

**SANDFIRE RESOURCES AMERICA, INC.
BLACK BUTTE COPPER PROJECT
METEOROLOGICAL
MONITORING PROGRAM
Quarterly Data Report
Fourth Quarter 2023**

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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 *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
Appendix B: Performance Audit Reports

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 meteorological data collected during the fourth quarter (October through December) of 2023. 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 was used for hydrological / water balance studies. The manual rain gauge was installed to provide a backup data source for the automatic rain gauge, which experienced occasional mechanical problems around that time. Neither the evaporation pan nor manual rain gauge were operated during the fourth quarter of 2023. While the automatic rain gauge includes an AC-powered heater for accurate measurement of frozen precipitation, the AC power to the station became unreliable starting in 2022. Therefore, precipitation data collected from 2022 forward is unreliable during periods of frozen precipitation.

Figure 1. Monitoring Site Location

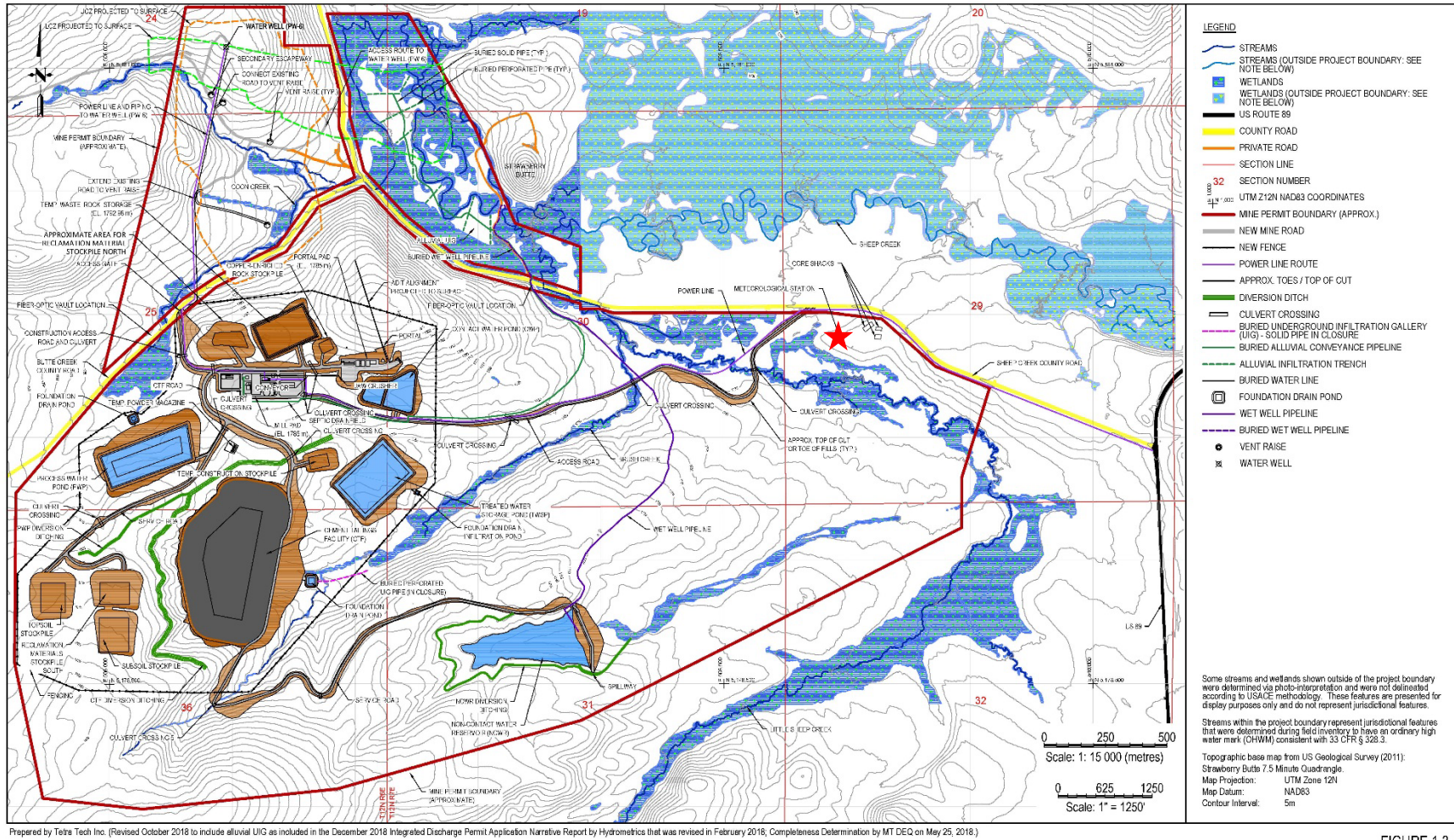


FIGURE 1.3
Facilities Site Plan
Black Butte Copper Project
Mine Operating Permit Application
Meagher County, Montana



2.0 MONITORING SYSTEM OPERATIONS

Monitoring activities continued in the normal manner during the fourth quarter of 2023. All instruments were operational throughout the quarter. Data would typically be downloaded and inspected by Bison once per week, but the station lost radio capabilities and the ability to remotely download data during the summer of 2022. Therefore, Bison did not download the entirety of the meteorological data for the fourth quarter of 2023 until a calibration/repair trip on January 5, 2024. Remote communications were restored at that time.

Daniel Bitz and Steve Heck of Bison conducted performance audits of the meteorological system on December 6, 2023. All audit results were satisfactory, except that the wind direction threshold torque of 0.21 oz.-in. exceeded the performance limit of 0.15 oz.-in. Therefore, the wind sensors crossarm was replaced on January 5, 2024. Results of both the December 6 and January 5 audit/calibration results are provided in Appendix B. No calibration adjustments were made to any of the other instrumentation during either site visit.

3.0 PERFORMANCE AUDIT DATA

Daniel Bitz and Steve Heck of Bison conducted performance audits of the meteorological system on December 6, 2023. No calibration adjustments were made to any of the instrumentation at that time. However, the wind direction threshold torque of 0.21 oz.-in. was above the specification of 0.15 oz.-in. Therefore, the wind sensors crossarm was replaced on January 5, 2024.

All other December 6 audit results were satisfactory. Results are presented in Appendix B.

4.0 CALIBRATION DATA

Daniel Bitz and Steve Heck of Bison conducted performance audits of the meteorological system on December 6, 2023, as discussed in Section 3.0. Because of high wind direction sensor threshold torque results, the wind sensors crossarm was replaced with a refurbished unit that was installed and calibrated on January 5, 2024. Results are presented in Appendix B.

5.0 DATA COMPLETENESS

The meteorological percentages of data recovery achieved during the fourth quarter of 2023 are given in Tables 1 through 4. In these tables, the number of possible data values during each month 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 100 percent overall among all parameters. All instruments were operational throughout the quarter.

Table 1. Monthly Data Completeness

October 2023					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	744	743	99.9	0	99.9
Wind Direction	744	743	99.9	0	99.9
Standard Deviation	744	743	99.9	0	99.9
9-Meter Temperature	744	744	100.0	0	100.0
2-Meter Temperature	744	744	100.0	0	100.0
9-2 M Delta Temperature	744	744	100.0	0	100.0
Solar Radiation	744	744	100.0	0	100.0
Barometric Pressure	744	744	100.0	0	100.0
Relative Humidity	744	744	100.0	0	100.0
Precipitation	744	744	100.0	0	100.0
Total	7,440	7,437	100.0	0	100.0

Table 2. Monthly Data Completeness

November 2023					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	720	720	100.0	0	100.0
Wind Direction	720	720	100.0	0	100.0
Standard Deviation	720	720	100.0	0	100.0
9-Meter Temperature	720	720	100.0	0	100.0
2-Meter Temperature	720	720	100.0	0	100.0
9-2 M Delta Temperature	720	720	100.0	0	100.0
Solar Radiation	720	720	100.0	0	100.0
Barometric Pressure	720	720	100.0	0	100.0
Relative Humidity	720	720	100.0	0	100.0
Precipitation	720	720	100.0	0	100.0
Total	7,200	7,200	100.0	0	100.0

Table 3. Monthly Data Completeness

December 2023					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	744	742	99.7	2	100.0
Wind Direction	744	742	99.7	2	100.0
Standard Deviation	744	742	99.7	2	100.0
9-Meter Temperature	744	742	99.7	2	100.0
2-Meter Temperature	744	742	99.7	2	100.0
9-2 M Delta Temperature	744	742	99.7	2	100.0
Solar Radiation	744	742	99.7	2	100.0
Barometric Pressure	744	742	99.7	2	100.0
Relative Humidity	744	742	99.7	2	100.0
Precipitation	744	742	99.7	2	100.0
Total	7,440	7,420	99.7	20	100.0

Table 4. Fourth Quarter Data Completeness

Fourth Quarter 2023					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	2,208	2,205	99.9	2	100.0
Wind Direction	2,208	2,205	99.9	2	100.0
Standard Deviation	2,208	2,205	99.9	2	100.0
9-Meter Temperature	2,208	2,206	99.9	2	100.0
2-Meter Temperature	2,208	2,206	99.9	2	100.0
9-2 M Delta Temperature	2,208	2,206	99.9	2	100.0
Solar Radiation	2,208	2,206	99.9	2	100.0
Barometric Pressure	2,208	2,206	99.9	2	100.0
Relative Humidity	2,208	2,206	99.9	2	100.0
Precipitation	2,208	2,206	99.9	2	100.0
Total	22,080	22,057	99.9	20	100.0

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 was missing. These codes are given in Table 5.

Monthly and quarterly wind rose distributions from the monitoring site are presented in Tables 6 through 9. 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 and 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 5. 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
Vo	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 6. October Wind Rose Summary, Black Butte Copper Project Met Tower

October 2023																		
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	0.8	0.4	0.8	2.6	2.6	5.1	2.7	1.9	0.3	0.4	0.3	0.4	0.5	0.4	0.9	21.0
	1.1 - 2.0	0.5	0.4	0.9	2.2	3.6	6.3	5.2	2.3	1.1	0.8	0.7	0.5	0.9	2.4	1.7	0.3	30.0
	2.1 - 3.0	0.0	0.0	0.3	0.8	2.6	1.2	1.3	1.5	0.3	0.0	0.5	1.2	3.8	2.6	1.2	1.3	18.6
	3.1 - 4.0	0.4	0.0	0.0	0.3	0.4	0.0	0.4	1.3	0.4	0.4	0.4	0.8	2.4	2.4	1.9	1.2	12.8
	4.1 - 5.0	0.5	0.0	0.0	0.1	0.0	0.0	0.3	1.1	0.0	0.3	0.5	0.7	2.0	0.7	0.8	0.7	7.7
	5.1 - 6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.3	0.3	0.0	0.5	1.1	0.5	0.8	0.1	4.8
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.0	0.4	0.5	0.4	0.3	0.1	2.4
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.1	0.0	1.1
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.7
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3
	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	0.1	0.1	0.0	0.0	0.3
	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	0.0	0.1	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	0.0	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		2.4	1.2	1.6	4.2	9.2	10.1	12.7	10.4	4.0	2.2	2.6	4.6	12.7	10.4	7.3	4.7	100.0
Average Speed		2.2	1.0	1.3	1.8	1.7	1.5	1.6	2.6	1.9	3.1	2.5	3.7	4.1	3.5	3.3	2.9	2.6

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

November 2023																		
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	0.8	0.8	1.1	1.9	2.5	3.1	1.9	0.1	0.1	0.4	0.3	1.0	0.1	0.4	0.4	15.8
	1.1 - 2.0	1.3	0.7	1.8	3.8	3.9	6.8	6.3	4.0	1.3	0.6	0.7	1.0	1.1	0.6	1.3	0.3	35.1
	2.1 - 3.0	0.0	0.0	0.6	1.3	1.9	1.8	1.0	1.1	0.7	1.0	0.1	0.8	1.7	1.4	0.6	0.3	14.2
	3.1 - 4.0	0.3	0.0	0.0	0.4	0.7	0.4	0.6	1.3	0.4	0.3	0.0	0.8	2.4	3.2	0.8	0.1	11.7
	4.1 - 5.0	0.1	0.0	0.0	0.3	0.1	0.1	0.0	0.0	0.8	0.3	0.4	0.7	2.2	2.8	0.3	0.1	8.3
	5.1 - 6.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.6	1.3	2.5	0.7	0.1	0.0	5.7
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.8	2.1	0.6	0.0	0.0	4.2
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	2.4	0.1	0.0	0.0	3.2
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	0.0	0.0	0.0	1.0
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
	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	0.1	0.1	0.0	0.0	0.3
	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	0.0	0.0	0.0	0.0	0.0
	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		2.4	1.5	3.2	6.9	8.6	11.7	10.8	8.3	3.3	3.1	4.0	5.7	16.1	9.6	3.5	1.3	100.0
Average Speed		1.6	1.0	1.4	1.9	1.8	1.6	1.5	1.7	2.6	3.6	5.4	3.9	4.9	4.0	2.4	2.1	2.8

Table 8. December Wind Rose Summary, Black Butte Copper Project Met Tower

December 2023																		
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	1.6	1.8	1.5	1.6	2.2	4.3	5.0	3.2	1.3	0.5	0.4	0.1	0.9	1.1	0.9	1.8	28.3
	1.1 - 2.0	1.2	1.3	1.1	3.1	3.8	5.9	8.2	3.6	1.1	0.1	0.5	0.5	1.1	1.2	0.8	0.7	34.4
	2.1 - 3.0	0.1	0.1	0.1	1.5	1.9	0.8	1.5	0.7	1.1	0.1	0.3	0.9	1.3	0.8	0.8	0.1	12.3
	3.1 - 4.0	0.0	0.1	0.0	0.3	0.3	0.1	0.3	0.9	0.7	0.3	0.4	1.2	3.4	0.8	0.1	0.0	8.9
	4.1 - 5.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.4	0.5	0.1	0.3	1.6	1.1	0.1	0.1	5.0
	5.1 - 6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.4	0.5	0.8	1.8	0.9	0.4	0.0	5.5
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.3	1.6	0.1	0.3	0.0	2.7
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.7	0.3	0.0	0.0	1.2
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.4
	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	0.4	0.3	0.0	0.0	0.8
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4
	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	0.1	0.0	0.0	0.0	0.1
	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	0.0	0.0	0.0	0.0	0.0
	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		3.0	3.4	2.7	6.5	8.1	11.3	15.1	9.6	5.0	2.0	2.7	4.3	13.3	6.9	3.5	2.7	100.0
Average Speed		1.2	1.2	1.2	1.6	1.6	1.4	1.4	1.9	2.5	3.2	3.8	3.7	4.4	3.7	2.6	1.2	2.3

Table 9. Q4 Wind Rose Summary, Black Butte Copper Project Met Tower

Fourth Quarter 2023																		
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	1.1	1.1	0.9	1.2	2.2	3.1	4.4	2.6	1.1	0.3	0.4	0.2	0.8	0.6	0.6	1.0	21.8
	1.1 - 2.0	1.0	0.8	1.3	3.0	3.8	6.3	6.6	3.3	1.1	0.5	0.6	0.7	1.0	1.4	1.3	0.4	33.2
	2.1 - 3.0	0.0	0.0	0.3	1.2	2.1	1.3	1.3	1.1	0.7	0.4	0.3	1.0	2.3	1.6	0.9	0.6	15.0
	3.1 - 4.0	0.2	0.0	0.0	0.3	0.5	0.2	0.4	1.2	0.5	0.3	0.3	1.0	2.7	2.1	1.0	0.5	11.1
	4.1 - 5.0	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.5	0.4	0.4	0.4	0.5	2.0	1.5	0.4	0.3	7.0
	5.1 - 6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.4	0.4	0.9	1.8	0.7	0.5	0.0	5.4
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.1	0.5	1.4	0.4	0.2	0.0	3.1
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.2	0.2	0.0	0.0	1.8
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.1	0.0	0.0	0.7
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.4
	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	0.0	0.1	0.1	0.0	0.0	0.3
	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	0.1	0.1	0.0	0.0	0.2
	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	0.0	0.0	0.0	0.0	0.0
	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		2.6	2.0	2.5	5.9	8.6	11.0	12.9	9.4	4.1	2.4	3.1	4.9	14.0	8.9	4.8	2.9	100.0
Average Speed		1.6	1.1	1.3	1.8	1.7	1.5	1.5	2.1	2.3	3.3	4.1	3.8	4.5	3.7	2.9	2.2	2.5

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

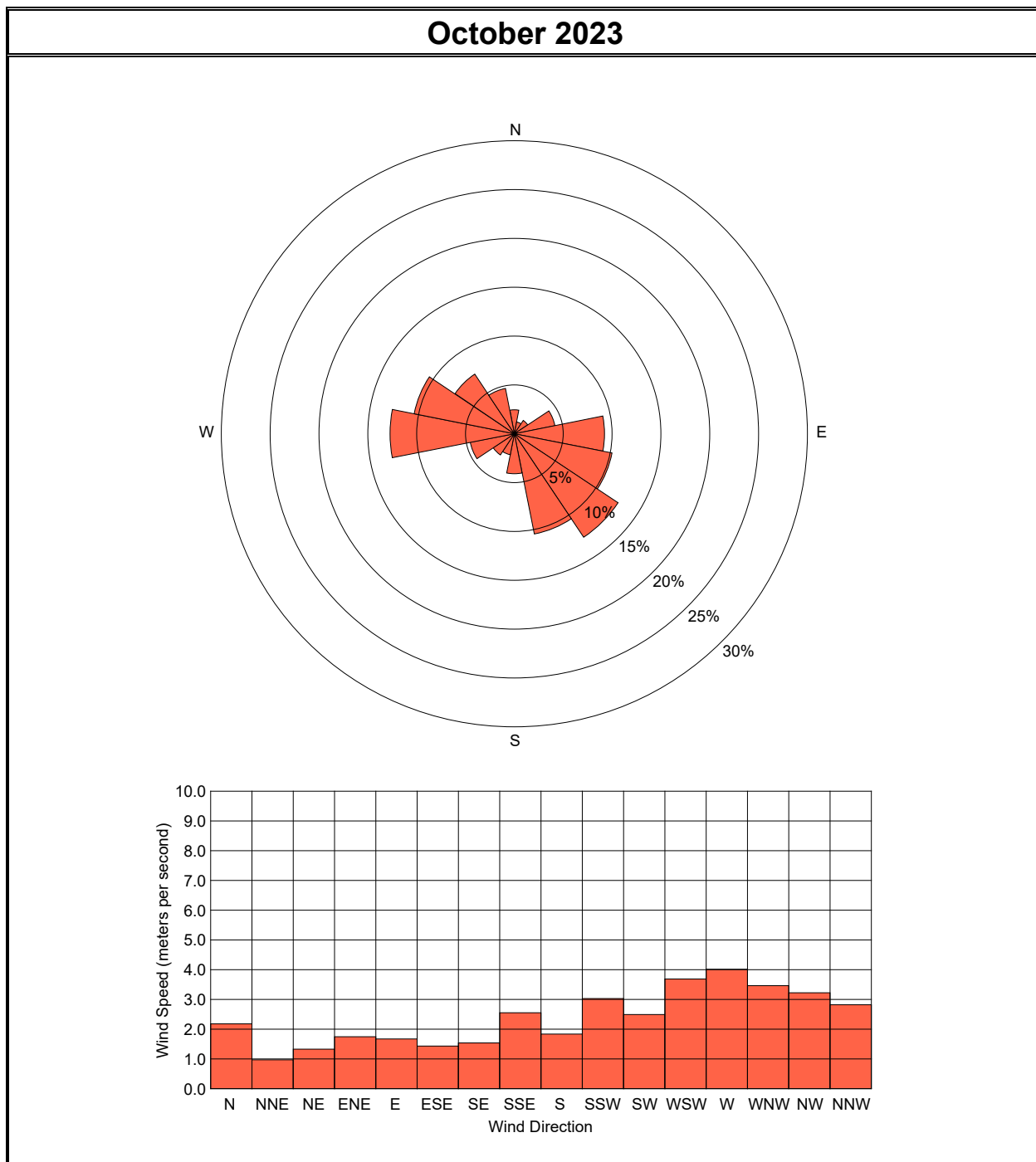


Figure 3. November Wind Rose, Black Butte Copper Project Met Tower

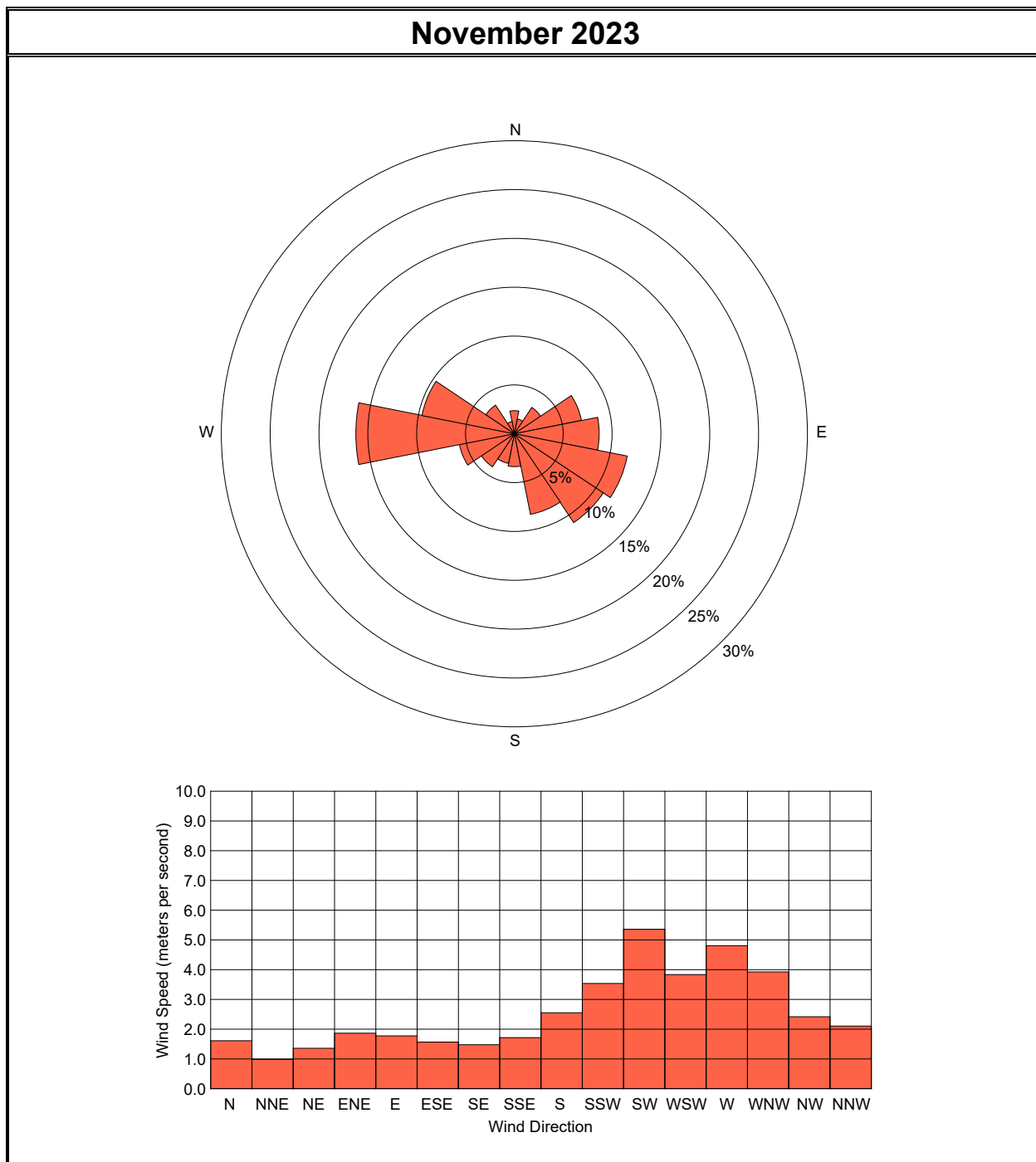


Figure 4. December Wind Rose, Black Butte Copper Project Met Tower

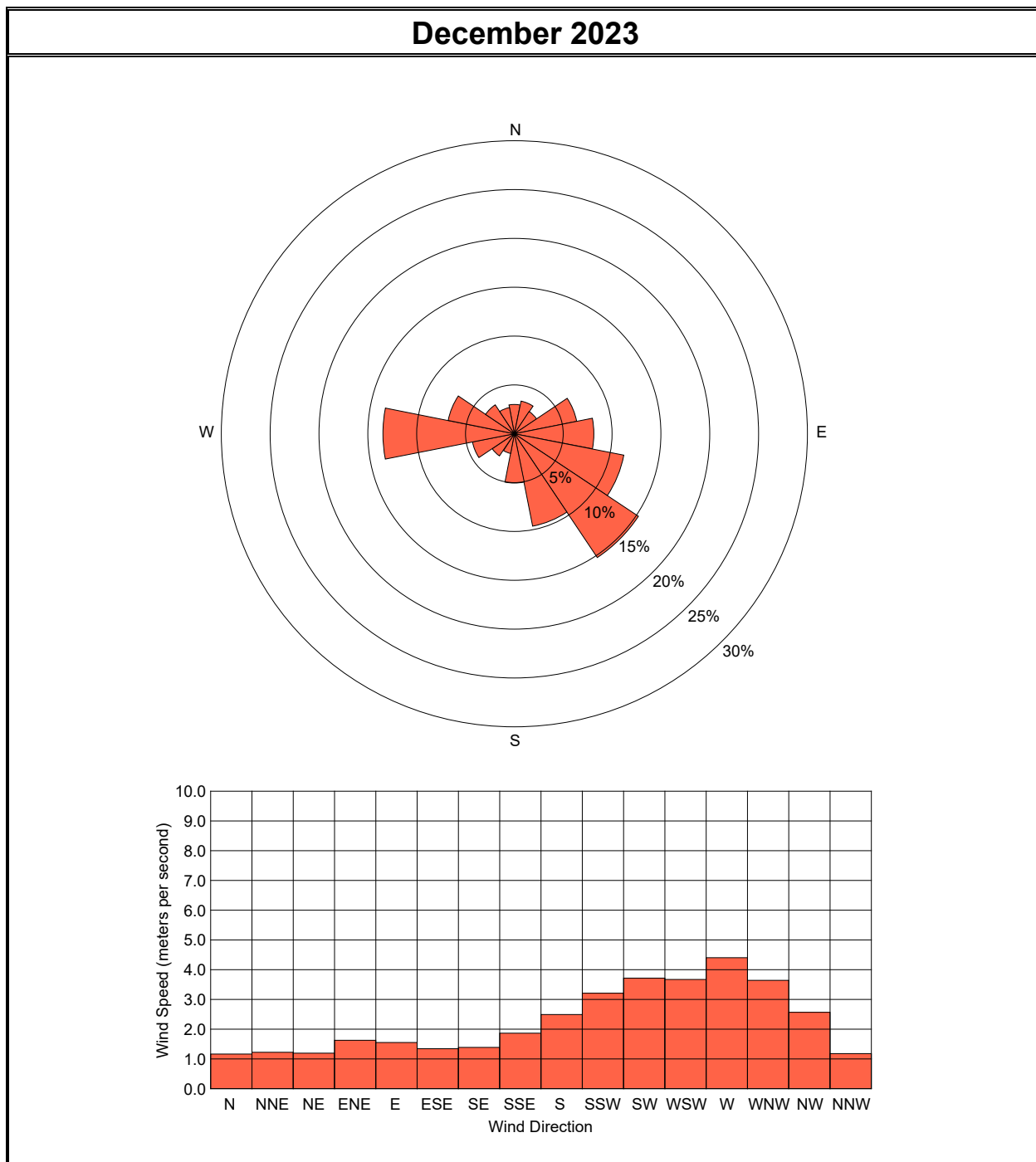
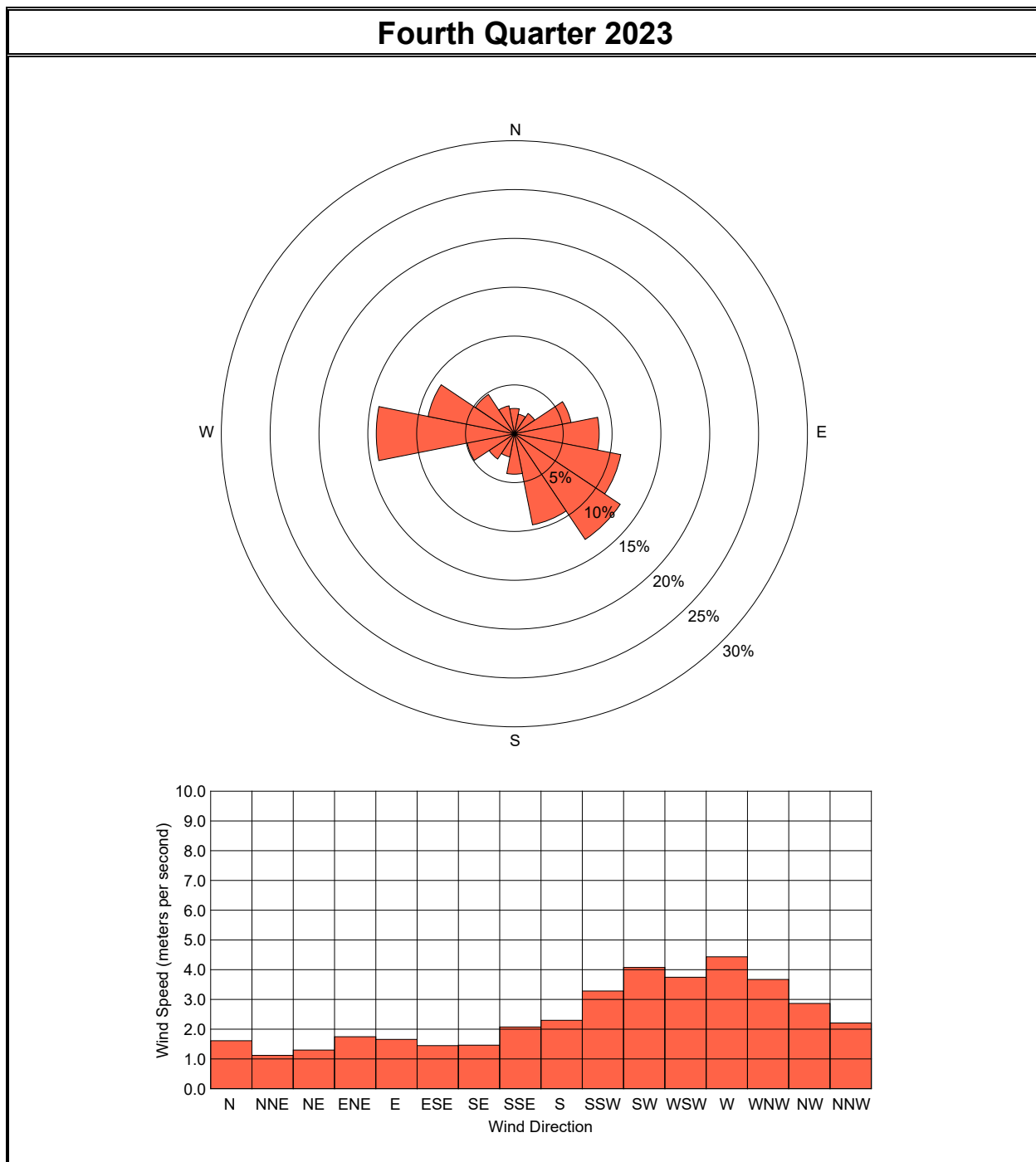


