	-13.0	-10.8	-9.7	-7.7	-5.9	-4.3	-4.2	-2.4	-2.1	-2.4	-2.4	-3.0	-6.2	-8.8	-9.0	-10.4	-10.9	-8.8	-2.1	-14.8
16	-11.3	-12.6	-14.1	-15.2	-16.0	-16.4	-14.4	-8.0	-5.0	-3.5	-2.3	-2.9	-3.2	-3.2	-4.0	-3.8	-4.7	-5.2	-4.5	-4.8	-5.2	-5.4	-5.4	-5.4	-7.4	-2.3	-16.4
17	-5.7	-6.1	-5.7	-6.0	-6.5	-6.3	-6.5	-6.3	-5.9	-5.0	-4.4	-3.1	-2.3	-1.5	-1.2	-1.2	-0.9	-0.9	-1.4	-4.4	-6.9	-8.5	-9.8	-11.5	-4.9	-0.9	-11.5
18	-13.2	-13.9	-13.6	-14.8	-15.0	-14.8	-12.1	-7.8	-1.3	1.0	2.4	3.5	4.0	4.3	4.8	4.2	3.4	3.2	2.9	2.0	2.0	2.2	2.0	1.4	-2.6	4.8	-15.0
19	1.3	0.8	-1.5	-1.4	-1.4	-1.4	0.9	3.0	2.1	2.6	3.3	4.1	4.6	4.1	5.2	5.3	5.3	4.4	3.3	1.3	0.2	-1.7	-5.2	-5.5	1.4	5.3	-5.5
20	-6.4	-5.5	-5.4	-2.0	-2.4	-2.5	-2.1	-1.7	-0.8	0.3	1.6	1.3	2.7	3.0	3.2	3.6	3.9	3.8	2.7	-1.1	-2.7	-2.2	-0.9	-2.2	-0.5	3.9	-6.4
21	-1.7	-1.8	-2.1	-2.2	-2.3	-2.1	-1.5	-1.4	-0.8	0.9	2.5	2.9	2.8	3.9	6.8	9.1	8.3	7.5	6.2	3.8	3.0	0.8	-1.5	-2.6	1.6	9.1	-2.6
22	-4.1	-4.4	-3.7	-2.9	-3.3	-3.9	-3.0	-0.6	1.4	1.9	1.5	0.5	0.7	1.2	1.3	1.1	0.7	0.6	0.7	0.5	0.2	0.0	0.0	0.0	-0.6	1.9	-4.4
23	0.0	-0.2	-0.2	-0.1	-0.4	-0.7	-0.9	-0.9	-0.9	-0.7	-0.3	0.2	0.3	1.3	2.1	2.7	2.2	1.4	1.0	0.5	0.4	0.2	0.3	0.4	0.3	2.7	-0.9
24	0.2	-0.5	-1.6	-2.3	-3.4	-4.5	-4.0	-0.3	2.1	3.1	4.1	5.0	5.7	6.5	5.9	6.7	7.0	6.1	3.8	3.3	1.5	-1.1	-3.2	-4.1	1.5	7.0	-4.5
25	-5.5	-6.1	-6.7	-7.4	-8.1	-8.2	-5.5	0.0	5.0	7.5	8.6	9.9	10.7	11.4	12.1	12.3	12.2	11.5	10.8	6.0	4.8	2.6	-0.3	-1.7	3.2	12.3	-8.2
26	-3.5	-4.5	-5.3	-4.7	-3.5	-3.3	-2.1	4.7	9.9	10.2	11.4	12.3	12.5	12.1	11.9	11.9	10.8	6.3	3.6	2.5	1.0	1.0	1.0	0.5	4.0	12.5	-5.3
27	-1.2	-1.6	-1.8	-2.7	-3.8	-5.1	-4.9	-2.2	0.8	2.7	4.6	6.7	8.5	8.7	6.4	1.7	0.3	1.2	1.3	0.8	0.2	0.0	-0.5	-1.5	0.8	8.7	-5.1
28	-1.4	-1.5	-1.9	-2.8	-3.5	-4.3	-3.8	-2.1	0.3	3.5	5.5	6.9	7.7	8.2	8.2	8.2	7.4	5.9	5.3	4.4	3.1	3.8	3.4	1.3	2.6	8.2	-4.3
29	0.7	0.5	0.4	0.4	0.1	-0.2	-0.6	-0.5	-0.7	0.2	1.1	1.5	1.6	2.2	3.7	4.9	5.0	4.5	3.2	1.3	-0.2	-2.8	-3.5	-4.8	0.8	5.0	-4.8
30	-5.5	-6.5	-6.7	-7.2	-7.7	-7.9	-5.4	-1.3	2.9	5.2	6.5	7.3	8.0	8.4	8.7	8.8	8.6	8.2	7.3	6.4	5.6	4.7	4.3	3.8	2.4	8.8	-7.9
Avg	-5.4	-6.0	-6.3	-6.6	-7.0	-7.4	-6.5	-3.9	-1.6	-0.5	0.7	1.5	2.5	2.6	3.0	3.2	2.8	2.0	1.0	-0.6	-1.6	-2.5	-3.4	-4.2	-1.9	4.0	-8.5
Max	2.7	1.0	0.4	0.4	0.1	-0.2	1.5	4.7	9.9	10.2	11.4	12.3	16.1	16.6	17.6	18.6	19.0	17.8	16.2	14.2	11.0	8.3	6.1	5.7	6.1	19.0	-0.9
Min	-16.1	-18.3	-18.2	-16.3	-17.7	-19.6	-17.2	-14.1	-13.2	-12.0	-10.9	-10.5	-10.5	-10.1	-10.4	-10.5	-11.1	-11.7	-12.6	-13.3	-13.6	-14.2	-14.2	-14.9	-12.7	-9.4	-19.6

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
2-Meter Temperature (Degrees Celsius)
May 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	3.6	2.3	1.7	1.8	1.6	1.9	2.4	3.0	3.9	5.1	5.5	5.9	6.1	6.6	6.1	6.0	5.3	4.8	4.1	3.3	2.7	2.4	2.2	1.9	3.8	6.6	1.6
2	1.7	1.6	1.5	1.3	1.1	1.5	2.1	2.9	4.2	5.5	7.7	9.3	10.1	10.8	11.4	11.8	12.0	11.0	9.2	8.0	7.6	7.5	6.9	6.0	6.4	12.0	1.1
3	4.3	0.9	0.6	0.0	-0.6	-0.5	0.7	2.2	4.2	5.5	5.9	6.2	6.8	8.6	9.6	8.7	10.4	10.6	9.9	6.9	2.1	-0.2	-2.1	-2.8	4.1	10.6	-2.8
4	-3.8	-4.4	-4.6	-5.3	-5.1	-5.9	-2.4	3.0	6.9	8.6	10.1	11.7	12.8	13.9	13.7	13.3	14.2	14.1	12.3	8.4	5.5	3.7	1.5	0.7	5.1	14.2	-5.9
5	-1.8	-1.9	-2.2	-3.0	-2.7	-2.1	2.0	9.3	13.1	14.0	15.6	17.0	17.2	17.5	18.1	17.7	17.5	16.4	14.8	13.0	9.8	7.0	4.4	3.4	8.9	18.1	-3.0
6	7.7	6.5	5.4	3.8	3.2	0.7	3.4	8.1	9.6	10.0	10.0	11.0	13.3	14.9	14.7	15.1	15.7	15.3	14.1	12.3	9.1	9.0	9.1	7.1	9.5	15.7	0.7
7	4.3	4.0	4.2	3.2	2.0	2.2	2.3	1.5	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	3.0	4.3	1.5
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	0.1	0.8	2.5	3.7	4.1	5.1	5.9	4.8	5.1	4.1	3.1	1.8	0.2	-1.9	-3.6	-5.0	1.9	5.9	-5.0
10	-3.4	-2.1	-2.3	-2.8	-3.5	-6.0	-1.7	0.7	2.1	3.7	4.7	5.5	6.6	6.8	7.3	7.6	6.8	6.1	4.3	2.1	0.6	-2.0	-4.6	-4.9	1.3	7.6	-6.0
11	-7.0	-7.8	-8.7	-9.5	-9.8	-9.6	-4.8	1.2	6.0	7.9	9.4	10.4	10.8	11.1	10.4	8.6	5.3	4.7	6.4	5.5	3.3	3.2	3.3	4.6	2.3	11.1	-9.8
12	5.2	5.1	4.7	3.8	3.8	3.0	3.5	4.4	5.0	5.3	4.4	4.0	4.3	4.2	4.7	6.9	7.8	7.8	7.7	5.8	2.7	1.0	-1.2	-3.1	4.2	7.8	-3.1
13	-4.8	-5.6	-6.4	-7.0	-7.5	-7.1	-2.4	4.0	5.6	6.5	3.2	5.9	5.9	6.6	6.5	6.1	5.6	4.5	3.4	1.9	0.8	0.3	0.1	0.0	1.1	6.6	-7.5
14	-1.6	-3.5	-5.7	-5.9	-5.4	-3.1	-0.4	1.8	3.0	2.9	4.3	7.8	9.5	11.3	9.3	9.3	8.2	7.3	7.4	7.4	7.1	6.4	5.0	3.4	3.6	11.3	-5.9
15	2.1	-0.2	-2.1	-3.4	-4.8	-4.7	0.2	6.3	8.8	10.2	11.5	12.6	14.0	15.3	15.8	15.0	14.9	15.1	14.9	13.3	10.4	8.0	5.9	6.9	7.8	15.8	-4.8
16	8.7	7.7	8.7	6.6	5.2	5.4	6.6	8.8	12.1	13.5	14.0	15.6	17.5	18.2	16.9	16.8	13.8	12.2	12.2	10.5	8.8	7.5	5.8	5.6	10.8	18.2	5.2
17	4.1	3.9	2.9	1.7	0.6	0.6	3.8	7.9	9.3	10.7	11.6	12.4	13.8	14.6	15.3	15.9	16.0	15.4	14.2	12.8	11.1	9.5	8.9	7.4	9.3	16.0	0.6
18	7.4	7.3	6.2	6.1	4.3	4.0	7.0	8.4	9.5	10.9	12.1	12.4	12.1	12.3	14.2	14.1	13.1	12.5	11.4	10.9	9.5	6.8	5.7	5.8	9.3	14.2	4.0
19	5.3	4.6	3.5	2.1	1.1	0.7	0.8	2.0	3.0	3.4	3.5	4.1	3.7	4.4	4.0	4.5	2.7	0.9	-0.2	-0.9	-1.3	-1.3	-1.7	-2.6	1.9	5.3	-2.6
20	-2.8	-2.5	-2.3	-2.5	-2.4	-2.0	-1.4	-0.5	-0.3	0.3	0.7	0.7	1.3	1.7	1.7	1.8	1.8	1.7	1.0	0.2	-0.7	-2.0	-3.2	-4.3	-0.6	1.8	-4.3
21	-5.2	-6.0	-6.8	-7.1	-5.8	-6.3	-5.4	-2.2	0.2	1.4	1.4	2.1	2.6	3.1	3.5	3.8	4.2	4.6	4.1	2.3	-0.4	-1.0	-3.3	-3.7	-0.8	4.6	-7.1
22	-4.8	-5.2	-6.3	-6.0	-5.7	-4.6	-1.0	0.8	2.4	3.5	4.9	5.2	6.5	7.1	6.9	7.5	8.7	7.9	7.0	5.6	2.9	-0.3	-2.2	-3.6	1.5	8.7	-6.3
23	-4.2	-3.7	-3.8	-5.3	-6.5	-5.7	-1.5	3.1	6.8	8.3	8.9	9.3	9.2	9.6	10.0	10.5	10.5	10.0	9.8	7.5	3.1	1.3	-1.8	-3.7	3.4	10.5	-6.5
24	-4.6	-4.8	-2.7	-2.5	-3.4	-4.0	-0.9	4.4	8.4	9.1	9.9	11.0	12.0	11.9	12.1	12.2	12.3	12.1	11.1	10.2	6.0	3.0	1.5	0.1	5.2	12.3	-4.8
25	-2.3	-2.5	-2.4	-2.8	-1.8	-0.4	1.2	3.9	5.8	8.6	9.9	10.4	12.4	13.9	14.9	15.5	15.5	16.0	14.5	12.7	10.9	8.4	6.8	6.5	7.3	16.0	-2.8
26	5.1	3.8	3.0	4.9	4.0	4.3	7.6	11.4	13.3	14.1	15.2	17.0	18.6	18.8	18.4	19.2	20.1	20.3	19.2	15.9	12.8	13.6	14.7	13.3	12.9	20.3	3.0
27	11.7	10.7	10.1	9.7	7.9	7.8	8.8	10.0	10.8	11.3	12.9	13.7	14.5	16.1	16.4	16.7	16.6	16.7	15.6	13.5	9.9	9.4	8.5	7.4	11.9	16.7	7.4
28	6.5	6.7	6.4	6.6	6.5	6.4	7.7	8.7	9.7	10.8	11.3	11.4	11.5	9.7	10.8	11.7	11.9	10.6	8.7	7.8	6.8	5.9	6.1	5.7	8.6	11.9	5.7
29	5.1	4.2	3.3	3.4	3.6	3.4	5.4	6.5	7.7	6.7	6.2	6.2	6.0	6.9	7.2	7.5	8.3	6.1	5.6	5.3	5.2	4.8	4.7	5.1	5.6	8.3	3.3
30	5.4	5.8	5.6	5.9	5.9	5.6	5.4	4.8	4.2	4.4	4.6	4.7	5.5	5.2	5.4	5.4	5.7	5.6	5.4	5.0	4.6	4.5	4.3	3.9	5.1	5.9	3.9
31	4.3	4.4	4.1	3.7	3.2	3.4	4.2	5.3	6.3	7.3	8.0	8.7	9.3	10.5	10.4	10.6	10.7	10.2	9.9	8.9	7.2	4.9	3.2	2.5	6.7	10.7	2.5
Avg	1.6	1.0	0.5	0.1	-0.4	-0.4	1.8	4.5	6.3	7.3	7.9	8.8	9.6	10.2	10.4	10.5	10.4	9.8	9.0	7.5	5.5	4.1	2.9	2.2	5.5	11.0	-1.6
Max	11.7	10.7	10.1	9.7	7.9	7.8	8.8	11.4	13.3	14.1	15.6	17.0	18.6	18.8	18.4	19.2	20.1	20.3	19.2	15.9	12.8	13.6	14.7	13.3	12.9	20.3	7.4
Min	-7.0	-7.8	-8.7	-9.5	-9.8	-9.6	-5.4	-2.2	-0.3	0.3	0.7	0.7	1.3	1.7	1.7	1.8	1.8	0.9	-0.2	-0.9	-1.3	-2.0	-4.6	-5.0	-0.8	1.8	-9.8

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
2-Meter Temperature (Degrees Celsius)
June 2022