Figure 5. Q4 Wind Rose, Black Butte Copper Project Met Tower



APPENDIX A: HOURLY AIR QUALITY AND METEOROLOGICAL DATA, FOURTH QUARTER 2023

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
October 2023

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	3.7	6.2	2.4	1.7	1.9	1.7	2.0	2.5	3.1	2.7	3.3	2.8	3.3	5.2	3.0	2.5	2.6	3.7	2.1	1.5	1.1	0.8	1.3	1.9	2.6	6.2	0.8
2	1.1	2.5	2.7	2.0	1.9	2.4	1.1	0.8	1.0	1.4	2.7	3.6	3.3	4.0	4.4	4.7	3.6	3.2	2.8	2.6	2.8	0.7	0.9	0.9	2.4	4.7	0.7
3	1.0	0.8	0.9	0.9	0.6	2.1	2.6	3.5	4.4	6.0	7.9	7.0	6.0	5.1	5.2	5.0	4.9	3.7	1.2	1.7	1.9	0.7	0.4	0.4	3.1	7.9	0.4
4	1.4	2.2	2.3	3.5	2.5	2.1	2.6	1.2	2.1	4.5	4.4	4.8	6.4	6.0	8.3	8.7	7.3	3.5	3.2	1.5	1.6	1.6	1.2	1.3	3.5	8.7	1.2
5	0.8	1.0	0.5	1.0	1.1	0.4	Wx	0.4	0.5	0.7	1.9	1.9	3.5	3.7	5.1	5.2	4.6	4.2	3.8	2.5	1.7	2.5	3.8	3.3	2.3	5.2	0.2
6	2.3	1.5	1.0	0.7	1.2	1.5	1.5	2.3	2.5	1.5	1.9	3.5	3.2	3.3	3.4	2.8	2.3	2.2	2.2	2.6	2.8	2.9	2.0	1.8	2.2	3.5	0.7
7	1.2	1.1	1.4	1.0	1.4	1.0	0.8	0.8	0.6	0.8	1.2	4.2	3.7	2.4	3.0	2.9	2.0	1.6	2.4	3.2	2.9	2.0	1.7	1.8	1.9	4.2	0.6
8	2.0	1.8	2.0	1.6	1.4	1.6	1.5	1.3	0.8	0.9	2.1	2.9	3.9	4.1	3.6	4.2	2.8	1.6	2.2	4.1	3.3	1.8	1.4	1.2	2.3	4.2	0.8
9	1.5	1.1	1.1	2.0	1.5	2.0	1.4	1.3	1.1	1.1	3.0	3.5	5.0	4.5	4.7	4.3	3.1	2.2	4.0	2.7	2.1	2.7	2.6	2.7	2.6	5.0	1.1
10	2.4	2.6	1.9	1.8	1.5	1.9	1.1	0.7	1.0	2.1	6.1	5.5	5.5	5.1	6.0	4.4	4.3	3.1	5.2	4.4	5.1	2.4	1.4	0.9	3.2	6.1	0.7
11	1.4	1.4	0.9	0.9	1.1	0.9	1.9	1.8	2.1	2.8	3.3	2.6	3.7	4.9	6.1	6.1	5.1	4.7	2.1	2.9	4.5	3.0	3.3	4.1	3.0	6.1	0.9
12	3.6	3.5	3.7	5.0	5.6	5.9	6.2	2.7	3.3	3.6	3.8	4.5	4.3	3.5	3.8	4.5	4.9	4.7	4.1	3.4	3.3	3.8	5.2	4.2	4.2	6.2	2.7
13	3.6	2.3	1.0	1.0	1.6	3.3	5.2	6.0	5.4	6.7	7.8	6.8	6.6	5.8	5.0	5.4	5.5	3.9	3.6	1.8	1.9	2.1	1.8	2.1	4.0	7.8	1.0
14	1.9	1.7	0.9	0.9	0.5	1.2	0.7	0.7	0.7	0.6	1.2	2.4	1.9	3.4	1.7	2.9	3.6	1.6	1.9	2.2	2.5	1.7	1.6	1.3	1.7	3.6	0.5
15	1.4	1.2	1.5	1.5	1.4	1.4	1.4	0.7	0.9	0.9	0.9	3.0	5.5	5.2	5.2	3.7	1.2	1.6	2.5	2.4	1.9	2.3	2.0	1.5	2.1	5.5	0.7
16	1.4	1.3	1.3	0.9	1.5	1.5	1.5	1.5	1.3	0.8	1.6	3.6	4.7	6.2	3.6	2.0	2.0	2.7	1.9	1.9	1.1	1.1	1.3	0.7	2.0	6.2	0.7
17	1.1	1.0	1.4	0.8	1.0	1.4	1.7	1.5	6.1	11.7	10.6	12.5	13.1	11.9	10.9	8.3	6.0	6.3	6.2	2.6	1.1	1.4	1.8	1.6	5.1	13.1	0.8
18	1.1	0.7	1.0	0.9	1.1	0.5	0.6	1.2	1.5	2.1	5.8	6.2	7.8	8.8	8.6	4.6	1.1	2.7	2.3	2.5	1.9	1.5	1.8	1.3	2.8	8.8	0.5
19	1.1	1.0	0.9	0.9	1.0	0.9	1.3	1.0	0.9	0.9	2.1	5.2	5.6	7.7	9.3	6.4	5.1	2.7	1.4	1.6	1.1	0.9	1.0	0.9	2.5	9.3	0.9
20	1.7	1.2	1.7	2.2	1.9	1.6	1.5	1.2	0.8	1.0	4.2	6.9	7.9	7.6	7.1	6.1	4.4	2.3	1.8	2.5	1.8	1.6	1.7	1.3	3.0	7.9	0.8
21	1.0	1.3	0.7	1.3	2.4	3.5	2.6	1.0	1.4	2.4	2.0	2.2	2.1	2.0	2.5	2.9	2.3	1.8	2.3	2.6	1.8	1.8	1.0	1.2	1.9	3.5	0.7
22	1.0	0.9	1.0	0.6	0.6	1.0	0.4	0.6	0.5	0.8	0.9	2.6	4.6	3.6	3.1	2.8	3.9	6.0	3.1	1.0	1.9	2.3	1.4	1.4	1.9	6.0	0.4
23	0.7	1.3	3.9	4.3	3.3	4.8	3.8	2.3	1.2	2.2	3.2	4.5	4.9	4.4	4.2	4.7	2.8	3.4	3.6	2.4	1.3	1.7	1.5	1.4	3.0	4.9	0.7
24	1.4	0.8	0.7	0.8	1.0	1.6	3.3	2.5	1.3	2.7	3.0	2.6	3.4	3.5	3.1	2.4	2.9	2.9	3.2	2.5	2.0	3.3	2.5	3.5	2.4	3.5	0.7
25	2.4	2.1	2.0	2.8	2.5	2.9	2.1	2.6	2.9	3.6	4.1	4.8	4.0	4.2	3.0	3.3	1.7	2.3	1.6	1.7	0.8	2.1	1.6	2.0	2.6	4.8	0.8
26	2.9	3.4	1.9	1.8	2.1	1.3	2.0	1.5	0.9	1.0	3.7	2.8	3.9	5.0	4.9	3.6	2.2	1.1	0.7	0.6	1.0	1.1	0.8	1.1	2.1	5.0	0.6
27	0.9	1.6	1.0	0.6	1.4	0.7	1.1	0.8	0.5	1.0	1.3	2.2	4.4	3.7	4.6	4.7	3.7	2.2	1.0	0.9	0.8	0.9	0.9	0.7	1.7	4.7	0.5
28	0.6	0.5	0.5	0.5	0.7	0.6	0.6	0.6	0.5	0.5	0.4	1.9	4.2	3.7	2.5	6.0	3.8	3.2	2.8	1.4	0.9	1.5	0.9	1.7	1.7	6.0	0.4
29	3.9	3.2	2.3	1.5	1.7	3.8	2.7	3.1	2.4	3.3	2.3	2.5	2.6	3.9	3.4	2.5	2.0	0.9	1.7	1.4	1.5	1.0	0.7	0.8	2.3	3.9	0.7
30	0.6	0.5	0.7	0.7	0.6	0.5	0.5	0.4	0.5	0.6	0.8	5.2	5.1	5.0	4.5	3.5	1.9	1.3	1.6	2.0	2.5	1.8	1.1	0.8	1.8	5.2	0.4
31	0.7	0.8	0.7	0.7	0.9	0.6	0.6	0.6	0.7	0.5	0.7	1.6	1.6	1.1	1.2	1.5	1.8	3.1	2.4	2.0	2.0	1.5	1.3	1.1	1.2	3.1	0.5
Avg	1.7	1.7	1.5	1.5	1.6	1.8	1.8	1.6	1.7	2.3	3.2	4.1	4.7	4.8	4.7	4.3	3.4	2.9	2.6	2.2	2.0	1.8	1.7	1.6	2.5	5.8	0.7
Max	3.9	6.2	3.9	5.0	5.6	5.9	6.2	6.0	6.1	11.7	10.6	12.5	13.1	11.9	10.9	8.7	7.3	6.3	6.2	4.4	5.1	3.8	5.2	4.2	5.1	13.1	2.7
Min	0.6	0.5	0.5	0.5	0.5	0.4	0.2	0.4	0.5	0.5	0.4	1.6	1.6	1.1	1.2	1.5	1.1	0.9	0.7	0.6	0.8	0.7	0.4	0.4	1.2	3.1	0.2

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
November 2023

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	1.3	0.9	1.1	1.0	0.9	0.9	0.8	0.8	0.7	0.3	0.7	1.2	3.4	3.2	4.6	3.8	3.6	1.8	5.3	3.4	3.1	2.4	2.0	2.1	2.1	5.3	0.3
2	1.6	1.0	0.9	1.1	1.1	1.3	1.3	0.8	0.6	2.1	2.6	2.7	2.6	2.8	3.5	1.6	1.3	1.7	1.3	1.2	1.2	1.6	4.6	3.9	1.9	4.6	0.6
3	2.6	1.8	2.9	4.1	4.8	4.0	3.3	5.3	2.9	3.4	5.4	5.1	5.8	5.7	4.2	3.3	4.2	4.1	1.5	1.6	1.7	2.0	1.5	1.0	3.4	5.8	1.0
4	1.4	1.1	1.2	1.1	0.8	1.2	1.2	1.5	1.5	1.7	2.6	3.1	3.1	2.2	1.4	3.5	4.0	2.5	1.9	1.0	1.0	2.0	4.0	3.1	2.0	4.0	0.8
5	3.3	2.5	1.9	4.3	6.0	6.6	6.7	5.8	4.7	8.1	7.8	7.6	7.2	9.5	6.6	5.4	4.3	2.1	3.1	1.3	1.4	1.2	2.8	1.4	4.6	9.5	1.2
6	1.1	1.7	1.1	0.9	0.9	0.8	0.9	1.4	1.9	2.7	3.7	2.3	3.4	5.5	3.5	4.5	3.6	2.7	3.0	2.4	1.6	1.4	1.9	2.8	2.3	5.5	0.8
7	4.2	2.6	1.4	1.2	1.4	1.2	2.2	1.5	1.9	3.0	4.6	5.4	5.1	7.0	6.6	7.2	6.5	6.5	6.0	6.1	4.2	5.2	3.6	3.1	4.1	7.2	1.2
8	2.2	1.9	2.4	1.7	1.0	1.0	1.4	1.1	1.2	1.8	4.6	6.3	8.0	7.7	7.9	7.2	6.7	6.8	5.0	5.3	5.0	3.4	2.2	1.6	3.9	8.0	1.0
9	1.7	1.4	1.0	0.9	0.8	0.8	0.8	1.2	1.2	0.9	1.3	3.4	6.0	6.7	5.8	7.0	3.1	1.4	1.9	1.7	2.1	1.8	1.8	1.8	2.4	7.0	0.8
10	1.9	1.7	1.6	1.3	1.4	1.9	2.5	2.2	1.2	1.2	0.7	0.8	1.0	2.5	3.3	6.1	3.3	3.8	2.8	1.3	1.5	1.3	1.4	1.9	2.0	6.1	0.7
11	1.3	1.5	1.3	1.8	1.2	1.4	1.6	3.3	3.7	4.4	7.7	5.3	4.9	5.2	7.8	8.9	10.1	8.8	9.0	6.9	9.9	11.9	11.5	7.9	5.7	11.9	1.2
12	8.4	7.6	6.2	5.5	5.1	4.5	5.2	4.2	4.5	4.6	4.1	5.0	5.8	5.8	4.9	2.7	2.5	4.4	3.4	1.5	1.1	2.1	3.0	2.4	4.4	8.4	1.1
13	1.6	2.3	2.2	2.9	1.9	1.3	1.9	1.2	1.4	1.5	7.0	6.5	4.1	2.7	4.7	2.4	2.5	2.1	3.5	2.5	1.6	2.0	2.4	2.1	2.7	7.0	1.2
14	2.3	2.3	4.3	2.3	1.7	2.0	1.8	1.2	0.9	0.8	2.7	6.9	7.6	7.5	5.8	3.2	3.2	1.1	1.3	1.8	1.2	1.2	0.9	1.2	2.7	7.6	0.8
15	1.0	1.5	2.5	3.1	4.1	3.3	2.0	2.6	1.7	4.6	8.4	7.2	8.0	5.8	2.9	6.3	5.6	6.5	7.6	2.9	7.0	11.0	5.2	6.7	4.9	11.0	1.0
16	4.2	4.0	4.4	3.7	3.2	2.4	3.4	1.7	1.1	1.5	3.2	4.8	5.9	7.0	7.5	6.7	4.6	4.3	2.4	2.5	4.6	2.0	1.7	1.2	3.7	7.5	1.1
17	1.0	1.9	1.9	1.7	1.9	1.3	1.8	1.4	1.5	1.0	1.1	3.6	5.2	4.3	4.2	3.6	1.6	2.5	2.3	2.3	2.1	1.3	1.7	1.0	2.2	5.2	1.0
18	1.3	1.6	1.2	1.4	1.6	1.5	1.7	1.3	1.4	1.0	3.7	4.0	3.8	4.7	5.8	4.6	1.5	1.7	2.0	2.3	1.4	1.4	1.1	1.0	2.2	5.8	1.0
19	1.2	1.2	1.3	1.2	1.0	1.0	1.5	1.0	1.0	0.8	0.7	0.9	5.0	8.0	8.7	7.6	5.8	5.6	4.5	4.0	3.3	1.9	4.6	1.0	3.0	8.7	0.7
20	1.5	1.6	1.3	0.8	0.8	1.0	1.3	1.1	1.5	0.8	2.1	3.4	4.7	5.5	5.3	4.1	2.8	1.1	1.0	1.6	1.6	0.9	0.9	1.1	2.0	5.5	0.8
21	1.1	0.9	1.0	1.0	0.7	1.0	0.7	1.1	0.7	0.6	0.7	0.9	1.2	2.9	1.3	2.7	2.9	3.9	3.0	3.0	1.5	1.1	1.7	1.3	1.5	3.9	0.6
22	1.1	1.0	1.8	5.1	3.4	2.1	0.9	1.8	7.4	6.1	4.7	4.2	7.1	6.4	7.9	5.7	5.1	3.6	2.8	3.6	4.2	4.3	3.7	3.3	4.1	7.9	0.9
23	3.3	3.7	3.8	3.6	2.9	1.8	1.8	2.5	2.2	1.9	3.3	4.4	4.1	4.2	2.9	3.2	3.3	3.3	2.4	1.9	1.2	1.0	0.8	1.0	2.7	4.4	0.8
24	1.2	1.2	1.2	3.3	3.5	2.7	1.7	1.2	2.0	1.1	1.5	3.3	3.0	3.0	3.5	2.3	2.0	2.2	1.6	0.8	1.3	1.8	2.2	1.7	2.1	3.5	0.8
25	2.7	2.7	2.2	2.1	0.8	1.0	0.8	1.1	0.7	0.6	0.6	1.5	2.1	4.1	4.4	3.2	1.6	1.3	1.3	2.1	3.2	4.5	4.6	4.6	2.2	4.6	0.6
26	3.4	3.9	3.9	3.5	2.5	2.7	1.2	0.8	1.2	0.7	1.9	3.8	3.5	3.4	3.1	2.5	1.6	1.3	1.5	1.3	1.4	0.9	0.9	0.8	2.2	3.9	0.7
27	0.9	1.1	1.2	1.1	0.8	1.0	0.7	0.6	0.5	0.5	0.6	1.3	6.6	6.1	4.0	3.2	2.9	1.5	2.5	1.6	1.9	1.5	1.9	1.6	1.9	6.6	0.5
28	1.4	1.5	1.4	1.1	1.2	1.3	1.9	1.7	1.2	0.8	1.0	1.0	2.5	2.9	2.1	1.9	2.0	2.7	2.4	2.0	1.6	1.2	1.4	1.3	1.6	2.9	0.8
29	1.0	1.6	1.2	1.4	1.1	0.8	1.0	1.2	1.0	1.1	1.3	3.3	5.7	5.9	6.4	5.5	4.1	1.3	1.1	0.9	1.3	1.2	1.3	1.2	2.2	6.4	0.8
30	1.0	1.3	1.0	0.8	0.6	0.5	0.6	0.6	0.5	0.5	0.7	1.8	2.1	2.5	2.0	1.8	1.6	0.8	0.9	1.3	1.2	0.6	0.9	0.9	1.1	2.5	0.5
Avg	2.1	2.0	2.0	2.2	2.0	1.8	1.8	1.8	1.8	2.0	3.0	3.7	4.6	5.0	4.8	4.4	3.6	3.1	2.9	2.4	2.5	2.5	2.6	2.2	2.8	6.3	0.8
Max	8.4	7.6	6.2	5.5	6.0	6.6	6.7	5.8	7.4	8.1	8.4	7.6	8.0	9.5	8.7	8.9	10.1	8.8	9.0	6.9	9.9	11.9	11.5	7.9	5.7	11.9	1.2
Min	0.9	0.9	0.9	0.8	0.6	0.5	0.6	0.6	0.5	0.3	0.6	0.8	1.0	2.2	1.3	1.6	1.3	0.8	0.9	0.8	1.0	0.6	0.8	0.8	1.1	2.5	0.3

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
December 2023

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	1.0	0.7	0.5	0.6	0.5	0.8	0.8	0.6	0.6	0.5	0.8	2.7	3.0	4.4	4.1	3.5	3.2	2.1	1.5	1.4	1.3	1.1	0.8	1.0	1.6	4.4	0.5
2	2.7	3.6	4.3	5.3	3.7	4.5	3.6	1.5	1.7	2.8	9.5	8.5	5.2	5.8	4.6	4.3	2.7	4.2	5.9	5.4	6.4	6.1	6.0	5.8	4.8	9.5	1.5
3	9.1	7.7	6.4	5.0	4.2	4.1	2.2	2.3	2.2	2.6	5.6	7.1	6.4	5.1	2.8	1.2	1.2	2.3	1.2	1.1	2.8	5.9	10.8	10.6	4.6	10.8	1.1
4	9.1	9.4	9.1	11.2	9.2	7.3	4.6	1.6	2.7	6.1	7.7	8.7	10.1	8.2	6.6	6.9	6.5	4.2	3.6	1.4	1.9	1.3	2.4	3.7	6.0	11.2	1.3
5	2.9	1.5	0.7	1.0	0.7	1.0	0.8	1.2	1.4	1.0	2.3	6.2	5.4	5.5	4.5	5.4	2.9	3.0	2.0	2.1	1.6	1.5	1.5	2.0	2.4	6.2	0.7
6	1.9	1.7	1.2	1.3	1.3	1.1	2.3	1.3	1.4	2.6	5.1	Au	Au	6.3	4.9	4.2	3.4	4.3	5.4	3.4	3.4	3.2	6.0	8.0	3.4	8.0	1.1
7	7.0	3.8	2.0	2.7	2.7	2.9	4.0	4.3	6.5	5.5	5.6	4.9	7.2	6.5	7.6	7.3	6.2	6.6	6.8	5.3	6.6	5.9	4.6	3.2	5.2	7.6	2.0
8	1.5	2.3	1.6	1.4	1.1	0.9	0.9	0.4	0.7	0.8	0.8	2.5	3.2	4.1	3.0	3.1	4.7	5.0	3.9	3.2	3.4	4.0	5.0	3.3	2.5	5.0	0.4
9	2.0	3.1	3.1	2.4	3.6	3.3	1.5	1.1	0.9	1.2	5.8	6.0	5.2	5.5	4.2	2.8	2.3	1.2	1.2	2.5	3.6	3.2	3.1	1.8	2.9	6.0	0.9
10	2.0	2.9	1.9	3.0	3.5	3.3	3.7	1.6	3.3	3.2	3.4	5.5	7.5	6.0	5.5	4.2	3.8	2.9	1.9	1.0	1.4	0.9	1.7	2.0	3.2	7.5	0.9
11	1.5	1.7	1.1	1.7	0.9	2.1	2.4	1.8	2.1	2.4	2.8	3.0	3.7	3.5	1.8	2.4	5.2	5.1	3.9	3.8	4.1	3.5	2.2	1.8	2.7	5.2	0.9
12	0.8	0.7	0.5	0.7	1.5	1.5	0.9	0.9	1.0	0.7	1.3	1.7	2.0	1.7	2.2	1.7	1.3	2.1	1.7	2.4	2.2	1.5	1.6	1.3	1.4	2.4	0.5
13	1.1	1.5	1.0	0.7	0.8	0.8	0.8	0.6	0.4	0.6	0.5	0.6	0.9	2.0	2.6	3.0	3.4	2.5	2.0	1.5	1.5	1.6	1.6	1.7	1.4	3.4	0.4
14	1.3	1.2	0.9	0.9	1.5	0.9	0.9	0.9	1.2	0.6	0.7	1.2	4.2	4.1	4.1	2.3	1.4	1.7	2.1	1.8	0.9	1.1	0.9	0.8	1.6	4.2	0.6
15	1.1	0.7	1.5	1.2	1.1	0.8	0.9	0.7	0.8	0.7	0.9	1.2	3.9	4.4	3.9	1.8	1.2	1.9	1.3	1.3	1.6	1.3	1.5	1.3	1.5	4.4	0.7
16	1.6	1.1	1.0	1.2	1.2	1.4	1.4	1.4	1.1	1.1	1.3	0.9	0.7	0.8	3.1	5.7	5.9	2.4	2.0	2.3	2.8	2.7	2.8	1.5	2.0	5.9	0.7
17	2.6	2.3	2.9	1.6	4.6	3.1	3.1	2.2	1.9	1.2	0.8	2.2	3.1	3.9	3.8	3.4	1.3	2.0	1.4	1.6	1.1	0.9	1.2	1.2	2.2	4.6	0.8
18	1.0	1.2	0.9	1.3	0.9	1.3	1.6	1.8	1.8	1.8	1.1	1.0	1.9	3.2	2.5	2.5	1.9	2.3	3.0	2.7	1.4	1.0	1.3	1.5	1.7	3.2	0.9
19	1.6	1.1	0.9	1.0	1.2	1.9	2.2	2.1	1.7	1.2	2.0	1.8	3.8	4.0	3.1	2.1	3.8	2.0	1.6	1.0	2.0	1.5	1.2	1.7	1.9	4.0	0.9
20	1.0	1.0	0.8	0.6	1.0	1.2	0.9	1.3	1.1	1.0	1.0	2.1	5.3	3.6	1.7	1.0	1.2	2.0	1.9	1.5	0.9	1.4	0.9	0.9	1.5	5.3	0.6
21	0.7	1.0	0.8	0.9	0.9	0.8	1.3	0.9	0.6	0.8	0.6	0.7	3.0	3.9	5.1	4.0	1.9	1.6	1.7	1.5	1.1	0.8	1.1	0.9	1.5	5.1	0.6
22	1.2	1.1	0.9	1.2	0.9	1.1	1.4	1.2	1.4	1.0	1.2	4.1	4.7	4.8	4.9	3.5	2.9	3.3	1.6	1.1	0.9	1.1	1.2	1.1	2.0	4.9	0.9
23	1.4	1.0	3.3	6.1	3.4	4.2	5.9	5.9	5.2	6.0	5.4	6.6	6.0	6.8	5.8	5.2	4.8	3.2	1.2	0.5	1.3	1.6	1.3	1.1	3.9	6.8	0.5
24	1.2	1.1	0.8	0.9	0.6	1.0	0.8	0.5	0.6	0.4	0.3	0.4	0.8	2.0	2.3	1.5	2.3	2.4	1.9	1.8	1.5	1.2	0.9	0.8	1.2	2.4	0.3
25	0.8	1.0	1.0	0.8	0.8	0.7	0.7	1.0	0.9	1.5	1.2	1.0	1.1	0.9	0.9	1.1	2.2	2.0	1.8	1.8	1.8	1.9	1.1	1.7	1.2	2.2	0.7
26	0.8	0.6	1.0	0.7	0.7	0.9	0.9	0.8	0.7	0.5	0.7	0.7	1.0	3.0	3.7	2.0	2.0	1.6	1.8	1.7	1.7	2.1	1.1	1.5	1.3	3.7	0.5
27	1.0	0.5	0.7	0.4	0.6	0.4	0.5	0.8	0.6	0.3	0.4	0.4	1.0	1.0	1.1	1.0	2.4	2.3	2.4	1.8	1.8	1.6	1.7	1.5	1.1	2.4	0.3
28	1.3	0.9	1.1	1.2	1.0	0.9	1.2	1.0	0.9	0.8	0.7	0.8	1.1	2.4	2.7	2.3	1.8	1.4	1.4	1.5	1.2	1.4	1.4	1.5	1.3	2.7	0.7
29	0.9	1.0	1.0	0.8	0.7	0.8	0.7	0.6	0.8	0.4	0.7	0.5	1.0	1.0	0.9	0.8	2.2	1.9	1.6	1.8	0.9	1.2	1.2	1.1	1.0	2.2	0.4
30	1.2	1.0	1.1	1.0	0.9	1.1	0.8	0.8	0.9	0.5	0.5	0.9	1.7	3.6	2.9	2.4	2.5	2.2	1.7	1.6	1.8	1.6	1.6	2.0	1.5	3.6	0.5
31	1.4	1.0	0.7	1.2	0.6	1.0	1.4	0.8	0.7	1.1	0.6	0.8	0.7	1.6	3.5	3.0	1.1	1.6	1.5	1.4	1.0	0.7	1.0	0.6	1.2	3.5	0.6
Avg	2.1	1.9	1.8	1.9	1.8	1.8	1.8	1.4	1.5	1.6	2.3	2.8	3.5	3.9	3.6	3.1	2.9	2.7	2.4	2.0	2.1	2.1	2.3	2.2	2.3	5.1	0.8
Max	9.1	9.4	9.1	11.2	9.2	7.3	5.9	5.9	6.5	6.1	9.5	8.7	10.1	8.2	7.6	7.3	6.5	6.6	6.8	5.4	6.6	6.1	10.8	10.6	6.0	11.2	2.0
Min	0.7	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.7	0.8	0.9	0.8	1.1	1.2	1.2	0.5	0.9	0.7	0.8	0.6	1.0	2.2	0.3

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
October 2023

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	332	316	44	195	300	106	142	113	176	340	303	342	301	263	303	155	293	260	276	300	327	299	130	159	290
2	142	143	146	107	107	105	105	149	330	322	296	268	294	299	293	292	272	266	280	284	276	228	137	162	244
3	110	86	146	145	319	328	326	322	315	310	322	320	322	313	317	267	254	271	226	207	157	96	180	189	282
4	238	252	263	261	260	285	294	324	327	289	275	270	269	275	274	279	299	326	314	279	302	322	38	98	288
5	106	105	146	94	60	123	Wx	92	96	14	295	294	311	295	296	289	315	324	324	327	344	331	349	343	350
6	311	299	255	11	154	109	89	70	75	130	359	295	273	259	290	302	269	233	111	93	61	75	92	98	40
7	96	114	125	134	140	163	114	132	270	360	317	257	290	292	280	272	265	229	107	73	76	109	95	91	130
8	91	84	124	111	105	129	117	144	185	243	140	241	249	262	264	263	253	194	115	75	86	92	56	80	138
9	118	118	44	133	133	131	135	119	147	170	168	192	198	226	236	232	215	169	90	85	100	86	100	97	141
10	38	96	133	132	86	110	147	185	177	160	187	210	189	203	191	153	146	135	149	217	148	82	3	125	148
11	117	135	162	184	148	139	212	307	268	298	322	322	316	300	299	296	312	337	335	343	339	347	329	333	308
12	346	333	323	322	324	341	337	318	329	347	337	351	5	358	347	342	343	2	356	357	144	167	159	161	343
13	160	156	93	180	165	164	154	154	165	151	144	148	156	142	144	158	162	154	148	109	110	96	103	108	143
14	111	112	114	129	142	137	177	150	139	352	108	144	215	225	317	245	234	180	125	107	97	120	121	76	139
15	79	129	134	142	141	133	120	81	96	8	136	221	257	242	253	290	267	234	88	83	72	84	107	123	127
16	121	114	128	92	138	123	135	127	121	158	146	201	193	192	196	155	99	112	124	131	150	166	158	353	140
17	115	8	127	92	157	122	98	94	259	269	285	269	286	292	288	296	294	275	295	323	90	110	92	82	317
18	64	111	121	138	93	308	116	41	45	346	275	255	259	262	266	266	212	261	69	105	95	123	112	83	105
19	92	66	98	163	138	160	169	143	153	337	162	256	265	260	256	255	261	257	175	161	161	302	145	61	181
20	126	105	54	89	78	75	69	75	176	32	266	257	265	261	270	281	285	240	122	86	87	28	24	151	82
21	203	143	47	71	133	136	146	91	90	148	169	167	138	315	307	276	269	136	101	90	61	112	94	110	121
22	87	114	134	292	106	130	62	150	149	337	19	142	154	156	154	146	173	293	75	143	136	134	311	153	130
23	127	293	303	313	322	309	304	276	238	166	163	158	154	148	156	161	157	161	166	161	116	103	180	79	174
24	124	169	74	93	89	297	299	221	298	253	267	297	309	304	304	273	304	299	301	274	292	298	269	267	286
25	278	287	283	286	294	281	290	295	307	287	259	252	270	261	277	267	263	266	294	317	147	152	161	183	270
26	173	170	208	259	253	289	300	250	140	218	250	260	258	257	262	265	263	297	144	122	330	218	116	16	242
27	283	291	270	33	269	125	131	141	281	62	298	262	258	254	266	270	249	228	198	226	329	96	51	25	266
28	120	332	106	50	105	141	125	146	175	70	150	308	269	250	247	268	259	289	285	170	153	152	143	268	182
29	298	326	308	313	318	280	287	302	270	268	281	303	280	260	279	280	246	123	121	71	70	111	127	128	288
30	143	148	130	152	126	167	132	143	104	26	82	267	266	262	265	287	291	122	107	118	85	114	145	173	142
31	177	166	154	144	171	9	139	99	134	337	320	9	317	355	38	65	67	87	81	63	103	134	86	62	85
Prev	117	117	123	124	130	132	131	127	174	326	261	260	263	264	272	263	261	240	120	103	93	108	108	105	175

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
November 2023

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	108	76	119	114	100	122	108	125	151	53	40	21	264	260	268	269	278	74	75	68	74	51	62	77	84
2	70	182	94	110	144	169	360	151	149	94	85	79	76	70	86	72	3	73	61	42	161	247	270	271	96
3	272	270	269	260	275	286	303	290	277	286	293	265	262	270	282	289	289	303	238	130	148	122	119	92	270
4	102	123	107	138	110	155	123	139	124	135	103	126	117	123	143	114	84	111	133	126	274	118	164	181	127
5	199	98	116	190	202	257	269	286	271	269	266	267	266	261	268	268	293	308	301	102	127	211	88	105	246
6	81	86	106	134	130	96	78	133	75	106	146	134	185	200	192	187	69	195	155	95	88	192	275	263	134
7	254	268	256	161	159	271	205	131	156	278	245	272	278	257	260	267	267	259	262	253	262	285	278	290	252
8	332	336	339	310	246	126	144	109	91	2	280	268	268	268	262	267	279	292	299	282	290	313	73	55	300
9	93	136	102	144	87	359	43	102	65	151	26	261	243	248	247	267	254	193	121	104	96	77	57	76	107
10	107	97	131	128	146	82	102	94	144	171	276	309	277	258	262	275	268	272	271	239	224	273	83	117	197
11	148	96	159	253	95	218	209	162	154	187	225	214	212	226	218	214	223	228	233	255	281	283	280	279	216
12	270	272	273	254	262	264	253	267	275	310	285	290	252	249	234	197	123	97	94	154	177	176	156	161	236
13	145	131	128	123	130	117	100	116	61	120	210	193	169	174	215	178	163	242	124	72	161	120	73	56	137
14	271	95	77	43	10	42	70	90	146	102	221	243	260	277	265	271	239	174	149	125	109	151	153	165	150
15	166	118	164	243	234	255	113	100	94	240	230	235	229	227	205	211	217	219	216	197	226	232	252	279	212
16	288	290	296	288	291	302	320	257	178	357	286	253	266	265	277	273	267	283	196	254	288	222	76	78	276
17	103	42	118	77	108	47	88	35	121	336	62	296	265	266	251	276	273	90	83	56	119	61	142	143	79
18	121	139	136	139	142	152	140	155	140	146	129	148	166	174	197	203	176	118	125	112	114	127	123	157	144
19	156	148	158	134	98	82	124	75	104	112	238	19	300	269	259	267	268	272	272	281	285	287	285	231	233
20	163	161	120	100	99	20	93	110	136	66	293	259	269	257	266	285	269	8	77	107	121	69	132	105	113
21	131	146	142	156	137	168	162	155	143	279	351	351	355	284	326	160	145	90	116	114	128	132	111	50	129
22	133	139	280	313	306	282	192	305	288	297	331	300	280	272	265	264	265	297	305	295	323	356	11	353	296
23	325	319	327	324	306	276	257	244	166	170	79	78	122	170	201	162	149	107	136	153	171	217	312	100	183
24	73	47	104	161	157	133	101	86	77	40	171	179	173	180	254	251	231	159	149	156	11	323	59	56	127
25	75	79	84	66	31	79	22	79	36	49	104	320	316	293	288	285	337	165	219	278	286	271	282	301	354
26	281	287	302	278	293	277	323	148	165	328	291	267	285	291	286	288	279	124	72	64	102	107	101	21	298
27	87	22	86	103	110	139	134	143	110	275	359	19	295	293	291	287	285	91	107	83	95	103	83	100	83
28	63	90	54	354	45	59	75	110	89	228	309	355	303	287	293	293	132	114	129	120	128	122	136	95	79
29	146	143	149	164	141	135	148	71	282	42	23	252	247	271	277	272	263	325	72	342	118	168	122	135	161
30	124	145	108	57	114	14	108	129	106	281	263	144	248	274	288	313	320	157	65	81	157	102	101	42	107
Prev	124	112	119	140	129	125	114	123	127	20	285	270	255	252	255	254	255	170	136	117	149	160	104	94	171

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
December 2023

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	92	347	112	147	129	143	177	142	92	265	37	146	187	234	253	253	269	256	69	67	107	66	121	138	138
2	235	256	264	263	261	264	270	225	10	165	222	219	203	200	184	196	169	197	231	264	278	270	268	269	237
3	279	280	277	293	299	310	316	92	92	2	266	265	254	258	242	224	278	140	312	111	221	234	269	267	270
4	270	282	277	277	285	286	285	246	266	291	282	289	285	277	273	281	279	279	266	243	75	153	73	76	277
5	64	13	355	83	219	94	322	27	185	309	297	223	230	224	200	199	188	183	157	94	77	105	140	114	153
6	118	149	161	143	286	126	119	105	167	140	139	Au	Au	161	165	171	94	121	164	111	150	186	185	187	148
7	184	184	116	64	127	133	220	257	258	283	283	292	275	271	270	278	273	269	278	290	279	272	273	259	259
8	19	65	113	104	77	8	124	292	353	39	118	281	281	285	290	278	264	272	274	266	264	269	277	291	302
9	245	273	271	284	261	248	171	162	143	80	245	248	246	263	272	248	240	236	134	124	143	173	155	140	216
10	70	188	159	183	266	274	259	286	278	263	267	274	257	266	264	268	294	313	294	290	187	156	270	271	260
11	162	147	299	327	301	305	329	321	312	278	293	280	295	297	302	173	154	156	152	159	153	150	145	147	243
12	149	111	185	130	278	265	266	57	268	190	5	349	273	297	306	281	259	77	76	82	74	92	108	86	69
13	113	133	129	171	112	151	153	175	97	165	262	293	330	150	149	131	90	101	110	146	149	122	121	132	136
14	105	124	92	97	142	113	143	111	129	214	334	28	299	274	263	283	344	87	88	105	34	78	89	120	96
15	98	68	84	97	110	29	27	63	77	56	37	6	271	259	248	236	169	128	146	114	128	134	137	141	101
16	138	160	179	156	150	139	136	142	189	80	86	28	193	351	230	259	281	274	21	34	277	258	13	144	161
17	90	95	72	1	288	15	69	78	81	83	23	284	285	255	249	264	191	121	117	127	153	123	77	133	93
18	141	98	58	155	141	145	150	118	136	127	149	245	43	137	128	136	120	109	95	78	131	134	96	79	121
19	286	135	46	113	17	91	91	104	136	140	84	68	225	183	163	167	194	178	93	73	64	21	73	138	112
20	164	146	160	152	120	139	36	77	147	305	22	257	245	241	314	108	110	97	47	105	31	134	183	107	122
21	37	150	270	145	207	129	137	105	186	19	15	352	203	251	252	241	203	103	110	123	116	165	122	166	152
22	152	163	135	112	138	166	139	143	140	143	152	156	167	179	208	172	186	197	168	79	106	132	160	138	152
23	117	117	270	265	279	295	288	281	286	291	298	310	319	323	321	316	331	321	287	355	125	130	113	23	307
24	67	114	128	114	129	138	131	143	101	172	276	319	26	352	310	314	85	75	81	100	116	102	68	67	92
25	12	109	117	85	118	70	25	350	11	21	348	352	344	342	353	289	69	41	30	37	63	87	81	136	40
26	145	127	139	165	155	95	145	120	125	179	287	44	299	265	272	315	318	65	59	78	65	90	36	40	98
27	38	328	90	39	118	79	111	122	141	201	218	359	344	341	4	315	98	117	125	126	128	121	130	134	95
28	142	133	145	140	168	154	135	130	164	127	344	12	347	256	275	264	185	117	37	63	80	114	76	124	125
29	97	102	133	127	161	86	135	139	148	104	340	290	324	9	31	343	94	104	53	112	112	140	146	140	103
30	126	148	146	147	139	124	118	121	152	193	284	338	350	147	151	153	110	107	79	75	97	118	120	132	126
31	160	148	107	135	306	118	124	115	64	90	261	332	337	359	293	275	245	122	94	120	99	72	76	162	106
Prev	119	132	134	132	176	121	136	120	136	151	308	310	282	264	260	248	200	130	95	97	113	130	116	132	144

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
October 2023

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	63	17	56	89	50	77	82	83	85	54	49	55	37	15	70	26	51	18	13	79	97	90	33	25	55	97	13
2	54	17	19	22	17	16	65	52	57	46	33	32	27	16	19	13	14	11	9	14	36	39	48	93	32	93	9
3	65	101	41	27	77	10	13	16	17	11	13	12	15	17	15	16	12	10	80	63	18	80	35	51	34	101	10
4	27	17	15	10	18	23	17	21	23	11	13	12	13	13	13	11	32	25	23	56	65	64	50	27	25	65	10
5	58	51	79	69	19	24	Wx	68	61	71	33	38	26	25	23	12	13	11	18	20	36	21	9	24	35	79	9
6	17	37	35	87	41	26	66	37	15	88	65	33	30	23	23	29	31	48	25	17	20	18	15	23	35	88	15
7	32	34	21	36	17	26	44	42	66	59	63	19	35	36	22	21	17	75	22	11	13	25	23	19	32	75	11
8	18	14	12	15	39	14	22	26	64	78	34	50	28	22	20	16	16	54	45	9	13	32	24	45	30	78	9
9	26	41	46	16	17	12	37	34	16	54	26	31	20	26	21	23	13	67	10	22	23	67	38	54	31	67	10
10	95	69	45	47	88	45	46	44	40	67	23	21	20	24	23	14	20	32	26	58	18	16	84	28	41	95	14
11	48	82	38	51	57	37	45	60	24	19	21	35	24	19	18	13	13	12	54	38	14	32	15	11	33	82	11
12	15	12	11	10	11	14	11	18	22	16	13	21	14	24	14	12	14	12	12	10	50	7	5	5	15	50	5
13	6	12	54	76	26	10	7	6	8	8	9	12	13	10	13	16	7	7	17	18	25	13	16	18	17	76	6
14	27	20	29	94	90	69	54	60	52	56	87	48	47	14	50	62	16	39	22	16	24	22	16	31	44	94	14
15	35	64	23	15	16	16	25	53	85	99	101	54	20	20	15	23	52	44	46	13	30	16	24	21	38	101	13
16	36	31	27	53	27	26	13	16	39	24	47	21	17	14	16	18	24	22	16	16	72	29	35	87	30	87	13
17	52	49	69	62	91	84	59	49	33	12	13	20	13	14	11	14	13	11	13	44	76	43	32	39	38	91	11
18	52	88	56	80	65	100	80	91	81	84	17	17	16	13	14	17	48	17	69	41	39	50	48	35	51	100	13
19	71	73	84	79	57	84	44	72	65	72	88	19	20	15	11	15	10	20	33	20	42	83	63	100	52	100	10
20	49	60	36	39	30	44	52	86	68	51	52	15	14	14	14	17	11	34	67	50	41	67	74	60	44	86	11
21	93	41	73	33	20	11	7	46	34	23	37	35	81	51	61	23	15	77	21	18	27	30	33	23	38	93	7
22	51	40	32	87	37	16	81	77	31	68	89	73	11	12	9	8	48	10	49	46	32	24	72	48	44	89	8
23	88	54	19	20	16	17	20	19	69	24	13	9	10	9	9	8	11	6	7	43	59	30	94	75	30	94	6
24	75	63	54	69	52	45	11	37	53	22	24	17	8	7	10	27	16	15	11	19	12	11	25	12	29	75	7
25	11	9	12	7	10	12	17	10	9	20	11	6	22	21	25	17	24	18	18	18	79	53	21	11	19	79	6
26	11	6	35	15	11	37	20	37	23	75	6	11	15	7	6	7	14	35	63	60	73	85	59	85	33	85	6
27	66	36	52	79	48	91	46	36	74	40	31	30	9	9	17	15	8	32	78	87	71	46	57	65	47	91	8
28	87	85	60	82	61	61	51	45	85	60	64	50	16	9	27	6	9	9	50	41	29	56	31	81	48	87	6
29	15	10	22	18	21	11	27	14	21	14	21	23	21	14	14	15	22	31	21	37	23	27	54	39	22	54	10
30	61	43	65	72	95	62	61	27	57	55	75	12	10	8	8	7	14	88	28	32	23	26	61	41	43	95	7
31	65	40	58	54	71	101	83	82	60	86	43	22	42	19	24	11	61	16	40	48	44	18	46	43	49	101	11
Avg	47	42	41	49	42	39	40	44	46	47	39	28	22	17	20	17	22	29	32	34	39	39	40	43	36	85	10
Max	95	101	84	94	95	101	83	91	85	99	101	73	81	51	70	62	61	88	80	87	97	90	94	100	55	101	15
Min	6	6	11	7	10	10	7	6	8	8	6	6	8	7	6	6	7	6	7	9	12	7	5	5	15	50	5

Sandfire Resources America Inc.
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Standard Deviation of Wind Direction (degrees)
November 2023

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	44	55	31	34	74	50	50	63	59	79	68	59	19	16	13	12	18	77	8	39	16	31	48	37	42	79	8
2	43	84	63	43	52	80	103	73	57	18	10	10	10	12	20	77	55	33	59	37	74	70	13	24	47	103	10
3	19	21	28	12	15	25	30	16	13	14	20	15	12	17	11	10	8	12	51	63	27	22	50	83	25	83	8
4	45	58	62	48	60	42	80	40	50	38	22	6	20	41	32	34	16	22	45	64	91	71	26	17	43	91	6
5	80	37	39	45	13	27	13	16	14	12	9	14	15	13	16	13	17	74	56	86	70	74	56	65	36	86	9
6	74	19	50	51	56	74	94	28	74	37	10	44	24	17	13	43	13	87	24	22	69	84	64	20	45	94	10
7	19	24	70	62	52	99	76	90	40	62	15	21	13	14	13	11	10	10	11	12	15	13	14	11	32	99	10
8	16	8	20	19	46	67	17	71	53	71	11	13	11	12	12	11	10	11	13	13	15	27	21	47	26	71	8
9	23	33	63	68	44	68	68	65	83	66	53	39	16	13	12	13	16	76	21	25	37	28	32	33	41	83	12
10	36	49	26	42	16	25	28	28	20	49	85	53	40	18	19	13	23	19	31	62	35	56	55	23	35	85	13
11	33	59	64	74	71	69	77	20	16	40	10	19	23	19	15	11	10	8	12	12	12	10	9	10	29	77	8
12	12	9	14	7	8	10	9	16	16	17	20	18	16	16	14	17	25	18	17	46	58	24	20	14	18	58	7
13	23	19	28	27	25	62	61	44	76	98	10	17	45	65	27	62	29	31	52	51	60	45	60	30	44	98	10
14	92	62	9	33	49	48	36	85	61	67	60	13	11	17	21	29	18	76	78	28	49	24	47	43	44	92	9
15	59	43	87	22	18	50	62	25	58	15	12	12	12	11	20	15	12	10	11	24	12	14	17	23	27	87	10
16	11	12	19	12	11	10	12	37	51	63	26	17	18	18	15	15	11	12	48	25	16	50	95	70	28	95	10
17	49	67	21	70	55	57	57	72	58	56	75	47	19	26	16	22	43	40	47	34	35	57	44	27	46	75	16
18	52	13	18	17	18	15	21	25	24	69	24	19	16	21	16	10	37	25	17	19	23	52	28	21	25	69	10
19	22	25	27	21	55	57	24	61	58	81	90	55	25	18	11	11	11	12	15	12	18	31	10	88	35	90	10
20	44	32	48	71	46	60	68	78	39	80	58	16	26	12	13	9	12	66	52	35	30	41	87	47	45	87	9
21	26	51	57	27	34	71	58	30	32	89	27	66	73	27	21	42	16	13	23	19	32	55	58	79	43	89	13
22	42	82	87	13	20	82	81	45	10	14	10	21	14	12	11	11	9	23	11	13	26	20	18	17	29	87	9
23	13	8	7	9	14	21	53	71	14	25	23	16	27	9	21	25	26	15	19	16	70	81	57	33	28	81	7
24	35	55	57	10	12	41	40	36	13	46	43	19	18	32	14	18	55	9	19	50	82	31	36	34	34	82	9
25	10	7	23	19	42	31	29	32	46	66	101	58	53	8	11	14	43	84	82	34	10	9	11	14	35	101	7
26	18	8	13	8	26	21	27	26	25	74	32	19	15	13	13	14	21	73	23	29	26	68	52	63	29	74	8
27	55	50	40	30	28	20	41	44	63	52	96	37	11	13	16	20	41	72	33	47	58	56	55	46	43	96	11
28	44	60	41	46	46	44	63	59	57	99	32	41	45	23	20	41	26	18	16	17	31	25	17	50	40	99	16
29	51	44	49	44	44	70	54	95	84	97	61	43	13	18	16	9	12	71	71	100	45	77	91	86	56	100	9
30	48	21	53	82	37	76	28	56	63	64	90	36	66	29	24	14	12	66	70	48	41	89	42	55	50	90	12
Avg	38	37	40	36	36	49	49	48	44	55	40	29	24	19	17	22	22	39	35	36	39	45	41	40	37	87	10
Max	92	84	87	82	74	99	103	95	84	99	101	66	73	65	32	77	55	87	82	100	91	89	95	88	56	103	16
Min	10	7	7	7	8	10	9	16	10	12	9	6	10	8	11	9	8	8	8	12	10	9	9	10	18	58	6

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
December 2023

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	40	59	20	19	94	41	65	87	84	47	54	10	34	14	13	12	15	46	58	46	56	69	76	56	46	94	10
2	63	11	13	9	13	12	16	63	101	56	12	14	18	16	16	22	16	17	31	15	13	12	12	11	24	101	9
3	9	9	10	9	9	7	45	14	35	81	16	13	13	12	28	45	59	41	84	74	31	20	12	14	29	84	7
4	12	11	11	11	10	9	23	44	21	11	10	11	12	11	12	11	11	20	21	43	58	62	12	8	19	62	8
5	16	41	71	66	91	71	95	77	92	82	64	12	13	13	16	11	17	14	32	26	91	29	52	82	49	95	11
6	42	54	42	76	83	55	24	47	48	25	10	Au	Au	8	10	16	25	25	24	41	39	23	10	10	34	83	8
7	11	14	88	69	37	28	20	17	13	17	13	19	10	10	11	10	10	11	14	10	11	10	10	12	20	88	10
8	69	41	30	45	70	52	36	47	78	52	75	44	15	12	20	39	9	10	11	9	9	8	10	11	33	78	8
9	31	12	12	23	15	5	47	68	51	97	10	17	17	14	13	17	16	91	34	33	10	18	25	50	30	97	5
10	93	57	17	52	18	18	20	50	14	14	15	18	16	17	14	20	19	15	27	57	52	79	39	38	32	93	14
11	46	27	98	43	58	66	10	32	33	21	17	16	22	28	27	18	8	10	14	9	8	9	16	6	27	98	6
12	17	62	72	42	62	38	39	98	55	58	46	47	45	45	21	15	32	49	34	14	17	22	21	42	41	98	14
13	63	19	63	66	30	19	33	45	58	29	55	49	27	27	12	14	10	19	15	42	23	29	19	22	33	66	10
14	44	49	49	85	14	56	42	69	39	83	46	39	18	13	10	25	54	29	51	56	56	38	72	29	44	85	10
15	47	67	29	69	56	70	52	79	95	58	54	47	26	19	13	20	65	24	29	41	34	32	27	27	45	95	13
16	26	32	52	36	37	45	60	38	86	94	81	83	81	60	76	16	24	45	87	85	57	50	68	73	58	94	16
17	66	48	47	73	22	44	28	38	24	85	69	71	18	19	15	23	56	18	24	24	44	63	63	49	43	85	15
18	42	81	82	25	50	37	21	28	31	31	49	89	93	9	17	27	18	32	37	37	22	68	58	50	43	93	9
19	86	77	88	84	62	71	40	46	18	33	45	78	36	21	29	22	11	45	42	76	50	99	80	39	53	99	11
20	73	42	53	51	73	16	89	83	83	88	67	77	13	17	32	50	46	35	42	66	56	16	71	74	55	89	13
21	95	51	68	59	100	62	79	47	83	96	76	48	65	18	15	18	90	58	55	38	31	80	89	32	61	100	15
22	36	66	90	46	44	23	23	19	22	19	62	15	13	19	25	14	16	22	50	69	79	53	55	40	38	90	13
23	40	89	74	16	13	15	13	13	9	11	14	9	10	9	7	9	10	16	66	69	49	27	49	38	28	89	7
24	65	50	43	77	59	30	30	54	66	76	58	76	20	35	18	17	44	26	36	29	30	46	55	56	46	77	17
25	85	44	27	48	52	58	93	38	58	33	34	27	38	28	22	36	52	46	32	31	40	32	47	21	43	93	21
26	35	57	27	38	51	75	32	57	47	91	54	36	63	16	14	18	18	57	29	36	40	48	52	42	43	91	14
27	68	43	70	74	47	55	57	30	33	90	65	57	24	12	28	46	26	17	22	30	30	45	49	42	44	90	12
28	53	95	40	48	70	68	71	82	67	85	81	69	45	31	23	23	56	31	41	24	48	82	60	21	55	95	21
29	50	54	22	29	55	57	20	82	62	54	44	94	45	89	76	37	20	19	18	19	41	15	40	40	45	94	15
30	40	30	20	27	21	25	36	34	31	46	44	21	93	9	9	10	15	22	43	50	30	16	28	10	30	93	9
31	28	54	79	14	80	41	59	80	52	63	91	56	77	49	9	15	75	32	40	22	49	84	78	40	53	91	9
Avg	48	47	49	46	48	41	43	52	51	56	46	42	34	23	21	22	30	30	37	39	39	41	44	35	40	90	12
Max	95	95	98	85	100	75	95	98	101	97	91	94	93	89	76	50	90	91	87	85	91	99	89	82	61	101	21
Min	9	9	10	9	9	5	10	13	9	11	10	9	10	8	7	9	8	10	11	9	8	8	10	6	19	62	5

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-Meter Temperature (Degrees Celsius)
October 2023

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	4.3	4.6	4.4	4.3	4.4	3.3	2.3	3.8	4.9	5.7	7.1	7.6	7.3	5.5	6.9	7.2	5.4	4.6	4.5	4.2	4.3	4.4	4.8	5.3	5.0	7.6	2.3
2	5.3	5.0	4.6	4.1	2.4	1.5	0.5	0.7	2.1	5.4	7.1	8.5	9.7	10.3	9.9	9.7	9.5	8.8	8.1	7.6	6.5	4.9	4.0	3.7	5.8	10.3	0.5
3	4.1	4.6	4.4	4.4	4.4	4.6	4.8	5.3	6.1	7.3	7.9	7.8	8.6	9.2	9.2	8.9	7.7	6.3	5.6	4.9	4.3	4.4	4.5	4.4	6.0	9.2	4.1
4	4.6	5.1	5.2	5.2	5.0	5.0	5.1	5.4	6.3	7.7	8.3	8.9	9.3	9.6	11.2	11.7	10.7	7.4	6.8	6.2	5.0	5.0	4.4	3.6	6.8	11.7	3.6
5	3.3	3.0	2.0	1.0	0.1	-0.4	-1.0	-0.5	1.6	3.8	5.9	7.3	8.0	8.6	9.4	8.8	8.8	7.9	6.7	5.1	5.3	5.4	4.4	3.3	4.5	9.4	-1.0
6	2.9	2.6	2.4	2.3	0.5	-0.7	-1.7	-0.2	2.8	5.2	6.8	8.4	9.5	10.9	11.9	12.5	12.8	11.1	6.9	4.8	4.0	3.3	1.5	0.2	5.0	12.8	-1.7
7	-0.9	-1.5	-1.9	-2.1	-2.3	-2.5	-3.2	-2.4	1.8	8.1	12.8	14.6	15.1	15.9	16.4	16.9	16.8	13.9	8.0	6.8	5.3	2.3	1.4	0.5	5.8	16.9	-3.2
8	0.5	0.4	-1.0	-1.4	-1.4	-1.8	-1.9	-0.8	4.1	11.3	15.8	17.7	18.4	18.7	19.2	19.4	19.2	16.2	9.3	8.1	5.8	3.6	2.8	1.7	7.7	19.4	-1.9
9	1.3	0.8	1.0	0.7	0.3	0.0	0.5	1.1	6.5	14.1	17.3	18.6	19.5	20.2	20.6	20.6	20.2	16.5	10.7	8.1	5.6	5.8	6.2	6.9	9.3	20.6	0.0
10	7.5	7.6	7.5	6.5	6.1	4.9	4.4	5.4	9.9	13.7	16.2	16.7	16.7	17.0	17.1	16.2	15.1	13.3	13.3	11.5	9.1	8.1	7.4	6.8	10.8	17.1	4.4
11	6.8	6.8	6.1	5.5	5.5	5.1	5.0	5.5	5.6	6.2	6.7	7.5	8.9	9.8	10.4	10.3	9.3	8.3	6.1	6.5	6.1	6.2	6.0	6.0	6.9	10.4	5.0
12	5.9	5.4	5.4	5.2	4.9	5.4	5.1	5.1	5.1	5.5	5.9	6.4	6.3	6.1	6.1	6.2	6.4	6.0	5.7	5.5	4.9	4.0	3.5	3.2	5.4	6.4	3.2
13	2.9	3.0	3.0	2.7	2.6	2.7	2.4	2.0	2.2	2.4	3.1	4.6	5.0	4.9	5.1	5.2	3.9	2.9	2.3	2.1	1.5	0.4	0.6	0.8	2.8	5.2	0.4
14	-0.1	-1.0	-1.8	-2.9	-3.0	-3.1	-3.4	-3.3	0.0	2.0	5.2	7.7	8.8	8.7	8.9	10.3	10.0	8.0	3.7	2.1	0.4	-0.7	-1.6	-1.9	2.2	10.3	-3.4
15	-2.1	-2.6	-2.7	-1.9	-0.5	-0.8	-1.1	-0.3	1.4	5.2	8.9	12.4	13.5	13.8	14.2	14.0	14.0	13.0	10.4	8.7	6.1	4.5	2.5	1.9	5.5	14.2	-2.7
16	0.7	0.5	0.3	0.0	0.0	0.1	0.2	0.8	3.6	6.9	13.2	16.5	17.8	17.9	17.6	17.1	16.3	13.2	10.3	7.6	6.6	5.8	4.7	3.7	7.6	17.9	0.0
17	3.0	3.5	4.1	4.5	3.1	2.4	2.3	4.0	9.5	11.0	9.8	10.1	10.2	9.8	9.7	9.8	9.4	8.2	7.0	5.1	4.0	0.2	-2.4	-3.7	5.6	11.0	-3.7
18	-4.1	-5.1	-5.0	-5.4	-5.5	-5.3	-5.1	-4.3	-0.3	6.3	10.8	12.3	13.7	14.8	15.0	14.3	13.9	12.9	10.8	6.1	3.4	1.8	1.1	0.0	4.0	15.0	-5.5
19	-1.1	-1.1	-1.8	-2.3	-3.2	-3.0	-3.5	-3.0	1.6	9.5	15.9	17.5	18.1	19.1	19.6	19.8	19.4	17.6	13.3	10.0	8.4	6.0	7.6	5.8	7.9	19.8	-3.5
20	5.1	3.4	2.4	2.0	1.5	1.1	0.7	0.9	4.7	11.1	16.1	17.4	18.2	18.7	19.0	19.0	18.5	15.6	11.1	8.2	5.6	5.0	4.5	3.0	8.9	19.0	0.7
21	2.7	1.6	0.5	0.0	4.0	5.3	4.4	3.4	4.7	8.1	10.4	12.4	14.1	15.0	16.0	15.9	15.2	11.0	7.0	4.8	3.5	1.0	0.3	-0.1	6.7	16.0	-0.1
22	-0.6	-1.4	-1.3	-2.0	-2.0	-2.5	-3.0	-3.3	-0.8	3.4	7.5	11.4	12.2	12.8	13.2	13.2	12.0	9.2	7.7	7.1	6.3	7.2	6.5	6.0	5.0	13.2	-3.3
23	5.9	5.7	5.0	3.7	3.1	2.9	2.4	2.1	2.5	3.4	3.8	3.7	3.8	3.5	3.7	3.7	3.1	2.8	2.5	1.5	0.9	0.9	1.2	0.3	3.0	5.9	0.3
24	-0.6	-1.0	-1.0	-0.7	0.3	-0.8	-1.4	-1.8	-1.9	-2.2	-1.9	-1.7	-2.7	-3.5	-3.5	-3.8	-4.2	-5.6	-6.2	-6.8	-6.7	-7.2	-7.7	-7.8	-3.4	0.3	-7.8
25	-7.8	-8.0	-8.3	-8.7	-8.8	-9.6	-9.6	-9.9	-9.8	-9.9	-11.3	-11.6	-11.1	-11.2	-11.0	-11.8	-11.8	-12.2	-12.6	-12.8	-13.0	-13.4	-12.6	-12.5	-10.8	-7.8	-13.4
26	-12.7	-13.0	-13.3	-13.9	-14.2	-14.3	-14.3	-14.2	-14.1	-13.7	-14.0	-13.5	-12.6	-12.4	-12.8	-12.7	-13.0	-13.7	-14.0	-14.1	-14.1	-13.6	-13.5	-13.7	-13.6	-12.4	-14.3
27	-13.8	-13.8	-14.2	-14.3	-15.6	-16.7	-16.8	-17.6	-17.2	-15.3	-14.1	-12.8	-12.2	-11.4	-11.0	-11.5	-12.9	-14.2	-16.0	-17.1	-17.3	-18.1	-19.5	-21.0	-15.2	-11.0	-21.0
28	-23.2	-24.6	-25.4	-26.5	-27.2	-27.3	-27.3	-27.8	-25.5	-22.1	-16.9	-12.2	-11.3	-11.0	-9.9	-9.3	-9.5	-9.7	-10.0	-11.2	-13.0	-13.5	-13.2	-10.6	-17.4	-9.3	-27.8
29	-8.9	-9.4	-8.9	-8.9	-8.3	-8.2	-8.7	-8.5	-8.4	-8.2	-7.7	-6.7	-6.0	-5.3	-5.0	-4.9	-5.6	-8.2	-11.5	-14.4	-15.1	-17.0	-18.1	-19.0	-9.6	-4.9	-19.0
30	-20.0	-20.3	-20.5	-20.9	-21.0	-20.8	-20.6	-19.4	-16.5	-13.0	-7.5	-3.0	-1.9	-1.1	-0.8	-0.9	-1.8	-4.4	-7.3	-8.6	-9.7	-11.3	-11.1	-10.5	-11.4	-0.8	-21.0
31	-10.2	-10.4	-10.8	-11.6	-11.5	-11.3	-11.6	-12.5	-11.0	-7.8	-4.6	0.8	2.2	2.3	2.8	3.2	1.6	-2.1	-3.8	-5.6	-6.9	-8.0	-9.3	-9.7	-6.1	3.2	-12.5
Avg	-1.3	-1.6	-1.9	-2.3	-2.5	-2.7	-3.0	-2.7	-0.6	2.3	4.7	6.3	7.0	7.3	7.7	7.7	7.1	5.3	3.1	1.7	0.6	-0.4	-0.9	-1.4	1.6	8.3	-4.6
Max	7.5	7.6	7.5	6.5	6.1	5.4	5.1	5.5	9.9	14.1	17.3	18.6	19.5	20.2	20.6	20.6	20.2	17.6	13.3	11.5	9.1	8.1	7.6	6.9	10.8	20.6	5.0
Min	-23.2	-24.6	-25.4	-26.5	-27.2	-27.3	-27.3	-27.8	-25.5	-22.1	-16.9	-13.5	-12.6	-12.4	-12.8	-12.7	-13.0	-14.2	-16.0	-17.1	-17.3	-18.1	-19.5	-21.0	-17.4	-12.4	-27.8