A-15

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	2.2	1.5	0.0	1.2	1.5	1.9	3.3	6.1	7.5	8.0	8.2	9.0	9.1	9.0	10.4	11.5	11.8	11.9	11.7	10.2	7.8	6.1	4.5	3.3	6.6	11.9	0.0
2	3.0	3.6	2.5	3.0	2.8	3.6	5.4	7.5	10.8	11.7	12.3	12.6	12.5	12.9	13.8	14.2	14.4	14.2	13.5	12.3	10.5	8.2	8.2	8.5	9.2	14.4	2.5
3	7.5	6.6	4.1	4.4	3.0	4.0	6.3	8.0	11.7	13.5	13.8	14.2	15.4	13.1	11.3	14.0	15.1	14.8	13.4	11.6	10.0	9.1	8.0	6.1	10.0	15.4	3.0
4	4.7	3.7	2.3	1.5	1.2	2.2	5.1	9.8	13.0	14.7	16.3	17.3	18.1	18.9	16.6	13.7	14.2	11.7	10.9	9.9	9.4	8.4	8.5	8.6	10.0	18.9	1.2
5	8.7	8.2	7.6	5.2	3.6	3.1	6.6	9.7	11.2	12.2	13.4	14.5	14.9	13.3	10.6	9.8	10.2	10.6	10.6	9.9	Pw	Pw	Pw	Pw	9.7	14.9	3.1
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	14.1	14.5	15.4	16.5	17.4	18.1	18.9	19.4	19.6	19.6	18.4	16.0	13.6	11.6	10.7	9.6	15.8	19.6	9.6
10	8.7	8.4	8.2	6.7	6.5	7.1	9.1	13.3	16.1	16.6	17.9	17.9	19.3	20.6	20.1	18.0	16.7	15.5	13.6	12.4	11.4	10.5	10.1	10.0	13.1	20.6	6.5
11	9.9	9.6	8.6	7.3	6.6	7.8	10.0	11.4	12.8	13.2	13.2	11.5	11.4	11.2	11.1	11.7	12.1	12.2	11.3	10.8	9.8	8.9	8.1	7.1	10.3	13.2	6.6
12	6.7	6.4	5.2	3.9	3.4	3.9	5.8	9.0	11.4	12.7	13.1	13.5	14.0	12.3	11.6	12.0	12.3	11.7	11.5	11.0	10.3	9.0	8.8	8.7	9.5	14.0	3.4
13	8.4	8.2	7.2	6.9	6.1	6.5	7.2	8.9	8.8	8.9	7.4	6.9	7.1	8.4	9.8	11.3	11.0	10.3	9.3	8.5	7.1	5.2	4.5	3.8	7.8	11.3	3.8
14	3.8	4.1	4.4	4.0	3.6	3.1	2.6	3.4	3.5	3.1	3.2	3.8	4.5	4.8	4.3	3.6	3.6	3.9	3.8	2.7	1.7	1.8	1.8	2.1	3.4	4.8	1.7
15	2.2	2.7	2.8	3.2	3.6	3.7	4.0	4.7	6.0	7.1	8.6	9.8	11.5	12.2	13.1	13.8	13.7	14.4	14.2	12.5	8.3	5.5	3.6	2.3	7.6	14.4	2.2
16	1.3	1.0	0.0	-1.3	-1.4	-0.6	4.9	11.1	14.7	Au	Au	Au	Au	21.0	21.8	22.5	22.3	22.2	21.3	20.3	18.8	17.9	17.0	16.1	12.5	22.5	-1.4
17	14.3	12.5	11.7	10.0	10.0	10.4	14.7	19.9	23.0	25.3	26.0	25.6	26.1	27.4	27.9	28.5	28.4	28.1	26.5	23.0	20.0	15.9	14.9	15.7	20.2	28.5	10.0
18	14.0	12.2	9.5	7.7	7.0	6.7	8.5	14.5	17.9	20.7	22.9	23.5	24.6	25.3	26.0	25.7	24.1	23.1	20.6	17.7	16.1	15.1	12.7	12.3	17.0	26.0	6.7
19	12.0	10.9	9.6	9.1	8.6	9.3	10.8	11.0	11.1	12.1	12.3	11.8	11.5	11.6	11.7	12.1	13.0	13.4	7.2	7.1	7.3	7.1	5.8	4.5	10.0	13.4	4.5
20	4.3	5.1	5.7	5.9	6.0	6.0	5.3	5.5	5.7	6.4	7.2	7.8	7.5	7.4	8.2	8.2	7.3	6.5	5.9	5.7	5.9	5.9	5.8	6.1	6.3	8.2	4.3
21	6.2	5.6	5.9	5.8	5.2	5.9	6.8	8.3	9.5	10.9	12.1	13.3	14.2	14.1	14.7	15.7	16.4	16.2	16.0	14.2	10.0	7.2	5.9	4.8	10.2	16.4	4.8
22	2.0	1.0	0.8	0.2	-0.1	1.0	5.2	11.0	15.5	17.0	17.9	18.8	19.9	20.5	21.3	21.7	22.3	22.1	21.9	18.4	14.9	12.7	11.5	7.6	12.7	22.3	-0.1
23	6.5	5.2	3.9	2.8	2.7	3.8	8.4	13.6	18.9	20.4	21.3	22.4	22.8	22.9	23.6	22.7	22.4	21.6	19.6	17.2	15.1	14.0	12.8	10.3	14.8	23.6	2.7
24	7.9	6.2	4.3	6.2	6.2	6.4	7.7	9.2	11.0	13.6	15.1	15.6	16.0	14.8	12.9	10.4	8.8	9.0	6.4	5.7	5.0	5.1	4.6	4.5	8.9	16.0	4.3
25	4.4	3.8	4.2	3.6	2.2	0.7	3.0	5.3	7.6	8.9	10.0	10.7	11.8	12.8	13.4	14.1	14.5	14.3	13.6	11.9	8.2	4.6	2.8	2.3	7.9	14.5	0.7
26	0.7	-0.1	-0.7	-1.1	-1.6	-1.7	3.0	9.9	12.8	14.2	15.8	17.2	18.5	19.3	20.0	20.6	21.2	21.3	21.1	18.4	11.8	9.7	5.5	5.6	10.9	21.3	-1.7
27	4.8	2.5	1.8	1.7	0.8	1.9	6.6	12.3	17.4	20.4	21.3	22.3	23.1	23.7	24.5	25.0	25.1	25.0	23.8	21.8	16.2	11.6	9.8	8.3	14.7	25.1	0.8
28	6.8	6.0	5.6	4.1	3.5	5.2	10.0	15.9	22.0	23.8	23.1	24.0	26.4	25.6	25.8	24.5	20.3	21.3	19.8	17.5	16.3	13.8	12.1	9.4	16.0	26.4	3.5
29	7.4	8.2	6.4	4.7	3.7	5.1	8.8	12.9	15.5	16.6	17.7	18.6	19.7	20.3	20.3	20.2	19.9	20.1	19.0	17.0	15.3	14.2	12.3	10.4	13.9	20.3	3.7
30	8.3	6.5	4.0	2.2	1.0	1.1	5.3	10.8	13.8	14.7	15.7	16.8	18.1	18.3	18.4	18.9	18.7	18.6	17.9	15.6	13.1	10.7	7.2	5.3	11.7	18.9	1.0
Avg	6.4	5.8	4.8	4.2	3.7	4.2	6.7	10.1	12.7	13.9	14.7	15.2	16.0	16.3	16.4	16.4	16.3	16.1	14.9	13.3	11.3	9.6	8.4	7.4	11.1	17.7	3.2
Max	14.3	12.5	11.7	10.0	10.0	10.4	14.7	19.9	23.0	25.3	26.0	25.6	26.4	27.4	27.9	28.5	28.4	28.1	26.5	23.0	20.0	17.9	17.0	16.1	20.2	28.5	10.0
Min	0.7	-0.1	-0.7	-1.3	-1.6	-1.7	2.6	3.4	3.5	3.1	3.2	3.8	4.5	4.8	4.3	3.6	3.6	3.9	3.8	2.7	1.7	1.8	1.8	2.1	3.4	4.8	-1.7

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-2 M Delta Temperature (Degrees Celsius)
April 2022

A-16

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.88	0.32	0.06	0.46	0.58	0.82	0.54	-0.10	-0.17	-0.29	-0.24	-0.57	-0.37	-0.48	-0.49	-0.48	-0.45	-0.12	0.24	0.88	0.60	0.95	1.21	1.55	0.22	1.55	-0.57
2	1.61	1.30	1.13	0.95	0.77	0.73	0.37	-0.43	-0.28	-0.36	-0.57	-0.68	-0.26	-0.43	-0.37	-0.33	-0.17	0.11	0.15	0.15	0.12	0.15	0.16	0.20	0.17	1.61	-0.68
3	0.38	0.50	0.34	1.09	1.36	0.46	0.48	-0.54	-0.48	-0.62	-0.69	-0.61	-0.58	-0.47	-0.32	-0.23	-0.32	-0.09	0.82	0.94	0.85	1.15	1.42	1.11	0.25	1.42	-0.69
4	1.23	1.07	0.82	0.73	0.65	0.88	0.63	0.13	-0.04	-0.08	-0.18	-0.30	-0.42	-0.14	-0.24	-0.23	0.20	0.03	0.10	0.26	0.34	0.19	0.25	0.23	0.25	1.23	-0.42
5	0.14	0.09	0.06	0.01	0.04	0.08	0.07	-0.01	-0.11	-0.27	-0.55	-0.71	-0.84	-0.69	-0.59	-0.49	-0.26	-0.18	-0.04	0.19	0.41	0.41	0.13	0.11	-0.12	0.41	-0.84
6	0.06	0.12	0.08	0.09	0.09	0.13	0.20	-0.20	-0.47	-0.57	-0.61	-0.69	-0.65	-0.67	-0.98	-0.67	-0.66	-0.16	0.18	1.09	1.71	1.87	1.77	0.87	0.08	1.87	-0.98
7	1.33	0.83	1.06	1.23	1.19	1.10	0.49	-0.70	-0.90	-0.78	-0.78	-0.69	-1.20	-1.04	-0.97	-0.73	-0.72	-0.31	1.09	1.30	0.31	0.82	1.56	1.45	0.21	1.56	-1.20
8	1.76	2.00	1.73	1.84	1.42	1.47	1.02	-0.21	-0.52	Au	Au	Au	-0.57	-0.51	-0.46	-0.53	-0.37	0.00	0.21	0.25	1.04	1.04	0.80	0.13	0.55	2.00	-0.57
9	0.02	0.00	0.03	0.05	0.20	0.28	0.08	-0.30	-0.47	-0.51	-0.82	-0.70	-0.48	-0.54	-0.40	-0.36	-0.31	-0.34	-0.01	0.41	0.66	0.36	0.12	0.20	-0.12	0.66	-0.82
10	0.23	0.57	0.54	0.42	0.08	-0.04	-0.13	-0.24	-0.33	-0.35	-0.61	-0.90	-0.69	-0.60	-0.37	-0.47	-0.34	-0.15	0.01	0.54	0.30	0.05	0.15	0.27	-0.09	0.57	-0.90
11	0.19	0.00	0.24	0.51	0.59	0.90	0.32	-0.31	-0.37	-0.52	-0.47	-0.73	-0.68	-0.58	-0.40	-0.37	-0.29	-0.25	-0.13	-0.11	-0.10	-0.10	-0.08	-0.07	-0.12	0.90	-0.73
12	-0.08	-0.10	-0.09	-0.10	-0.12	-0.13	-0.13	-0.16	-0.31	-0.34	-0.48	-0.55	-0.49	-0.57	-0.66	-0.53	-0.40	-0.31	-0.19	-0.11	-0.10	-0.09	-0.11	-0.06	-0.26	-0.06	-0.66
13	0.02	-0.03	-0.09	-0.07	-0.07	-0.08	-0.17	-0.37	-0.76	-0.89	-1.03	-1.16	-1.20	-1.24	-1.28	-1.20	-0.82	-0.58	-0.26	0.21	0.12	0.23	0.06	0.41	-0.43	0.41	-1.28
14	0.59	1.13	0.55	0.54	0.41	0.50	-0.21	-0.49	-0.88	-0.93	-0.83	-0.98	-1.04	-1.20	-1.21	-1.19	-0.92	-0.56	-0.28	-0.10	-0.20	-0.18	-0.16	0.03	-0.32	1.13	-1.21
15	0.01	0.09	-0.07	-0.10	-0.12	0.02	-0.16	-0.47	-0.83	-0.56	-0.79	-1.06	-1.35	-0.99	-1.38	-1.30	-0.87	-0.64	-0.25	0.87	1.10	0.24	0.14	0.01	-0.35	1.10	-1.38
16	0.08	0.44	0.54	0.87	0.94	1.13	-0.02	-0.62	-0.54	-0.66	-0.75	-0.55	-0.72	-0.73	-0.51	-0.46	-0.16	-0.14	-0.06	-0.02	-0.02	-0.02	-0.03	0.01	-0.08	1.13	-0.75
17	0.05	0.08	0.05	0.02	0.20	0.00	-0.08	-0.22	-0.27	-0.54	-0.24	-0.15	-0.21	-0.08	-0.12	-0.15	-0.20	-0.05	0.10	1.19	0.76	0.27	0.12	0.41	0.04	1.19	-0.54
18	0.86	1.03	0.61	1.15	0.71	0.78	-0.02	-0.16	-0.10	-0.38	-0.45	-0.63	-0.64	-0.61	-0.69	-0.55	-0.24	-0.09	0.04	0.33	0.40	0.34	0.35	0.67	0.11	1.15	-0.69
19	0.65	0.84	1.46	0.85	0.62	0.59	0.35	-0.04	-0.21	-0.43	-0.61	-0.71	-0.99	-0.66	-0.87	-0.76	-0.65	-0.29	0.01	0.54	0.60	1.11	1.51	1.38	0.18	1.51	-0.99
20	0.96	0.53	0.69	0.03	0.02	0.11	-0.07	-0.16	-0.30	-0.44	-0.68	-0.62	-1.04	-1.15	-1.20	-1.10	-0.87	-0.65	0.01	1.04	1.28	0.67	0.34	0.25	-0.10	1.28	-1.20
21	0.24	0.18	0.15	0.06	0.05	0.07	-0.05	-0.23	-0.41	-0.40	-0.37	-0.39	-0.36	-0.31	-0.49	-0.74	-0.47	-0.30	-0.01	0.03	0.16	0.51	0.99	1.04	-0.04	1.04	-0.74
22	0.89	1.03	0.48	0.52	0.58	0.77	0.12	-0.15	-0.19	-0.28	-0.20	-0.01	-0.08	-0.11	-0.13	-0.14	-0.08	-0.04	0.06	0.13	0.09	0.16	0.07	0.04	0.15	1.03	-0.28
23	0.07	0.05	0.09	0.13	0.09	0.02	0.05	0.03	0.01	-0.07	-0.11	-0.13	-0.14	-0.29	-0.40	-0.46	-0.36	-0.15	0.00	0.20	0.26	0.26	0.16	0.12	-0.02	0.26	-0.46
24	0.27	0.33	0.55	0.54	0.72	0.63	0.10	-0.88	-0.91	-0.80	-0.74	-0.75	-0.77	-0.77	-0.57	-0.53	-0.62	-0.32	0.30	0.19	0.64	1.40	1.32	1.21	0.02	1.40	-0.91
25	1.40	1.50	1.60	1.81	1.57	1.32	0.34	-0.19	-0.44	-0.46	-0.54	-0.77	-0.78	-0.71	-0.70	-0.64	-0.42	-0.17	0.31	0.69	0.93	1.20	1.92	2.14	0.45	2.14	-0.78
26	1.80	1.96	1.93	1.56	1.06	0.96	0.59	-0.30	-0.33	-0.30	-0.48	-0.38	-0.41	-0.30	-0.15	-0.23	-0.09	0.03	0.04	0.06	0.27	0.36	0.51	0.79	0.37	1.96	-0.48
27	1.43	0.70	0.93	0.74	0.91	0.55	0.19	-0.41	-0.49	-0.46	-0.65	-0.62	-0.69	-0.32	-0.12	0.04	0.03	0.00	0.08	0.25	0.19	0.24	0.30	0.62	0.14	1.43	-0.69
28	-0.06	-0.09	0.05	0.06	-0.11	-0.10	-0.05	-0.11	-0.34	-0.71	-0.66	-0.48	-0.59	-0.48	-0.36	-0.36	-0.28	-0.20	-0.07	0.31	0.59	0.18	0.14	0.10	-0.15	0.59	-0.71
29	0.04	0.02	0.02	0.07	0.08	0.05	-0.13	-0.17	-0.20	-0.40	-0.43	-0.33	-0.36	-0.54	-0.91	-1.11	-0.87	-0.56	-0.15	0.25	0.60	0.68	1.01	1.09	-0.09	1.09	-1.11
30	0.88	1.14	1.39	0.91	1.33	1.05	0.09	-0.07	-0.44	-0.40	-0.55	-0.63	-0.69	-0.70	-0.52	-0.58	-0.37	-0.22	0.02	0.17	0.26	0.24	0.08	0.04	0.10	1.39	-0.70
Avg	0.60	0.59	0.56	0.57	0.53	0.50	0.16	-0.27	-0.40	-0.48	-0.56	-0.60	-0.64	-0.60	-0.60	-0.56	-0.41	-0.22	0.08	0.40	0.47	0.49	0.54	0.54	0.03	1.17	-0.80
Max	1.80	2.00	1.93	1.84	1.57	1.47	1.02	0.13	0.01	-0.07	-0.11	-0.01	-0.08	-0.08	-0.12	0.04	0.20	0.11	1.09	1.30	1.71	1.87	1.92	2.14	0.55	2.14	-0.28
Min	-0.08	-0.10	-0.09	-0.10	-0.12	-0.13	-0.21	-0.88	-0.91	-0.93	-1.03	-1.16	-1.35	-1.24	-1.38	-1.30	-0.92	-0.65	-0.28	-0.11	-0.20	-0.18	-0.16	-0.07	-0.43	-0.06	-1.38