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-Meter Temperature (Degrees Celsius)
November 2023

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	-10.8	-11.1	-11.3	-11.3	-10.8	-10.8	-10.9	-11.3	-10.0	-7.2	-3.7	2.4	5.5	5.8	5.8	5.5	4.7	2.5	-0.8	-1.9	-2.4	-2.8	-3.2	-3.1	-3.8	5.8	-11.3
2	-3.5	-4.3	-4.7	-5.2	-4.1	-3.3	-2.2	-2.0	-1.1	0.9	1.5	1.8	2.2	2.1	2.1	2.0	1.9	1.7	1.5	1.6	1.5	2.9	5.6	5.5	0.2	5.6	-5.2
3	5.0	4.6	4.6	4.8	4.0	3.9	3.6	3.8	4.5	4.9	5.5	5.8	6.2	6.4	6.2	5.9	5.4	4.6	2.9	1.3	-0.2	-1.3	-2.2	-3.8	3.6	6.4	-3.8
4	-4.8	-5.4	-6.0	-5.8	-6.0	-6.6	-6.9	-6.5	-3.8	-0.4	3.8	5.7	7.1	7.6	7.2	5.8	4.3	4.0	3.6	3.2	2.8	2.6	4.0	4.9	0.6	7.6	-6.9
5	6.8	5.6	4.8	6.7	7.6	7.2	5.2	5.0	5.1	5.1	5.1	6.1	6.7	7.1	7.0	6.7	6.4	5.7	4.3	3.6	1.7	1.5	0.9	0.4	5.1	7.6	0.4
6	-0.1	-0.5	-0.7	-0.6	-0.6	-0.3	0.0	-0.2	1.9	5.4	6.9	8.2	9.2	9.6	9.5	7.3	5.4	4.7	2.7	0.7	0.7	0.7	2.0	2.2	3.1	9.6	-0.7
7	1.5	1.4	0.9	-0.1	-1.0	-0.6	1.1	0.2	0.4	2.4	3.2	3.6	3.7	3.2	3.7	3.4	3.0	2.8	2.4	2.1	1.9	1.4	0.4	-0.1	1.7	3.7	-1.0
8	-0.3	-0.2	-0.4	-1.4	-2.6	-4.0	-5.7	-7.3	-6.8	-3.3	0.3	1.5	2.1	2.4	2.3	2.1	1.4	0.2	-0.5	-0.8	-1.2	-2.3	-4.2	-7.0	-1.5	2.4	-7.3
9	-8.7	-9.0	-10.3	-11.2	-11.3	-11.4	-11.6	-12.0	-10.4	-6.2	-2.3	0.4	1.4	2.2	2.6	2.8	1.7	0.0	-2.6	-5.0	-6.5	-7.3	-8.1	-8.8	-5.5	2.8	-12.0
10	-8.5	-9.0	-9.3	-9.0	-8.1	-7.7	-8.2	-7.8	-6.5	-3.9	-1.4	0.7	2.0	2.3	2.4	2.2	1.2	-0.2	-0.8	-1.7	-1.9	-2.3	-3.3	-4.1	-3.5	2.4	-9.3
11	-4.7	-5.6	-5.3	-3.2	-1.6	-0.8	-1.4	-1.1	-0.1	2.0	3.6	4.0	4.7	5.6	6.9	6.7	6.5	6.3	6.6	6.7	6.3	4.7	3.7	2.9	2.2	6.9	-5.6
12	2.6	2.4	1.8	0.7	1.5	1.4	1.3	1.3	2.1	3.2	4.5	5.4	6.6	7.5	7.5	7.1	6.2	1.8	0.2	-1.0	1.6	3.3	2.5	1.1	3.0	7.5	-1.0
13	0.8	-1.3	-1.6	-1.8	-2.5	-3.9	-4.1	-4.8	-3.3	3.5	9.9	10.6	10.6	10.1	11.1	10.6	9.5	6.7	5.8	2.3	4.7	3.4	2.0	2.3	3.4	11.1	-4.8
14	2.9	1.3	0.0	-2.1	-3.0	-3.5	-4.6	-5.4	-4.0	0.0	4.3	7.0	7.5	6.9	6.3	6.0	5.7	4.6	1.6	-0.3	-2.0	-3.3	-3.5	-4.7	0.7	7.5	-5.4
15	-5.2	-3.9	0.9	5.3	5.7	5.2	1.5	-0.4	0.3	8.2	9.2	9.5	10.3	10.0	10.4	10.9	10.6	10.3	9.9	8.8	9.3	9.4	8.5	7.1	6.3	10.9	-5.2
16	3.7	2.8	1.9	0.5	0.3	0.0	-0.9	-2.3	-2.3	-0.4	1.0	2.2	3.3	4.7	4.8	4.5	3.9	3.1	1.7	1.2	1.9	0.9	0.4	-2.0	1.5	4.8	-2.3
17	-4.1	-4.6	-4.8	-5.4	-5.4	-5.9	-6.2	-6.1	-5.2	-2.5	0.9	6.1	7.2	7.7	8.1	7.8	5.9	2.2	-0.9	-1.9	-3.1	-4.5	-5.0	-5.6	-1.1	8.1	-6.2
18	-6.2	-6.5	-6.5	-6.3	-6.5	-5.3	-6.1	-6.0	-5.3	-0.9	5.0	7.1	8.3	8.8	9.0	8.0	5.8	1.9	-0.2	-1.1	-2.7	-3.6	-3.6	-4.2	-0.7	9.0	-6.5
19	-4.4	-4.8	-5.3	-5.1	-4.9	-4.7	-4.9	-5.6	-5.2	-3.5	1.0	5.0	6.8	5.8	4.6	2.8	1.4	0.8	0.4	-0.1	-0.9	-1.8	-1.5	-2.5	-1.1	6.8	-5.6
20	-3.4	-5.4	-5.7	-6.9	-6.3	-3.5	-2.9	-5.0	-5.9	-3.5	-0.6	0.5	1.4	1.7	1.9	1.5	0.4	-1.1	-3.7	-5.5	-6.4	-7.2	-8.0	-8.4	-3.4	1.9	-8.4
21	-9.1	-9.0	-8.8	-8.8	-9.4	-10.2	-10.6	-10.7	-9.6	-5.3	-1.0	4.7	7.3	8.8	8.7	8.2	4.8	3.8	1.7	0.8	0.1	-0.7	-0.9	-1.1	-1.9	8.8	-10.7
22	-1.4	-1.4	1.1	4.8	4.3	3.5	3.7	4.0	4.8	4.9	3.9	4.7	5.0	4.3	4.1	3.4	2.8	2.4	2.2	2.2	1.9	1.2	0.5	0.0	2.8	5.0	-1.4
23	-0.4	-0.6	-1.0	-1.6	-1.9	-2.4	-2.8	-2.9	-3.0	-2.9	-2.6	-2.8	-3.1	-4.2	-3.9	-3.9	-5.6	-6.0	-7.2	-8.6	-8.7	-9.5	-10.1	-11.2	-4.5	-0.4	-11.2
24	-11.6	-10.5	-9.7	-10.0	-10.4	-10.8	-11.3	-11.7	-11.7	-11.0	-9.7	-8.8	-8.0	-6.9	-6.8	-6.9	-8.5	-10.4	-10.8	-10.0	-9.2	-9.0	-9.7	-10.9	-9.8	-6.8	-11.7
25	-12.5	-13.5	-14.5	-15.3	-15.7	-16.7	-16.8	-17.2	-16.8	-13.1	-9.8	-6.6	-5.5	-4.1	-2.9	-2.8	-3.1	-4.1	-3.9	-3.6	-3.4	-3.6	-3.4	-3.3	-8.8	-2.8	-17.2
26	-3.4	-3.3	-3.2	-3.2	-3.4	-3.8	-4.2	-6.6	-6.9	-5.1	-3.1	-2.3	-2.3	-2.0	-2.0	-2.5	-3.8	-6.1	-8.9	-10.2	-11.3	-12.6	-13.1	-13.7	-5.7	-2.0	-13.7
27	-14.1	-14.2	-14.6	-14.5	-14.8	-15.1	-15.4	-15.7	-14.9	-11.5	-6.3	-1.9	1.4	2.4	2.7	2.5	1.3	-0.8	-4.1	-6.1	-7.6	-7.8	-9.1	-10.2	-7.9	2.7	-15.7
28	-10.6	-11.8	-11.7	-11.7	-11.7	-12.8	-13.0	-13.5	-13.0	-9.3	-4.3	1.8	5.3	6.3	6.7	5.9	1.1	-4.2	-6.1	-7.7	-8.3	-9.8	-10.3	-11.5	-6.4	6.7	-13.5
29	-12.3	-12.8	-13.4	-14.0	-14.3	-14.3	-14.6	-14.5	-12.8	-9.1	-3.5	2.0	2.9	3.3	3.0	2.1	-0.1	-2.4	-4.5	-6.6	-8.0	-9.8	-10.1	-11.1	-7.3	3.3	-14.6
30	-12.1	-12.5	-13.6	-13.1	-13.8	-14.5	-15.0	-15.2	-14.9	-12.9	-7.5	-3.6	-2.1	-1.9	-2.3	-2.7	-3.7	-4.9	-6.1	-6.3	-6.3	-7.1	-7.2	-7.9	-8.6	-1.9	-15.2
Avg	-4.3	-4.8	-4.9	-4.8	-4.9	-5.1	-5.5	-5.9	-5.1	-2.4	0.5	2.7	3.8	4.1	4.2	3.8	2.6	1.0	-0.5	-1.5	-1.9	-2.5	-2.9	-3.6	-1.6	4.7	-7.8
Max	6.8	5.6	4.8	6.7	7.6	7.2	5.2	5.0	5.1	8.2	9.9	10.6	10.6	10.1	11.1	10.9	10.6	10.3	9.9	8.8	9.3	9.4	8.5	7.1	6.3	11.1	0.4
Min	-14.1	-14.2	-14.6	-15.3	-15.7	-16.7	-16.8	-17.2	-16.8	-13.1	-9.8	-8.8	-8.0	-6.9	-6.8	-6.9	-8.5	-10.4	-10.8	-10.2	-11.3	-12.6	-13.1	-13.7	-9.8	-6.8	-17.2

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-Meter Temperature (Degrees Celsius)
December 2023

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	-7.5	-8.1	-7.8	-7.7	-8.2	-8.7	-8.6	-9.0	-8.4	-7.2	-5.3	-4.1	-3.1	-2.5	-2.0	-2.1	-2.6	-3.9	-6.6	-8.2	-7.8	-7.8	-7.5	-6.9	-6.3	-2.0	-9.0
2	-4.5	-3.9	-3.7	-4.0	-4.4	-4.2	-4.3	-4.8	-4.0	-3.0	-1.2	-0.9	-0.8	-0.5	-0.7	-1.9	-2.9	-2.4	-1.8	-1.9	-2.6	-2.7	-2.7	-2.9	-2.8	-0.5	-4.8
3	-2.6	-2.9	-3.4	-3.7	-4.3	-4.8	-6.0	-8.5	-10.0	-6.5	-2.5	-2.0	-1.9	-1.7	-1.3	-0.9	-0.7	-1.3	-1.4	0.1	1.5	2.5	3.9	4.0	-2.3	4.0	-10.0
4	3.8	3.9	3.9	3.6	2.9	2.1	1.5	-0.2	-0.1	1.4	2.5	3.4	4.1	4.0	4.3	4.2	4.0	3.6	3.6	3.2	3.5	3.2	0.8	0.8	2.8	4.3	-0.2
5	1.0	0.8	0.6	0.9	0.8	0.6	0.8	1.0	1.8	2.3	4.8	9.0	9.5	9.8	10.0	9.3	8.5	8.2	7.2	6.7	6.0	5.2	4.1	4.8	4.7	10.0	0.6
6	4.3	2.5	1.6	0.7	1.0	2.6	4.0	3.7	3.6	6.0	8.7	Au	Au	10.7	11.1	10.0	8.4	8.3	8.4	7.6	7.7	7.9	7.3	7.3	6.1	11.1	0.7
7	6.7	6.1	5.0	4.0	4.6	5.2	4.7	3.8	2.7	0.9	0.5	0.5	1.2	1.3	1.1	1.0	0.5	0.1	-0.5	-0.9	-0.8	-1.1	-2.0	-2.7	1.7	6.7	-2.7
8	-4.1	-5.4	-6.9	-9.7	-11.0	-9.7	-9.0	-8.7	-9.5	-7.8	-5.3	-3.3	-2.5	-2.2	-2.1	-2.1	-2.4	-2.6	-2.8	-3.2	-3.6	-4.0	-4.5	-5.0	-5.3	-2.1	-11.0
9	-5.3	-5.6	-6.0	-6.2	-6.3	-7.6	-8.9	-12.6	-13.8	-12.0	-5.8	-5.2	-4.6	-4.1	-3.7	-3.9	-4.8	-5.4	-6.4	-6.0	-4.9	-4.3	-3.8	-3.5	-6.3	-3.5	-13.8
10	-3.3	-3.1	-3.0	-2.7	-1.7	-1.4	-1.1	-1.0	-0.9	-0.7	0.3	1.2	1.3	1.5	1.6	1.2	0.6	0.4	-0.4	-0.3	-0.3	-0.2	0.5	0.4	-0.5	1.6	-3.3
11	-0.3	-0.6	-0.1	0.1	0.0	0.1	-0.3	-0.6	-0.9	-0.9	-0.6	-0.6	-0.1	-0.2	0.3	0.3	-0.5	-1.6	-2.0	-2.3	-2.4	-2.5	-2.3	-2.4	-0.8	0.3	-2.5
12	-2.5	-2.8	-2.9	-2.8	-2.1	-1.9	-2.1	-2.3	-2.5	-2.3	-1.6	-1.0	-0.1	0.7	1.0	0.7	-1.2	-3.6	-6.5	-7.5	-8.5	-10.4	-11.9	-12.6	-3.6	1.0	-12.6
13	-13.4	-14.1	-14.5	-14.8	-14.9	-15.8	-16.5	-16.2	-16.5	-12.5	-7.9	-2.7	1.0	4.2	4.8	3.7	-1.6	-6.2	-8.1	-9.4	-10.5	-11.8	-12.4	-13.7	-9.2	4.8	-16.5
14	-14.2	-14.1	-14.3	-13.5	-14.1	-13.9	-14.3	-14.7	-14.4	-11.5	-6.8	-0.2	3.3	3.8	4.1	3.5	1.2	-2.6	-4.5	-5.6	-6.6	-6.1	-6.4	-6.4	-7.0	4.1	-14.7
15	-7.4	-8.6	-8.6	-9.4	-10.7	-11.3	-11.4	-11.4	-11.3	-9.3	-4.4	0.7	3.4	3.7	3.8	3.7	1.1	-2.0	-3.7	-5.4	-7.0	-6.6	-7.7	-8.2	-5.3	3.8	-11.4
16	-8.9	-8.9	-9.4	-9.9	-10.0	-10.3	-10.0	-9.5	-8.4	-7.4	-5.4	-3.6	-2.3	-0.5	3.3	6.4	6.2	4.1	2.4	1.5	2.8	1.5	1.2	0.0	-3.1	6.4	-10.3
17	-0.7	-0.8	-1.1	-1.3	1.2	-0.6	-4.0	-6.1	-6.0	-5.3	-2.3	2.0	3.5	4.5	5.0	4.4	2.2	-1.8	-3.7	-6.2	-7.8	-8.5	-9.3	-9.5	-2.2	5.0	-9.5
18	-10.0	-10.6	-10.9	-10.7	-11.0	-11.0	-9.9	-8.1	-7.0	-4.1	-1.9	1.8	6.2	8.1	7.4	6.6	3.8	1.3	0.3	0.3	-0.4	-1.1	-1.6	-1.6	-2.7	8.1	-11.0
19	-0.7	0.1	-0.2	0.0	0.1	-0.5	-2.1	-2.9	-3.2	-1.3	2.6	5.6	7.9	8.4	7.6	8.0	6.9	5.0	3.7	1.5	-0.6	-2.0	-3.4	-3.6	1.5	8.4	-3.6
20	-4.2	-5.6	-5.2	-6.1	-6.5	-6.7	-6.5	-5.8	-6.3	-3.9	0.8	5.8	7.6	7.7	7.0	5.7	1.6	-0.4	-1.3	-3.1	-3.8	-4.5	-4.0	-3.6	-1.7	7.7	-6.7
21	-4.6	-5.4	-6.5	-6.7	-7.6	-7.7	-7.5	-5.8	-4.8	-3.6	-1.9	0.6	5.3	7.0	7.3	6.5	3.7	0.3	-1.4	-3.2	-4.3	-5.1	-5.1	-6.3	-2.4	7.3	-7.7
22	-6.9	-7.1	-7.8	-7.2	-7.9	-8.4	-8.4	-8.2	-7.3	-4.8	-0.3	5.2	6.6	7.4	7.5	6.7	5.2	2.6	2.2	1.8	-0.7	0.3	0.7	0.0	-1.2	7.5	-8.4
23	2.4	0.6	1.8	0.6	-0.9	-1.5	-2.4	-3.2	-3.3	-3.4	-3.6	-3.3	-3.6	-4.1	-4.9	-5.1	-5.7	-6.4	-6.9	-7.4	-8.2	-8.8	-9.5	-9.9	-4.0	2.4	-9.9
24	-10.3	-11.9	-13.5	-13.5	-13.3	-14.5	-15.8	-17.7	-18.5	-17.5	-13.8	-9.7	-6.5	-5.5	-5.2	-5.5	-8.8	-12.3	-14.1	-16.2	-17.4	-18.1	-18.3	-19.2	-13.2	-5.2	-19.2
25	-18.9	-18.6	-19.2	-18.8	-19.1	-18.9	-18.6	-18.0	-17.5	-14.5	-11.8	-7.5	-3.3	-2.1	-1.7	-2.0	-6.2	-9.9	-10.0	-11.6	-14.0	-14.1	-15.8	-15.9	-12.8	-1.7	-19.2
26	-17.0	-18.0	-18.2	-18.5	-19.1	-19.7	-19.6	-20.7	-20.8	-18.0	-13.4	-8.3	-1.6	-0.8	-1.1	-1.1	-1.2	-2.3	-3.6	-5.4	-8.3	-9.9	-10.7	-12.1	-11.2	-0.8	-20.8
27	-13.6	-13.9	-14.7	-15.4	-15.4	-15.7	-16.3	-16.1	-16.5	-14.1	-10.1	-6.4	-3.5	-0.5	0.9	1.0	-2.6	-5.3	-8.3	-10.0	-11.1	-10.6	-10.6	-10.0	-9.9	1.0	-16.5
28	-7.8	-7.1	-7.7	-7.4	-8.2	-8.9	-9.0	-8.5	-8.3	-7.9	-6.4	-1.9	2.8	5.2	5.4	4.7	2.3	-2.2	-4.6	-5.4	-7.5	-8.4	-8.7	-9.3	-4.8	5.4	-9.3
29	-9.0	-9.6	-10.5	-11.1	-10.8	-10.9	-10.3	-11.6	-10.8	-9.5	-6.6	-3.3	-0.5	3.4	4.7	4.2	0.8	-1.3	-2.9	-5.1	-5.6	-6.5	-7.8	-8.3	-5.8	4.7	-11.6
30	-8.7	-8.6	-8.7	-9.0	-9.7	-9.3	-8.6	-9.0	-9.3	-8.0	-5.0	-0.6	5.3	8.3	8.7	8.2	2.6	-0.7	-2.2	-2.1	-2.2	-4.5	-5.0	-6.1	-3.5	8.7	-9.7
31	-6.6	-6.5	-5.3	-5.6	-6.4	-6.8	-7.8	-8.4	-8.2	-7.7	-4.1	-1.4	0.9	3.6	3.8	3.6	1.5	-1.8	-4.0	-6.0	-6.9	-6.9	-7.7	-9.0	-4.3	3.8	-9.0
Avg	-5.6	-6.1	-6.4	-6.6	-6.9	-7.1	-7.4	-7.8	-7.8	-6.3	-3.5	-1.0	1.2	2.5	2.8	2.5	0.6	-1.4	-2.6	-3.5	-4.3	-4.7	-5.2	-5.5	-3.7	3.6	-9.5
Max	6.7	6.1	5.0	4.0	4.6	5.2	4.7	3.8	3.6	6.0	8.7	9.0	9.5	10.7	11.1	10.0	8.5	8.3	8.4	7.6	7.7	7.9	7.3	7.3	6.1	11.1	0.7
Min	-18.9	-18.6	-19.2	-18.8	-19.1	-19.7	-19.6	-20.7	-20.8	-18.0	-13.8	-9.7	-6.5	-5.5	-5.2	-5.5	-8.8	-12.3	-14.1	-16.2	-17.4	-18.1	-18.3	-19.2	-13.2	-5.2	-20.8

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
2-Meter Temperature (Degrees Celsius)
October 2023

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	4.1	4.4	4.2	4.2	4.0	2.4	1.7	3.7	4.9	6.0	7.6	7.9	7.7	5.8	7.2	7.2	5.5	4.7	4.6	4.3	4.4	4.5	4.8	5.2	5.0	7.9	1.7
2	5.2	4.9	4.6	3.6	1.6	0.7	0.4	0.9	2.6	6.2	7.9	9.5	10.9	11.5	10.5	10.1	9.7	8.8	8.0	7.4	6.2	4.5	3.6	3.3	5.9	11.5	0.4
3	3.7	4.1	4.3	4.3	4.4	4.6	4.7	5.2	6.1	7.9	8.6	8.2	9.4	10.1	9.7	9.2	7.8	6.3	5.5	4.7	4.2	4.5	4.6	4.4	6.1	10.1	3.7
4	4.2	4.7	5.0	4.9	4.7	4.6	4.9	5.3	6.5	8.1	8.5	9.1	9.4	9.4	11.5	12.2	10.8	7.2	6.6	5.5	4.7	4.5	4.3	3.3	6.7	12.2	3.3
5	3.1	2.7	1.8	1.0	0.0	-0.5	-1.1	-0.3	2.0	4.0	6.1	7.7	8.0	8.8	9.8	9.2	8.9	7.7	5.8	4.2	4.7	5.1	4.3	3.3	4.4	9.8	-1.1
6	2.8	2.5	2.4	2.1	-0.1	-1.5	-2.0	0.0	3.4	5.8	7.7	9.7	10.7	12.0	12.9	13.4	13.3	10.5	5.9	4.1	3.7	2.1	-0.3	-1.8	5.0	13.4	-2.0
7	-2.3	-3.0	-3.2	-3.3	-3.7	-4.4	-4.5	-2.8	2.5	9.0	13.8	15.5	16.3	16.9	17.3	17.6	17.2	13.2	7.2	6.2	3.9	0.3	-0.6	-1.6	5.3	17.6	-4.5
8	-1.5	-1.9	-2.8	-2.8	-2.9	-3.4	-3.2	-1.5	4.6	12.1	16.4	18.5	19.3	19.6	20.0	20.0	19.5	14.7	8.6	7.7	4.5	1.5	1.0	-0.2	7.0	20.0	-3.4
9	-0.7	-0.5	-0.6	-1.4	-1.4	-1.3	-1.2	0.0	6.8	14.6	17.8	19.3	20.2	21.0	21.3	21.1	20.3	15.0	10.1	6.9	3.7	4.1	5.5	6.1	8.6	21.3	-1.4
10	6.8	6.9	6.9	5.5	4.8	3.7	3.3	5.2	10.2	14.1	16.4	17.2	17.2	17.4	17.4	16.2	14.9	12.9	12.8	11.1	8.8	7.9	7.2	6.5	10.5	17.4	3.3
11	6.7	6.5	5.9	5.4	5.1	4.7	4.6	5.3	5.7	6.6	7.2	8.2	9.8	10.9	11.5	11.1	9.4	7.7	5.2	6.2	5.7	6.0	5.6	5.7	6.9	11.5	4.6
12	5.8	5.1	5.2	5.0	4.8	5.3	5.0	5.0	5.2	5.7	6.2	6.6	6.5	6.3	6.4	6.5	6.6	6.1	5.7	5.5	4.8	4.0	3.5	3.2	5.4	6.6	3.2
13	2.9	3.0	2.9	2.7	2.6	2.7	2.5	2.1	2.5	2.9	4.1	5.8	6.2	5.7	5.9	5.8	4.1	2.4	1.5	1.3	0.4	-0.5	-0.8	-0.4	2.8	6.2	-0.8
14	-1.4	-2.6	-3.0	-4.3	-4.6	-4.7	-5.0	-3.6	0.0	2.4	5.8	8.3	9.2	9.0	9.6	11.1	10.3	6.9	2.6	0.2	-0.3	-2.4	-3.0	-3.5	1.5	11.1	-5.0
15	-3.5	-3.7	-4.3	-2.7	-1.1	-1.9	-2.2	-0.6	1.5	5.6	9.5	13.1	14.4	14.6	14.9	14.4	14.0	12.4	10.0	8.3	4.8	3.5	1.2	0.1	5.1	14.9	-4.3
16	-0.8	-1.0	-1.3	-1.3	-1.3	-1.3	-1.4	-0.1	3.4	7.2	13.7	16.9	18.4	18.3	17.7	16.9	15.8	12.4	8.5	5.9	5.0	4.2	2.8	1.7	6.7	18.4	-1.4
17	1.3	2.1	3.4	3.8	2.0	0.9	1.1	2.6	9.0	11.3	10.2	10.7	10.8	10.4	10.3	10.3	9.5	7.8	6.4	4.1	2.1	-2.0	-3.6	-5.1	5.0	11.3	-5.1
18	-5.6	-6.8	-6.5	-6.6	-6.9	-6.2	-6.3	-4.7	0.0	7.0	11.7	13.2	14.6	15.6	15.6	14.6	13.9	11.6	8.5	5.1	2.1	0.5	-0.7	-1.7	3.4	15.6	-6.9
19	-2.5	-2.3	-3.6	-4.4	-4.8	-4.8	-5.1	-4.1	2.0	10.4	16.7	18.4	19.0	19.8	20.1	20.2	19.4	16.3	10.3	7.2	6.0	3.6	4.2	4.3	6.9	20.2	-5.1
20	3.2	1.5	1.0	0.7	0.0	-0.3	-0.8	-0.2	5.0	11.9	16.8	18.2	19.0	19.4	19.7	19.3	18.3	13.5	9.2	7.2	4.4	3.8	2.8	1.9	8.1	19.7	-0.8
21	1.1	0.0	-0.8	-1.2	1.6	4.3	3.2	2.1	5.1	8.7	11.1	13.1	14.9	16.1	16.8	16.7	15.2	10.0	5.8	3.2	1.7	-0.7	-1.1	-1.8	6.0	16.8	-1.8
22	-2.3	-2.9	-3.3	-3.7	-4.3	-4.2	-4.6	-4.8	-0.5	4.0	8.3	12.3	12.8	13.3	13.3	13.1	11.7	8.8	7.4	6.7	6.0	7.0	6.3	5.8	4.4	13.3	-4.8
23	5.5	5.5	5.0	3.5	2.9	2.7	2.3	2.1	2.7	3.7	4.2	4.0	4.2	3.8	4.1	3.9	3.2	2.8	2.5	1.0	0.2	0.7	0.8	-0.1	3.0	5.5	-0.1
24	-1.1	-1.6	-1.5	-1.0	-0.3	-1.5	-1.3	-1.7	-1.6	-1.7	-1.4	-1.1	-2.0	-3.0	-2.9	-3.4	-3.9	-5.3	-5.9	-6.6	-6.5	-7.0	-7.6	-7.8	-3.2	-0.3	-7.8
25	-7.7	-7.9	-8.2	-8.6	-8.8	-9.7	-9.5	-9.8	-9.6	-9.6	-11.0	-11.3	-10.7	-10.7	-10.6	-11.5	-11.6	-12.1	-12.7	-13.1	-13.3	-13.7	-12.5	-12.3	-10.7	-7.7	-13.7
26	-12.6	-12.9	-13.1	-13.8	-14.1	-14.2	-14.3	-14.2	-14.0	-13.5	-13.8	-13.2	-12.2	-12.1	-12.6	-12.5	-13.4	-14.0	-14.3	-14.4	-14.3	-13.6	-13.6	-14.1	-13.5	-12.1	-14.4
27	-13.8	-14.0	-14.3	-14.3	-16.5	-17.8	-17.9	-18.5	-17.2	-15.1	-13.6	-12.4	-11.9	-11.1	-10.6	-11.3	-13.2	-15.0	-17.5	-18.0	-17.6	-19.5	-20.8	-22.9	-15.6	-10.6	-22.9
28	-25.2	-26.7	-27.7	-28.6	-29.4	-29.3	-29.5	-29.7	-26.9	-22.2	-16.6	-11.6	-10.9	-10.4	-9.4	-9.2	-9.5	-10.1	-10.3	-12.1	-14.4	-14.5	-14.0	-11.2	-18.3	-9.2	-29.7
29	-9.0	-9.6	-9.0	-9.1	-8.4	-8.4	-8.8	-8.4	-8.5	-8.1	-7.2	-6.0	-5.5	-5.0	-4.7	-4.7	-6.1	-10.1	-13.1	-16.1	-17.0	-18.7	-20.2	-21.3	-10.1	-4.7	-21.3
30	-22.2	-22.6	-22.9	-22.6	-22.7	-22.5	-22.4	-20.4	-16.6	-12.8	-7.2	-2.7	-1.7	-0.9	-0.6	-1.0	-2.0	-5.2	-8.5	-10.2	-11.0	-13.2	-12.3	-11.1	-12.3	-0.6	-22.9
31	-10.8	-11.0	-12.3	-13.2	-12.6	-12.6	-13.9	-14.2	-11.8	-7.6	-3.6	0.7	2.6	2.4	2.9	3.0	1.0	-2.6	-5.0	-7.4	-8.5	-10.0	-10.9	-11.7	-7.0	3.0	-14.2
Avg	-2.1	-2.5	-2.8	-3.1	-3.4	-3.7	-3.9	-3.2	-0.5	2.7	5.2	6.9	7.6	7.9	8.2	8.0	7.1	4.7	2.3	0.8	-0.4	-1.4	-1.9	-2.4	1.3	8.7	-5.7
Max	6.8	6.9	6.9	5.5	5.1	5.3	5.0	5.3	10.2	14.6	17.8	19.3	20.2	21.0	21.3	21.1	20.3	16.3	12.8	11.1	8.8	7.9	7.2	6.5	10.5	21.3	4.6
Min	-25.2	-26.7	-27.7	-28.6	-29.4	-29.3	-29.5	-29.7	-26.9	-22.2	-16.6	-13.2	-12.2	-12.1	-12.6	-12.5	-13.4	-15.0	-17.5	-18.0	-17.6	-19.5	-20.8	-22.9	-18.3	-12.1	-29.7

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
2-Meter Temperature (Degrees Celsius)
November 2023