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-2 M Delta Temperature (Degrees Celsius)
May 2022

	<< Hour >>																										
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min
1	0.04	0.05	0.00	-0.01	0.03	0.13	0.01	-0.14	-0.28	-0.50	-0.56	-0.60	-0.62	-0.85	-0.72	-0.66	-0.43	-0.31	-0.16	-0.02	-0.08	-0.08	-0.08	-0.07	-0.25	0.13	-0.85
2	-0.07	-0.05	-0.03	0.05	0.10	-0.05	-0.19	-0.46	-0.66	-0.64	-0.63	-0.83	-0.88	-0.92	-0.84	-0.84	-0.84	-0.52	-0.09	0.14	0.17	0.08	0.24	0.60	-0.30	0.60	-0.92
3	1.10	0.99	1.19	0.83	0.76	0.67	0.09	-0.12	-0.20	-0.10	-0.14	-0.18	-0.28	-0.50	-0.33	-0.03	-0.64	-0.21	0.08	0.92	1.34	1.53	1.47	1.00	0.39	1.53	-0.64
4	1.09	1.39	1.25	1.34	1.12	1.18	-0.21	-0.73	-0.52	-0.67	-0.83	-0.89	-0.97	-1.16	-0.85	-0.64	-0.72	-0.53	0.58	1.18	0.29	0.41	0.86	1.00	0.12	1.39	-1.16
5	1.61	1.27	1.19	1.35	1.24	1.21	-0.03	-0.24	-0.44	-0.47	-0.69	-0.73	-0.69	-0.54	-0.48	-0.39	-0.28	-0.10	0.05	0.15	0.41	0.77	1.12	1.25	0.27	1.61	-0.73
6	0.56	0.12	0.17	0.54	0.93	0.75	-0.02	-0.24	-0.51	-0.45	-0.19	-0.28	-0.73	-1.20	-0.77	-0.48	-0.49	-0.20	0.07	0.48	0.69	0.63	0.31	0.50	0.01	0.93	-1.20
7	0.72	0.48	0.21	0.07	0.11	-0.03	-0.06	-0.08	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	0.18	0.72	-0.08
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	-0.55	-0.65	-0.72	-0.86	-0.96	-1.02	-1.19	-0.60	-0.49	-0.29	-0.07	0.09	0.55	1.21	1.17	1.66	-0.17	1.66	-1.19
10	1.11	0.69	0.61	0.98	1.08	1.03	-0.07	-0.31	-0.53	-0.70	-0.89	-1.01	-1.07	-0.76	-0.73	-0.76	-0.60	-0.56	-0.21	-0.05	0.12	0.62	1.61	1.34	0.04	1.61	-1.07
11	2.06	1.75	1.48	1.46	1.23	1.19	-0.36	-0.72	-0.74	-0.64	-0.85	-1.12	-1.11	-0.91	-0.51	-0.12	0.00	-0.18	-0.07	0.16	0.42	0.20	0.17	0.11	0.12	2.06	-1.12
12	0.26	0.30	0.36	0.27	0.21	0.12	-0.15	-0.44	-0.54	-0.66	-0.44	-0.47	-0.56	-0.43	-0.51	-1.06	-0.80	-0.44	-0.23	0.56	0.87	1.30	0.45	1.05	-0.04	1.30	-1.06
13	1.07	1.20	1.11	1.44	1.24	1.23	-0.21	-0.68	-0.41	-0.73	-0.47	-1.05	-1.23	-1.25	-1.23	-1.09	-0.92	-0.56	-0.24	0.15	0.33	0.34	0.36	0.39	-0.05	1.44	-1.25
14	1.09	1.15	1.36	0.74	0.14	0.04	-0.24	-0.17	-0.27	-0.34	-0.51	-0.85	-0.90	-1.19	-0.43	-0.38	-0.14	-0.11	-0.07	0.09	0.08	0.10	0.46	1.09	0.03	1.36	-1.19
15	1.26	1.17	1.02	1.14	1.26	1.01	-0.40	-0.60	-0.70	-0.85	-0.92	-0.90	-1.12	-1.18	-0.99	-0.60	-0.37	-0.32	-0.10	0.29	0.17	0.41	1.38	2.62	0.11	2.62	-1.18
16	0.97	0.65	0.39	0.57	0.60	0.30	-0.05	-0.33	-0.67	-0.74	-0.49	-0.70	-1.04	-0.95	-0.26	-0.47	-0.15	-0.11	0.09	0.49	0.43	0.18	0.54	0.32	-0.02	0.97	-1.04
17	0.41	0.69	1.62	1.62	1.32	0.45	-0.24	-0.48	-0.63	-0.84	-0.96	-0.93	-1.17	-0.97	-0.94	-1.00	-0.90	-0.53	0.04	0.29	0.69	1.02	0.91	0.96	0.02	1.62	-1.17
18	0.48	0.40	0.61	0.40	0.70	0.66	-0.51	-0.66	-0.77	-0.84	-0.87	-0.67	-0.42	-0.25	-0.39	-0.32	-0.17	-0.05	0.02	0.15	0.23	0.19	0.25	0.38	-0.06	0.70	-0.87
19	0.33	0.24	0.17	0.24	0.27	0.17	-0.08	-0.50	-0.81	-0.97	-0.86	-0.90	-0.63	-0.79	-0.93	-0.72	-0.30	-0.17	-0.09	-0.04	-0.01	0.00	0.10	0.08	-0.26	0.33	-0.97
20	0.03	0.08	0.13	0.04	0.01	0.01	-0.11	-0.09	-0.07	-0.32	-0.24	-0.15	-0.20	-0.32	-0.46	-0.61	-0.58	-0.46	-0.15	0.07	0.15	0.96	0.55	0.79	-0.04	0.96	-0.61
21	0.63	0.81	0.62	0.57	0.00	0.26	-0.17	-0.63	-0.65	-0.70	-0.56	-0.71	-0.84	-0.81	-0.88	-0.72	-0.81	-0.83	-0.63	0.08	0.54	0.45	1.23	1.28	-0.10	1.28	-0.88
22	1.60	1.26	1.07	0.88	0.65	0.37	0.09	-0.24	-0.48	-0.44	-0.52	-0.45	-0.65	-0.58	-0.65	-0.53	-0.78	-0.34	-0.21	0.31	0.42	0.79	1.09	1.24	0.16	1.60	-0.78
23	1.28	0.97	0.75	1.22	1.70	0.69	-0.32	-0.67	-0.68	-0.87	-0.87	-0.72	-0.58	-0.58	-0.62	-0.60	-0.71	-0.37	-0.18	0.75	0.74	0.54	1.28	1.47	0.15	1.70	-0.87
24	1.91	1.20	0.40	0.57	0.96	1.11	-0.12	-0.69	-0.87	-0.64	-0.68	-0.77	-1.17	-0.86	-0.78	-0.79	-0.62	-0.49	0.16	0.49	0.94	0.73	0.59	0.73	0.05	1.91	-1.17
25	1.45	0.87	1.00	0.87	0.24	-0.03	-0.14	-0.18	-0.18	-0.29	-0.39	-0.38	-0.56	-0.62	-0.68	-0.62	-0.37	-0.41	0.07	0.29	0.76	1.40	1.51	1.33	0.21	1.51	-0.68
26	1.12	0.41	1.44	1.18	1.00	0.30	-0.30	-0.62	-0.70	-0.61	-0.74	-0.99	-1.24	-0.84	-0.49	-0.63	-0.51	-0.40	0.16	0.43	0.57	1.00	0.57	0.48	0.02	1.44	-1.24
27	1.08	1.27	1.00	0.40	0.36	0.37	0.09	-0.10	-0.01	-0.18	-0.40	-0.25	-0.70	-0.73	-0.51	-0.50	-0.41	-0.42	0.11	0.87	0.91	0.39	0.26	0.13	0.13	1.27	-0.73
28	0.12	0.29	0.11	0.17	0.28	0.02	-0.51	-0.60	-0.71	-0.75	-0.73	-0.59	-0.86	-0.44	-0.77	-0.58	-0.39	-0.15	-0.05	0.01	0.15	0.30	0.08	0.14	-0.23	0.30	-0.86
29	0.23	0.39	0.34	0.25	0.22	0.16	-0.22	-0.18	-0.32	-0.16	-0.16	-0.20	-0.35	-0.38	-0.19	-0.29	-0.17	-0.06	-0.05	0.09	0.09	0.14	0.21	0.26	-0.01	0.39	-0.38
30	0.35	0.40	0.39	0.32	0.18	0.10	-0.03	-0.04	-0.12	-0.19	-0.12	-0.21	-0.21	-0.20	-0.26	-0.14	-0.23	-0.14	-0.05	0.02	0.12	0.20	0.16	0.14	0.02	0.40	-0.26
31	0.10	0.17	0.28	0.41	0.42	0.40	0.00	-0.39	-0.61	-0.72	-0.86	-0.84	-0.64	-0.89	-0.58	-0.33	-0.20	-0.09	-0.10	0.03	0.21	0.17	0.01	0.00	-0.17	0.42	-0.89
Avg	0.83	0.71	0.70	0.69	0.63	0.48	-0.15	-0.39	-0.50	-0.57	-0.60	-0.66	-0.77	-0.76	-0.65	-0.57	-0.48	-0.32	-0.05	0.29	0.42	0.55	0.65	0.77	0.01	1.19	-0.90
Max	2.06	1.75	1.62	1.62	1.70	1.23	0.09	-0.04	-0.01	-0.10	-0.12	-0.15	-0.20	-0.20	-0.19	-0.03	0.00	-0.05	0.58	1.18	1.34	1.53	1.61	2.62	0.39	2.62	-0.08
Min	-0.07	-0.05	-0.03	-0.01	0.00	-0.05	-0.51	-0.73	-0.87	-0.97	-0.96	-1.12	-1.24	-1.25	-1.23	-1.09	-0.92	-0.83	-0.63	-0.05	-0.08	-0.08	-0.08	-0.07	-0.30	0.13	-1.25

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-2 M Delta Temperature (Degrees Celsius)
June 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.07	0.34	0.55	0.31	0.17	0.01	-0.15	-0.37	-0.39	-0.29	-0.37	-0.37	-0.41	-0.47	-0.52	-0.58	-0.55	-0.49	-0.20	0.39	0.50	0.22	0.19	0.40	-0.08	0.55	-0.58
2	0.30	0.14	0.46	0.10	0.14	-0.15	-0.18	-0.15	-0.22	-0.36	-0.51	-0.40	-0.31	-0.48	-0.53	-0.50	-0.35	-0.17	0.01	0.20	0.31	1.34	0.68	0.84	0.01	1.34	-0.53
3	1.00	1.02	2.34	1.91	1.69	0.72	0.19	-0.11	-0.39	-0.51	-0.36	-0.29	-0.50	0.14	-0.19	-0.57	-0.37	-0.19	0.09	0.12	0.24	0.49	0.79	0.97	0.34	2.34	-0.57
4	0.65	0.81	1.16	1.24	1.19	0.38	-0.15	-0.51	-0.58	-0.72	-0.68	-0.64	-0.68	-0.44	-0.23	-0.13	-0.22	0.09	-0.04	0.09	0.10	0.24	0.01	0.09	0.04	1.24	-0.72
5	0.15	0.18	0.39	0.81	0.70	0.53	-0.13	-0.60	-0.56	-0.48	-0.66	-0.65	-0.40	-0.21	-0.09	-0.11	-0.21	-0.16	-0.14	0.06	Pw	Pw	Pw	Pw	-0.08	0.81	-0.66
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	-0.62	-0.59	-0.60	-0.82	-0.88	-0.88	-0.84	-0.75	-0.58	-0.50	0.07	0.85	0.52	0.26	0.07	0.35	-0.31	0.85	-0.88
10	0.56	0.58	0.51	0.94	0.64	0.41	-0.09	-0.27	-0.10	-0.23	-0.48	-0.47	-0.95	-1.11	-0.71	-0.36	-0.13	0.15	0.43	0.44	0.11	0.02	0.03	0.02	-0.00	0.94	-1.11
11	0.02	0.06	0.31	0.48	0.41	0.02	-0.21	-0.18	-0.16	-0.21	-0.10	-0.05	-0.08	-0.22	-0.11	-0.19	-0.04	-0.05	0.04	0.08	0.19	0.36	0.39	0.29	0.04	0.48	-0.22
12	0.24	0.12	0.46	0.64	0.42	0.08	-0.28	-0.30	-0.31	-0.61	-0.37	-0.34	-0.27	-0.11	-0.06	-0.15	-0.11	-0.11	-0.12	0.08	0.31	0.39	0.08	0.05	-0.01	0.64	-0.61
13	0.09	0.07	0.35	0.17	0.38	0.08	-0.10	-0.23	-0.05	-0.06	-0.08	-0.14	-0.28	-0.34	-0.49	-0.74	-0.39	-0.02	0.06	0.15	0.22	0.29	0.20	0.15	-0.03	0.38	-0.74
14	0.06	0.04	0.05	0.02	0.02	-0.05	-0.07	-0.07	-0.16	-0.18	-0.22	-0.27	-0.19	-0.24	-0.32	-0.26	-0.23	-0.11	-0.04	0.00	0.10	0.07	0.09	0.05	-0.08	0.10	-0.32
15	0.07	0.07	0.06	0.11	0.13	0.10	0.07	0.02	-0.16	-0.25	-0.50	-0.41	-0.51	-0.37	-0.44	-0.54	-0.31	-0.48	-0.36	0.25	1.60	0.98	0.66	0.69	0.02	1.60	-0.54
16	0.59	0.45	0.80	1.23	1.26	0.58	-0.10	-0.25	-0.39	Au	Au	Au	Au	-0.92	-0.66	-0.58	-0.30	-0.07	0.03	0.17	0.26	0.27	0.23	0.48	0.15	1.26	-0.92
17	1.20	1.47	1.86	1.93	2.11	1.30	0.20	-0.06	-0.25	-0.40	-0.26	-0.34	-0.52	-0.62	-0.57	-0.42	-0.27	-0.02	0.55	1.58	1.59	2.00	1.85	1.36	0.64	2.11	-0.62
18	0.91	0.70	0.92	1.36	1.11	0.45	0.05	-0.68	-0.82	-0.75	-0.54	-0.61	-0.55	-0.49	-0.48	-0.32	0.09	0.27	0.59	0.39	0.61	0.65	0.89	0.55	0.18	1.36	-0.82
19	0.40	0.56	0.69	0.50	0.37	0.01	0.10	-0.10	-0.20	-0.31	-0.29	-0.21	-0.15	-0.15	-0.10	-0.18	-0.47	-0.34	0.09	0.02	0.02	0.08	0.44	0.51	0.05	0.69	-0.47
20	0.28	-0.02	-0.08	-0.08	-0.10	-0.04	-0.09	-0.15	-0.14	-0.12	-0.17	-0.33	-0.45	-0.33	-0.39	-0.25	-0.18	-0.06	-0.05	-0.02	0.01	0.06	0.11	0.07	-0.11	0.28	-0.45
21	0.07	0.10	0.03	0.05	0.35	0.13	-0.13	-0.41	-0.47	-0.64	-0.63	-0.70	-0.75	-0.48	-0.48	-0.50	-0.64	-0.35	-0.13	0.54	0.52	0.30	0.43	0.32	-0.14	0.54	-0.75
22	1.14	1.31	1.14	1.27	1.45	0.54	-0.33	-0.66	-0.43	-0.59	-0.61	-0.65	-0.70	-0.57	-0.62	-0.44	-0.43	-0.18	0.05	1.00	0.50	0.17	0.40	1.32	0.17	1.45	-0.70
23	1.18	1.19	1.56	1.44	1.32	0.67	-0.20	-0.63	-0.34	-0.45	-0.54	-0.46	-0.40	-0.31	-0.70	-0.29	-0.48	-0.42	0.00	0.61	1.24	0.84	0.91	0.82	0.27	1.56	-0.70
24	0.94	0.82	0.74	0.17	0.12	0.06	-0.18	-0.21	-0.30	-0.63	-0.74	-0.76	-0.88	-0.39	-0.28	-0.61	-0.55	-0.52	-0.28	-0.25	0.03	0.03	0.37	0.23	-0.13	0.94	-0.88
25	0.24	0.15	0.01	0.15	0.57	0.71	-0.04	-0.30	-0.74	-0.76	-0.99	-0.87	-1.01	-1.02	-1.05	-1.06	-1.09	-0.82	-0.51	0.29	1.29	1.29	1.14	0.82	-0.15	1.29	-1.09
26	0.95	1.06	0.95	0.97	0.90	1.28	0.09	-0.54	-0.44	-0.47	-0.52	-0.73	-0.90	-0.90	-0.74	-0.70	-0.68	-0.60	-0.33	0.50	2.06	1.01	2.11	1.35	0.24	2.11	-0.90
27	1.26	1.64	1.83	1.44	1.23	0.76	-0.22	-0.75	-0.79	-0.75	-0.61	-0.78	-0.85	-0.83	-0.88	-0.78	-0.50	-0.37	0.29	0.68	1.02	1.90	1.56	1.64	0.30	1.90	-0.88
28	1.88	1.86	1.69	1.90	1.75	1.03	-0.27	-0.21	-0.37	-0.33	-0.07	-0.42	-0.60	-0.05	-0.20	0.07	0.41	0.13	0.72	0.74	0.57	1.11	1.08	1.46	0.58	1.90	-0.60
29	1.27	0.94	0.98	1.10	1.31	0.43	-0.18	-0.17	-0.36	-0.55	-0.55	-0.57	-0.94	-0.95	-0.69	-0.47	-0.28	-0.32	-0.18	0.31	0.47	0.55	0.83	1.21	0.13	1.31	-0.95
30	1.16	0.78	1.11	1.27	1.16	0.58	-0.20	-0.73	-0.68	-0.84	-0.85	-0.89	-1.10	-1.04	-0.97	-0.97	-0.69	-0.49	-0.18	0.31	0.70	0.82	1.82	1.47	0.06	1.82	-1.10
Avg	0.64	0.63	0.80	0.82	0.80	0.41	-0.10	-0.33	-0.39	-0.46	-0.47	-0.51	-0.59	-0.51	-0.49	-0.46	-0.35	-0.23	0.02	0.35	0.58	0.61	0.67	0.67	0.08	1.18	-0.72
Max	1.88	1.86	2.34	1.93	2.11	1.30	0.20	0.02	-0.05	-0.06	-0.07	-0.05	-0.08	0.14	-0.06	0.07	0.41	0.27	0.72	1.58	2.06	2.00	2.11	1.64	0.64	2.34	-0.22
Min	0.02	-0.02	-0.08	-0.08	-0.10	-0.15	-0.33	-0.75	-0.82	-0.84	-0.99	-0.89	-1.10	-1.11	-1.05	-1.06	-1.09	-0.82	-0.51	-0.25	0.01	0.02	0.01	0.02	-0.31	0.10	-1.11

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (Watts per Square Meter)
April 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0	0	0	0	0	0	19	65	95	123	140	388	174	289	233	217	225	100	24	0	0	0	0	0	87	388	0
2	0	0	0	0	0	0	38	172	217	519	590	623	171	227	175	158	120	43	23	0	0	0	0	0	128	623	0
3	0	0	0	0	0	1	56	223	396	556	709	789	639	387	239	187	327	128	24	0	0	0	0	0	194	789	0
4	0	0	0	0	0	0	18	61	99	114	188	274	346	97	262	327	35	125	13	0	0	0	0	0	82	346	0
5	0	0	0	0	0	0	13	95	241	439	704	761	703	502	406	317	176	157	60	0	0	0	0	0	191	761	0
6	0	0	0	0	0	1	32	153	272	313	356	409	431	411	669	377	358	132	43	0	0	0	0	0	165	669	0
7	0	0	0	0	0	2	58	236	418	582	720	816	841	811	730	611	446	231	38	0	0	0	0	0	273	841	0
8	0	0	0	0	0	3	58	213	389	Au	Au	Au	570	558	501	580	396	111	37	0	0	0	0	0	163	580	0
9	0	0	0	0	0	2	60	181	313	316	499	423	341	464	229	194	202	200	82	1	0	0	0	0	146	499	0
10	0	0	0	0	0	2	60	101	187	270	521	613	486	330	145	221	138	66	31	0	0	0	0	0	132	613	0
11	0	0	0	0	0	2	63	251	321	230	337	509	367	323	216	165	86	82	18	0	0	0	0	0	124	509	0
12	0	0	0	0	0	1	25	68	123	175	303	393	393	433	315	264	176	92	26	0	0	0	0	0	116	433	0
13	0	0	0	0	0	3	49	155	371	569	668	735	709	688	708	542	302	191	80	1	0	0	0	0	240	735	0
14	0	0	0	0	0	6	121	165	389	540	759	858	862	748	680	640	417	155	38	1	0	0	0	0	266	862	0
15	0	0	0	0	0	4	59	166	446	496	709	750	816	511	843	658	436	281	117	2	0	0	0	0	262	843	0
16	0	0	0	0	0	6	95	271	350	438	379	250	429	420	266	212	39	95	79	4	0	0	0	0	139	438	0
17	0	0	0	0	0	3	32	63	156	380	638	709	528	451	578	412	531	173	147	2	0	0	0	0	200	709	0
18	0	0	0	0	0	12	105	237	384	539	653	762	572	454	519	354	168	102	59	1	0	0	0	0	205	762	0
19	0	0	0	0	0	4	61	144	173	294	451	665	716	457	660	574	489	266	126	3	0	0	0	0	212	716	0
20	0	0	0	0	0	9	80	116	210	318	441	536	801	864	766	676	434	295	108	3	0	0	0	0	236	864	0
21	0	0	0	0	0	5	39	108	237	382	364	257	197	274	589	763	297	181	20	2	0	0	0	0	155	763	0
22	0	0	0	0	0	6	53	111	133	127	107	96	151	150	129	134	95	66	30	1	0	0	0	0	58	151	0
23	0	0	0	0	0	6	53	122	189	198	244	353	236	360	402	386	288	108	53	4	0	0	0	0	125	402	0
24	0	0	0	1	0	11	119	319	519	599	855	780	778	753	497	603	539	274	53	7	0	0	0	0	279	855	0
25	0	0	0	0	0	17	141	314	492	658	791	873	895	807	796	517	364	191	98	3	0	0	0	0	290	895	0
26	0	0	0	0	0	10	109	284	391	292	392	348	435	299	163	214	97	57	23	0	0	0	0	0	130	435	0
27	0	0	0	0	0	12	82	200	390	528	489	559	622	269	74	29	19	169	98	6	0	0	0	0	148	622	0
28	0	0	0	0	0	18	120	283	496	623	754	711	495	471	250	223	162	89	30	3	0	0	0	0	197	754	0
29	0	0	0	0	0	10	78	89	116	301	265	174	183	268	596	718	458	237	66	7	0	0	0	0	149	718	0
30	0	0	0	0	0	20	122	334	521	635	783	661	577	433	385	311	196	121	35	3	0	0	0	0	214	783	0
Avg	0	0	0	0	0	6	67	177	301	398	511	554	515	450	434	386	267	151	56	2	0	0	0	0	177	645	0
Max	0	0	0	1	0	20	141	334	521	658	855	873	895	864	843	763	539	295	147	7	0	0	0	0	290	895	0
Min	0	0	0	0	0	0	13	61	95	114	107	96	151	97	74	29	19	43	13	0	0	0	0	0	58	151	0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (Watts per Square Meter)
May 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0	0	0	0	0	5	41	103	177	303	331	349	390	531	358	339	152	105	48	5	0	0	0	0	135	531	0
2	0	0	0	0	0	12	73	251	545	709	735	924	925	727	724	701	551	257	77	6	0	0	0	0	301	925	0
3	0	0	0	0	0	8	31	65	89	76	105	132	251	395	199	89	350	171	105	11	0	0	0	0	87	395	0
4	0	0	0	1	2	27	164	352	507	696	815	926	876	884	539	478	539	311	78	13	0	0	0	0	300	926	0
5	0	0	0	0	0	48	184	375	504	523	720	795	625	543	433	365	246	142	37	3	0	0	0	0	231	795	0
6	0	0	0	0	0	31	174	325	466	343	138	407	657	941	613	456	464	203	47	17	0	0	0	0	220	941	0
7	0	0	0	0	0	12	57	89	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	20	89	0
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	615	675	706	732	791	829	826	339	307	171	60	18	0	0	0	0	379	829	0
10	0	0	0	0	1	41	203	307	544	757	881	848	867	636	605	570	285	255	70	19	0	0	0	0	287	881	0
11	0	0	0	0	1	48	225	378	557	716	890	952	938	603	257	43	40	147	132	21	0	0	0	0	248	952	0
12	0	0	0	0	1	24	89	213	219	273	194	209	211	200	346	703	406	214	142	28	0	0	0	0	145	703	0
13	0	0	0	0	1	30	208	351	288	494	338	690	873	882	865	738	576	371	196	36	0	0	0	0	289	882	0
14	0	0	0	0	1	45	105	110	93	168	312	633	712	839	223	199	87	125	68	11	0	0	0	0	155	839	0
15	0	0	0	0	3	62	228	365	560	695	824	921	903	871	714	391	338	314	132	24	0	0	0	0	306	921	0
16	0	0	0	0	0	18	85	229	460	485	528	593	803	733	192	539	191	142	55	9	0	0	0	0	211	803	0
17	0	0	0	0	3	56	215	392	572	726	847	905	932	735	768	688	522	317	99	36	0	0	0	0	326	932	0
18	0	0	0	0	2	69	241	302	465	689	768	537	303	190	344	247	116	52	23	8	0	0	0	0	182	768	0
19	0	0	0	0	2	22	112	396	566	649	481	500	343	420	475	377	165	102	52	6	0	0	0	0	195	649	0
20	0	0	0	0	1	27	113	224	315	635	585	527	840	883	743	648	539	358	103	26	0	0	0	0	274	883	0
21	0	0	0	0	3	34	140	394	267	356	260	610	526	425	646	395	575	396	211	55	0	0	0	0	221	646	0
22	0	0	0	0	6	58	89	316	536	584	581	243	758	393	383	388	431	185	147	55	0	0	0	0	215	758	0
23	0	0	0	0	4	83	175	407	542	698	713	655	508	539	348	474	295	161	121	27	0	0	0	0	240	713	0
24	0	0	0	0	3	49	128	378	587	538	497	645	859	606	529	386	311	292	91	40	0	0	0	0	247	859	0
25	0	0	0	0	4	20	48	112	97	170	183	184	397	438	490	459	278	332	106	42	2	0	0	0	140	490	0
26	0	0	0	0	9	75	233	427	449	500	715	775	973	605	582	702	516	348	118	26	0	0	0	0	294	973	0
27	0	0	0	0	0	2	25	200	71	234	440	289	716	704	482	445	365	327	98	28	0	0	0	0	184	716	0
28	0	0	0	0	4	68	225	287	404	415	472	384	527	283	553	361	181	126	101	28	1	0	0	0	184	553	0
29	0	1	1	1	4	56	135	109	228	146	114	141	229	207	108	161	140	37	21	10	0	0	0	0	77	229	0
30	0	0	0	0	3	35	78	69	102	154	112	204	211	149	183	83	117	77	46	10	0	0	0	0	68	211	0
31	0	0	0	0	3	39	129	434	677	773	808	749	517	654	354	235	204	80	77	31	0	0	0	0	240	808	0
Avg	0	0	0	0	2	38	136	274	397	489	520	568	637	581	479	414	320	211	92	22	0	0	0	0	216	720	0
Max	0	1	1	1	9	83	241	434	677	773	890	952	973	941	865	738	576	396	211	55	2	0	0	0	379	973	0
Min	0	0	0	0	0	2	25	65	71	76	105	132	211	149	108	43	40	37	21	3	0	0	0	0	20	89	0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (Watts per Square Meter)
June 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0	0	0	0	1	33	110	183	172	148	326	405	320	271	753	576	351	276	159	40	1	0	0	0	172	753	0
2	0	0	0	0	8	94	114	222	326	300	504	336	240	492	444	461	281	160	88	41	0	0	0	0	171	504	0
3	0	0	0	0	8	60	47	170	428	498	343	366	412	60	384	719	377	197	48	18	1	0	0	0	172	719	0
4	0	0	0	0	7	86	221	386	366	700	595	544	707	539	203	162	143	23	22	6	0	0	0	0	196	707	0
5	0	0	0	0	5	60	212	374	414	485	681	755	445	188	110	91	139	96	89	26	Pw	Pw	Pw	Pw	209	755	0
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	698	662	647	925	951	777	868	725	502	406	111	22	1	0	0	0	456	951	0
10	0	0	0	0	4	46	122	293	191	261	421	361	702	859	521	261	132	51	26	6	0	0	0	0	177	859	0
11	0	0	0	0	3	52	229	120	145	220	144	162	136	240	93	168	111	105	49	26	1	0	0	0	84	240	0
12	0	0	0	0	7	64	162	267	335	470	284	278	295	140	126	215	135	114	89	25	3	0	0	0	125	470	0
13	0	0	0	0	3	34	70	162	84	96	116	177	285	356	534	705	434	143	55	34	3	0	0	0	137	705	0
14	0	0	0	0	7	35	46	75	136	134	169	240	186	231	251	182	151	72	29	9	0	0	0	0	81	251	0
15	0	0	0	0	1	15	40	92	254	298	515	432	529	411	484	516	299	376	281	94	3	0	0	0	193	529	0
16	0	0	0	0	7	94	240	405	580	Au	Au	Au	Au	949	735	698	517	342	289	124	5	0	0	0	249	949	0
17	0	0	0	0	7	81	240	415	591	749	579	764	865	962	879	758	610	394	181	59	3	0	0	0	339	962	0
18	0	0	0	0	7	36	181	393	568	722	854	930	875	827	819	601	179	142	24	22	0	0	0	0	299	930	0
19	0	0	0	0	7	45	71	102	131	245	145	195	170	117	73	171	337	200	6	21	1	0	0	0	85	337	0
20	0	0	0	0	4	23	66	114	106	105	200	348	441	376	431	246	239	94	52	11	0	0	0	0	119	441	0
21	0	0	0	0	1	40	105	307	416	531	753	878	950	550	532	668	652	427	268	98	3	0	0	0	299	950	0
22	0	0	0	0	8	101	233	409	569	739	848	928	962	933	871	676	589	399	267	62	5	0	0	0	358	962	0
23	0	0	0	0	6	89	233	399	576	747	847	765	684	577	826	471	534	439	218	63	2	0	0	0	312	847	0
24	0	0	0	0	2	25	96	180	261	588	810	809	896	343	269	670	391	320	149	95	3	0	0	0	246	896	0
25	0	0	0	0	5	40	96	226	405	646	853	674	889	856	914	829	640	455	272	102	4	0	0	0	329	914	0
26	0	0	0	0	5	87	239	412	586	738	859	935	976	954	888	772	627	453	272	102	4	0	0	0	371	976	0
27	0	0	0	0	5	82	233	404	577	730	854	941	974	943	877	766	620	422	200	103	6	0	0	0	364	974	0
28	0	0	0	0	5	74	228	395	568	612	385	780	988	379	510	188	58	207	47	48	13	0	0	0	229	988	0
29	0	0	0	0	6	71	141	283	559	631	721	792	1017	925	694	570	458	450	281	99	4	0	0	0	321	1017	0
30	0	0	0	0	5	74	231	400	571	722	860	970	948	934	782	731	492	378	225	107	5	0	0	0	351	970	0
Avg	0	0	0	0	5	59	154	276	393	491	551	603	648	563	551	504	370	264	141	54	3	0	0	0	236	761	0
Max	0	0	0	0	8	101	240	415	698	749	860	970	1017	962	914	829	652	455	289	124	13	0	0	0	456	1017	0
Min	0	0	0	0	1	15	40	75	84	96	116	162	136	60	73	91	58	23	6	6	0	0	0	0	81	240	0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Barometric Pressure (inches of mercury)
April 2022