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	-12.5	-13.0	-13.2	-13.3	-12.4	-12.2	-13.1	-12.8	-11.2	-7.1	-3.5	2.4	5.7	6.0	5.8	5.4	4.1	1.2	-1.6	-2.1	-2.8	-3.4	-3.8	-3.6	-4.6	6.0	-13.3
2	-4.2	-5.3	-6.0	-6.1	-4.6	-3.4	-2.5	-2.0	-1.2	0.8	1.4	1.8	2.1	2.0	2.0	1.8	1.5	1.5	1.3	1.3	1.2	2.4	5.0	4.7	-0.2	5.0	-6.1
3	4.4	4.2	4.1	4.4	3.6	3.4	2.9	3.2	4.1	4.8	5.2	5.6	6.3	6.4	6.0	5.4	4.6	3.8	1.8	0.0	-1.5	-2.2	-3.6	-4.9	3.0	6.4	-4.9
4	-6.0	-6.7	-7.0	-6.7	-7.1	-8.2	-8.4	-7.5	-3.9	-0.4	3.7	5.8	7.1	7.2	6.8	5.1	4.0	3.6	3.1	2.4	1.7	1.3	3.2	3.4	-0.1	7.2	-8.4
5	5.4	4.6	4.1	6.1	7.0	6.7	4.9	4.6	4.9	5.0	5.1	6.5	7.3	7.6	7.3	6.6	6.1	4.9	3.3	2.4	0.6	0.4	0.0	-0.1	4.6	7.6	-0.1
6	-0.5	-0.7	-1.1	-0.9	-1.0	-0.6	-0.2	-0.7	2.1	5.9	7.3	8.8	9.7	9.8	9.5	6.9	5.2	4.5	2.5	0.6	0.6	0.5	1.4	1.8	3.0	9.8	-1.1
7	1.2	1.0	0.4	-0.9	-1.9	-1.7	0.1	-0.7	0.0	2.2	3.3	3.8	3.9	3.4	3.9	3.3	2.9	2.6	2.2	2.0	1.9	1.3	0.4	-0.1	1.4	3.9	-1.9
8	-0.3	-0.6	-0.9	-2.3	-3.4	-5.2	-7.3	-8.7	-7.8	-3.7	0.3	1.6	2.2	2.6	2.6	2.2	1.2	-0.2	-1.1	-1.2	-1.7	-3.2	-6.4	-7.9	-2.0	2.6	-8.7
9	-9.6	-10.2	-11.2	-12.0	-12.3	-12.5	-12.9	-13.0	-10.3	-5.5	-1.6	1.1	2.2	3.0	3.2	3.1	1.2	-0.9	-3.7	-6.5	-7.6	-7.9	-8.7	-9.7	-5.9	3.2	-13.0
10	-9.1	-9.7	-10.4	-9.8	-9.0	-8.4	-8.8	-7.9	-6.4	-3.7	-1.1	1.1	2.2	2.5	2.6	2.2	0.8	-1.0	-1.6	-3.0	-3.2	-3.3	-5.0	-6.0	-4.0	2.6	-10.4
11	-6.7	-7.5	-7.7	-4.8	-3.1	-1.9	-2.1	-2.0	-0.3	2.0	3.7	4.2	5.0	5.8	7.3	6.7	6.3	6.0	6.3	6.4	6.0	4.5	3.5	2.7	1.7	7.3	-7.7
12	2.4	2.1	1.4	0.0	1.1	1.0	0.8	0.8	2.1	3.5	5.2	6.2	7.5	8.1	7.6	7.1	5.5	1.3	-0.9	-2.5	-0.5	2.3	1.5	-0.2	2.6	8.1	-2.5
13	-0.9	-2.8	-3.0	-3.2	-4.0	-5.8	-6.1	-6.5	-3.6	3.6	10.1	11.0	11.0	9.9	11.2	10.5	8.3	5.2	4.4	0.9	1.9	1.1	0.3	0.0	2.2	11.2	-6.5
14	1.1	-0.4	-1.2	-2.9	-4.2	-4.3	-5.8	-6.8	-4.0	0.4	4.7	7.6	8.2	7.1	6.5	6.1	5.4	3.9	0.1	-1.2	-3.2	-4.6	-5.4	-6.4	0.0	8.2	-6.8
15	-7.0	-5.8	-1.4	4.3	4.8	4.0	0.1	-1.7	-0.4	8.2	9.4	9.7	10.6	9.9	10.3	10.8	10.3	9.7	9.4	8.2	8.9	9.2	8.1	6.9	5.7	10.8	-7.0
16	3.4	2.7	1.8	0.5	0.2	-0.2	-1.0	-2.7	-2.2	0.3	1.8	3.0	4.2	5.4	5.3	4.8	3.6	2.5	0.3	0.0	1.4	0.3	-0.7	-3.7	1.3	5.4	-3.7
17	-5.2	-6.0	-6.4	-6.5	-6.9	-7.5	-7.4	-7.1	-5.6	-1.9	1.1	6.9	7.9	8.5	8.8	8.1	4.8	0.5	-1.5	-2.7	-4.5	-6.0	-6.6	-7.3	-1.8	8.8	-7.5
18	-7.5	-7.8	-7.9	-8.1	-7.9	-7.3	-7.5	-8.2	-5.7	-0.4	5.5	7.9	9.0	9.5	9.4	7.9	4.7	0.4	-1.7	-2.8	-4.2	-4.6	-4.8	-5.8	-1.6	9.5	-8.2
19	-6.1	-6.8	-6.8	-6.6	-6.0	-5.8	-6.3	-6.9	-6.2	-3.2	1.6	5.8	7.4	6.5	5.1	2.9	1.4	0.7	0.3	-0.4	-1.3	-2.5	-1.9	-3.1	-1.6	7.4	-6.9
20	-4.8	-6.7	-6.8	-8.1	-7.9	-4.3	-4.0	-6.5	-7.1	-3.0	0.2	1.3	2.3	2.5	2.6	1.9	-0.1	-2.6	-4.7	-7.0	-7.7	-8.7	-9.2	-9.8	-4.1	2.6	-9.8
21	-10.3	-10.4	-9.8	-10.1	-10.5	-11.6	-11.9	-11.9	-9.8	-4.6	-0.1	5.6	8.1	9.3	9.0	7.8	3.7	3.2	0.8	0.2	-1.0	-1.6	-1.9	-1.8	-2.5	9.3	-11.9
22	-2.3	-2.5	-0.7	3.5	3.2	2.4	2.8	3.3	4.7	4.9	3.8	4.8	5.1	4.3	4.2	3.4	2.7	2.2	1.9	2.0	1.7	1.0	0.3	-0.1	2.4	5.1	-2.5
23	-0.6	-0.9	-1.1	-1.7	-2.0	-2.5	-2.9	-3.0	-2.9	-2.8	-2.3	-2.5	-2.7	-3.9	-3.6	-3.6	-5.6	-6.3	-7.6	-9.3	-9.1	-10.3	-11.0	-12.3	-4.6	-0.6	-12.3
24	-11.8	-10.4	-9.5	-9.8	-10.3	-10.6	-11.2	-11.8	-11.6	-10.5	-9.1	-8.1	-7.1	-6.1	-6.0	-6.4	-8.8	-10.8	-10.7	-9.8	-9.1	-8.9	-9.5	-10.9	-9.5	-6.0	-11.8
25	-12.6	-13.4	-14.8	-15.5	-16.0	-17.4	-17.7	-18.3	-16.5	-12.5	-9.1	-6.1	-4.9	-3.0	-2.1	-2.3	-3.4	-6.0	-4.2	-3.6	-3.4	-3.5	-3.4	-3.3	-8.9	-2.1	-18.3
26	-3.4	-3.3	-3.3	-3.2	-3.6	-3.9	-4.4	-7.9	-7.1	-4.3	-2.3	-1.6	-1.8	-1.7	-1.8	-2.9	-4.8	-7.3	-10.1	-11.0	-13.1	-13.7	-14.5	-14.7	-6.1	-1.6	-14.7
27	-15.7	-15.6	-15.8	-15.9	-16.2	-16.5	-16.7	-16.6	-15.0	-10.8	-5.5	-1.0	1.9	2.9	3.0	2.6	0.7	-2.4	-5.8	-7.3	-9.3	-9.2	-10.4	-12.0	-8.6	3.0	-16.7
28	-12.3	-13.2	-13.4	-13.2	-13.6	-14.4	-14.7	-15.2	-14.0	-8.6	-3.3	2.8	6.1	7.1	7.4	6.1	0.0	-6.4	-8.6	-10.0	-10.7	-12.2	-12.8	-13.5	-7.5	7.4	-15.2
29	-14.4	-15.4	-15.6	-16.0	-16.7	-16.5	-16.5	-15.8	-13.7	-8.8	-2.9	2.6	3.7	4.0	3.4	2.1	-1.0	-3.4	-6.1	-9.2	-10.3	-11.8	-11.7	-12.3	-8.4	4.0	-16.7
30	-13.4	-14.3	-14.9	-14.3	-15.1	-15.6	-16.3	-16.6	-16.0	-12.5	-6.6	-3.0	-1.3	-1.3	-2.1	-2.8	-4.2	-5.9	-6.9	-7.2	-7.0	-7.9	-7.8	-8.1	-9.2	-1.3	-16.6
Avg	-5.3	-5.8	-5.9	-5.8	-5.9	-6.0	-6.5	-6.9	-5.5	-2.1	0.9	3.2	4.3	4.5	4.5	3.8	2.0	0.2	-1.3	-2.3	-2.8	-3.4	-3.8	-4.6	-2.1	5.0	-9.0
Max	5.4	4.6	4.1	6.1	7.0	6.7	4.9	4.6	4.9	8.2	10.1	11.0	11.0	9.9	11.2	10.8	10.3	9.7	9.4	8.2	8.9	9.2	8.1	6.9	5.7	11.2	-0.1
Min	-15.7	-15.6	-15.8	-16.0	-16.7	-17.4	-17.7	-18.3	-16.5	-12.5	-9.1	-8.1	-7.1	-6.1	-6.0	-6.4	-8.8	-10.8	-10.7	-11.0	-13.1	-13.7	-14.5	-14.7	-9.5	-6.0	-18.3

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
2-Meter Temperature (Degrees Celsius)
December 2023

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	-7.7	-8.4	-7.8	-7.7	-8.9	-9.3	-9.2	-9.1	-8.3	-6.8	-5.0	-3.8	-2.8	-2.3	-1.6	-2.0	-2.7	-4.8	-7.9	-8.6	-8.1	-8.4	-7.7	-7.4	-6.5	-1.6	-9.3
2	-5.0	-4.2	-3.9	-4.2	-4.7	-4.4	-4.6	-5.5	-4.2	-2.8	-0.8	-0.7	-0.7	-0.4	-0.7	-1.9	-2.9	-2.5	-2.0	-2.2	-3.0	-2.9	-2.9	-3.0	-2.9	-0.4	-5.5
3	-2.7	-3.0	-3.6	-3.9	-4.9	-5.6	-7.0	-10.4	-10.5	-6.7	-2.0	-1.6	-1.5	-1.6	-1.1	-0.8	-0.8	-1.9	-1.8	-0.5	1.2	2.4	3.8	3.9	-2.5	3.9	-10.5
4	3.6	3.7	3.8	3.5	2.8	2.0	1.0	-1.2	-1.0	1.3	2.6	3.7	4.5	4.2	4.5	4.2	3.9	3.5	3.5	2.6	3.1	2.9	0.7	0.7	2.7	4.5	-1.2
5	0.9	0.7	0.5	0.6	0.5	0.5	0.5	0.6	1.1	2.0	4.5	8.9	9.5	9.9	10.0	8.9	7.2	7.0	6.2	5.8	5.2	3.7	2.9	3.7	4.2	10.0	0.5
6	3.0	1.5	0.3	-0.5	-0.4	0.8	1.7	2.1	1.3	5.4	9.0	Au	Au	10.8	11.3	9.6	7.6	7.4	7.9	7.0	7.2	7.4	6.9	7.0	5.2	11.3	-0.5
7	6.4	5.6	4.1	3.3	3.9	4.8	4.0	3.5	2.7	0.9	0.4	0.4	1.0	1.1	0.9	0.7	0.2	-0.1	-0.6	-1.0	-0.9	-1.4	-2.4	-3.6	1.4	6.4	-3.6
8	-5.0	-6.6	-8.5	-10.9	-12.1	-10.0	-9.0	-9.1	-10.0	-7.5	-5.1	-3.1	-2.3	-2.1	-2.0	-2.2	-2.5	-2.7	-3.0	-3.4	-3.7	-4.0	-4.5	-4.9	-5.6	-2.0	-12.1
9	-5.3	-5.6	-6.0	-6.3	-6.4	-9.0	-11.1	-14.4	-15.6	-12.0	-5.5	-4.7	-4.0	-3.6	-3.4	-4.1	-5.5	-5.8	-6.9	-6.6	-5.2	-4.7	-4.0	-3.8	-6.6	-3.4	-15.6
10	-3.5	-3.2	-3.2	-3.0	-1.9	-1.6	-1.3	-1.0	-1.0	-0.7	0.4	1.5	1.6	1.7	1.7	1.1	0.3	0.0	-1.0	-0.7	-0.7	-0.7	0.3	0.2	-0.6	1.7	-3.5
11	-0.5	-0.8	-0.3	0.0	-0.2	-0.1	-0.5	-0.8	-1.0	-0.8	-0.2	-0.4	0.1	0.0	0.5	0.4	-0.5	-1.6	-1.9	-2.2	-2.4	-2.4	-2.3	-2.5	-0.9	0.5	-2.5
12	-2.6	-3.0	-3.0	-2.9	-2.2	-2.0	-2.2	-2.6	-2.9	-2.3	-1.2	-0.3	0.6	1.4	1.7	1.1	-2.1	-4.8	-7.4	-9.3	-10.4	-12.2	-13.5	-14.1	-4.0	1.7	-14.1
13	-15.0	-15.6	-15.9	-16.5	-16.6	-17.5	-18.1	-18.2	-17.5	-12.2	-7.2	-1.7	2.0	4.7	5.3	3.8	-3.0	-8.3	-11.1	-12.3	-13.2	-14.5	-15.5	-16.2	-10.4	5.3	-18.2
14	-16.5	-16.7	-16.3	-15.1	-16.1	-15.8	-16.1	-16.5	-15.8	-11.0	-5.8	0.5	3.8	4.5	4.6	3.3	0.1	-4.3	-5.8	-7.0	-7.6	-7.6	-7.1	-7.4	-8.0	4.6	-16.7
15	-9.0	-9.8	-9.9	-11.0	-12.3	-12.6	-12.8	-12.9	-12.8	-8.9	-3.6	1.5	4.1	4.4	4.2	3.6	0.0	-3.3	-5.3	-7.1	-8.7	-8.4	-9.1	-9.7	-6.2	4.4	-12.9
16	-10.3	-10.4	-11.2	-11.3	-11.7	-11.7	-11.3	-10.6	-9.3	-7.7	-5.4	-3.7	-2.3	-0.6	2.6	6.1	5.6	3.3	1.1	0.0	1.7	0.1	-0.4	-2.0	-4.1	6.1	-11.7
17	-3.0	-2.8	-2.9	-2.8	0.5	-1.5	-5.2	-6.8	-6.2	-5.1	-1.7	2.7	4.3	5.2	5.5	4.4	0.8	-3.4	-6.0	-8.3	-9.7	-10.7	-11.1	-11.4	-3.1	5.5	-11.4
18	-11.9	-12.5	-12.5	-12.5	-12.7	-12.5	-11.2	-9.3	-8.3	-4.7	-1.9	2.2	6.7	8.2	7.0	5.8	2.8	0.5	-0.2	0.0	-1.0	-2.0	-2.2	-2.3	-3.5	8.2	-12.7
19	-1.3	-0.7	-0.6	-0.5	-0.8	-1.5	-3.0	-4.1	-4.2	-1.4	2.9	6.0	8.3	8.8	7.8	8.0	4.4	3.5	2.8	0.0	-1.8	-3.4	-4.5	-5.3	0.8	8.8	-5.3
20	-5.9	-7.2	-6.5	-7.4	-7.9	-8.1	-8.1	-7.3	-7.1	-3.3	1.4	6.0	8.3	8.3	7.0	5.2	0.3	-1.3	-2.4	-4.6	-5.7	-6.0	-4.8	-4.7	-2.6	8.3	-8.1
21	-6.0	-6.9	-7.9	-8.3	-8.8	-9.0	-8.4	-6.2	-4.9	-3.8	-1.7	1.1	5.5	7.5	7.8	5.7	1.7	-1.0	-2.7	-4.2	-5.4	-6.5	-6.7	-7.8	-3.2	7.8	-9.0
22	-8.3	-8.9	-9.1	-9.0	-9.4	-10.1	-10.4	-10.2	-9.0	-5.0	0.1	5.7	7.1	7.9	7.9	6.8	3.4	0.8	1.1	0.4	-2.4	-2.3	-1.9	-1.3	-2.3	7.9	-10.4
23	0.8	-0.4	1.0	0.6	-0.9	-1.5	-2.4	-3.1	-3.3	-3.4	-3.5	-3.1	-3.3	-4.0	-4.8	-5.1	-6.2	-7.2	-7.5	-7.8	-9.1	-9.5	-9.8	-10.1	-4.3	1.0	-10.1
24	-11.2	-13.4	-15.2	-14.5	-14.2	-16.5	-18.3	-19.9	-21.0	-18.0	-13.7	-9.0	-5.4	-4.9	-4.7	-5.2	-9.7	-13.3	-16.6	-18.6	-19.4	-20.0	-20.5	-21.1	-14.3	-4.7	-21.1
25	-20.7	-21.1	-21.7	-20.9	-21.2	-21.3	-21.1	-20.8	-19.3	-15.8	-11.8	-7.3	-2.4	-1.3	-1.2	-1.8	-7.1	-10.6	-11.2	-12.8	-15.7	-16.6	-17.8	-18.6	-14.2	-1.2	-21.7
26	-19.3	-20.2	-20.7	-21.6	-21.7	-21.9	-22.2	-23.0	-22.5	-18.1	-13.0	-7.5	-0.9	-0.2	-0.8	-1.1	-1.5	-3.0	-4.7	-6.9	-9.6	-11.7	-12.0	-14.0	-12.4	-0.2	-23.0
27	-15.4	-15.6	-16.6	-16.8	-17.6	-17.9	-18.1	-18.7	-18.0	-14.6	-9.8	-6.1	-2.5	0.1	1.2	1.3	-3.6	-8.0	-11.5	-12.6	-13.2	-12.8	-12.2	-11.2	-11.3	1.3	-18.7
28	-8.3	-7.9	-9.0	-8.6	-9.7	-10.5	-10.5	-9.9	-10.0	-8.8	-5.8	-1.5	3.4	5.8	5.8	4.8	0.8	-3.7	-6.3	-7.7	-9.3	-10.4	-11.0	-11.2	-5.8	5.8	-11.2
29	-11.3	-11.7	-12.8	-13.1	-12.6	-12.6	-12.4	-13.2	-12.2	-9.7	-6.1	-2.9	0.0	3.9	5.1	4.3	0.1	-2.6	-3.7	-7.0	-7.2	-8.9	-9.1	-9.6	-6.9	5.1	-13.2
30	-10.0	-10.5	-10.6	-11.0	-11.4	-11.3	-10.7	-10.7	-11.3	-8.0	-4.4	0.2	5.9	8.8	9.1	8.2	2.0	-1.8	-3.7	-3.1	-3.7	-6.5	-7.0	-8.5	-4.6	9.1	-11.4
31	-8.7	-8.1	-6.8	-7.1	-7.5	-8.6	-9.3	-10.1	-10.1	-8.0	-3.8	-1.1	1.3	4.0	4.1	3.7	0.9	-3.2	-6.2	-7.8	-8.7	-9.1	-9.2	-10.6	-5.4	4.1	-10.6
Avg	-6.8	-7.2	-7.5	-7.7	-8.0	-8.3	-8.6	-9.0	-8.8	-6.4	-3.2	-0.6	1.7	2.9	3.1	2.5	-0.2	-2.4	-3.7	-4.7	-5.4	-6.0	-6.3	-6.7	-4.5	3.9	-10.8
Max	6.4	5.6	4.1	3.5	3.9	4.8	4.0	3.5	2.7	5.4	9.0	8.9	9.5	10.8	11.3	9.6	7.6	7.4	7.9	7.0	7.2	7.4	6.9	7.0	5.2	11.3	0.5
Min	-20.7	-21.1	-21.7	-21.6	-21.7	-21.9	-22.2	-23.0	-22.5	-18.1	-13.7	-9.0	-5.4	-4.9	-4.8	-5.2	-9.7	-13.3	-16.6	-18.6	-19.4	-20.0	-20.5	-21.1	-14.3	-4.7	-23.0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-2 M Delta Temperature (Degrees Celsius)
October 2023

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	0.21	0.16	0.14	0.08	0.36	0.84	0.55	0.11	-0.03	-0.34	-0.51	-0.37	-0.45	-0.28	-0.30	-0.06	-0.08	-0.06	-0.07	-0.11	-0.09	-0.09	-0.04	0.05	-0.02	0.84	-0.51
2	0.08	0.10	0.05	0.51	0.78	0.81	0.15	-0.21	-0.56	-0.87	-0.85	-0.98	-1.19	-1.21	-0.62	-0.40	-0.11	0.00	0.14	0.23	0.24	0.39	0.39	0.36	-0.12	0.81	-1.21
3	0.36	0.42	0.11	0.12	0.05	0.01	0.09	0.05	-0.02	-0.65	-0.64	-0.41	-0.76	-0.88	-0.49	-0.30	-0.08	0.04	0.16	0.29	0.02	-0.03	-0.08	-0.01	-0.11	0.42	-0.88
4	0.37	0.39	0.19	0.27	0.38	0.32	0.25	0.10	-0.17	-0.30	-0.16	-0.24	-0.08	0.13	-0.29	-0.42	0.00	0.27	0.28	0.62	0.39	0.48	0.16	0.28	0.13	0.62	-0.42
5	0.20	0.30	0.17	0.03	0.13	0.07	0.16	-0.12	-0.33	-0.24	-0.24	-0.37	0.00	-0.18	-0.44	-0.34	-0.13	0.18	0.87	0.97	0.57	0.35	0.10	0.02	0.07	0.97	-0.44
6	0.05	0.05	0.02	0.15	0.66	0.77	0.32	-0.18	-0.57	-0.63	-0.90	-1.29	-1.12	-1.05	-1.09	-0.90	-0.59	0.60	0.99	0.67	0.35	1.19	1.91	2.01	0.06	2.01	-1.29
7	1.33	1.45	1.34	1.31	1.39	1.93	1.38	0.34	-0.71	-0.97	-0.97	-0.94	-1.13	-0.99	-0.81	-0.69	-0.41	0.68	0.82	0.60	1.37	2.00	1.99	2.18	0.52	2.18	-1.13
8	2.11	2.31	1.77	1.43	1.50	1.61	1.27	0.75	-0.46	-0.75	-0.58	-0.76	-0.87	-0.89	-0.83	-0.57	-0.24	1.51	0.74	0.32	1.33	2.12	1.83	1.92	0.69	2.31	-0.89
9	2.04	1.36	1.59	2.11	1.81	1.37	1.72	1.11	-0.30	-0.49	-0.55	-0.67	-0.70	-0.76	-0.66	-0.49	-0.13	1.52	0.62	1.13	1.97	1.65	0.67	0.81	0.70	2.11	-0.76
10	0.66	0.66	0.58	0.94	1.37	1.18	1.11	0.20	-0.30	-0.31	-0.16	-0.46	-0.50	-0.42	-0.35	-0.03	0.28	0.37	0.51	0.45	0.27	0.17	0.22	0.27	0.28	1.37	-0.50
11	0.16	0.28	0.23	0.17	0.39	0.44	0.34	0.12	-0.18	-0.43	-0.50	-0.74	-0.92	-1.01	-1.06	-0.82	-0.04	0.61	0.91	0.29	0.44	0.13	0.42	0.30	-0.02	0.91	-1.06
12	0.11	0.24	0.21	0.23	0.09	0.10	0.08	0.04	-0.12	-0.20	-0.30	-0.25	-0.20	-0.21	-0.31	-0.27	-0.19	-0.03	0.00	0.02	0.01	0.02	0.01	0.00	-0.04	0.24	-0.31
13	0.01	0.00	0.04	0.00	-0.01	-0.04	-0.06	-0.11	-0.24	-0.48	-1.04	-1.21	-1.14	-0.74	-0.81	-0.56	-0.18	0.48	0.81	0.76	1.14	0.93	1.41	1.32	0.01	1.41	-1.21
14	1.36	1.60	1.18	1.40	1.63	1.57	1.68	0.31	-0.11	-0.39	-0.58	-0.54	-0.37	-0.30	-0.63	-0.74	-0.34	1.05	1.15	1.91	0.77	1.63	1.43	1.60	0.68	1.91	-0.74
15	1.43	1.14	1.52	0.74	0.54	1.10	1.10	0.28	-0.12	-0.43	-0.50	-0.76	-0.88	-0.80	-0.68	-0.37	-0.07	0.64	0.40	0.40	1.35	1.06	1.37	1.80	0.43	1.80	-0.88
16	1.53	1.54	1.62	1.25	1.32	1.45	1.62	0.95	0.15	-0.26	-0.44	-0.40	-0.57	-0.42	-0.11	0.23	0.41	0.79	1.73	1.65	1.61	1.65	1.89	2.02	0.88	2.02	-0.57
17	1.75	1.36	0.76	0.70	1.17	1.55	1.18	1.36	0.42	-0.29	-0.39	-0.64	-0.62	-0.62	-0.60	-0.46	-0.14	0.46	0.54	1.08	1.92	2.17	1.28	1.40	0.64	2.17	-0.64
18	1.45	1.68	1.46	1.27	1.42	0.85	1.25	0.36	-0.30	-0.69	-0.82	-0.91	-0.88	-0.80	-0.64	-0.29	0.04	1.29	2.28	1.02	1.33	1.32	1.83	1.69	0.63	2.28	-0.91
19	1.42	1.27	1.66	2.13	1.62	1.83	1.61	1.07	-0.35	-0.92	-0.72	-0.85	-0.91	-0.75	-0.54	-0.39	0.07	1.34	3.00	2.86	2.35	2.40	3.37	1.45	1.00	3.37	-0.92
20	1.85	1.86	1.47	1.29	1.56	1.51	1.58	1.19	-0.37	-0.87	-0.72	-0.80	-0.77	-0.74	-0.64	-0.37	0.18	2.04	1.89	1.00	1.22	1.17	1.69	1.15	0.72	2.04	-0.87
21	1.64	1.56	1.32	1.15	2.33	0.97	1.14	1.30	-0.31	-0.57	-0.69	-0.69	-0.76	-1.01	-0.82	-0.76	0.02	1.04	1.21	1.56	1.86	1.73	1.48	1.67	0.68	2.33	-1.01
22	1.65	1.53	1.99	1.68	2.27	1.74	1.56	1.50	-0.31	-0.60	-0.81	-0.89	-0.57	-0.51	-0.13	0.01	0.26	0.43	0.26	0.35	0.33	0.23	0.20	0.24	0.52	2.27	-0.89
23	0.36	0.15	0.04	0.15	0.23	0.24	0.11	0.02	-0.21	-0.34	-0.32	-0.31	-0.38	-0.29	-0.35	-0.21	-0.05	0.00	0.06	0.48	0.67	0.16	0.37	0.39	0.04	0.67	-0.38
24	0.56	0.60	0.46	0.27	0.58	0.65	-0.03	-0.16	-0.23	-0.46	-0.54	-0.58	-0.72	-0.58	-0.58	-0.44	-0.32	-0.28	-0.24	-0.20	-0.15	-0.13	-0.09	-0.04	-0.11	0.65	-0.72
25	-0.06	-0.08	-0.09	-0.08	-0.09	-0.03	-0.07	-0.10	-0.18	-0.22	-0.22	-0.28	-0.47	-0.47	-0.44	-0.27	-0.20	-0.13	0.05	0.40	0.31	0.30	-0.10	-0.12	-0.11	0.40	-0.47
26	-0.13	-0.13	-0.11	-0.11	-0.11	-0.10	-0.07	-0.05	-0.13	-0.21	-0.18	-0.33	-0.36	-0.28	-0.19	-0.18	0.42	0.32	0.31	0.32	0.22	0.10	0.09	0.35	-0.02	0.42	-0.36
27	0.01	0.24	0.08	0.01	0.89	1.09	1.13	0.85	0.06	-0.25	-0.52	-0.44	-0.23	-0.35	-0.42	-0.21	0.30	0.75	1.50	0.97	0.22	1.35	1.33	1.91	0.43	1.91	-0.52
28	2.03	2.11	2.26	2.18	2.24	2.02	2.23	1.90	1.40	0.11	-0.27	-0.50	-0.42	-0.62	-0.52	-0.11	0.04	0.47	0.37	0.85	1.33	1.06	0.68	0.54	0.89	2.26	-0.62
29	0.15	0.13	0.08	0.25	0.14	0.22	0.12	0.03	0.04	-0.13	-0.50	-0.73	-0.54	-0.29	-0.26	-0.18	0.51	1.87	1.61	1.70	1.88	1.74	2.10	2.22	0.51	2.22	-0.73
30	2.15	2.33	2.42	1.71	1.73	1.78	1.88	1.05	0.09	-0.15	-0.32	-0.29	-0.23	-0.21	-0.12	0.09	0.24	0.80	1.21	1.60	1.28	1.92	1.14	0.53	0.94	2.42	-0.32
31	0.53	0.59	1.52	1.59	1.16	1.20	2.28	1.79	0.76	-0.16	-0.99	0.05	-0.36	-0.03	-0.14	0.19	0.51	0.48	1.15	1.81	1.58	2.02	1.53	1.90	0.87	2.28	-0.99
Avg	0.88	0.88	0.84	0.80	0.95	0.94	0.89	0.51	-0.12	-0.44	-0.55	-0.60	-0.62	-0.57	-0.51	-0.33	-0.00	0.63	0.81	0.84	0.91	1.01	0.99	0.97	0.38	1.60	-0.75
Max	2.15	2.33	2.42	2.18	2.33	2.02	2.28	1.90	1.40	0.11	-0.16	0.05	0.00	0.13	-0.11	0.23	0.51	2.04	3.00	2.86	2.35	2.40	3.37	2.22	1.00	3.37	-0.31
Min	-0.13	-0.13	-0.11	-0.11	-0.11	-0.10	-0.07	-0.21	-0.71	-0.97	-1.04	-1.29	-1.19	-1.21	-1.09	-0.90	-0.59	-0.28	-0.24	-0.20	-0.15	-0.13	-0.10	-0.12	-0.12	0.24	-1.29

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-2 M Delta Temperature (Degrees Celsius)
November 2023

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	1.71	1.87	1.89	1.96	1.52	1.45	2.15	1.57	1.18	-0.09	-0.24	0.01	-0.18	-0.18	0.05	0.12	0.64	1.28	0.80	0.18	0.41	0.60	0.60	0.53	0.83	2.15	-0.24
2	0.75	1.01	1.30	0.87	0.46	0.12	0.31	-0.03	0.02	0.08	0.09	0.08	0.10	0.09	0.09	0.20	0.41	0.15	0.17	0.24	0.29	0.58	0.58	0.77	0.36	1.30	-0.03
3	0.58	0.41	0.55	0.43	0.38	0.45	0.64	0.59	0.35	0.09	0.28	0.13	-0.09	-0.02	0.23	0.48	0.78	0.78	1.08	1.28	1.36	0.91	1.39	1.07	0.59	1.39	-0.09
4	1.22	1.29	1.06	0.90	1.08	1.53	1.47	1.00	0.07	-0.05	0.10	-0.13	0.05	0.40	0.43	0.73	0.33	0.37	0.53	0.78	1.12	1.32	0.74	1.45	0.74	1.53	-0.13
5	1.35	1.05	0.65	0.64	0.57	0.52	0.34	0.34	0.20	0.15	0.01	-0.44	-0.53	-0.53	-0.30	0.07	0.33	0.78	1.03	1.24	1.20	1.07	0.83	0.50	0.46	1.35	-0.53
6	0.46	0.22	0.34	0.28	0.43	0.31	0.23	0.56	-0.20	-0.46	-0.46	-0.56	-0.43	-0.18	-0.05	0.38	0.19	0.24	0.16	0.15	0.11	0.22	0.53	0.36	0.12	0.56	-0.56
7	0.32	0.49	0.50	0.85	0.89	1.12	0.99	0.99	0.36	0.19	-0.07	-0.19	-0.20	-0.21	-0.18	0.07	0.09	0.11	0.13	0.09	0.08	0.12	0.05	0.02	0.28	1.12	-0.21
8	0.05	0.34	0.46	0.93	0.89	1.25	1.61	1.42	1.01	0.37	0.01	-0.06	-0.08	-0.20	-0.29	-0.15	0.20	0.46	0.67	0.40	0.46	0.90	2.26	0.90	0.58	2.26	-0.29
9	0.88	1.22	0.98	0.90	1.06	1.09	1.30	0.97	-0.08	-0.66	-0.71	-0.70	-0.81	-0.74	-0.58	-0.25	0.50	0.93	1.07	1.45	1.17	0.52	0.64	0.85	0.46	1.45	-0.81
10	0.53	0.78	1.16	0.80	0.77	0.71	0.67	0.08	-0.23	-0.25	-0.39	-0.39	-0.20	-0.13	-0.18	-0.01	0.37	0.80	0.85	1.27	1.31	0.95	1.69	1.91	0.54	1.91	-0.39
11	1.93	1.92	2.47	1.59	1.51	1.11	0.66	0.94	0.21	-0.01	-0.11	-0.23	-0.21	-0.26	-0.36	0.06	0.26	0.34	0.32	0.30	0.25	0.22	0.20	0.23	0.56	2.47	-0.36
12	0.25	0.30	0.43	0.69	0.38	0.47	0.49	0.42	0.00	-0.35	-0.70	-0.78	-0.86	-0.59	-0.16	0.03	0.70	0.47	1.13	1.52	2.16	1.00	0.98	1.31	0.39	2.16	-0.86
13	1.75	1.56	1.40	1.40	1.47	1.89	1.98	1.75	0.38	-0.08	-0.16	-0.43	-0.34	0.19	-0.15	0.19	1.22	1.51	1.39	1.38	2.79	2.22	1.66	2.31	1.14	2.79	-0.43
14	1.82	1.70	1.14	0.86	1.12	0.77	1.14	1.35	-0.06	-0.39	-0.45	-0.57	-0.70	-0.22	-0.19	-0.02	0.30	0.74	1.49	0.95	1.16	1.35	1.88	1.61	0.70	1.88	-0.70
15	1.87	1.88	2.33	1.05	0.93	1.15	1.35	1.28	0.71	0.02	-0.15	-0.20	-0.32	0.08	0.05	0.01	0.39	0.61	0.50	0.65	0.40	0.18	0.40	0.25	0.64	2.33	-0.32
16	0.27	0.18	0.10	0.03	0.09	0.18	0.15	0.34	-0.01	-0.77	-0.77	-0.84	-0.82	-0.78	-0.50	-0.24	0.33	0.58	1.36	1.16	0.48	0.61	1.20	1.63	0.17	1.63	-0.84
17	1.06	1.35	1.51	1.10	1.43	1.56	1.17	1.00	0.35	-0.56	-0.25	-0.77	-0.76	-0.77	-0.67	-0.31	1.11	1.69	0.67	0.81	1.54	1.49	1.66	1.72	0.71	1.72	-0.77
18	1.29	1.24	1.36	1.76	1.34	1.91	1.41	2.24	0.41	-0.42	-0.54	-0.75	-0.67	-0.63	-0.42	0.10	1.10	1.50	1.44	1.73	1.48	1.09	1.18	1.58	0.86	2.24	-0.75
19	1.74	2.01	1.48	1.48	1.10	1.09	1.33	1.31	1.00	-0.30	-0.62	-0.84	-0.61	-0.69	-0.53	-0.13	0.05	0.08	0.08	0.26	0.44	0.68	0.39	0.67	0.48	2.01	-0.84
20	1.43	1.32	1.07	1.23	1.58	0.76	1.12	1.47	1.19	-0.42	-0.80	-0.84	-0.97	-0.81	-0.66	-0.35	0.58	1.46	1.06	1.43	1.29	1.48	1.24	1.43	0.68	1.58	-0.97
21	1.22	1.33	0.99	1.29	1.09	1.34	1.30	1.25	0.13	-0.71	-0.92	-0.86	-0.76	-0.52	-0.36	0.35	1.10	0.66	0.92	0.64	1.08	0.88	0.94	0.70	0.55	1.34	-0.92
22	0.94	1.14	1.83	1.23	1.16	1.12	0.90	0.70	0.12	-0.01	0.11	-0.06	-0.09	-0.05	-0.10	0.02	0.12	0.21	0.29	0.24	0.16	0.17	0.12	0.10	0.43	1.83	-0.10
23	0.20	0.25	0.11	0.08	0.10	0.09	0.11	0.08	-0.01	-0.15	-0.25	-0.29	-0.36	-0.38	-0.36	-0.21	0.00	0.34	0.38	0.75	0.39	0.72	0.98	1.03	0.15	1.03	-0.38
24	0.23	-0.10	-0.17	-0.16	-0.17	-0.17	-0.15	0.12	-0.14	-0.45	-0.55	-0.77	-0.81	-0.76	-0.84	-0.55	0.36	0.37	-0.02	-0.18	-0.16	-0.14	-0.15	-0.04	-0.22	0.37	-0.84
25	0.02	0.05	0.34	0.28	0.31	0.72	0.83	1.10	-0.24	-0.53	-0.64	-0.57	-0.60	-1.03	-0.80	-0.49	0.24	1.84	0.33	0.00	0.00	-0.02	-0.01	0.02	0.05	1.84	-1.03
26	0.02	0.01	0.04	0.05	0.18	0.10	0.18	1.27	0.20	-0.81	-0.78	-0.65	-0.45	-0.28	-0.15	0.37	0.96	1.23	1.24	0.89	1.87	1.13	1.26	1.13	0.38	1.87	-0.81
27	1.62	1.38	1.29	1.36	1.44	1.33	1.29	0.95	0.10	-0.64	-0.88	-0.86	-0.51	-0.43	-0.28	-0.12	0.60	1.62	1.74	1.26	1.71	1.38	1.38	1.82	0.77	1.82	-0.88
28	1.66	1.44	1.65	1.36	1.93	1.60	1.67	1.69	1.01	-0.68	-0.99	-0.95	-0.81	-0.82	-0.68	-0.18	1.11	2.20	2.56	2.29	2.39	2.45	2.57	2.00	1.10	2.57	-0.99
29	2.11	2.53	2.23	1.96	2.33	2.16	1.95	1.31	0.83	-0.30	-0.61	-0.67	-0.81	-0.70	-0.46	-0.05	0.92	0.96	1.55	2.61	2.32	1.95	1.61	1.14	1.12	2.61	-0.81
30	1.32	1.75	1.30	1.25	1.30	1.18	1.36	1.46	0.98	-0.40	-0.90	-0.60	-0.78	-0.60	-0.17	0.11	0.51	0.96	0.89	0.88	0.73	0.82	0.60	0.24	0.59	1.75	-0.90
Avg	1.02	1.06	1.06	0.95	0.96	0.96	1.00	0.98	0.33	-0.29	-0.41	-0.49	-0.49	-0.39	-0.29	0.01	0.53	0.84	0.86	0.89	1.00	0.89	0.98	0.97	0.54	1.76	-0.59
Max	2.11	2.53	2.47	1.96	2.33	2.16	2.15	2.24	1.19	0.37	0.28	0.13	0.10	0.40	0.43	0.73	1.22	2.20	2.56	2.61	2.79	2.45	2.57	2.31	1.14	2.79	-0.03
Min	0.02	-0.10	-0.17	-0.16	-0.17	-0.17	-0.15	-0.03	-0.24	-0.81	-0.99	-0.95	-0.97	-1.03	-0.84	-0.55	0.00	0.08	-0.02	-0.18	-0.16	-0.14	-0.15	-0.04	-0.22	0.37	-1.03

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
9-2 M Delta Temperature (Degrees Celsius)
December 2023

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	0.21	0.26	0.00	0.00	0.71	0.72	0.46	0.13	-0.13	-0.37	-0.33	-0.31	-0.31	-0.22	-0.40	-0.07	0.10	0.86	1.33	0.46	0.35	0.52	0.18	0.52	0.19	1.33	-0.40
2	0.44	0.21	0.16	0.28	0.25	0.24	0.37	0.74	0.26	-0.15	-0.39	-0.21	-0.13	-0.04	-0.02	-0.03	0.01	0.11	0.23	0.26	0.32	0.20	0.11	0.10	0.14	0.74	-0.39
3	0.08	0.14	0.19	0.22	0.59	0.81	1.03	1.84	0.44	0.20	-0.49	-0.45	-0.39	-0.16	-0.13	-0.08	0.14	0.60	0.45	0.64	0.24	0.16	0.15	0.13	0.26	1.84	-0.49
4	0.18	0.15	0.12	0.10	0.11	0.11	0.40	0.94	0.92	0.14	-0.15	-0.31	-0.39	-0.21	-0.19	0.00	0.11	0.13	0.18	0.56	0.37	0.35	0.09	0.05	0.16	0.94	-0.39
5	0.08	0.09	0.10	0.25	0.23	0.19	0.26	0.34	0.72	0.32	0.35	0.12	-0.07	-0.11	0.00	0.33	1.27	1.21	1.04	0.88	0.77	1.44	1.21	1.08	0.50	1.44	-0.11
6	1.37	1.04	1.34	1.31	1.47	1.78	2.31	1.61	2.31	0.67	-0.22	Au	Au	-0.10	-0.15	0.41	0.82	0.85	0.46	0.59	0.52	0.50	0.40	0.28	0.89	2.31	-0.22
7	0.30	0.53	0.83	0.70	0.75	0.46	0.71	0.26	0.03	0.01	0.05	0.09	0.18	0.18	0.21	0.26	0.34	0.25	0.19	0.18	0.17	0.25	0.46	0.89	0.34	0.89	0.01
8	0.93	1.20	1.59	1.21	1.07	0.18	0.02	0.39	0.61	-0.24	-0.24	-0.22	-0.19	-0.11	-0.11	0.05	0.11	0.13	0.14	0.17	0.12	0.04	0.00	-0.03	0.28	1.59	-0.24
9	0.00	0.01	0.09	0.08	0.10	1.34	2.27	1.80	1.79	-0.05	-0.34	-0.45	-0.56	-0.45	-0.27	0.25	0.70	0.41	0.49	0.65	0.29	0.32	0.16	0.21	0.37	2.27	-0.56
10	0.20	0.11	0.19	0.29	0.15	0.15	0.17	0.09	0.11	0.02	-0.17	-0.26	-0.21	-0.17	-0.18	0.10	0.32	0.42	0.65	0.46	0.37	0.49	0.23	0.25	0.16	0.65	-0.26
11	0.25	0.14	0.15	0.20	0.16	0.17	0.23	0.22	0.09	-0.17	-0.34	-0.28	-0.31	-0.17	-0.23	-0.11	-0.02	-0.03	-0.04	-0.07	-0.08	-0.07	-0.02	0.05	-0.01	0.25	-0.34
12	0.06	0.19	0.05	0.05	0.08	0.09	0.07	0.29	0.40	0.01	-0.38	-0.64	-0.72	-0.67	-0.64	-0.40	0.83	1.17	0.97	1.77	1.90	1.85	1.55	1.40	0.39	1.90	-0.72
13	1.58	1.56	1.39	1.68	1.77	1.69	1.59	2.02	1.02	-0.22	-0.63	-1.03	-0.95	-0.47	-0.45	-0.02	1.37	2.11	2.93	2.95	2.80	2.66	3.03	2.48	1.29	3.03	-1.03
14	2.29	2.57	2.07	1.65	2.02	1.85	1.76	1.83	1.34	-0.56	-1.03	-0.73	-0.50	-0.62	-0.52	0.19	1.12	1.65	1.36	1.41	1.01	1.49	0.76	0.95	0.97	2.57	-1.03
15	1.56	1.22	1.29	1.57	1.65	1.38	1.40	1.50	1.57	-0.43	-0.77	-0.83	-0.68	-0.69	-0.41	0.12	1.03	1.34	1.64	1.79	1.72	1.79	1.42	1.58	0.91	1.79	-0.83
16	1.48	1.49	1.79	1.45	1.68	1.37	1.28	1.06	0.84	0.29	0.00	0.13	-0.04	0.07	0.64	0.30	0.56	0.89	1.32	1.52	1.08	1.44	1.73	2.05	1.02	2.05	-0.04
17	2.34	1.96	1.76	1.48	0.71	0.92	1.21	0.68	0.27	-0.14	-0.63	-0.71	-0.77	-0.67	-0.54	-0.02	1.48	1.59	2.27	2.14	1.88	2.10	1.74	2.02	0.96	2.34	-0.77
18	1.82	1.92	1.55	1.76	1.66	1.50	1.37	1.21	1.26	0.58	-0.06	-0.38	-0.55	-0.06	0.40	0.87	1.00	0.77	0.55	0.24	0.56	0.90	0.62	0.63	0.84	1.92	-0.55
19	0.61	0.81	0.46	0.56	0.90	1.03	0.90	1.23	1.03	0.13	-0.25	-0.37	-0.45	-0.41	-0.18	-0.02	2.47	1.51	0.92	1.47	1.21	1.32	1.11	1.68	0.74	2.47	-0.45
20	1.74	1.69	1.27	1.26	1.37	1.43	1.64	1.51	0.80	-0.56	-0.61	-0.25	-0.69	-0.59	-0.05	0.52	1.31	0.88	1.10	1.49	1.87	1.50	0.82	1.08	0.86	1.87	-0.69
21	1.41	1.56	1.43	1.57	1.18	1.35	0.88	0.40	0.15	0.17	-0.15	-0.48	-0.17	-0.44	-0.51	0.82	2.03	1.32	1.30	1.04	1.16	1.47	1.64	1.42	0.86	2.03	-0.51
22	1.40	1.78	1.35	1.76	1.44	1.67	2.02	1.89	1.66	0.17	-0.39	-0.52	-0.57	-0.52	-0.44	-0.08	1.80	1.74	1.04	1.36	1.77	2.66	2.62	1.34	1.12	2.66	-0.57
23	1.58	1.05	0.81	0.04	0.03	0.08	0.01	-0.02	-0.01	0.00	-0.10	-0.16	-0.33	-0.12	-0.10	0.02	0.54	0.83	0.65	0.38	0.91	0.56	0.32	0.25	0.30	1.58	-0.33
24	0.85	1.46	1.69	0.99	0.94	1.99	2.49	2.23	2.41	0.53	-0.16	-0.77	-1.08	-0.58	-0.56	-0.30	0.93	1.01	2.47	2.40	1.98	1.96	2.18	1.81	1.12	2.49	-1.08
25	1.83	2.46	2.45	2.09	2.03	2.46	2.41	2.86	1.85	1.36	-0.03	-0.24	-0.82	-0.80	-0.53	-0.14	0.86	0.76	1.30	1.23	1.73	2.53	1.93	2.68	1.34	2.86	-0.82
26	2.33	2.18	2.51	3.17	2.65	2.25	2.55	2.28	1.77	0.09	-0.40	-0.82	-0.71	-0.60	-0.28	0.00	0.37	0.75	1.14	1.54	1.35	1.84	1.22	1.89	1.21	3.17	-0.82
27	1.76	1.69	1.92	1.33	2.11	2.18	1.81	2.53	1.49	0.53	-0.33	-0.34	-1.02	-0.61	-0.28	-0.22	0.99	2.72	3.12	2.57	2.13	2.17	1.69	1.21	1.30	3.12	-1.02
28	0.53	0.88	1.25	1.19	1.45	1.61	1.49	1.36	1.59	0.91	-0.54	-0.47	-0.64	-0.61	-0.43	-0.08	1.48	1.48	1.76	2.31	1.84	2.00	2.32	1.93	1.03	2.32	-0.64
29	2.31	2.11	2.27	1.96	1.84	1.71	2.14	1.60	1.41	0.27	-0.42	-0.37	-0.53	-0.54	-0.37	-0.06	0.74	1.31	0.80	1.94	1.55	2.34	1.36	1.29	1.11	2.34	-0.54
30	1.27	1.82	1.94	1.96	1.68	1.95	2.05	1.74	1.99	-0.04	-0.59	-0.82	-0.62	-0.53	-0.38	-0.05	0.57	1.16	1.51	1.04	1.49	2.07	1.94	2.39	1.06	2.39	-0.82
31	2.10	1.55	1.47	1.51	1.12	1.86	1.49	1.71	1.90	0.33	-0.26	-0.32	-0.42	-0.40	-0.27	-0.10	0.58	1.44	2.18	1.84	1.83	2.26	1.43	1.54	1.10	2.26	-0.42
Avg	1.13	1.16	1.14	1.09	1.09	1.18	1.25	1.23	1.03	0.12	-0.32	-0.41	-0.49	-0.37	-0.24	0.08	0.84	1.01	1.14	1.20	1.14	1.33	1.11	1.13	0.74	1.98	-0.55
Max	2.34	2.57	2.51	3.17	2.65	2.46	2.55	2.86	2.41	1.36	0.35	0.13	0.18	0.18	0.64	0.87	2.47	2.72	3.12	2.95	2.80	2.66	3.03	2.68	1.34	3.17	0.01
Min	0.00	0.01	0.00	0.00	0.03	0.08	0.01	-0.02	-0.13	-0.56	-1.03	-1.03	-1.08	-0.80	-0.64	-0.40	-0.02	-0.03	-0.04	-0.07	-0.08	-0.07	-0.02	-0.03	-0.01	0.25	-1.08

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (Watts per Square Meter)
October 2023

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	6	48	39	209	271	135	135	66	89	30	27	12	0	0	0	0	0	0	44	271	0
2	0	0	0	0	0	0	14	110	251	366	459	539	650	556	244	157	69	28	0	0	0	0	0	0	143	650	0
3	0	0	0	0	0	0	4	25	108	355	366	210	397	406	223	164	62	13	1	0	0	0	0	0	97	406	0
4	0	0	0	0	0	0	4	21	99	175	104	141	91	98	375	366	107	13	0	0	0	0	0	0	66	375	0
5	0	0	0	0	0	0	7	94	126	70	130	268	73	180	294	186	91	47	0	0	0	0	0	0	65	294	0
6	0	0	0	0	0	0	6	125	285	337	508	692	606	585	501	373	217	56	0	0	0	0	0	0	179	692	0
7	0	0	0	0	0	0	5	137	300	438	548	619	656	553	462	378	214	53	0	0	0	0	0	0	182	656	0
8	0	0	0	0	0	0	5	132	275	423	537	606	624	589	504	376	217	49	0	0	0	0	0	0	181	624	0
9	0	0	0	0	0	0	5	115	270	415	526	596	610	575	494	363	204	41	0	0	0	0	0	0	176	610	0
10	0	0	0	0	0	0	9	94	193	288	256	421	484	394	354	157	60	8	0	0	0	0	0	0	113	484	0
11	0	0	0	0	0	0	3	49	104	202	210	352	470	518	517	379	102	12	0	0	0	0	0	0	122	518	0
12	0	0	0	0	0	0	2	15	54	69	106	94	74	62	95	87	58	8	0	0	0	0	0	0	30	106	0
13	0	0	0	0	0	0	1	24	80	199	523	677	647	266	369	225	71	9	0	0	0	0	0	0	129	677	0
14	0	0	0	0	0	0	5	87	173	147	400	365	233	160	297	368	171	24	0	0	0	0	0	0	101	400	0
15	0	0	0	0	0	0	4	30	81	210	349	545	499	474	369	199	66	9	0	0	0	0	0	0	118	545	0
16	0	0	0	0	0	0	4	68	106	213	387	381	487	417	211	122	93	15	0	0	0	0	0	0	104	487	0
17	0	0	0	0	0	0	2	18	161	331	337	553	566	497	452	320	166	17	0	0	0	0	0	0	143	566	0
18	0	0	0	0	0	0	5	68	156	363	480	545	559	522	443	205	82	9	0	0	0	0	0	0	143	559	0
19	0	0	0	0	0	0	3	78	245	374	482	545	557	517	430	301	149	12	0	0	0	0	0	0	154	557	0
20	0	0	0	0	0	0	2	68	221	360	469	534	550	509	421	292	133	7	0	0	0	0	0	0	149	550	0
21	0	0	0	0	0	0	1	40	215	353	463	532	550	508	421	296	126	8	0	0	0	0	0	0	146	550	0
22	0	0	1	1	0	0	2	37	202	269	431	467	309	299	149	93	19	1	0	0	0	0	0	0	95	467	0
23	0	0	0	0	0	0	0	14	110	158	113	115	134	73	128	55	9	1	0	0	0	0	0	0	38	158	0
24	0	0	0	0	0	0	1	32	77	144	173	172	141	120	122	56	15	2	0	0	0	0	0	0	44	173	0
25	0	0	0	0	0	0	0	17	67	136	160	228	333	334	179	100	38	3	0	0	0	0	0	0	66	334	0
26	0	0	0	0	0	0	0	16	48	49	80	229	323	370	232	235	86	2	0	0	0	0	0	0	70	370	0
27	0	0	0	0	0	0	0	22	60	101	136	225	241	382	415	201	71	2	0	0	0	0	0	0	77	415	0
28	0	0	0	0	0	0	0	23	144	212	378	514	652	648	365	248	40	2	0	0	0	0	0	0	134	652	0
29	0	0	0	0	0	0	0	16	77	213	457	515	528	485	393	261	102	2	0	0	0	0	0	0	127	528	0
30	0	0	0	0	0	0	0	25	122	212	452	512	522	476	371	250	97	2	0	0	0	0	0	0	127	522	0
31	0	0	0	0	0	0	0	21	119	296	421	471	353	246	292	230	59	1	0	0	0	0	0	0	105	471	0
Avg	0	0	0	0	0	0	3	54	147	248	346	413	421	383	329	228	97	15	0	0	0	0	0	0	112	473	0
Max	0	0	1	1	0	0	14	137	300	438	548	692	656	648	517	379	217	56	1	0	0	0	0	0	182	692	0
Min	0	0	0	0	0	0	0	14	39	49	80	94	73	62	89	30	9	1	0	0	0	0	0	0	30	106	0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (Watts per Square Meter)
November 2023

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	0	29	106	311	427	497	503	464	371	241	64	1	0	0	0	0	0	0	126	503	0
2	0	0	0	0	0	0	0	8	17	45	98	92	83	49	33	17	5	0	0	0	0	0	0	0	19	98	0
3	0	0	0	0	0	0	0	27	107	234	231	243	500	399	179	77	19	0	0	0	0	0	0	0	84	500	0
4	0	0	0	0	0	0	1	34	106	257	182	188	193	71	41	29	12	0	0	0	0	0	0	0	46	257	0
5	0	0	0	0	0	0	0	9	71	114	168	431	413	442	256	95	44	0	0	0	0	0	0	0	85	442	0
6	0	0	0	0	0	0	0	14	154	208	273	389	335	184	104	18	6	0	0	0	0	0	0	0	70	389	0
7	0	0	0	0	0	0	0	21	56	147	304	251	184	191	143	24	6	0	0	0	0	0	0	0	55	304	0
8	0	0	0	0	0	0	0	25	164	297	370	451	456	393	333	211	55	0	0	0	0	0	0	0	115	456	0
9	0	0	0	0	0	0	0	14	126	280	377	442	455	417	325	235	51	0	0	0	0	0	0	0	113	455	0
10	0	0	0	0	0	0	0	10	91	135	177	151	93	85	134	78	24	0	0	0	0	0	0	0	41	177	0
11	0	0	0	0	0	0	0	8	51	111	168	196	183	233	267	89	14	0	0	0	0	0	0	0	55	267	0
12	0	0	0	0	0	0	0	12	119	240	358	435	466	357	162	101	48	0	0	0	0	0	0	0	96	466	0
13	0	0	0	0	0	0	0	12	140	223	246	385	301	106	229	97	35	0	0	0	0	0	0	0	74	385	0
14	0	0	0	0	0	0	0	9	136	197	283	395	441	205	161	62	47	0	0	0	0	0	0	0	81	441	0
15	0	0	0	0	0	0	0	9	125	170	238	248	280	101	89	117	22	0	0	0	0	0	0	0	58	280	0
16	0	0	0	0	0	0	0	9	128	250	339	407	446	415	303	181	37	0	0	0	0	0	0	0	105	446	0
17	0	0	0	0	0	0	0	9	75	188	204	410	419	379	294	172	14	0	0	0	0	0	0	0	90	419	0
18	0	0	0	0	0	0	0	6	98	239	341	403	417	375	271	117	31	0	0	0	0	0	0	0	96	417	0
19	0	0	0	0	0	0	0	4	41	163	292	366	348	406	288	85	7	0	0	0	0	0	0	0	83	406	0
20	0	0	0	0	0	0	0	5	42	212	321	389	406	369	282	156	28	0	0	0	0	0	0	0	92	406	0
21	0	0	0	0	0	0	0	5	95	234	302	388	362	269	187	107	12	0	0	0	0	0	0	0	82	388	0
22	0	0	0	0	0	0	0	1	25	55	43	93	95	55	96	31	5	0	0	0	0	0	0	0	21	96	0
23	0	0	0	0	0	0	0	2	16	31	87	118	112	130	123	61	9	0	0	0	0	0	0	0	29	130	0
24	0	0	0	0	0	0	0	2	40	147	277	369	399	339	265	154	11	0	0	0	0	0	0	0	83	399	0
25	0	0	0	0	0	0	0	3	87	129	174	199	185	339	268	155	22	0	0	0	0	0	0	0	65	339	0
26	0	0	0	0	0	0	0	2	41	207	281	281	180	116	92	42	7	0	0	0	0	0	0	0	52	281	0
27	0	0	0	0	0	0	0	2	51	138	257	354	347	286	185	138	30	0	0	0	0	0	0	0	75	354	0
28	0	0	0	0	0	0	0	2	84	209	312	378	395	359	276	158	19	0	0	0	0	0	0	0	91	395	0
29	0	0	0	0	0	0	0	4	66	179	282	349	386	337	260	125	14	0	0	0	0	0	0	0	83	386	0
30	0	0	0	0	0	0	0	2	39	153	295	361	358	216	87	47	9	0	0	0	0	0	0	0	65	361	0
Avg	0	0	0	0	0	0	0	10	83	183	257	322	325	270	203	107	24	0	0	0	0	0	0	0	74	355	0
Max	0	0	0	0	0	0	1	34	164	311	427	497	503	464	371	241	64	1	0	0	0	0	0	0	126	503	0
Min	0	0	0	0	0	0	0	1	16	31	43	92	83	49	33	17	5	0	0	0	0	0	0	0	19	96	0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (Watts per Square Meter)
December 2023

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	0	0	23	64	65	83	153	122	193	46	3	0	0	0	0	0	0	0	31	193	0
2	0	0	0	0	0	0	0	3	34	122	286	160	95	48	29	15	3	0	0	0	0	0	0	0	33	286	0
3	0	0	0	0	0	0	0	3	46	148	284	279	216	95	70	46	3	0	0	0	0	0	0	0	50	284	0
4	0	0	0	0	0	0	0	0	29	74	201	279	324	190	148	56	12	0	0	0	0	0	0	0	55	324	0
5	0	0	0	0	0	0	0	0	18	112	199	225	227	200	118	44	7	0	0	0	0	0	0	0	48	227	0
6	0	0	0	0	0	0	0	0	28	125	243	Au	Au	213	218	39	9	0	0	0	0	0	0	0	40	243	0
7	0	0	0	0	0	0	0	0	5	34	54	75	100	114	86	66	15	0	0	0	0	0	0	0	23	114	0
8	0	0	0	0	0	0	0	1	37	62	87	91	82	78	69	17	4	0	0	0	0	0	0	0	22	91	0
9	0	0	0	0	0	0	0	1	46	176	278	328	363	311	212	80	6	0	0	0	0	0	0	0	75	363	0
10	0	0	0	0	0	0	0	0	11	48	131	233	199	149	138	37	4	0	0	0	0	0	0	0	40	233	0
11	0	0	0	0	0	0	0	1	15	56	165	119	141	70	80	48	6	0	0	0	0	0	0	0	29	165	0
12	0	0	0	0	0	0	0	0	20	65	154	251	337	325	248	138	13	0	0	0	0	0	0	0	65	337	0
13	0	0	0	0	0	0	0	0	28	126	259	346	366	336	259	146	14	0	0	0	0	0	0	0	78	366	0
14	0	0	0	0	0	0	0	0	48	189	272	339	361	331	254	107	10	0	0	0	0	0	0	0	80	361	0
15	0	0	0	0	0	0	0	0	35	176	263	329	349	318	220	85	8	0	0	0	0	0	0	0	74	349	0
16	0	0	0	0	0	0	0	2	10	44	80	88	101	133	102	94	11	0	0	0	0	0	0	0	28	133	0
17	0	0	0	0	0	0	0	0	22	88	212	315	345	319	240	115	12	0	0	0	0	0	0	0	70	345	0
18	0	0	0	0	0	0	0	1	21	53	129	202	301	147	77	60	7	0	0	0	0	0	0	0	42	301	0
19	0	0	0	0	0	0	0	0	29	73	158	269	268	275	155	135	8	0	0	0	0	0	0	0	57	275	0
20	0	0	0	0	0	0	0	0	35	209	262	229	353	288	137	36	10	0	0	0	0	0	0	0	65	353	0
21	0	0	0	0	0	0	0	0	13	78	102	200	181	249	259	63	6	0	0	0	0	0	0	0	48	259	0
22	0	0	0	0	0	0	0	0	23	132	260	317	340	315	243	135	15	0	0	0	0	0	0	0	74	340	0
23	0	0	0	0	0	0	0	0	8	31	104	189	230	113	110	79	14	0	0	0	0	0	0	0	37	230	0
24	0	0	0	0	0	0	0	0	28	158	241	331	357	332	258	150	18	0	0	0	0	0	0	0	78	357	0
25	0	0	0	0	0	0	0	0	25	142	255	328	355	331	258	150	19	0	0	0	0	0	0	0	78	355	0
26	0	0	0	0	0	0	0	0	23	153	264	326	348	322	198	76	6	0	0	0	0	0	0	0	72	348	0
27	0	0	0	0	0	0	0	0	22	87	152	302	323	286	229	153	14	0	0	0	0	0	0	0	65	323	0
28	0	0	0	0	0	0	0	0	14	68	224	263	344	328	257	145	6	0	0	0	0	0	0	0	69	344	0
29	0	0	0	0	0	0	0	1	18	104	228	204	226	336	221	91	20	0	0	0	0	0	0	0	60	336	0
30	0	0	0	0	0	0	0	0	19	133	260	318	346	325	235	137	17	0	0	0	0	0	0	0	75	346	0
31	0	0	0	0	0	0	0	0	10	122	183	192	189	288	203	127	24	0	0	0	0	0	0	0	56	288	0
Avg	0	0	0	0	0	0	0	0	24	105	195	240	264	235	178	88	10	0	0	0	0	0	0	0	55	286	0
Max	0	0	0	0	0	0	0	3	48	209	286	346	366	336	259	153	24	0	0	0	0	0	0	0	80	366	0
Min	0	0	0	0	0	0	0	0	5	31	54	75	82	48	29	15	3	0	0	0	0	0	0	0	22	91	0