	<< Hour >>																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Avg	Max	Min	
1	24.30	24.31	24.31	24.31	24.31	24.31	24.32	24.32	24.32	24.33	24.33	24.33	24.33	24.33	24.33	24.34	24.34	24.33	24.33	24.33	24.33	24.34	24.34	24.32	24.34	24.30		
2	24.34	24.33	24.32	24.31	24.30	24.30	24.29	24.28	24.27	24.27	24.25	24.23	24.23	24.27	24.27	24.27	24.28	24.30	24.31	24.35	24.37	24.39	24.40	24.41	24.31	24.41	24.23	
3	24.41	24.42	24.43	24.43	24.44	24.44	24.44	24.43	24.43	24.42	24.40	24.39	24.36	24.34	24.32	24.30	24.27	24.25	24.22	24.22	24.22	24.21	24.19	24.18	24.34	24.44	24.18	
4	24.17	24.15	24.12	24.10	24.07	24.02	23.99	23.97	23.94	23.92	23.90	23.87	23.84	23.85	23.83	23.79	23.79	23.81	23.82	23.83	23.84	23.87	23.87	23.88	23.93	24.17	23.79	
5	23.90	23.91	23.93	23.94	23.96	23.99	24.02	24.04	24.06	24.08	24.10	24.12	24.15	24.17	24.19	24.22	24.25	24.28	24.30	24.32	24.36	24.38	24.40	24.42	24.15	24.42	23.90	
6	24.43	24.45	24.47	24.50	24.52	24.54	24.56	24.59	24.61	24.63	24.63	24.64	24.65	24.65	24.66	24.67	24.67	24.68	24.69	24.70	24.71	24.73	24.74	24.76	24.62	24.76	24.43	
7	24.77	24.78	24.78	24.78	24.78	24.79	24.79	24.79	24.80	24.79	24.78	24.77	24.77	24.75	24.74	24.72	24.72	24.71	24.70	24.68	24.68	24.68	24.66	24.65	24.74	24.80	24.65	
8	24.63	24.62	24.60	24.59	24.58	24.56	24.54	24.53	24.50	24.47	24.45	24.41	24.38	24.34	24.29	24.25	24.22	24.20	24.19	24.18	24.18	24.17	24.16	24.19	24.38	24.63	24.16	
9	24.22	24.22	24.23	24.24	24.25	24.24	24.24	24.25	24.22	24.23	24.22	24.22	24.21	24.20	24.20	24.19	24.18	24.19	24.19	24.19	24.20	24.20	24.20	24.19	24.21	24.25	24.18	
10	24.19	24.20	24.20	24.19	24.19	24.19	24.18	24.17	24.17	24.16	24.15	24.14	24.13	24.11	24.10	24.10	24.10	24.10	24.10	24.11	24.12	24.12	24.11	24.11	24.14	24.20	24.10	
11	24.10	24.10	24.09	24.09	24.08	24.08	24.07	24.04	24.02	24.01	24.00	23.98	23.97	23.96	23.95	23.95	23.95	23.95	23.95	23.96	23.96	23.97	23.97	23.97	24.01	24.10	23.95	
12	23.98	23.99	24.01	24.04	24.07	24.09	24.12	24.14	24.16	24.17	24.20	24.21	24.24	24.25	24.26	24.27	24.29	24.31	24.33	24.33	24.34	24.34	24.34	24.34	24.20	24.34	23.98	
13	24.34	24.34	24.33	24.32	24.32	24.33	24.34	24.35	24.36	24.36	24.35	24.35	24.35	24.35	24.35	24.36	24.36	24.36	24.36	24.37	24.37	24.37	24.36	24.34	24.35	24.37	24.32	
14	24.33	24.32	24.30	24.29	24.29	24.29	24.30	24.30	24.28	24.26	24.24	24.22	24.21	24.20	24.19	24.18	24.17	24.18	24.19	24.20	24.23	24.24	24.24	24.24	24.25	24.33	24.17	
15	24.23	24.23	24.24	24.25	24.25	24.26	24.28	24.29	24.29	24.30	24.30	24.30	24.30	24.31	24.33	24.34	24.34	24.34	24.35	24.36	24.38	24.40	24.41	24.41	24.31	24.41	24.23	
16	24.41	24.40	24.39	24.38	24.37	24.35	24.34	24.31	24.27	24.24	24.21	24.18	24.14	24.09	24.07	24.05	24.07	24.09	24.08	24.10	24.12	24.15	24.16	24.19	24.22	24.41	24.05	
17	24.22	24.24	24.27	24.30	24.33	24.36	24.38	24.40	24.43	24.45	24.48	24.49	24.50	24.50	24.51	24.52	24.53	24.52	24.54	24.54	24.57	24.58	24.58	24.59	24.45	24.59	24.22	
18	24.59	24.59	24.57	24.56	24.56	24.55	24.53	24.50	24.49	24.47	24.45	24.43	24.40	24.36	24.33	24.31	24.28	24.26	24.24	24.21	24.20	24.18	24.15	24.11	24.39	24.59	24.11	
19	24.07	24.03	23.99	23.97	23.96	23.96	23.98	24.02	24.04	24.06	24.06	24.06	24.07	24.07	24.06	24.06	24.06	24.07	24.08	24.09	24.10	24.10	24.10	24.11	24.05	24.11	23.96	
20	24.11	24.11	24.11	24.12	24.13	24.14	24.15	24.17	24.18	24.19	24.21	24.22	24.23	24.25	24.26	24.26	24.27	24.27	24.27	24.25	24.26	24.26	24.27	24.26	24.21	24.27	24.11	
21	24.26	24.24	24.21	24.21	24.21	24.19	24.18	24.19	24.20	24.21	24.22	24.22	24.22	24.21	24.20	24.20	24.20	24.21	24.22	24.24	24.24	24.22	24.21	24.21	24.21	24.21	24.26	24.18
22	24.20	24.20	24.20	24.20	24.20	24.19	24.19	24.19	24.19	24.19	24.18	24.19	24.20	24.20	24.21	24.22	24.25	24.26	24.27	24.28	24.28	24.29	24.30	24.30	24.22	24.30	24.18	
23	24.30	24.31	24.31	24.31	24.33	24.34	24.36	24.37	24.39	24.40	24.41	24.41	24.42	24.43	24.44	24.45	24.46	24.48	24.49	24.50	24.51	24.51	24.51	24.51	24.41	24.51	24.30	
24	24.52	24.51	24.52	24.53	24.54	24.54	24.55	24.57	24.58	24.58	24.58	24.59	24.58	24.58	24.57	24.57	24.57	24.57	24.56	24.56	24.57	24.57	24.56	24.56	24.56	24.59	24.51	
25	24.56	24.56	24.56	24.56	24.56	24.56	24.55	24.55	24.55	24.53	24.52	24.51	24.50	24.49	24.47	24.46	24.45	24.45	24.44	24.43	24.43	24.43	24.41	24.40	24.50	24.56	24.40	
26	24.40	24.39	24.39	24.37	24.36	24.34	24.35	24.35	24.32	24.30	24.27	24.25	24.23	24.22	24.21	24.21	24.22	24.26	24.27	24.30	24.32	24.33	24.34	24.36	24.31	24.40	24.21	
27	24.35	24.36	24.36	24.35	24.35	24.35	24.35	24.35	24.35	24.35	24.33	24.32	24.30	24.27	24.29	24.31	24.32	24.30	24.31	24.32	24.34	24.34	24.34	24.34	24.33	24.36	24.27	
28	24.34	24.34	24.33	24.33	24.33	24.32	24.32	24.31	24.30	24.30	24.27	24.25	24.23	24.21	24.19	24.17	24.16	24.16	24.16	24.15	24.15	24.16	24.16	24.16	24.24	24.34	24.15	
29	24.16	24.16	24.17	24.19	24.21	24.24	24.27	24.29	24.32	24.35	24.37	24.39	24.41	24.43	24.44	24.45	24.46	24.47	24.48	24.49	24.49	24.49	24.50	24.50	24.36	24.50	24.16	
30	24.51	24.51	24.51	24.51	24.50	24.50	24.49	24.49	24.47	24.46	24.44	24.43	24.41	24.39	24.38	24.37	24.37	24.36	24.36	24.36	24.37	24.37	24.36	24.36	24.43	24.51	24.36	
Avg	24.31	24.31	24.31	24.31	24.31	24.31	24.32	24.32	24.32	24.32	24.31	24.30	24.30	24.29	24.29	24.29	24.29	24.29	24.29	24.30	24.31	24.31	24.31	24.31	24.31	24.41	24.19	
Max	24.77	24.78	24.78	24.78	24.78	24.79	24.79	24.79	24.80	24.79	24.78	24.77	24.77	24.75	24.74	24.72	24.72	24.71	24.70	24.70	24.71	24.73	24.74	24.76	24.74	24.80	24.65	
Min	23.90	23.91	23.93	23.94	23.96	23.96	23.98	23.97	23.94	23.92	23.90	23.87	23.84	23.85	23.83	23.79	23.79	23.81	23.82	23.83	23.84	23.87	23.87	23.88	23.93	24.10	23.79	