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Barometric Pressure (inches of mercury)
October 2023

	<< 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	24.38	24.38	24.40	24.42	24.38	24.37	24.37	24.38	24.44	24.42	24.42	24.41	24.41	24.40	24.39	24.40	24.40	24.41	24.44	24.44	24.43	24.43	24.43	24.42	24.41	24.44	24.37
2	24.41	24.41	24.40	24.39	24.37	24.37	24.37	24.37	24.38	24.38	24.38	24.36	24.33	24.31	24.31	24.31	24.31	24.31	24.31	24.32	24.32	24.31	24.30	24.29	24.35	24.41	24.29
3	24.29	24.29	24.30	24.30	24.30	24.29	24.30	24.32	24.34	24.36	24.37	24.38	24.38	24.38	24.39	24.40	24.41	24.41	24.42	24.43	24.43	24.43	24.43	24.43	24.37	24.43	24.29
4	24.42	24.41	24.41	24.40	24.40	24.41	24.42	24.43	24.44	24.44	24.45	24.46	24.46	24.45	24.44	24.45	24.45	24.47	24.51	24.53	24.54	24.57	24.58	24.60	24.61	24.47	24.61
5	24.62	24.63	24.63	24.63	24.63	24.64	24.63	24.63	24.65	24.66	24.67	24.67	24.67	24.67	24.67	24.68	24.69	24.71	24.72	24.74	24.76	24.77	24.78	24.80	24.68	24.80	
6	24.80	24.80	24.80	24.79	24.78	24.78	24.78	24.78	24.78	24.77	24.77	24.76	24.74	24.72	24.72	24.70	24.69	24.69	24.68	24.68	24.68	24.67	24.66	24.65	24.74	24.80	
7	24.64	24.64	24.63	24.63	24.63	24.63	24.63	24.63	24.63	24.63	24.63	24.62	24.62	24.60	24.59	24.59	24.58	24.58	24.58	24.58	24.58	24.57	24.57	24.57	24.61	24.64	
8	24.56	24.56	24.55	24.54	24.54	24.53	24.53	24.53	24.54	24.53	24.52	24.51	24.50	24.48	24.46	24.46	24.45	24.45	24.45	24.45	24.44	24.44	24.43	24.50	24.56		
9	24.42	24.42	24.41	24.40	24.39	24.39	24.38	24.39	24.39	24.37	24.36	24.35	24.32	24.31	24.29	24.28	24.27	24.26	24.25	24.25	24.24	24.25	24.25	24.23	24.33	24.42	
10	24.21	24.21	24.21	24.19	24.19	24.17	24.16	24.16	24.16	24.15	24.14	24.12	24.10	24.07	24.06	24.05	24.04	24.03	24.02	24.03	24.04	24.03	24.01	24.00	24.11	24.21	
11	24.01	24.00	23.99	23.99	24.00	24.01	24.01	24.02	24.03	24.04	24.05	24.05	24.05	24.05	24.05	24.06	24.09	24.10	24.12	24.14	24.15	24.17	24.18	24.18	24.06	24.18	
12	24.20	24.22	24.23	24.24	24.25	24.27	24.29	24.33	24.35	24.35	24.37	24.39	24.40	24.41	24.42	24.44	24.46	24.47	24.49	24.50	24.51	24.52	24.53	24.53	24.38	24.53	
13	24.53	24.53	24.52	24.52	24.52	24.52	24.53	24.54	24.55	24.55	24.55	24.54	24.53	24.53	24.53	24.52	24.52	24.52	24.53	24.53	24.52	24.51	24.50	24.50	24.53	24.55	
14	24.51	24.50	24.50	24.50	24.50	24.50	24.50	24.51	24.53	24.53	24.54	24.55	24.55	24.57	24.57	24.56	24.58	24.59	24.59	24.60	24.61	24.61	24.61	24.62	24.55	24.62	
15	24.63	24.64	24.65	24.65	24.65	24.65	24.66	24.67	24.69	24.69	24.70	24.68	24.68	24.66	24.65	24.66	24.67	24.66	24.66	24.66	24.66	24.66	24.64	24.64	24.66	24.70	
16	24.63	24.63	24.62	24.61	24.61	24.61	24.60	24.59	24.60	24.59	24.57	24.55	24.52	24.50	24.49	24.48	24.46	24.45	24.44	24.42	24.41	24.40	24.39	24.38	24.52	24.63	
17	24.37	24.38	24.38	24.37	24.35	24.33	24.32	24.33	24.33	24.34	24.36	24.36	24.37	24.38	24.39	24.41	24.43	24.45	24.46	24.47	24.48	24.48	24.49	24.51	24.40	24.51	
18	24.52	24.52	24.52	24.51	24.52	24.53	24.54	24.55	24.55	24.56	24.56	24.56	24.54	24.53	24.53	24.54	24.54	24.53	24.53	24.54	24.55	24.54	24.54	24.54	24.54	24.56	
19	24.53	24.53	24.53	24.53	24.54	24.54	24.54	24.54	24.56	24.56	24.56	24.54	24.52	24.50	24.48	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.51	24.56	
20	24.47	24.47	24.46	24.46	24.46	24.47	24.46	24.47	24.48	24.48	24.47	24.46	24.43	24.42	24.41	24.41	24.40	24.40	24.42	24.42	24.43	24.44	24.44	24.45	24.45	24.48	
21	24.45	24.45	24.45	24.44	24.44	24.44	24.44	24.44	24.44	24.43	24.41	24.40	24.37	24.35	24.33	24.33	24.33	24.33	24.33	24.33	24.32	24.32	24.31	24.31	24.38	24.45	
22	24.31	24.30	24.29	24.29	24.29	24.29	24.29	24.30	24.30	24.29	24.28	24.26	24.24	24.22	24.20	24.19	24.18	24.23	24.21	24.20	24.21	24.22	24.22	24.21	24.25	24.31	
23	24.22	24.22	24.23	24.23	24.24	24.24	24.26	24.27	24.28	24.27	24.26	24.25	24.24	24.22	24.21	24.21	24.21	24.20	24.21	24.21	24.21	24.21	24.22	24.22	24.23	24.28	
24	24.22	24.23	24.24	24.25	24.26	24.27	24.28	24.28	24.29	24.29	24.29	24.29	24.27	24.27	24.27	24.27	24.26	24.26	24.28	24.27	24.26	24.26	24.25	24.25	24.26	24.29	
25	24.26	24.26	24.24	24.23	24.24	24.25	24.25	24.27	24.29	24.30	24.32	24.33	24.33	24.32	24.32	24.34	24.33	24.34	24.33	24.32	24.32	24.32	24.33	24.32	24.30	24.34	
26	24.31	24.31	24.32	24.32	24.33	24.34	24.35	24.36	24.38	24.40	24.41	24.42	24.42	24.42	24.43	24.45	24.45	24.47	24.49	24.49	24.48	24.47	24.47	24.46	24.41	24.49	
27	24.46	24.46	24.46	24.46	24.46	24.45	24.46	24.47	24.48	24.49	24.48	24.48	24.48	24.46	24.47	24.49	24.50	24.51	24.53	24.55	24.55	24.55	24.56	24.55	24.49	24.56	
28	24.55	24.54	24.54	24.53	24.53	24.53	24.53	24.54	24.57	24.58	24.59	24.58	24.56	24.56	24.55	24.56	24.58	24.60	24.61	24.63	24.64	24.65	24.66	24.66	24.58	24.66	
29	24.66	24.67	24.67	24.68	24.68	24.68	24.69	24.69	24.70	24.70	24.70	24.69	24.68	24.67	24.66	24.65	24.64	24.65	24.66	24.65	24.64	24.63	24.63	24.61	24.67	24.70	
30	24.60	24.59	24.58	24.57	24.57	24.59	24.60	24.63	24.65	24.65	24.64	24.65	24.65	24.65	24.65	24.65	24.64	24.63	24.64	24.64	24.63	24.63	24.62	24.61	24.62	24.65	
31	24.61	24.60	24.60	24.59	24.59	24.59	24.59	24.60	24.60	24.59	24.59	24.59	24.58	24.56	24.55	24.54	24.52	24.51	24.51	24.51	24.51	24.51	24.51	24.51	24.56	24.61	
Avg	24.45	24.45	24.44	24.44	24.44	24.44	24.44	24.45	24.46	24.46	24.46	24.46	24.45	24.44	24.44	24.44	24.44	24.44	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.52	
Max	24.80	24.80	24.80	24.79	24.78	24.78	24.78	24.78	24.78	24.77	24.77	24.76	24.74	24.72	24.72	24.70	24.69	24.71	24.72	24.74	24.76	24.77	24.78	24.80	24.74	24.80	
Min	24.01	24.00	23.99	23.99	24.00	24.01	24.01	24.02	24.03	24.04	24.05	24.05	24.05	24.05	24.05	24.05	24.04	24.03	24.02	24.03	24.04	24.03	24.01	24.00	24.06	24.18	

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Barometric Pressure (inches of mercury)
November 2023

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	24.50	24.50	24.50	24.50	24.49	24.49	24.49	24.48	24.49	24.47	24.46	24.46	24.45	24.44	24.43	24.42	24.42	24.42	24.42	24.41	24.41	24.41	24.41	24.40	24.45	24.50	24.40
2	24.39	24.39	24.38	24.37	24.35	24.35	24.34	24.34	24.34	24.34	24.33	24.32	24.30	24.29	24.29	24.29	24.29	24.29	24.30	24.31	24.31	24.32	24.33	24.35	24.33	24.39	24.29
3	24.36	24.37	24.38	24.39	24.40	24.41	24.42	24.42	24.45	24.46	24.46	24.46	24.44	24.44	24.44	24.45	24.45	24.46	24.47	24.48	24.48	24.49	24.49	24.49	24.44	24.49	24.36
4	24.50	24.51	24.50	24.48	24.47	24.47	24.47	24.46	24.45	24.44	24.44	24.43	24.40	24.38	24.37	24.36	24.36	24.34	24.33	24.30	24.28	24.26	24.25	24.23	24.40	24.51	24.23
5	24.22	24.20	24.18	24.17	24.16	24.16	24.17	24.18	24.20	24.20	24.21	24.22	24.23	24.23	24.24	24.23	24.24	24.25	24.25	24.25	24.24	24.23	24.23	24.21	24.21	24.25	24.16
6	24.20	24.20	24.20	24.19	24.17	24.18	24.17	24.15	24.16	24.15	24.14	24.12	24.09	24.07	24.06	24.06	24.05	24.05	24.07	24.08	24.08	24.10	24.10	24.12	24.12	24.20	24.05
7	24.12	24.13	24.13	24.12	24.12	24.13	24.13	24.14	24.17	24.17	24.18	24.18	24.17	24.16	24.16	24.17	24.19	24.20	24.22	24.23	24.25	24.26	24.28	24.30	24.18	24.30	24.12
8	24.32	24.35	24.37	24.39	24.41	24.44	24.46	24.48	24.49	24.49	24.50	24.50	24.49	24.49	24.49	24.49	24.50	24.50	24.50	24.50	24.50	24.51	24.53	24.54	24.47	24.54	24.32
9	24.55	24.56	24.57	24.58	24.58	24.58	24.58	24.58	24.58	24.55	24.54	24.52	24.50	24.47	24.46	24.45	24.44	24.42	24.42	24.42	24.42	24.41	24.41	24.40	24.50	24.58	24.40
10	24.40	24.39	24.39	24.38	24.38	24.38	24.38	24.37	24.37	24.36	24.36	24.37	24.37	24.37	24.37	24.37	24.38	24.37	24.38	24.38	24.38	24.37	24.37	24.36	24.38	24.40	24.36
11	24.35	24.34	24.33	24.32	24.31	24.30	24.29	24.29	24.30	24.30	24.30	24.30	24.28	24.27	24.25	24.22	24.21	24.20	24.21	24.23	24.26	24.30	24.34	24.36	24.29	24.36	24.20
12	24.38	24.40	24.41	24.41	24.42	24.43	24.45	24.47	24.50	24.52	24.53	24.53	24.53	24.51	24.50	24.50	24.49	24.48	24.47	24.47	24.45	24.45	24.45	24.43	24.47	24.53	24.38
13	24.41	24.40	24.39	24.38	24.37	24.37	24.37	24.37	24.36	24.36	24.35	24.35	24.33	24.32	24.31	24.30	24.30	24.29	24.29	24.29	24.29	24.30	24.31	24.32	24.34	24.41	24.29
14	24.34	24.36	24.36	24.35	24.35	24.35	24.35	24.36	24.36	24.37	24.36	24.36	24.34	24.34	24.33	24.34	24.34	24.34	24.34	24.33	24.32	24.32	24.32	24.32	24.34	24.37	24.32
15	24.32	24.31	24.30	24.32	24.32	24.31	24.31	24.31	24.32	24.32	24.31	24.30	24.27	24.25	24.22	24.19	24.17	24.14	24.12	24.11	24.10	24.09	24.09	24.11	24.23	24.32	24.09
16	24.15	24.16	24.19	24.21	24.23	24.24	24.24	24.25	24.27	24.28	24.29	24.28	24.27	24.26	24.26	24.27	24.27	24.28	24.30	24.31	24.33	24.34	24.34	24.34	24.27	24.34	24.15
17	24.35	24.37	24.37	24.38	24.39	24.40	24.40	24.41	24.41	24.41	24.42	24.42	24.42	24.41	24.41	24.41	24.41	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.42	24.35
18	24.39	24.38	24.37	24.37	24.36	24.35	24.34	24.34	24.33	24.33	24.33	24.31	24.29	24.26	24.25	24.24	24.23	24.22	24.22	24.21	24.20	24.19	24.18	24.18	24.29	24.39	24.18
19	24.17	24.17	24.17	24.17	24.17	24.17	24.17	24.17	24.18	24.18	24.19	24.19	24.20	24.21	24.23	24.26	24.29	24.33	24.35	24.37	24.39	24.41	24.44	24.47	24.25	24.47	24.17
20	24.49	24.52	24.55	24.57	24.58	24.60	24.61	24.65	24.68	24.69	24.71	24.71	24.72	24.72	24.73	24.75	24.76	24.77	24.78	24.79	24.78	24.79	24.79	24.79	24.69	24.79	24.49
21	24.78	24.78	24.77	24.76	24.75	24.75	24.75	24.74	24.74	24.74	24.72	24.72	24.69	24.66	24.64	24.62	24.61	24.59	24.58	24.56	24.54	24.54	24.53	24.52	24.67	24.78	24.52
22	24.51	24.48	24.47	24.47	24.47	24.47	24.46	24.46	24.45	24.46	24.45	24.44	24.43	24.43	24.42	24.42	24.43	24.44	24.44	24.44	24.45	24.45	24.47	24.47	24.45	24.51	24.42
23	24.46	24.46	24.46	24.46	24.46	24.47	24.48	24.49	24.50	24.51	24.53	24.53	24.52	24.52	24.52	24.52	24.53	24.55	24.57	24.58	24.58	24.59	24.59	24.58	24.52	24.59	24.46
24	24.57	24.56	24.56	24.55	24.55	24.55	24.55	24.55	24.54	24.53	24.52	24.49	24.47	24.46	24.45	24.45	24.46	24.47	24.48	24.47	24.47	24.47	24.46	24.47	24.50	24.57	24.45
25	24.46	24.46	24.47	24.47	24.47	24.47	24.47	24.47	24.49	24.49	24.48	24.46	24.45	24.45	24.45	24.46	24.47	24.49	24.49	24.49	24.50	24.51	24.51	24.51	24.48	24.51	24.45
26	24.51	24.50	24.50	24.50	24.50	24.49	24.49	24.49	24.49	24.47	24.47	24.46	24.44	24.42	24.42	24.42	24.43	24.45	24.47	24.49	24.50	24.51	24.52	24.52	24.48	24.52	24.42
27	24.52	24.51	24.51	24.50	24.49	24.48	24.48	24.48	24.49	24.49	24.47	24.47	24.45	24.44	24.44	24.44	24.44	24.43	24.44	24.44	24.45	24.45	24.46	24.48	24.47	24.52	24.43
28	24.49	24.49	24.50	24.50	24.50	24.51	24.52	24.52	24.52	24.52	24.50	24.49	24.48	24.47	24.45	24.43	24.41	24.40	24.39	24.38	24.38	24.37	24.36	24.35	24.46	24.52	24.35
29	24.34	24.33	24.32	24.31	24.29	24.29	24.29	24.29	24.29	24.28	24.26	24.26	24.24	24.23	24.22	24.22	24.22	24.22	24.24	24.24	24.24	24.25	24.25	24.25	24.27	24.34	24.22
30	24.25	24.24	24.24	24.22	24.22	24.21	24.21	24.21	24.21	24.21	24.19	24.17	24.15	24.13	24.12	24.12	24.11	24.11	24.11	24.11	24.10	24.10	24.09	24.09	24.16	24.25	24.09
Avg	24.39	24.39	24.39	24.39	24.39	24.39	24.39	24.40	24.40	24.40	24.40	24.39	24.38	24.37	24.36	24.36	24.36	24.36	24.37	24.37	24.37	24.37	24.38	24.38	24.38	24.46	24.30
Max	24.78	24.78	24.77	24.76	24.75	24.75	24.75	24.74	24.74	24.74	24.72	24.71	24.72	24.72	24.73	24.75	24.76	24.77	24.78	24.79	24.78	24.79	24.79	24.79	24.69	24.79	24.52
Min	24.12	24.13	24.13	24.12	24.12	24.13	24.13	24.14	24.16	24.15	24.14	24.12	24.09	24.07	24.06	24.06	24.05	24.05	24.07	24.08	24.08	24.09	24.09	24.09	24.12	24.20	24.05

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Barometric Pressure (inches of mercury)
December 2023

	<< 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	24.08	24.08	24.07	24.06	24.05	24.04	24.04	24.04	24.04	24.03	24.02	24.00	23.98	23.97	23.97	23.96	23.97	23.97	23.97	23.98	23.99	23.99	24.00	24.01	24.01	24.08	23.96
2	24.00	24.00	24.01	24.01	24.02	24.03	24.03	24.04	24.03	24.02	24.00	23.99	23.97	23.94	23.92	23.92	23.90	23.90	23.90	23.90	23.91	23.93	23.95	23.97	23.97	24.04	23.90
3	23.99	24.02	24.05	24.08	24.11	24.14	24.17	24.20	24.22	24.22	24.23	24.22	24.21	24.19	24.18	24.18	24.16	24.14	24.13	24.13	24.12	24.11	24.12	24.13	24.14	24.23	23.99
4	24.15	24.17	24.19	24.20	24.22	24.26	24.29	24.32	24.34	24.38	24.40	24.40	24.40	24.40	24.41	24.43	24.44	24.46	24.47	24.46	24.46	24.47	24.47	24.48	24.36	24.48	24.15
5	24.48	24.47	24.47	24.46	24.47	24.48	24.48	24.49	24.49	24.49	24.49	24.48	24.47	24.46	24.45	24.45	24.44	24.44	24.44	24.44	24.44	24.44	24.44	24.44	24.46	24.49	24.44
6	24.42	24.42	24.41	24.39	24.38	24.37	24.36	24.35	24.34	24.33	24.32	Au	Au	24.22	24.20	24.19	24.17	24.15	24.13	24.12	24.10	24.08	24.05	24.01	24.25	24.42	24.01
7	24.00	24.00	23.99	23.98	23.96	23.95	23.94	23.96	23.97	23.99	24.01	24.02	24.02	24.03	24.04	24.06	24.07	24.08	24.09	24.10	24.11	24.11	24.12	24.13	24.03	24.13	23.94
8	24.14	24.14	24.15	24.16	24.17	24.17	24.18	24.19	24.21	24.22	24.24	24.24	24.25	24.26	24.28	24.30	24.32	24.35	24.37	24.39	24.41	24.43	24.45	24.47	24.27	24.47	24.14
9	24.49	24.51	24.53	24.55	24.57	24.58	24.59	24.61	24.61	24.62	24.60	24.59	24.56	24.55	24.55	24.53	24.53	24.52	24.50	24.46	24.42	24.39	24.38	24.37	24.53	24.62	24.37
10	24.36	24.34	24.33	24.32	24.32	24.33	24.33	24.35	24.37	24.38	24.39	24.38	24.36	24.36	24.35	24.35	24.35	24.37	24.37	24.37	24.37	24.37	24.38	24.38	24.36	24.39	24.32
11	24.37	24.36	24.37	24.37	24.38	24.39	24.39	24.41	24.43	24.46	24.48	24.48	24.48	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.46	24.46	24.46	24.45	24.44	24.48	24.36
12	24.44	24.43	24.44	24.44	24.44	24.45	24.47	24.47	24.49	24.51	24.53	24.53	24.53	24.52	24.52	24.53	24.55	24.56	24.58	24.59	24.60	24.61	24.62	24.63	24.52	24.63	24.43
13	24.63	24.63	24.63	24.62	24.62	24.61	24.60	24.60	24.60	24.61	24.60	24.58	24.57	24.56	24.54	24.54	24.52	24.53	24.54	24.54	24.54	24.53	24.52	24.52	24.57	24.63	24.52
14	24.51	24.50	24.50	24.49	24.49	24.49	24.50	24.50	24.50	24.50	24.49	24.50	24.49	24.49	24.49	24.50	24.51	24.52	24.54	24.55	24.55	24.56	24.57	24.58	24.51	24.58	24.49
15	24.58	24.59	24.61	24.62	24.63	24.65	24.65	24.66	24.67	24.67	24.66	24.66	24.65	24.64	24.63	24.62	24.61	24.61	24.60	24.60	24.59	24.58	24.57	24.56	24.62	24.67	24.56
16	24.54	24.53	24.52	24.51	24.49	24.48	24.47	24.47	24.45	24.46	24.45	24.43	24.42	24.41	24.40	24.40	24.42	24.41	24.40	24.41	24.40	24.41	24.42	24.42	24.45	24.54	24.40
17	24.43	24.44	24.46	24.47	24.48	24.49	24.51	24.53	24.54	24.55	24.57	24.57	24.56	24.55	24.54	24.54	24.53	24.52	24.52	24.52	24.50	24.49	24.48	24.47	24.51	24.57	24.43
18	24.47	24.45	24.44	24.43	24.42	24.40	24.39	24.37	24.34	24.33	24.31	24.29	24.27	24.24	24.22	24.21	24.19	24.19	24.19	24.18	24.17	24.16	24.15	24.16	24.29	24.47	24.15
19	24.16	24.16	24.17	24.17	24.17	24.17	24.17	24.16	24.17	24.18	24.20	24.19	24.18	24.17	24.17	24.19	24.19	24.20	24.20	24.20	24.21	24.22	24.23	24.24	24.19	24.24	24.16
20	24.25	24.26	24.27	24.28	24.29	24.30	24.31	24.31	24.31	24.31	24.33	24.32	24.31	24.31	24.31	24.31	24.31	24.31	24.32	24.32	24.34	24.35	24.34	24.36	24.31	24.36	24.25
21	24.37	24.37	24.38	24.39	24.40	24.41	24.42	24.43	24.42	24.43	24.44	24.44	24.43	24.43	24.42	24.42	24.41	24.41	24.40	24.40	24.40	24.40	24.40	24.40	24.41	24.44	24.37
22	24.40	24.40	24.40	24.39	24.38	24.37	24.37	24.36	24.35	24.34	24.33	24.31	24.28	24.26	24.24	24.23	24.22	24.22	24.21	24.19	24.17	24.15	24.14	24.13	24.29	24.40	24.13
23	24.12	24.11	24.11	24.13	24.14	24.16	24.18	24.20	24.22	24.25	24.27	24.27	24.29	24.30	24.32	24.35	24.38	24.41	24.43	24.44	24.45	24.46	24.46	24.47	24.29	24.47	24.11
24	24.47	24.48	24.49	24.49	24.49	24.50	24.50	24.50	24.50	24.50	24.49	24.46	24.45	24.44	24.43	24.43	24.44	24.46	24.46	24.46	24.47	24.47	24.47	24.47	24.47	24.50	24.43
25	24.47	24.47	24.48	24.49	24.49	24.51	24.52	24.53	24.54	24.55	24.55	24.53	24.52	24.52	24.52	24.52	24.51	24.52	24.52	24.52	24.52	24.51	24.49	24.48	24.51	24.55	24.47
26	24.48	24.48	24.47	24.46	24.45	24.45	24.44	24.44	24.43	24.44	24.43	24.42	24.43	24.43	24.44	24.45	24.45	24.45	24.46	24.48	24.49	24.51	24.52	24.53	24.46	24.53	24.42
27	24.52	24.52	24.53	24.53	24.53	24.53	24.53	24.53	24.53	24.53	24.51	24.49	24.48	24.47	24.46	24.47	24.45	24.46	24.46	24.47	24.46	24.46	24.46	24.46	24.49	24.53	24.45
28	24.46	24.46	24.48	24.49	24.50	24.50	24.51	24.51	24.53	24.55	24.55	24.56	24.57	24.56	24.55	24.56	24.56	24.55	24.57	24.57	24.58	24.58	24.58	24.58	24.54	24.58	24.46
29	24.57	24.57	24.58	24.58	24.57	24.57	24.56	24.55	24.55	24.56	24.54	24.52	24.51	24.50	24.48	24.48	24.47	24.47	24.46	24.47	24.46	24.46	24.46	24.45	24.52	24.58	24.45
30	24.45	24.44	24.44	24.44	24.43	24.42	24.41	24.41	24.41	24.40	24.39	24.37	24.36	24.35	24.34	24.34	24.34	24.33	24.33	24.33	24.33	24.34	24.34	24.34	24.38	24.45	24.33
31	24.34	24.34	24.34	24.35	24.35	24.35	24.36	24.37	24.37	24.38	24.38	24.38	24.38	24.37	24.37	24.38	24.38	24.38	24.39	24.40	24.41	24.41	24.41	24.42	24.38	24.42	24.34
Avg	24.36	24.36	24.36	24.37	24.37	24.37	24.38	24.38	24.39	24.39	24.39	24.39	24.38	24.37	24.36	24.36	24.36	24.37	24.37	24.37	24.37	24.37	24.37	24.37	24.37	24.45	24.29
Max	24.63	24.63	24.63	24.62	24.63	24.65	24.65	24.66	24.67	24.67	24.66	24.66	24.65	24.64	24.63	24.62	24.61	24.61	24.60	24.60	24.60	24.61	24.62	24.63	24.62	24.67	24.56
Min	23.99	24.00	23.99	23.98	23.96	23.95	23.94	23.96	23.97	23.99	24.00	23.99	23.97	23.94	23.92	23.92	23.90	23.90	23.90	23.91	23.93	23.95	23.97	23.97	23.97	24.04	23.90

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Relative Humidity (Percent)
October 2023