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Barometric Pressure (inches of mercury)
May 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	24.36	24.36	24.36	24.35	24.35	24.35	24.36	24.36	24.37	24.37	24.37	24.37	24.37	24.37	24.38	24.38	24.39	24.39	24.39	24.40	24.41	24.41	24.40	24.39	24.38	24.41	24.35
2	24.39	24.37	24.36	24.34	24.33	24.33	24.32	24.32	24.31	24.29	24.27	24.25	24.23	24.22	24.21	24.19	24.18	24.18	24.18	24.19	24.20	24.21	24.20	24.20	24.26	24.39	24.18
3	24.20	24.20	24.21	24.21	24.21	24.22	24.24	24.25	24.27	24.29	24.30	24.32	24.32	24.33	24.33	24.34	24.35	24.36	24.37	24.39	24.39	24.41	24.41	24.41	24.31	24.41	24.20
4	24.42	24.42	24.43	24.43	24.44	24.44	24.45	24.46	24.46	24.45	24.44	24.43	24.42	24.42	24.42	24.41	24.41	24.40	24.40	24.41	24.41	24.41	24.41	24.40	24.42	24.46	24.40
5	24.39	24.38	24.37	24.36	24.36	24.36	24.36	24.36	24.33	24.32	24.30	24.27	24.25	24.23	24.19	24.17	24.15	24.13	24.14	24.15	24.15	24.14	24.13	24.13	24.25	24.39	24.13
6	24.16	24.19	24.18	24.19	24.19	24.20	24.20	24.19	24.19	24.19	24.18	24.17	24.16	24.15	24.14	24.12	24.10	24.08	24.07	24.07	24.05	24.04	24.04	24.04	24.14	24.20	24.04
7	24.00	23.98	23.98	23.98	23.96	23.97	23.99	24.01	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	23.98	24.01	23.96
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	24.03	24.03	24.02	24.03	24.04	24.04	24.06	24.07	24.09	24.11	24.12	24.15	24.18	24.20	24.21	24.23	24.10	24.23	24.02
10	24.23	24.24	24.25	24.25	24.27	24.28	24.31	24.33	24.34	24.34	24.34	24.34	24.35	24.35	24.36	24.36	24.37	24.39	24.41	24.43	24.45	24.47	24.47	24.46	24.35	24.47	24.23
11	24.46	24.47	24.48	24.48	24.49	24.49	24.47	24.48	24.47	24.45	24.44	24.42	24.41	24.40	24.39	24.40	24.44	24.43	24.41	24.41	24.40	24.42	24.41	24.40	24.44	24.49	24.39
12	24.38	24.38	24.37	24.37	24.37	24.38	24.38	24.38	24.39	24.39	24.40	24.40	24.41	24.42	24.42	24.40	24.38	24.37	24.38	24.39	24.39	24.39	24.38	24.36	24.39	24.42	24.36
13	24.35	24.34	24.33	24.32	24.32	24.31	24.31	24.32	24.32	24.31	24.33	24.34	24.34	24.33	24.33	24.33	24.35	24.35	24.36	24.38	24.40	24.42	24.43	24.44	24.35	24.44	24.31
14	24.43	24.42	24.43	24.43	24.42	24.42	24.43	24.43	24.45	24.45	24.45	24.44	24.42	24.42	24.43	24.43	24.45	24.46	24.47	24.48	24.51	24.53	24.54	24.55	24.45	24.55	24.42
15	24.55	24.56	24.55	24.55	24.55	24.56	24.57	24.57	24.56	24.56	24.55	24.54	24.52	24.51	24.50	24.49	24.48	24.46	24.44	24.42	24.41	24.40	24.39	24.37	24.50	24.57	24.37
16	24.40	24.40	24.42	24.40	24.41	24.42	24.42	24.42	24.41	24.40	24.40	24.39	24.37	24.35	24.35	24.34	24.35	24.35	24.36	24.37	24.38	24.38	24.39	24.40	24.39	24.42	24.34
17	24.41	24.42	24.42	24.43	24.43	24.44	24.45	24.46	24.46	24.46	24.46	24.45	24.45	24.44	24.44	24.44	24.43	24.43	24.43	24.45	24.46	24.47	24.48	24.49	24.45	24.49	24.41
18	24.50	24.50	24.50	24.51	24.51	24.50	24.50	24.49	24.48	24.46	24.43	24.40	24.37	24.34	24.31	24.29	24.27	24.24	24.21	24.19	24.19	24.19	24.19	24.17	24.36	24.51	24.17
19	24.16	24.15	24.14	24.12	24.10	24.10	24.10	24.10	24.09	24.08	24.07	24.07	24.07	24.08	24.09	24.08	24.09	24.12	24.13	24.14	24.15	24.16	24.18	24.21	24.12	24.21	24.07
20	24.23	24.25	24.26	24.28	24.29	24.31	24.34	24.36	24.38	24.40	24.41	24.42	24.43	24.44	24.45	24.46	24.47	24.48	24.48	24.50	24.51	24.52	24.52	24.52	24.40	24.52	24.23
21	24.53	24.54	24.55	24.55	24.56	24.56	24.57	24.58	24.58	24.58	24.59	24.59	24.59	24.60	24.60	24.60	24.59	24.59	24.59	24.58	24.59	24.60	24.59	24.58	24.58	24.60	24.53
22	24.58	24.57	24.57	24.56	24.55	24.54	24.54	24.55	24.55	24.54	24.54	24.53	24.53	24.52	24.51	24.51	24.51	24.51	24.51	24.52	24.53	24.53	24.53	24.52	24.54	24.58	24.51
23	24.52	24.51	24.51	24.51	24.51	24.51	24.52	24.52	24.51	24.49	24.49	24.48	24.48	24.47	24.46	24.45	24.45	24.44	24.43	24.43	24.42	24.43	24.42	24.41	24.47	24.52	24.41
24	24.40	24.40	24.40	24.40	24.39	24.39	24.41	24.42	24.42	24.42	24.42	24.41	24.41	24.41	24.41	24.41	24.40	24.41	24.41	24.41	24.42	24.42	24.42	24.41	24.41	24.42	24.39
25	24.40	24.40	24.39	24.39	24.38	24.39	24.39	24.40	24.40	24.40	24.40	24.41	24.40	24.39	24.38	24.38	24.37	24.37	24.37	24.38	24.40	24.41	24.41	24.41	24.39	24.41	24.37
26	24.42	24.42	24.42	24.42	24.42	24.44	24.45	24.45	24.45	24.45	24.45	24.44	24.43	24.42	24.41	24.39	24.38	24.37	24.35	24.35	24.35	24.36	24.35	24.33	24.41	24.45	24.33
27	24.31	24.30	24.30	24.28	24.28	24.32	24.30	24.30	24.31	24.32	24.32	24.32	24.32	24.31	24.30	24.29	24.28	24.27	24.25	24.25	24.25	24.26	24.25	24.23	24.29	24.32	24.23
28	24.22	24.22	24.21	24.20	24.21	24.20	24.20	24.18	24.17	24.16	24.15	24.14	24.14	24.13	24.13	24.11	24.09	24.09	24.10	24.10	24.10	24.11	24.10	24.09	24.15	24.22	24.09
29	24.08	24.07	24.06	24.06	24.05	24.05	24.05	24.06	24.06	24.06	24.08	24.09	24.09	24.10	24.11	24.12	24.13	24.14	24.16	24.18	24.19	24.21	24.21	24.21	24.11	24.21	24.05
30	24.20	24.19	24.21	24.21	24.22	24.24	24.27	24.29	24.31	24.33	24.34	24.36	24.37	24.37	24.39	24.40	24.41	24.42	24.44	24.45	24.46	24.47	24.48	24.50	24.35	24.50	24.19
31	24.49	24.49	24.51	24.52	24.53	24.55	24.56	24.58	24.59	24.60	24.60	24.60	24.60	24.59	24.59	24.59	24.59	24.59	24.60	24.60	24.61	24.61	24.61	24.60	24.58	24.61	24.49
Avg	24.35	24.35	24.35	24.35	24.35	24.35	24.36	24.37	24.37	24.37	24.36	24.36	24.35	24.35	24.35	24.34	24.34	24.34	24.34	24.35	24.36	24.36	24.36	24.36	24.35	24.41	24.27
Max	24.58	24.57	24.57	24.56	24.56	24.56	24.57	24.58	24.59	24.60	24.60	24.60	24.60	24.60	24.60	24.59	24.59	24.59	24.60	24.60	24.61	24.61	24.61	24.60	24.58	24.61	24.53
Min	24.00	23.98	23.98	23.98	23.96	23.97	23.99	24.01	24.03	24.03	24.02	24.03	24.04	24.04	24.06	24.07	24.09	24.08	24.07	24.07	24.05	24.04	24.04	24.04	23.98	24.01	23.96

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Barometric Pressure (inches of mercury)
June 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	24.59	24.59	24.58	24.59	24.59	24.59	24.59	24.60	24.60	24.59	24.60	24.59	24.58	24.58	24.58	24.56	24.55	24.54	24.53	24.54	24.54	24.55	24.55	24.55	24.57	24.60	24.53
2	24.55	24.54	24.54	24.53	24.53	24.54	24.54	24.54	24.55	24.54	24.54	24.53	24.52	24.52	24.50	24.48	24.47	24.46	24.45	24.45	24.45	24.44	24.44	24.42	24.50	24.55	24.42
3	24.41	24.40	24.39	24.38	24.38	24.38	24.38	24.36	24.36	24.34	24.34	24.33	24.32	24.32	24.33	24.31	24.30	24.29	24.29	24.31	24.31	24.31	24.31	24.32	24.34	24.41	24.29
4	24.32	24.31	24.30	24.30	24.30	24.31	24.31	24.31	24.31	24.30	24.29	24.29	24.27	24.25	24.24	24.26	24.24	24.25	24.25	24.26	24.25	24.26	24.26	24.27	24.28	24.32	24.24
5	24.26	24.27	24.26	24.26	24.26	24.27	24.28	24.28	24.27	24.26	24.26	24.26	24.26	24.26	24.29	24.30	24.29	24.29	24.28	24.28	Pw	Pw	Pw	Pw	24.27	24.30	24.26
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	24.48	24.48	24.48	24.47	24.47	24.47	24.45	24.44	24.44	24.43	24.44	24.44	24.44	24.44	24.44	24.45	24.48	24.43
10	24.43	24.41	24.40	24.40	24.40	24.41	24.41	24.41	24.41	24.41	24.40	24.40	24.39	24.38	24.38	24.40	24.41	24.41	24.43	24.42	24.42	24.43	24.43	24.42	24.41	24.43	24.38
11	24.41	24.39	24.38	24.37	24.37	24.36	24.36	24.36	24.35	24.35	24.35	24.36	24.37	24.37	24.35	24.36	24.35	24.34	24.35	24.35	24.35	24.34	24.34	24.33	24.36	24.41	24.33
12	24.32	24.31	24.30	24.30	24.30	24.30	24.31	24.28	24.27	24.25	24.25	24.23	24.21	24.20	24.20	24.19	24.19	24.17	24.17	24.15	24.13	24.14	24.14	24.11	24.23	24.32	24.11
13	24.11	24.11	24.09	24.10	24.11	24.12	24.12	24.12	24.13	24.13	24.15	24.18	24.19	24.19	24.19	24.19	24.20	24.20	24.22	24.22	24.23	24.25	24.25	24.24	24.17	24.25	24.09
14	24.22	24.21	24.20	24.19	24.19	24.19	24.19	24.19	24.18	24.18	24.19	24.18	24.18	24.19	24.21	24.22	24.23	24.23	24.24	24.26	24.27	24.28	24.28	24.27	24.22	24.28	24.18
15	24.27	24.26	24.26	24.26	24.28	24.29	24.30	24.31	24.31	24.33	24.34	24.34	24.36	24.37	24.39	24.40	24.42	24.43	24.44	24.45	24.46	24.47	24.48	24.48	24.36	24.48	24.26
16	24.48	24.48	24.48	24.48	24.48	24.49	24.50	24.50	24.48	24.47	24.47	24.46	24.44	24.42	24.40	24.39	24.37	24.36	24.34	24.35	24.36	24.37	24.37	24.36	24.43	24.50	24.34
17	24.35	24.32	24.30	24.29	24.28	24.28	24.28	24.26	24.25	24.25	24.26	24.25	24.23	24.21	24.20	24.19	24.18	24.17	24.17	24.18	24.19	24.20	24.19	24.18	24.24	24.35	24.17
18	24.19	24.20	24.20	24.20	24.21	24.22	24.23	24.25	24.26	24.26	24.25	24.25	24.24	24.24	24.23	24.24	24.25	24.25	24.27	24.29	24.33	24.32	24.33	24.32	24.25	24.33	24.19
19	24.33	24.32	24.32	24.33	24.34	24.35	24.35	24.37	24.37	24.36	24.36	24.36	24.36	24.36	24.37	24.35	24.34	24.33	24.38	24.39	24.42	24.42	24.42	24.43	24.36	24.43	24.32
20	24.41	24.42	24.41	24.41	24.42	24.42	24.44	24.45	24.46	24.47	24.46	24.47	24.48	24.49	24.49	24.49	24.49	24.50	24.51	24.52	24.54	24.56	24.58	24.59	24.48	24.59	24.41
21	24.60	24.62	24.63	24.64	24.66	24.68	24.70	24.72	24.72	24.73	24.73	24.73	24.72	24.72	24.71	24.69	24.68	24.67	24.67	24.67	24.67	24.67	24.67	24.66	24.68	24.73	24.60
22	24.65	24.63	24.62	24.62	24.61	24.61	24.62	24.62	24.61	24.60	24.58	24.56	24.55	24.53	24.51	24.50	24.47	24.46	24.45	24.45	24.45	24.47	24.47	24.47	24.55	24.65	24.45
23	24.47	24.46	24.44	24.43	24.43	24.44	24.44	24.42	24.41	24.40	24.38	24.36	24.35	24.35	24.34	24.34	24.34	24.34	24.36	24.38	24.40	24.42	24.42	24.42	24.40	24.47	24.34
24	24.41	24.41	24.41	24.42	24.43	24.43	24.44	24.44	24.45	24.45	24.45	24.46	24.47	24.49	24.52	24.54	24.58	24.60	24.64	24.67	24.69	24.71	24.70	24.71	24.52	24.71	24.41
25	24.71	24.72	24.74	24.74	24.75	24.76	24.77	24.79	24.80	24.80	24.80	24.80	24.79	24.79	24.78	24.78	24.78	24.77	24.78	24.78	24.79	24.80	24.81	24.80	24.78	24.81	24.71
26	24.80	24.79	24.79	24.78	24.78	24.78	24.79	24.79	24.78	24.76	24.75	24.74	24.73	24.71	24.70	24.69	24.67	24.66	24.66	24.66	24.67	24.68	24.68	24.68	24.73	24.80	24.66
27	24.67	24.67	24.67	24.68	24.68	24.69	24.70	24.70	24.70	24.68	24.67	24.67	24.66	24.65	24.64	24.62	24.61	24.60	24.59	24.60	24.61	24.62	24.62	24.62	24.65	24.70	24.59
28	24.61	24.61	24.61	24.60	24.60	24.60	24.60	24.59	24.58	24.56	24.56	24.54	24.52	24.51	24.48	24.47	24.47	24.44	24.44	24.45	24.43	24.44	24.44	24.44	24.52	24.61	24.43
29	24.44	24.44	24.45	24.45	24.44	24.46	24.46	24.47	24.47	24.47	24.47	24.47	24.47	24.46	24.45	24.45	24.45	24.44	24.46	24.48	24.49	24.52	24.54	24.55	24.47	24.55	24.44
30	24.56	24.56	24.56	24.56	24.58	24.59	24.60	24.60	24.60	24.60	24.60	24.60	24.59	24.59	24.58	24.58	24.58	24.57	24.57	24.58	24.59	24.60	24.60	24.60	24.58	24.60	24.56
Avg	24.44	24.44	24.44	24.43	24.44	24.44	24.45	24.45	24.45	24.45	24.44	24.44	24.43	24.43	24.43	24.42	24.42	24.41	24.42	24.43	24.44	24.45	24.45	24.45	24.44	24.51	24.38
Max	24.80	24.79	24.79	24.78	24.78	24.78	24.79	24.79	24.80	24.80	24.80	24.80	24.79	24.79	24.78	24.78	24.78	24.77	24.78	24.78	24.79	24.80	24.81	24.80	24.78	24.81	24.71
Min	24.11	24.11	24.09	24.10	24.11	24.12	24.12	24.12	24.13	24.13	24.15	24.18	24.18	24.19	24.19	24.19	24.18	24.17	24.17	24.15	24.13	24.14	24.14	24.11	24.17	24.25	24.09

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Relative Humidity (Percent)
April 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	76.7	79.5	79.6	80.7	82.1	82.5	83.1	73.4	64.9	59.2	55.5	52.1	49.0	46.9	43.9	42.4	40.2	42.9	45.8	55.9	61.9	65.6	73.7	76.2	63.1	83.1	40.2
2	78.9	80.8	81.0	81.1	80.6	81.3	80.3	73.5	67.6	39.7	30.9	29.6	37.2	63.0	64.1	56.4	44.1	73.2	72.9	65.5	58.2	59.8	58.9	61.0	63.3	81.3	29.6
3	64.3	68.6	71.3	76.6	79.3	81.0	80.0	69.0	55.8	46.2	34.9	29.6	22.5	20.7	22.9	23.8	23.9	24.2	29.3	39.4	36.5	39.4	51.5	60.2	48.0	81.0	20.7
4	66.2	68.4	71.2	72.1	74.4	75.6	50.3	36.0	36.4	37.8	42.2	41.5	43.1	66.2	82.0	61.8	72.1	80.6	76.2	62.9	49.8	62.4	54.1	57.6	60.0	82.0	36.0
5	66.0	71.4	65.7	68.7	62.3	57.3	56.4	56.8	54.5	52.1	50.1	46.3	40.7	37.4	36.5	37.4	35.9	36.0	40.3	45.4	52.6	57.4	56.2	55.7	51.6	71.4	35.9
6	57.1	59.6	59.7	61.1	61.9	62.4	64.6	61.4	53.7	47.7	42.3	39.1	41.1	37.5	33.2	31.0	30.0	31.6	33.4	39.0	47.9	55.4	59.6	66.0	49.0	66.0	30.0
7	71.2	73.1	76.8	78.1	78.5	78.1	74.1	65.7	51.3	40.9	34.4	30.3	26.9	24.3	22.3	20.3	20.2	21.2	27.3	40.9	49.2	58.5	68.3	69.3	50.0	78.5	20.2
8	73.9	75.5	75.5	77.8	77.4	78.0	75.8	63.7	37.0	Au	Au	Au	18.6	17.7	16.4	14.7	14.2	16.7	19.3	24.3	31.3	37.6	48.0	57.0	45.3	78.0	14.2
9	57.1	49.5	48.4	47.8	47.6	49.3	51.9	48.7	45.8	42.4	43.8	46.3	47.7	47.6	41.1	39.1	37.3	33.7	36.3	44.2	48.9	49.8	49.8	53.4	46.1	57.1	33.7
10	60.1	65.2	69.3	70.9	71.1	75.5	72.1	69.6	70.1	57.5	48.7	40.0	34.7	41.0	38.3	41.3	50.8	45.5	51.0	61.9	66.4	67.7	70.6	75.2	58.9	75.5	34.7
11	77.0	80.4	82.3	83.5	82.3	81.7	81.6	69.6	54.4	50.3	55.4	65.2	52.5	49.2	53.1	54.9	60.5	59.3	59.9	62.6	63.3	70.7	67.7	65.7	66.0	83.5	49.2
12	64.5	67.9	66.0	70.3	75.8	77.1	70.8	63.9	64.4	63.5	60.5	57.1	56.8	56.7	65.7	60.2	60.9	60.8	64.0	63.3	64.9	66.5	70.2	70.9	65.1	77.1	56.7
13	67.6	67.9	66.1	67.5	65.1	64.7	66.1	61.4	60.9	55.5	54.4	56.5	59.9	65.6	55.5	52.1	55.1	55.0	56.9	63.1	64.4	67.2	67.2	68.3	61.8	68.3	52.1
14	69.4	70.7	70.6	69.8	71.7	71.6	68.4	63.6	57.0	52.1	50.0	50.1	47.9	47.5	50.9	50.0	53.9	61.2	69.3	70.8	68.1	67.3	74.6	76.3	62.6	76.3	47.5
15	76.1	75.3	76.6	77.0	76.8	76.6	73.2	64.7	58.7	58.7	60.0	56.1	49.2	44.6	35.8	33.6	33.7	34.7	38.2	52.3	63.6	63.9	68.8	70.6	59.1	77.0	33.6
16	71.2	74.9	76.7	78.3	78.5	78.2	71.9	65.0	61.8	57.0	50.0	56.4	60.9	63.4	68.5	65.6	73.4	83.4	77.7	78.0	80.2	84.9	86.0	86.5	72.0	86.5	50.0
17	82.7	80.8	78.3	80.5	80.3	78.2	81.7	80.9	77.5	74.1	75.0	69.6	62.3	57.2	54.7	56.8	53.6	49.0	49.0	60.0	73.4	78.3	77.2	78.3	70.4	82.7	49.0
18	79.1	79.3	78.0	79.0	78.8	78.7	77.2	67.5	48.9	43.8	41.1	42.2	43.8	45.2	46.6	49.4	53.5	55.0	56.3	60.1	60.3	58.5	58.6	60.3	60.0	79.3	41.1
19	60.8	62.9	72.4	72.1	72.7	77.8	67.3	57.9	57.3	47.0	45.5	44.2	36.3	29.0	26.4	22.9	20.5	21.5	20.7	26.1	30.2	36.9	52.5	57.2	46.6	77.8	20.5
20	64.6	63.2	68.1	70.4	75.9	72.3	66.4	62.4	62.1	56.1	44.6	54.3	50.6	50.2	47.2	42.9	38.3	36.8	39.4	56.3	61.9	62.8	54.9	59.7	56.7	75.9	36.8
21	55.4	54.1	56.0	56.2	55.5	53.2	51.8	55.9	56.1	50.4	47.2	59.5	62.6	63.2	46.8	38.6	43.2	46.0	52.8	70.0	75.2	81.6	85.3	87.2	58.5	87.2	38.6
22	87.7	88.1	88.3	87.7	87.2	87.4	87.6	84.9	78.7	82.0	87.2	89.4	89.5	86.8	84.8	84.8	86.5	83.8	75.8	74.7	78.7	80.7	83.2	87.6	84.7	89.5	74.7
23	86.8	88.3	89.3	87.4	86.9	88.4	85.6	79.0	76.7	77.1	76.3	74.3	76.0	72.5	71.5	68.8	68.2	69.0	69.9	71.8	73.0	74.7	74.5	74.4	77.5	89.3	68.2
24	74.5	77.9	79.4	82.2	84.7	87.0	84.8	72.0	57.9	49.7	41.8	40.6	37.9	37.0	39.8	36.1	36.5	42.5	53.3	53.7	61.4	70.7	78.4	82.1	60.9	87.0	36.1
25	84.6	85.9	86.6	86.5	86.6	86.2	84.4	67.2	44.2	34.7	32.3	27.7	24.4	22.0	20.7	20.0	20.8	20.8	21.3	36.3	42.4	50.2	61.5	67.1	50.6	86.6	20.0
26	72.8	76.3	78.3	77.7	76.4	76.6	74.3	55.8	31.7	30.2	29.9	28.7	28.9	28.7	27.7	28.6	35.1	69.8	81.5	84.5	88.2	87.8	79.7	75.0	59.3	88.2	27.7
27	82.9	81.8	78.1	80.9	83.7	85.2	84.3	79.3	61.7	54.7	53.6	44.5	34.8	30.6	47.4	82.5	89.7	87.3	84.4	88.3	89.6	90.2	90.6	90.8	74.0	90.8	30.6
28	91.3	91.3	91.1	90.3	89.5	88.9	89.4	89.5	87.4	76.5	58.5	51.5	50.4	46.9	49.5	50.4	55.0	65.3	67.1	68.9	72.8	73.1	78.3	88.1	73.4	91.3	46.9
29	89.7	90.2	89.2	85.4	82.5	81.8	85.4	85.3	87.8	84.5	80.3	77.5	77.4	74.1	68.5	60.4	56.4	59.4	68.6	77.1	83.0	87.2	88.5	88.7	79.5	90.2	56.4
30	87.9	87.4	87.1	86.5	86.0	86.2	87.4	77.3	62.1	49.2	40.9	38.8	40.1	39.5	38.4	38.4	38.9	39.5	43.4	48.5	51.4	54.7	60.9	68.3	60.0	87.9	38.4
Avg	73.3	74.5	75.2	76.1	76.4	76.6	74.3	67.4	59.5	54.2	50.6	49.6	46.8	47.1	46.7	45.5	46.7	50.2	52.7	58.2	61.6	65.4	68.3	71.2	61.2	80.9	39.0
Max	91.3	91.3	91.1	90.3	89.5	88.9	89.4	89.5	87.8	84.5	87.2	89.4	89.5	86.8	84.8	84.8	89.7	87.3	84.4	88.3	89.6	90.2	90.6	90.8	84.7	91.3	74.7
Min	55.4	49.5	48.4	47.8	47.6	49.3	50.3	36.0	31.7	30.2	29.9	27.7	18.6	17.7	16.4	14.7	14.2	16.7	19.3	24.3	30.2	36.9	48.0	53.4	45.3	57.1	14.2

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Relative Humidity (Percent)
May 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	71.6	81.1	84.3	82.7	84.2	81.7	79.0	75.7	72.4	64.9	62.9	59.7	58.8	59.2	62.6	63.1	65.8	68.9	72.9	77.7	82.8	84.5	86.0	85.3	73.7	86.0	58.8
2	85.2	84.9	85.7	84.8	84.3	83.6	79.1	74.9	67.8	61.6	51.9	45.4	43.3	43.2	41.6	40.1	40.5	46.9	56.2	61.4	64.0	67.6	71.9	74.2	64.2	85.7	40.1
3	79.2	85.4	87.8	88.8	88.4	88.9	88.8	86.4	81.2	78.0	76.0	76.1	74.2	64.6	54.4	58.9	47.8	42.1	44.1	53.9	72.8	81.0	86.1	88.5	73.9	88.9	42.1
4	89.0	88.9	89.0	88.7	88.9	88.3	86.4	73.2	59.7	54.2	48.5	44.7	40.7	36.7	33.4	36.5	33.7	35.5	41.8	55.8	65.6	70.6	76.8	81.6	62.8	89.0	33.4
5	85.9	87.8	88.2	89.3	89.5	89.1	82.7	58.5	44.3	41.0	38.0	34.2	32.6	31.6	29.7	30.5	30.9	30.1	34.1	43.5	64.3	74.3	80.4	84.6	58.1	89.5	29.7
6	69.6	66.0	70.0	76.1	75.4	81.7	73.5	52.8	46.7	45.3	44.7	43.3	34.4	30.4	28.1	24.3	21.6	24.2	27.7	32.4	47.2	49.3	50.2	64.1	49.1	81.7	21.6
7	77.6	82.2	85.6	87.7	88.2	87.1	84.0	85.3	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	84.7	88.2	77.6
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	51.3	45.8	40.0	34.0	33.7	32.6	29.4	29.7	26.3	37.7	44.4	50.2	60.2	66.5	73.0	76.0	45.7	76.0	26.3
10	71.1	63.1	62.4	64.4	66.3	73.8	63.5	52.3	45.4	37.1	32.7	32.5	28.9	26.7	26.1	26.3	31.1	38.4	49.3	65.2	71.1	76.4	81.2	82.0	52.8	82.0	26.1
11	82.6	85.5	84.1	84.5	84.4	83.6	76.5	54.8	31.8	28.4	28.4	27.8	27.0	25.9	28.1	37.1	63.5	78.3	60.3	65.0	75.4	77.5	75.5	70.8	59.9	85.5	25.9
12	72.0	74.3	73.2	79.7	76.9	81.8	82.8	78.6	76.8	74.0	80.5	83.4	80.6	80.0	82.0	66.3	53.7	49.9	47.8	53.5	66.7	75.8	81.7	84.9	73.2	84.9	47.8
13	87.5	88.2	88.0	87.4	86.3	86.7	87.1	64.6	54.8	48.1	60.9	42.2	35.5	26.6	20.3	20.5	21.8	24.0	26.1	30.6	32.7	34.4	35.4	34.7	51.0	88.2	20.3
14	40.0	46.9	55.8	60.0	64.0	61.4	55.1	45.5	42.6	48.6	47.8	40.0	39.4	37.4	45.9	45.8	53.5	62.1	60.7	55.3	55.6	58.4	62.7	68.0	52.2	68.0	37.4
15	72.2	78.0	83.1	85.4	86.7	86.7	78.0	59.1	46.0	39.9	35.7	33.3	31.9	30.7	32.3	34.9	35.1	34.6	36.2	42.7	51.9	58.1	65.1	61.7	54.1	86.7	30.7
16	63.1	74.3	69.9	84.4	87.5	85.9	84.5	75.9	60.1	54.4	50.5	42.4	36.2	31.4	34.6	32.7	49.3	63.4	63.3	72.5	76.0	79.7	82.9	81.3	64.0	87.5	31.4
17	85.7	86.5	83.9	80.3	81.9	81.2	72.1	52.7	45.2	37.3	35.1	34.6	28.5	24.7	21.7	21.2	21.1	22.3	22.6	25.2	30.4	36.8	38.0	40.1	46.2	86.5	21.1
18	35.6	29.9	32.2	27.4	33.0	38.4	29.1	29.6	31.3	26.6	25.4	24.8	28.4	30.8	28.3	30.2	34.7	40.2	50.0	51.7	59.2	74.6	69.5	44.2	37.7	74.6	24.8
19	31.3	33.1	35.5	42.6	47.7	52.2	56.2	43.0	36.6	36.0	36.3	35.9	38.2	37.4	43.1	41.7	57.2	73.0	81.2	86.0	89.4	90.3	86.0	83.2	53.9	90.3	31.3
20	85.0	82.5	80.2	82.8	85.3	86.9	86.0	78.3	80.1	75.5	71.1	68.2	64.0	64.9	64.4	63.5	61.8	60.8	63.2	65.9	74.4	80.8	85.1	85.3	74.8	86.9	60.8
21	86.2	86.6	86.6	86.8	86.6	85.3	87.7	80.3	63.1	51.1	55.5	50.4	49.8	48.7	51.2	48.2	46.0	42.8	47.8	57.9	67.5	73.1	76.9	78.9	66.5	87.7	42.8
22	81.2	82.3	82.6	83.6	83.8	82.2	76.4	66.7	60.6	57.5	52.0	50.6	46.9	44.8	52.6	44.9	39.3	43.1	54.2	58.1	69.0	78.9	83.2	84.7	65.0	84.7	39.3
23	87.1	86.9	86.5	87.2	87.9	87.2	78.9	65.4	48.0	39.0	31.1	32.1	32.2	31.9	30.8	30.2	31.4	32.1	34.1	40.8	57.9	66.0	73.4	80.3	56.6	87.9	30.2
24	81.9	83.5	81.6	81.2	82.0	83.3	80.0	62.5	45.8	41.4	38.0	33.0	30.5	30.4	30.4	31.8	30.9	32.0	35.1	35.6	50.8	64.4	68.5	71.8	54.4	83.5	30.4
25	79.5	82.3	82.5	84.2	84.0	82.6	78.9	75.5	70.7	55.2	50.1	50.2	47.3	43.6	41.5	38.8	36.8	34.5	38.8	47.4	54.7	62.1	69.4	69.3	60.8	84.2	34.5
26	74.8	79.7	83.8	80.2	80.1	80.2	69.4	57.5	52.7	45.4	40.0	31.7	26.2	26.2	28.3	27.4	26.4	25.5	28.7	41.0	51.5	49.2	43.6	50.1	50.0	83.8	25.5
27	55.8	61.1	65.8	66.9	73.4	81.1	86.4	81.3	79.2	76.3	64.5	51.7	53.8	42.4	35.8	32.5	31.8	31.8	34.2	41.0	58.5	63.8	67.7	71.4	58.7	86.4	31.8
28	75.8	77.3	81.5	82.4	82.9	82.8	73.3	64.7	59.5	54.4	51.8	50.3	51.2	67.3	61.0	50.2	48.6	56.8	74.2	80.1	84.4	85.4	83.4	83.9	69.3	85.4	48.6
29	84.9	88.1	88.9	89.9	90.3	90.0	85.4	78.7	75.1	79.6	82.7	82.9	84.0	80.9	79.3	79.8	72.0	79.5	80.9	84.7	83.8	85.9	86.0	84.0	83.2	90.3	72.0
30	82.1	78.1	77.9	74.8	73.6	73.6	75.2	79.1	82.7	82.2	80.7	80.3	77.6	79.1	76.5	75.6	75.2	79.9	81.8	84.5	84.5	80.1	82.8	82.4	79.2	84.5	73.6
31	80.0	76.5	74.9	75.4	77.4	77.3	70.3	61.8	56.5	52.8	52.0	50.8	48.5	44.9	41.5	39.1	37.9	42.7	47.8	51.8	59.3	71.7	75.0	75.9	60.1	80.0	37.9
Avg	74.3	75.9	76.9	78.3	79.3	80.2	76.1	66.0	57.5	52.8	50.5	47.1	45.0	43.3	42.6	41.4	42.3	46.0	49.6	55.6	64.2	69.6	72.3	73.2	60.8	84.8	38.5
Max	89.0	88.9	89.0	89.9	90.3	90.0	88.8	86.4	82.7	82.2	82.7	83.4	84.0	80.9	82.0	79.8	75.2	79.9	81.8	86.0	89.4	90.3	86.1	88.5	84.7	90.3	77.6
Min	31.3	29.9	32.2	27.4	33.0	38.4	29.1	29.6	31.3	26.6	25.4	24.8	26.2	24.7	20.3	20.5	21.1	22.3	22.6	25.2	30.4	34.4	35.4	34.7	37.7	68.0	20.3