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	86.8	83.2	84.9	85.5	84.7	87.6	89.9	87.4	82.0	78.6	70.5	70.0	72.8	83.4	77.7	77.7	88.6	90.2	90.6	91.3	91.3	91.2	91.1	88.7	84.4	91.3	70.0
2	87.2	88.1	88.8	88.8	90.3	90.8	90.7	90.8	90.1	78.9	73.7	66.8	61.1	60.5	63.0	62.2	64.0	69.8	72.4	74.3	73.7	81.0	86.6	87.3	78.4	90.8	60.5
3	87.1	85.9	86.0	87.5	88.2	88.6	88.8	85.7	77.7	68.0	62.4	62.2	58.3	55.7	55.3	60.7	68.5	80.0	85.7	85.6	89.2	88.9	88.9	88.7	78.1	89.2	55.3
4	89.5	87.5	86.0	83.5	82.7	81.5	81.4	81.2	79.4	73.0	71.6	69.8	67.7	71.6	60.6	53.5	58.4	80.3	85.4	85.5	89.3	90.6	90.7	90.9	78.8	90.9	53.5
5	91.1	91.0	91.3	91.4	91.8	91.7	91.7	91.9	91.8	92.0	90.4	83.6	80.4	77.7	65.8	70.5	69.6	69.8	73.8	79.0	78.9	78.6	75.6	69.8	82.5	92.0	65.8
6	71.9	74.6	77.2	79.4	84.1	87.7	87.9	82.7	73.2	66.3	64.0	62.6	60.5	55.7	48.7	45.2	46.2	55.5	77.5	85.2	84.6	84.2	90.0	89.9	72.3	90.0	45.2
7	90.5	90.5	90.2	90.1	89.9	89.2	89.1	89.8	82.4	64.4	41.8	39.3	38.0	33.4	32.7	32.5	33.0	43.9	71.5	75.9	80.0	86.9	88.3	90.0	68.9	90.5	32.5
8	89.8	89.4	89.4	89.4	89.4	89.0	89.4	85.5	70.9	53.8	36.8	32.9	31.0	30.7	28.3	24.4	24.5	35.2	60.4	64.2	72.3	83.5	82.1	87.1	63.7	89.8	24.4
9	87.6	87.5	87.9	88.1	88.9	89.4	89.3	84.5	70.8	43.2	33.3	29.7	27.9	25.4	21.5	20.6	21.9	36.7	57.1	64.8	76.1	73.7	69.3	68.5	60.2	89.4	20.6
10	66.7	67.4	68.7	74.2	76.9	80.8	83.0	78.5	60.0	50.1	37.2	35.9	34.9	32.9	29.7	32.9	38.8	44.6	43.9	57.2	78.2	81.9	83.2	88.0	59.4	88.0	29.7
11	89.0	86.9	89.1	89.9	90.5	91.2	91.2	86.0	81.8	76.3	74.1	68.8	58.9	53.6	47.6	46.3	52.7	56.8	68.1	75.5	75.6	71.8	73.7	71.1	73.6	91.2	46.3
12	72.2	78.3	75.1	76.5	81.9	80.3	82.9	81.9	80.7	78.5	75.5	72.9	73.0	74.8	75.4	75.3	74.7	76.7	78.7	80.3	83.6	87.8	87.3	87.7	78.8	87.8	72.2
13	87.6	86.9	87.6	87.5	87.7	87.1	88.3	87.1	84.8	82.6	77.1	66.2	66.5	68.2	67.6	68.5	76.6	82.2	86.1	85.0	86.4	87.6	88.0	87.5	81.7	88.3	66.2
14	88.9	89.3	89.7	89.4	89.5	89.1	88.5	88.9	84.1	82.7	73.6	62.7	57.6	59.4	55.7	45.8	46.1	58.2	77.1	84.3	85.4	88.8	89.5	89.5	77.2	89.7	45.8
15	89.5	88.9	89.1	89.7	89.4	89.3	89.9	89.8	89.5	80.4	61.9	44.8	40.1	39.2	38.6	39.9	41.8	49.4	61.5	68.5	76.9	81.5	85.0	88.8	71.0	89.9	38.6
16	89.7	90.2	90.1	90.3	90.6	90.4	90.5	90.0	86.8	75.5	50.8	36.2	30.3	30.0	32.0	36.0	43.2	56.6	67.9	75.9	78.6	81.7	83.8	84.8	69.7	90.6	30.0
17	86.3	85.4	83.9	83.4	85.6	85.9	84.8	83.5	61.2	53.7	55.0	43.3	32.7	29.5	30.8	29.7	29.8	35.0	38.8	45.6	51.0	66.3	73.5	78.0	59.7	86.3	29.5
18	80.0	83.1	84.1	83.6	84.0	84.1	83.7	82.5	74.8	51.3	39.2	41.0	41.3	40.2	38.8	39.8	40.0	46.3	57.3	69.0	77.0	82.0	84.7	85.3	65.5	85.3	38.8
19	87.1	88.1	87.3	87.9	88.2	87.8	87.7	84.3	71.8	54.7	30.7	29.8	29.8	29.2	28.0	28.2	29.0	34.5	50.8	63.2	67.6	75.0	74.1	74.3	61.2	88.2	28.0
20	77.2	82.6	84.0	85.6	86.2	88.6	89.1	87.3	71.7	56.8	37.9	32.1	29.7	29.0	28.3	28.5	29.9	41.4	56.6	64.9	72.2	76.7	78.9	82.4	62.4	89.1	28.3
21	83.6	85.6	86.7	87.6	78.7	59.6	60.4	66.0	54.5	44.2	40.2	38.0	36.9	36.4	35.8	35.3	38.2	57.1	72.4	79.2	83.7	88.6	89.5	90.2	63.7	90.2	35.3
22	90.5	90.5	90.5	90.3	89.9	90.0	89.0	89.0	89.6	79.8	60.3	49.0	47.0	46.0	45.1	47.2	54.0	73.5	84.8	85.0	89.3	88.2	89.9	91.2	76.7	91.2	45.1
23	91.5	91.7	90.9	87.0	85.7	85.0	85.9	88.1	85.6	83.8	84.0	84.9	83.1	84.1	83.7	82.6	87.8	88.3	87.4	88.8	89.5	90.6	89.9	90.1	87.1	91.7	82.6
24	90.7	91.0	91.2	91.4	91.3	90.5	91.4	91.5	91.3	91.1	90.9	89.8	87.5	86.6	85.3	85.3	85.7	87.0	86.7	86.3	86.7	86.0	85.9	85.7	88.6	91.5	85.3
25	86.0	85.7	85.4	85.2	85.0	84.4	84.4	84.0	83.5	82.3	81.5	80.6	80.0	78.8	79.5	80.3	80.5	81.1	81.4	81.8	81.1	81.2	81.1	80.7	82.3	86.0	78.8
26	80.1	79.7	80.2	79.8	79.9	80.3	80.3	80.1	79.2	79.3	78.4	76.8	75.4	76.2	76.5	75.1	75.2	79.5	79.3	80.0	80.2	79.8	79.8	79.7	78.8	80.3	75.1
27	80.7	80.0	79.9	79.7	79.1	79.4	79.0	77.6	76.8	76.3	72.8	72.4	75.0	73.7	73.6	76.4	77.2	80.4	80.8	78.9	78.9	77.6	76.9	75.1	77.4	80.8	72.4
28	73.1	71.4	70.6	69.2	68.7	68.7	68.5	68.5	70.5	73.6	77.1	74.4	70.7	70.9	67.4	70.2	73.0	77.0	77.9	79.8	81.0	81.2	80.8	82.1	73.6	82.1	67.4
29	80.9	82.6	83.3	83.6	83.7	82.2	85.8	84.8	80.8	75.6	65.2	60.4	60.4	61.8	58.9	56.3	60.4	73.9	82.0	81.4	80.0	78.7	77.2	76.5	74.9	85.8	56.3
30	75.3	74.6	74.6	74.5	73.8	74.3	74.4	76.3	77.9	80.2	76.8	61.4	61.0	60.2	58.1	55.8	58.3	75.5	82.9	84.1	84.0	82.9	83.3	83.2	73.5	84.1	55.8
31	83.1	82.9	82.4	82.4	82.3	82.0	81.7	81.4	80.1	73.8	59.9	50.7	42.4	44.8	45.2	45.8	62.0	80.7	82.4	86.1	86.0	85.7	84.6	83.7	73.0	86.1	42.4
Avg	84.2	84.5	84.7	84.9	85.1	84.7	85.1	84.1	78.6	71.0	62.7	57.7	55.2	54.8	52.7	52.5	55.8	64.4	72.9	77.0	80.3	82.6	83.3	83.8	73.4	88.3	50.9
Max	91.5	91.7	91.3	91.4	91.8	91.7	91.7	91.9	91.8	92.0	90.9	89.8	87.5	86.6	85.3	85.3	88.6	90.2	90.6	91.3	91.3	91.2	91.1	91.2	88.6	92.0	85.3
Min	66.7	67.4	68.7	69.2	68.7	59.6	60.4	66.0	54.5	43.2	30.7	29.7	27.9	25.4	21.5	20.6	21.9	34.5	38.8	45.6	51.0	66.3	69.3	68.5	59.4	80.3	20.6

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Relative Humidity (Percent)
November 2023

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	83.0	82.4	82.1	81.8	82.4	82.5	81.6	82.2	83.0	85.1	77.1	51.3	36.1	36.2	36.8	37.9	42.2	54.8	73.6	75.1	75.5	75.4	77.4	79.1	68.9	85.1	36.1
2	81.6	84.0	85.5	86.4	85.5	84.0	83.3	86.6	88.3	88.8	87.3	86.8	86.3	87.7	88.4	88.8	90.2	90.4	90.7	90.9	91.1	91.2	82.9	84.0	87.1	91.2	81.6
3	83.7	82.3	81.1	79.9	83.7	81.0	76.9	71.3	64.1	62.6	60.2	57.9	54.8	54.2	57.9	61.5	65.6	67.0	70.5	77.1	81.8	83.8	85.8	86.7	72.1	86.7	54.2
4	87.4	87.4	87.4	87.3	86.8	86.8	86.5	86.8	86.5	82.1	68.5	59.0	54.6	56.9	60.7	73.3	84.9	87.1	85.9	88.5	88.8	89.9	83.6	84.0	80.4	89.9	54.6
5	75.2	77.3	80.5	75.0	71.0	73.3	82.5	80.4	74.7	68.5	67.3	60.0	54.6	48.5	46.4	47.8	44.7	50.7	57.7	60.3	69.0	69.2	74.7	76.5	66.1	82.5	44.7
6	79.4	81.5	83.0	83.3	84.6	84.5	85.4	86.3	77.7	63.0	55.3	47.1	45.3	43.1	47.2	65.0	79.5	83.2	86.5	89.5	90.7	90.6	89.0	83.5	75.2	90.7	43.1
7	83.7	81.4	84.8	85.5	87.3	87.1	76.1	74.4	78.2	62.6	57.4	52.8	53.5	57.4	52.8	54.4	57.5	59.3	62.4	64.7	66.2	72.7	82.4	89.2	70.2	89.2	52.8
8	90.5	90.8	89.6	87.4	84.1	82.6	85.0	85.3	78.6	74.4	66.1	55.6	50.7	47.9	48.4	48.5	49.8	55.0	57.8	58.1	60.4	65.2	76.5	81.3	69.6	90.8	47.9
9	83.8	83.6	83.6	83.4	83.6	83.2	82.9	82.1	78.1	70.6	64.7	50.8	46.4	40.2	38.6	37.4	42.1	49.6	62.0	73.8	78.3	78.8	80.5	81.7	68.3	83.8	37.4
10	80.5	80.9	82.6	82.7	82.3	81.0	79.8	81.0	79.8	74.9	68.5	55.7	41.4	42.1	47.1	52.5	57.9	66.0	67.9	71.7	70.7	69.0	72.0	75.3	69.3	82.7	41.4
11	74.5	78.2	78.0	74.2	71.1	70.3	71.5	70.4	66.5	56.3	49.8	48.4	46.9	46.0	42.8	44.9	44.3	44.5	41.4	40.0	41.7	52.4	53.7	56.9	56.9	78.2	40.0
12	56.2	53.3	57.8	64.9	64.1	65.3	66.8	66.0	60.8	55.5	47.1	42.6	38.0	33.2	33.4	34.2	39.0	59.6	65.9	71.8	64.4	48.1	50.9	56.9	54.0	71.8	33.2
13	59.6	69.1	71.3	72.9	73.6	78.5	78.6	78.9	72.0	54.9	25.3	23.6	23.6	24.2	22.3	23.5	27.8	35.1	40.4	54.3	48.0	48.2	52.5	56.3	50.6	78.9	22.3
14	54.5	60.4	66.0	72.8	76.6	78.8	81.4	84.2	78.6	64.3	51.1	37.9	36.6	40.1	44.3	44.3	46.1	51.7	65.4	70.5	76.8	81.4	82.6	84.1	63.8	84.2	36.6
15	84.7	83.6	71.4	44.7	44.6	49.0	62.1	70.6	67.1	31.9	29.2	29.5	28.8	30.3	30.4	29.8	30.2	29.3	27.5	30.6	29.7	29.6	32.5	41.8	43.3	84.7	27.5
16	67.8	70.7	73.3	79.9	80.2	80.8	85.1	87.3	80.9	66.5	57.8	57.8	54.8	47.5	44.2	46.4	47.9	48.7	52.1	55.8	50.6	56.8	59.8	69.5	63.4	87.3	44.2
17	75.9	78.7	78.4	77.7	78.5	79.9	79.1	79.4	77.1	68.1	57.9	32.8	28.8	29.0	27.8	26.9	33.3	50.7	60.2	64.9	70.8	75.7	79.2	81.0	62.2	81.0	26.9
18	81.7	82.1	82.2	82.6	83.1	83.3	84.1	84.2	78.4	65.0	49.9	41.2	37.4	36.6	36.2	39.8	48.0	64.5	72.8	77.7	82.0	83.7	83.9	85.9	68.6	85.9	36.2
19	86.2	86.3	86.5	86.3	86.2	86.4	86.5	86.5	86.4	81.0	69.9	55.4	48.8	53.3	58.7	65.0	66.6	66.2	65.4	65.9	66.6	70.1	68.7	71.9	73.0	86.5	48.8
20	75.4	80.5	79.6	82.1	82.8	77.0	73.8	76.9	79.6	69.9	57.7	53.9	48.5	46.1	45.4	47.4	54.7	63.6	70.6	75.8	80.4	81.4	83.1	83.4	69.6	83.4	45.4
21	83.3	83.1	83.0	82.7	83.1	83.0	82.7	82.5	78.3	69.3	63.6	37.9	31.4	27.6	28.1	30.6	40.7	45.7	53.2	56.8	61.2	65.3	68.7	70.6	62.2	83.3	27.6
22	72.9	74.1	65.5	43.4	42.3	46.1	44.2	43.8	40.5	46.5	56.9	54.7	52.0	57.5	58.9	63.4	67.5	68.4	66.6	65.1	64.1	65.6	68.1	65.8	58.1	74.1	40.5
23	66.9	68.2	70.5	75.8	76.8	78.2	79.7	80.2	80.2	77.1	68.1	64.6	67.4	74.6	69.7	68.4	75.0	72.3	78.6	82.8	82.8	83.3	84.2	83.1	75.4	84.2	64.6
24	83.3	82.2	82.4	81.3	81.6	81.5	80.6	79.0	78.8	76.9	68.0	68.7	66.1	64.6	64.9	64.3	73.7	81.2	82.0	80.8	81.1	81.8	81.9	83.1	77.1	83.3	64.3
25	78.0	78.3	77.2	79.0	80.0	78.4	79.2	77.3	75.6	75.4	75.1	72.6	69.9	63.6	59.7	58.3	62.0	71.4	72.1	75.6	80.5	82.4	82.1	80.6	74.3	82.4	58.3
26	80.8	82.4	81.8	80.8	81.6	79.4	77.3	83.1	84.1	70.3	59.7	55.2	56.3	55.0	55.3	58.3	64.6	72.3	79.0	80.1	81.5	82.2	81.6	81.4	73.5	84.1	55.0
27	80.4	80.8	80.1	79.6	79.1	79.0	78.3	78.1	78.2	76.0	69.4	57.2	36.7	31.5	29.4	29.2	33.0	40.2	52.4	58.4	65.3	65.2	68.5	71.7	62.4	80.8	29.2
28	72.8	73.9	74.9	75.0	74.2	75.5	75.2	74.4	71.5	60.1	53.7	36.2	17.6	14.0	12.9	15.4	29.4	46.9	54.3	58.6	62.2	68.0	70.7	72.8	55.8	75.5	12.9
29	74.8	76.4	76.2	77.1	76.9	77.0	76.8	76.4	72.6	64.8	55.1	27.0	24.7	24.5	25.0	27.8	35.2	42.0	51.1	60.6	66.1	72.1	72.9	75.8	58.7	77.1	24.5
30	77.3	78.9	79.2	79.2	79.0	79.4	79.6	79.4	76.7	72.5	61.2	55.3	47.9	48.0	51.2	57.0	61.6	65.8	70.9	72.9	72.1	75.8	76.3	80.6	69.9	80.6	47.9
Avg	77.2	78.4	78.5	77.5	77.6	77.8	78.1	78.5	75.8	67.8	60.0	51.0	46.2	45.4	45.5	48.1	53.2	59.4	64.6	68.3	70.0	71.8	73.6	75.8	66.7	83.3	42.7
Max	90.5	90.8	89.6	87.4	87.3	87.1	86.5	87.3	88.3	88.8	87.3	86.8	86.3	87.7	88.4	88.8	90.2	90.4	90.7	90.9	91.1	91.2	89.0	89.2	87.1	91.2	81.6
Min	54.5	53.3	57.8	43.4	42.3	46.1	44.2	43.8	40.5	31.9	25.3	23.6	17.6	14.0	12.9	15.4	27.8	29.3	27.5	30.6	29.7	29.6	32.5	41.8	43.3	71.8	12.9

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Relative Humidity (Percent)
December 2023

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	80.5	82.2	83.9	84.3	84.8	84.9	84.5	84.2	84.0	80.9	76.6	70.9	65.0	58.7	56.3	57.6	62.5	68.6	76.9	79.9	81.0	81.5	81.7	81.4	76.4	84.9	56.3
2	73.6	68.9	66.7	66.1	69.5	68.0	65.8	70.2	66.2	59.5	48.5	47.3	46.7	46.3	51.5	68.0	80.6	76.1	68.3	57.2	56.0	54.8	58.5	58.8	62.2	80.6	46.3
3	55.9	57.6	59.3	59.2	60.3	62.9	65.6	73.5	74.6	66.9	52.4	52.0	49.4	48.4	45.5	43.5	43.6	51.8	55.4	60.3	65.8	64.5	60.6	56.1	57.7	74.6	43.5
4	53.3	52.2	52.3	54.9	58.5	65.0	65.6	69.0	63.8	52.6	44.0	40.7	41.3	43.6	45.7	49.9	53.9	58.3	57.5	59.7	59.1	63.8	86.9	89.5	57.5	89.5	40.7
5	89.3	89.3	90.1	90.4	90.4	90.6	90.8	91.0	91.1	89.3	83.2	61.1	56.4	54.1	52.5	55.5	59.5	62.3	64.3	66.4	67.3	73.3	74.0	71.4	75.1	91.1	52.5
6	73.5	77.2	82.8	84.4	84.9	79.9	72.0	69.8	72.4	59.9	47.0	Au	Au	36.7	33.6	36.4	41.4	41.0	37.5	38.7	37.0	36.3	37.6	37.5	55.3	84.9	33.6
7	39.8	43.3	49.4	54.5	55.1	56.4	61.5	66.9	76.0	82.5	85.1	80.1	68.3	64.0	60.6	58.6	58.7	60.1	61.6	63.2	58.1	55.3	55.8	59.8	61.4	85.1	39.8
8	64.9	69.8	74.3	80.5	81.5	83.0	81.9	82.6	81.7	81.1	78.8	71.9	67.2	63.3	61.8	61.8	60.9	60.5	62.1	64.1	66.0	69.4	75.2	81.2	71.9	83.0	60.5
9	83.2	80.6	79.6	79.1	70.2	73.7	75.0	79.4	77.3	68.4	56.2	51.0	46.9	43.7	41.2	40.9	46.7	48.8	55.4	55.6	49.0	43.7	42.2	42.5	59.6	83.2	40.9
10	42.5	44.0	50.1	53.9	58.0	61.2	63.3	64.3	67.7	67.3	64.2	61.3	62.8	63.3	63.5	66.5	71.4	71.9	75.4	75.8	76.0	77.6	75.4	76.5	64.7	77.6	42.5
11	78.8	80.4	80.0	79.6	80.5	81.7	85.2	87.3	88.8	89.3	86.1	83.4	74.8	75.4	69.9	71.2	76.3	80.0	83.1	87.1	87.9	88.2	86.3	85.7	82.0	89.3	69.9
12	85.9	86.7	87.2	87.3	85.3	82.8	83.0	84.4	85.1	83.4	74.1	68.1	61.7	57.4	56.7	55.6	68.2	77.5	82.3	83.8	83.6	83.7	82.6	82.3	77.9	87.3	55.6
13	81.0	80.5	79.9	79.9	79.5	78.6	78.1	78.0	77.2	75.9	70.0	59.2	50.1	35.2	31.5	37.0	56.2	68.4	75.3	76.9	77.6	77.5	77.8	77.8	69.1	81.0	31.5
14	76.5	76.4	76.3	75.3	75.5	77.0	77.2	77.4	76.2	66.4	61.6	47.2	32.9	30.9	31.4	33.2	41.9	58.3	63.7	68.1	71.8	73.4	74.0	73.7	63.2	77.4	30.9
15	77.3	78.8	78.0	79.5	80.8	81.1	80.8	80.9	79.1	70.1	63.2	51.8	50.4	51.3	51.2	50.1	60.3	72.0	78.0	81.7	84.0	84.3	83.6	83.8	72.2	84.3	50.1
16	84.1	83.8	83.5	84.3	83.6	83.2	82.9	83.0	83.5	83.5	83.2	82.1	80.8	78.3	55.9	27.1	24.7	31.7	40.4	45.5	37.4	41.4	41.8	45.4	64.6	84.3	24.7
17	50.1	51.5	53.6	52.6	41.0	46.8	60.4	67.5	66.9	64.9	52.3	39.6	35.3	32.5	29.7	29.8	37.1	51.3	59.4	68.0	72.9	75.5	77.3	78.0	53.9	78.0	29.7
18	78.6	79.4	79.5	79.3	79.1	79.2	78.2	76.7	74.6	71.6	70.5	54.1	37.7	26.5	28.8	32.0	37.1	45.8	50.4	51.8	56.8	60.2	62.5	64.4	60.6	79.5	26.5
19	64.1	62.0	64.7	66.0	68.8	70.8	74.9	76.9	78.6	72.5	57.0	46.3	37.1	37.8	41.4	39.6	53.4	57.2	61.2	68.8	75.7	80.0	83.2	84.3	63.4	84.3	37.1
20	84.7	85.8	86.2	85.4	85.5	85.7	85.0	85.1	84.6	77.3	67.0	52.4	42.4	42.3	46.4	49.8	64.7	73.8	77.6	81.8	85.2	85.9	85.2	85.0	74.4	86.2	42.3
21	85.9	86.6	86.4	87.1	85.9	85.7	85.7	86.5	86.7	85.8	85.1	78.9	61.1	46.8	44.8	50.9	63.9	73.1	78.2	83.6	83.8	85.8	86.4	86.2	78.0	87.1	44.8
22	86.7	86.4	85.9	86.5	85.7	85.3	85.0	85.1	86.2	86.5	77.5	54.2	46.5	41.9	40.1	45.5	54.8	65.5	67.1	68.9	78.1	78.2	77.4	77.2	72.2	86.7	40.1
23	72.6	76.6	77.4	84.3	85.5	83.8	83.9	85.4	84.9	81.2	79.3	71.2	72.8	69.8	67.4	67.5	69.4	72.2	73.6	75.6	79.4	81.6	80.9	81.2	77.4	85.5	67.4
24	83.4	83.7	82.1	80.7	80.7	79.6	78.1	77.0	76.7	74.7	71.2	66.9	52.9	53.8	51.6	51.7	68.7	79.9	79.7	78.8	77.9	77.0	76.4	75.5	73.3	83.7	51.6
25	75.9	75.4	74.9	75.7	75.1	75.0	75.1	75.6	76.6	77.4	77.6	67.1	35.5	30.6	31.8	35.3	61.0	73.7	75.8	78.3	80.3	80.4	79.9	79.3	68.5	80.4	30.6
26	77.9	77.0	77.1	76.0	75.9	75.9	75.5	74.6	74.6	74.8	73.5	69.5	37.1	38.3	50.9	55.4	61.5	69.4	74.4	79.3	83.4	84.4	83.3	81.8	70.9	84.4	37.1
27	80.3	79.8	79.2	78.8	77.9	77.8	77.6	77.4	78.2	80.2	78.9	77.3	68.0	60.8	56.4	52.7	70.8	79.3	83.1	83.2	82.4	80.2	77.8	77.8	75.7	83.2	52.7
28	77.5	76.8	77.8	77.7	79.5	79.3	79.2	79.4	79.1	78.2	68.1	57.6	40.8	42.5	42.7	45.5	58.5	73.0	81.1	83.5	84.9	85.1	84.2	84.2	71.5	85.1	40.8
29	83.8	83.2	82.6	81.9	82.1	81.7	82.3	81.2	82.1	84.4	84.8	85.7	76.2	53.3	46.8	48.3	67.2	75.5	80.1	83.5	86.1	86.1	86.7	85.8	78.0	86.7	46.8
30	84.9	84.5	84.5	83.9	83.6	84.0	84.1	84.1	83.4	83.1	79.3	67.6	47.7	35.0	33.2	33.5	55.8	67.3	73.9	72.6	75.2	81.1	83.5	84.2	72.1	84.9	33.2
31	84.8	84.9	83.9	83.6	84.7	85.0	83.5	84.6	84.8	79.6	72.0	71.8	64.0	55.6	57.3	58.5	65.8	78.8	83.8	86.7	86.7	86.1	86.2	84.5	78.2	86.7	55.6
Avg	74.6	75.0	75.8	76.5	76.4	77.0	77.5	78.7	78.8	75.8	69.9	62.9	53.7	49.0	47.7	48.7	58.0	65.3	68.9	71.2	72.5	73.4	74.4	74.6	69.0	83.9	43.7
Max	89.3	89.3	90.1	90.4	90.4	90.6	90.8	91.0	91.1	89.3	86.1	85.7	80.8	78.3	69.9	71.2	80.6	80.0	83.8	87.1	87.9	88.2	86.9	89.5	82.0	91.1	69.9
Min	39.8	43.3	49.4	52.6	41.0	46.8	60.4	64.3	63.8	52.6	44.0	39.6	32.9	26.5	28.8	27.1	24.7	31.7	37.5	38.7	37.0	36.3	37.6	37.5	53.9	74.6	24.7

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Precipitation (Inches)
October 2023

	<< 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	0.05	0.04	0.00	0.02	0.04	0.00	0.00	0.00	0.00	0.15	0.05
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	0.01	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	0.01	0.03	0.01	0.00	0.00	0.00	0.06	0.03
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	0.02	0.00	0.00	0.00	0.00	0.06	0.00	0.02	0.00	0.00	0.00	0.10	0.06
5	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02	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	0.05	0.02
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	0.01	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	0.01	0.01
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	0.01	0.00	0.00	0.00	0.01	0.01
11	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01
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	0.01	0.00	0.00	0.00	0.01	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	0.01	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	0.01	0.01
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	0.00	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	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.02	0.03	0.00	0.10	0.03	
23	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	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	
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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
31	0.00	0.00	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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03
Tot	0.01	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.02	0.01	0.01	0.00	0.05	0.02	0.06	0.07	0.03	0.11	0.07	0.05	0.02	0.03	0.00	0.62	0.00
Max	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.01	0.00	0.03	0.01	0.05	0.04	0.03	0.06	0.04	0.02	0.02	0.03	0.00	0.15	0.06

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Precipitation (Inches)
November 2023

Day	<< Hour >>																								Tot	Max
	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	0.00	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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.02	0.00	0.00	0.00	0.02	0.00	0.02	0.01	0.01	0.02	0.06	0.06	0.27	0.06
3	0.02	0.02	0.03	0.04	0.05	0.01	0.01	0.00	0.01	0.03	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.05
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	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02
5	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
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	0.01	0.02	0.14	0.19	0.12	0.02	0.00	0.01	0.02	0.53	0.19
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04
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	0.00	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	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.01	0.01
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	0.00	0.00	0.00	0.00	0.00
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	0.02	0.02	0.03	0.04	0.05	0.02	0.01	0.00	0.01	0.04	0.08	0.06	0.07	0.03	0.01	0.03	0.06	0.15	0.21	0.13	0.03	0.02	0.07	0.08	1.27	0.00
Max	0.02	0.02	0.03	0.04	0.05	0.01	0.01	0.00	0.01	0.03	0.04	0.04	0.04	0.02	0.01	0.02	0.02	0.14	0.19	0.12	0.02	0.02	0.06	0.06	0.53	0.19

Sandfire Resources America Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Precipitation (Inches)
December 2023

	<< 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	0.01	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	0.01	0.01	
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	
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	
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	0.05	0.03	0.08	0.05	
5	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	0.00	0.00	0.00	0.00	0.04	0.03	
6	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	
7	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.01	
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	
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	
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	
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	
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	
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	
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	
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	0.00	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	
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	
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	
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	
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	
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	
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	
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	
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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
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	
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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
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	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	
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	
31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.03	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.21	0.00	
Max	0.03	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.08	0.05	

APPENDIX B: PERFORMANCE AUDIT REPORT, FOURTH QUARTER 2023



BISON ENGINEERING, INC.

Bison Engineering

Preliminary Meteorological Parameters Audit Form

Audit Dates: 12/06/2023 Tower Lowered : 1105 MST Tower Back Up : 1325 MST
 Client: Tintina Resources
 Site: Black Butte
 AUDITOR: Steve Heck PRECEDING CALIBRATION BY: Don Milmine
 Daniel Bitz

Temperature

Audit Device: Control Company - digital thermometer Model 4000
 Meter S/N: Asmann Psychrometer Temperature Sensor: Climatronics 100093
 Last certified: 04/14/2022 S/N X17929 (Upper), S/N X17927 (Lower) - Matched Set

Temperature bath results

	9m	9m	2m	2m	9m - 2m
Audit	DAS	DAS	DAS	DAS	DAS
Value	Value	Diff.	Value	Diff.	Diff.
°C	°C	°C	°C	°C	°C
0.1	0.16	0.06	0.15	0.05	0.01
17.8	17.88	0.08	17.86	0.06	0.02
37.8	38.16	0.36	38.10	0.30	0.06

Wind Direction

Sensor height: 9 Meter
 Sensor (Make/model number): Climatronics/ 102083
 Serial Number : P1336C

As-found Crossarm Orientation:

GPS location at sensor:

N 46 deg 46.299 min, W 110 deg 52.9505 min

GPS location at sighting point south of sensor:

N 46 deg 46.352 min, W 110 deg 52.9495 min

Calculated as-found crossarm orientation:

180.7 deg

No adjustments to crossarm orientation

Reading with vane aligned parallel to crossarm

<u>As-found Linearity Check from DAS</u>					
Setpoint	Clockwise	Counter-CW	Diff CW	Diff CCW	
0	1.0	2.0	1.0	2.0	
30	30.4	30.5	0.4	0.5	
60	60.2	60.2	0.2	0.2	
90	90.0	90.8	0.0	0.8	
120	119.8	120.9	-0.2	0.9	
150	151.1	151.0	1.1	1.0	
180	180.2	179.7	0.2	-0.3	
210	209.7	210.4	-0.3	0.4	
240	239.2	239.9	-0.8	-0.1	
270	269.5	269.9	-0.5	-0.1	
300	300.6	300.5	0.6	0.5	
330	331.7	331.6	1.7	1.6	
		Max Diff	1.7	2.0	

As found: 181.7
 As left: 179.5 Linearity Audit Device: Climatronics 101966, SN 72

Sandfire Resources America, Inc.
 Meteorological Monitoring System

Threshold Torque: 0.21 oz-in
(Waters torque watch)

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: 0.004 oz-in
As-left Threshold Torque: 0.006 oz-in
(Waters torque watch)

As-found Synchronous motor checks

Known Value RPM	Known Value m/s	DAS Value m/s	DAS Diff. m/s
0	0.22	0.22	0.00
300	6.66	6.66	0.00
600	13.09	13.08	-0.01

Solar Radiation

Audit Device: Eppley PSP Pyranometer / SN 16166F3

Time (MST)	CTS Value (W/m ²)	Site Value (W/m ²)	Diff. (%)	Diff. (% FS)
1425	837	792	-5.4	-3.5
1427	834	793	-4.9	-3.2
1429	851	812	-4.6	-3.0

Relative Humidity

Site Sensor: Met One 083E-0-35
Sensor Height: 2 meters
Reference Std: Assmann Psychrometer

Ref Dry-Bulb:	10.6	deg C	BP = 24.22 in. Hg
Ref Wet-Bulb	4.2	deg C	
Ref RH:	37.9	%RH	
Station RH:	37.4	%RH	
Diff:	-0.5	%RH	

Barometric Pressure

Audit Device: Wallace & Tiernan FA185260 / SN LL03297
Checked against mercury barometer

Audit Value:	24.22	in Hg
Station Value:	24.23	in Hg
Diff:	0.01	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 520 / 8.24 = 63 tips

Sandfire Resources America, Inc.
Meteorological Monitoring System

Unit registered 65 tips

% difference from expected = +3.2%

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

Signature Site Operator : _____

Signature Auditor : _____



BISON ENGINEERING, INC.

Bison Engineering

Preliminary Meteorological Parameters Audit Form

Audit Dates: 1/5/2024
 Client: Tintina Resources
 Site: Black Butte
 AUDITOR: Daniel Bitz
 Lucas Scott

PRECEDING CALIBRATION BY: Steve Heck & Daniel Bitz

Wind Direction

		<u>As-found Linearity Check from DAS</u>			
Sensor height:	9 Meter	Setpoint	Clockwise	Counter-CW	Diff CW
Sensor (Make/model number):	Climatronics/ 102083	0	0.1	0.2	0.1
Serial Number :	P1336C	30	31.0	30.2	1.0
<u>As-found Crossarm Orientation:</u>		60	61.7	60.4	1.7
<u>GPS location at sensor:</u>		90	91.7	90.5	1.7
N 46 deg 46.353 min, W 110 deg 52.945 min		120	121.4	120.3	1.4
<u>GPS location at sighting point south of sensor:</u>		150	151.1	150.0	1.1
N 46 deg 46.300 min, W 110 deg 52.947 min		180	181.0	179.8	1.0
<u>Calculated as-found crossarm orientation:</u>		210	211.3	210.1	1.3
181.5 deg		240	241.5	240.3	1.5
		270	271.4	270.4	1.4
<u>No adjustments to crossarm orientation</u>		300	301.0	300.2	1.0
		330	330.8	330.2	0.8
			Max Diff	1.7	0.5

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 Synchronous motor checks

Known Value	Known Value	DAS Value	DAS Diff.
RPM	m/s	m/s	m/s
0	0.22	0.22	0.00
300	6.66	6.70	0.04
600	13.09	13.22	0.13

Sandfire Resources America, Inc.
 Meteorological Monitoring System

Signature Site Operator : _____

Signature Auditor : _____