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Relative Humidity (Percent)
June 2022

Day	<< Hour >>																								Avg	Max	Min
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	76.8	78.8	84.0	81.4	79.9	82.1	77.5	66.2	58.4	56.6	54.7	50.4	53.9	54.7	44.5	41.5	40.3	40.6	40.9	48.4	59.6	69.8	74.1	77.8	62.2	84.0	40.3
2	77.3	76.8	80.8	78.5	74.2	71.0	69.7	60.5	37.3	33.3	32.3	33.0	34.7	33.5	32.2	33.0	33.4	35.1	39.0	43.5	50.3	59.4	57.0	57.0	51.4	80.8	32.2
3	61.2	63.6	74.0	73.8	79.1	79.5	78.5	78.8	59.3	52.5	51.5	50.7	46.6	62.8	80.8	64.1	54.5	57.1	65.4	76.5	83.4	84.9	86.3	88.4	68.9	88.4	46.6
4	89.6	90.0	90.0	91.5	92.0	92.5	91.6	73.5	59.7	53.7	48.5	39.7	36.3	32.7	46.8	69.0	65.3	81.6	87.7	86.9	88.2	89.6	90.6	90.8	74.1	92.5	32.7
5	90.1	90.2	89.9	91.1	91.8	92.3	92.4	75.5	66.9	59.8	55.4	51.2	50.3	63.1	81.6	86.3	82.2	79.9	77.9	83.7	Pw	Pw	Pw	Pw	77.6	92.4	50.3
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw			
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	57.3	50.0	40.4	32.3	27.3	28.0	26.6	26.5	26.7	28.2	34.9	47.7	56.7	63.2	66.5	71.6	42.7	71.6	26.5
10	79.4	80.4	79.4	82.5	83.3	83.5	79.9	65.8	51.2	51.4	48.3	49.4	47.9	45.2	46.0	52.7	54.6	57.5	66.4	72.0	83.9	87.3	89.3	89.8	67.8	89.8	45.2
11	88.9	88.6	90.4	91.0	92.0	92.1	85.4	82.3	77.1	72.5	68.5	81.8	79.4	79.9	80.4	75.2	70.8	66.3	78.5	81.0	86.5	87.5	88.0	89.1	82.2	92.1	66.3
12	89.1	89.3	89.9	90.9	91.5	91.8	89.1	80.7	67.9	62.2	62.9	59.2	59.0	75.5	79.9	76.0	71.4	79.8	79.8	81.3	80.1	85.0	87.4	86.7	79.4	91.8	59.0
13	87.5	87.9	88.6	90.0	89.9	90.4	88.6	84.4	82.7	81.0	81.1	77.7	76.8	69.7	60.6	48.0	41.2	38.6	42.2	40.7	47.3	52.4	56.0	59.0	69.3	90.4	38.6
14	60.0	58.9	57.1	61.7	65.6	70.1	76.2	68.2	66.5	67.7	69.8	64.1	57.0	53.4	58.1	64.7	66.0	63.5	65.0	75.5	83.2	82.9	84.3	82.9	67.6	84.3	53.4
15	83.7	80.7	80.9	79.6	78.4	79.9	79.6	76.9	72.4	69.3	64.0	60.0	55.1	51.7	49.1	45.9	45.9	43.2	43.5	48.4	63.9	75.5	82.3	85.3	66.5	85.3	43.2
16	86.1	87.7	88.4	88.6	89.9	87.8	78.5	57.7	41.0	Au	Au	Au	Au	36.3	33.0	30.2	30.9	31.3	34.5	36.8	42.4	48.4	51.5	54.3	56.8	89.9	30.2
17	60.1	65.6	67.1	73.3	72.2	70.8	61.2	37.9	29.6	24.4	21.7	21.1	22.5	21.3	21.2	17.4	19.0	18.7	21.6	31.7	36.2	49.3	52.4	47.6	40.2	73.3	17.4
18	64.1	76.7	82.9	86.2	87.8	86.7	84.9	69.5	62.3	46.4	26.9	26.6	20.5	18.4	14.4	14.0	16.4	19.3	26.4	51.8	59.5	57.5	70.0	75.5	51.9	87.8	14.0
19	80.9	83.1	86.2	89.0	90.5	90.2	83.0	76.3	73.8	66.7	64.4	68.4	73.3	72.3	71.1	69.6	65.6	64.3	83.5	89.0	88.8	86.9	88.5	90.4	79.0	90.5	64.3
20	91.2	91.6	91.3	91.1	91.0	88.3	84.9	82.7	80.9	79.2	75.6	74.7	77.1	78.3	73.8	72.7	75.7	79.0	83.9	86.8	87.3	87.8	86.6	86.2	83.2	91.6	72.7
21	86.7	87.6	89.0	89.8	90.1	89.5	84.3	77.8	73.5	66.6	61.9	56.4	53.2	52.1	49.0	44.5	42.4	41.5	39.9	47.1	65.6	79.9	83.1	84.3	68.2	90.1	39.9
22	89.1	90.6	91.1	91.2	91.5	89.8	79.8	64.5	45.0	38.7	35.1	32.5	31.4	31.7	31.7	30.3	28.7	28.3	30.7	44.3	56.7	64.1	66.7	79.3	56.8	91.5	28.3
23	84.1	85.4	88.3	89.7	90.1	86.9	76.2	64.5	40.9	35.1	30.3	27.6	25.4	27.3	29.5	33.0	36.3	37.1	34.0	34.0	38.7	47.7	56.1	66.8	52.7	90.1	25.4
24	76.4	81.5	85.2	78.3	80.4	79.4	73.7	68.3	55.8	39.1	30.5	30.7	30.4	33.9	43.1	56.0	63.1	58.7	70.5	71.6	77.3	77.4	76.8	77.8	63.2	85.2	30.4
25	78.8	81.8	82.7	85.4	87.6	89.2	88.2	75.5	60.3	52.6	51.1	47.4	42.3	40.4	37.4	38.0	34.5	35.2	37.1	43.2	56.0	69.5	76.7	76.6	61.1	89.2	34.5
26	80.9	83.1	84.9	85.4	85.8	83.2	74.1	54.9	39.2	33.4	32.5	31.9	28.8	27.3	24.3	23.9	20.8	22.2	20.7	37.0	52.9	57.9	72.4	73.7	51.3	85.8	20.7
27	75.8	83.0	85.7	86.5	87.4	81.2	70.1	55.5	43.1	26.4	27.2	23.6	21.6	22.5	22.6	20.7	18.9	20.6	27.5	37.6	51.1	62.7	65.9	70.3	49.5	87.4	18.9
28	75.8	78.8	80.3	84.9	86.7	82.0	70.5	55.5	35.9	29.0	32.2	32.3	22.0	24.1	23.3	28.3	39.3	38.9	47.2	57.2	59.2	68.5	73.8	79.7	54.4	86.7	22.0
29	86.4	81.0	85.7	87.1	89.8	89.6	80.7	59.1	38.4	33.7	28.1	22.5	22.5	23.8	24.6	24.3	21.8	21.1	28.0	32.8	35.4	37.6	44.9	51.2	47.9	89.8	21.1
30	59.1	65.6	74.3	80.0	81.5	78.9	67.6	52.0	40.2	37.0	36.0	35.0	33.0	31.5	33.2	32.7	33.5	33.4	38.0	47.3	53.6	60.3	70.6	78.0	52.2	81.5	31.5
Avg	79.2	81.1	83.4	84.6	85.4	84.6	79.5	67.9	56.2	50.7	47.3	45.4	43.4	44.1	45.1	45.1	44.4	45.2	49.8	56.8	63.2	69.0	73.0	75.8	62.3	87.2	37.2
Max	91.2	91.6	91.3	91.5	92.0	92.5	92.4	84.4	82.7	81.0	81.1	81.8	79.4	79.9	81.6	86.3	82.2	81.6	87.7	89.0	88.8	89.6	90.6	90.8	83.2	92.5	72.7
Min	59.1	58.9	57.1	61.7	65.6	70.1	61.2	37.9	29.6	24.4	21.7	21.1	20.5	18.4	14.4	14.0	16.4	18.7	20.7	31.7	35.4	37.6	44.9	47.6	40.2	71.6	14.0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Precipitation (Inches)
April 2022

	<< Hour >>																									
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Tot	Max
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.04
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Au	Au	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	0.01	0.01	0.08	0.05
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.05	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.05
23	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.05	0.00	0.00	0.00	0.00	0.08	0.05
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.11
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.09	0.05	0.05
29	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot	0.04	0.00	0.01	0.00	0.00	0.01	0.00	0.02	0.01	0.01	0.06	0.05	0.04	0.02	0.00	0.03	0.15	0.07	0.02	0.05	0.00	0.01	0.05	0.06	0.71	0.00
Max	0.03	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.05	0.05	0.04	0.01	0.00	0.03	0.11	0.05	0.02	0.05	0.00	0.01	0.04	0.05	0.16	0.11

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Precipitation (Inches)
May 2022

	<< Hour >>																									
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Tot	Max
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.04	0.04	0.00	0.01	0.00	0.02	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	0.11	0.04
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw		
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
12	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.02	0.01
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.01	0.00	0.11	0.06
20	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.08
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.05	0.05	0.01	0.00	0.00	0.01	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.27	0.11
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.04	0.00	0.01	0.03	0.17	0.04
31	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Tot	0.00	0.01	0.04	0.05	0.02	0.11	0.07	0.04	0.01	0.13	0.05	0.07	0.03	0.00	0.01	0.01	0.04	0.06	0.03	0.02	0.08	0.07	0.03	0.03	1.01	0.00
Max	0.00	0.01	0.04	0.04	0.01	0.08	0.07	0.02	0.01	0.11	0.05	0.05	0.01	0.00	0.01	0.01	0.02	0.04	0.02	0.01	0.04	0.06	0.01	0.03	0.27	0.11

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Precipitation (Inches)
June 2022

	<< Hour >>																									
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Tot	Max
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.04
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.16	0.06	0.06	0.01	0.00	0.00	0.00	0.30	0.16
5	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.06	0.00	0.00	0.00	0.00	Pw	Pw	Pw	Pw	0.13	0.06
6	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw		
7	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw		
8	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw		
9	Pw	Pw	Pw	Pw	Pw	Pw	Pw	Pw	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.06	0.01	0.01	0.03	0.14	0.06
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.06
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.03
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.04	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.06
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.03	0.02	0.01	0.11	0.04
15	0.02	0.00	0.02	0.00	0.01	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.03
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Au	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.02	0.04	0.00	0.00	0.33	0.17
20	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.01	0.03	0.03	0.09	0.11	0.15	0.14	0.11	0.71	0.15
21	0.09	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.09
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot	0.11	0.06	0.03	0.01	0.01	0.04	0.01	0.09	0.02	0.06	0.06	0.15	0.07	0.14	0.10	0.08	0.01	0.19	0.28	0.24	0.24	0.23	0.18	0.17	2.58	0.00
Max	0.09	0.06	0.02	0.01	0.01	0.03	0.01	0.08	0.02	0.06	0.04	0.06	0.03	0.04	0.04	0.06	0.01	0.16	0.17	0.09	0.11	0.15	0.14	0.11	0.71	0.17

APPENDIX B: PERFORMANCE AUDIT REPORTS
SECOND QUARTER 2022



Preliminary Meteorological Parameters Audit Form

PRECEDING CALIBRATION BY: Steve Heck

Audit Device: Control Company - digital thermometer Model 4000
 Meter S/N: 140251289 Temperature Sensor: Climatronics 100093
 Last certified: 7/30/2021 S/N X17929 (Upper), S/N X17927 (Lower) - Matched Set

	9m	9m	2m	2m	9m - 2m
Audit Value	DAS Value	DAS Diff.	DAS Value	DAS Diff.	DAS Diff.
°C	°C	°C	°C	°C	°C
0.00	0.16	0.16	0.16	0.16	0.00
20.00	19.99	-0.01	19.99	-0.01	0.00
25.64	25.66	0.02	25.66	0.02	0.00

[illegible]

Wind Direction continued:

Sensor response aligned with crossarm (as found): 178.6 deg
Sensor response aligned with crossarm (as left): 90.1 deg (Crossarm was changed and as-left crossarm was oriented E-W instead of N-S)
Linearity Audit Device: Climatronics 101966, SN 72
As-found Threshold Torque: 4 g-cm CW, 4.1 g-cm CCW
As-left Threshold Torque: 4 g-cm CW, 4 g-cm CCW
(Gram-centimeter Torque Disk)

Wind Speed

Sensor height:: 9 Meter
Sensor (Make/model number): Climatronics/ 102083
Serial Number : No S/N
Calibration device: RM Young Model 18811 S/N CA02929

As-found Threshold Torque: 0.6 g-cm CW, 0.3 g-cm CCW
As-left Threshold Torque: 0.2 g-cm CW, 0.2 g-cm CCW
(Gram-centimeter Torque Disk)

As-found Synchronous motor checks

Known Value	Known Value	DAS Value	DAS Diff.	Known Value	Known Value	DAS Value	DAS Diff.
RPM	m/s	m/s	m/s	RPM	m/s	m/s	m/s
0	0.22	0.22	0.00	0	0.22	0.22	0.00
300	6.66	6.61	-0.05	300	6.66	6.66	0.00
600	13.09	13.02	-0.07	600	13.09	13.10	0.01

As-left Synchronous motor checks

Solar Radiation

Audit Device: Met One Instruments Solar Radiation Pyranometer 096-1 S/N Y82228

Time (MST)	CTS Value (W/m ²)	Site Value (W/m ²)	Diff. (%)	Diff. (% FS)
N/A	981	949	-3.3	-2.5
N/A	987	951	-3.7	-2.8
N/A	994	965	-2.9	-2.2

Relative Humidity

Site Sensor: Met One 083E-0-35
Sensor Height: 2 meters
Reference Std: Wet Bulb, Dry Bulb Thermometer

Ref Dry-Bulb: 62.0 deg F BP = 24.39 in. Hg
Ref Wet-Bulb: 50.0 deg F
Ref RH: 45.3 %RH
CC Digital: 37.2 %RH
Station RH: 41.6 %RH
Diff: -3.7 %RH

Barometric Pressure

Audit Device: BGI/Mesa Labs Delta Cal, S/N 999.
NIST-Traceable Certification 9/2/2021

Audit Value: 24.39 in Hg
Station Value: 24.45 in Hg
Diff: 0.06 in Hg

Precipitation

Rain Gauge = Met One Model 375D, Serial No. X15682

Level checked OK

Wind Screen in place

8" opening

250 ml water added

Calibration is 8.24 ml per tip

Known audit value is $250 / 8.24 = 30.3$ tips (so 30 full tips expected)

Unit registered 32 tips

% difference from expected = +6.7%

Precip audit conducted during hours ending at 1200 & 1300 MDT. No natural precipitation during audit.

Signature Site Operator : _____

Signature Auditor : _____