

TINTINA RESOURCES, INC.
BLACK BUTTE COPPER
PROJECT AMBIENT AIR
MONITORING PROGRAM
Quarterly Data Report
Second Quarter 2016

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CERTIFICATION OF DATA INTEGRITY

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

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APPENDICES

- Appendix A: Meteorological Data
- Appendix B: Performance Audit Reports
- Appendix C: Evaporation and Precipitation Summary

1.0 INTRODUCTION

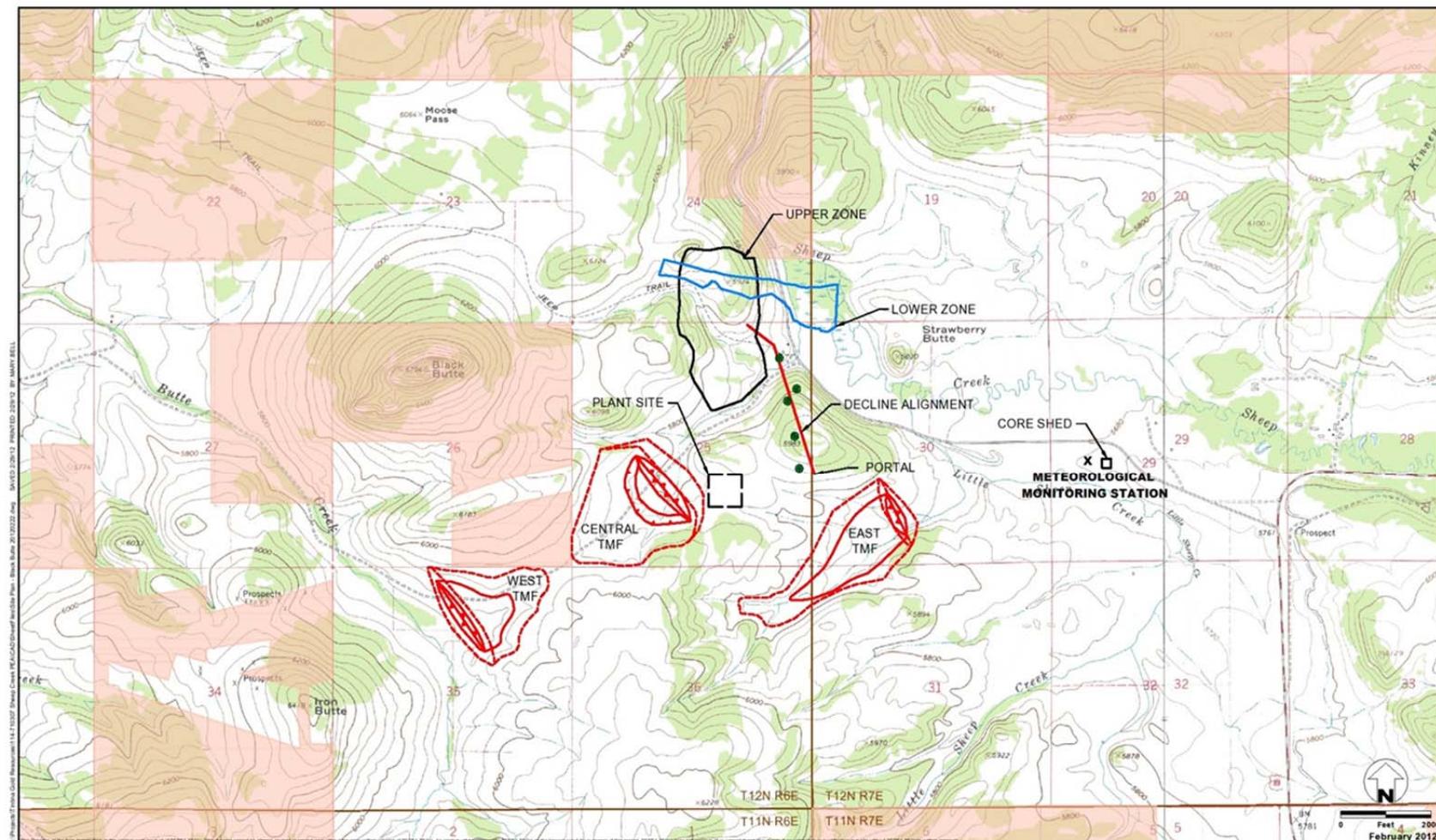
Tintina Resources, Inc. established an ambient air monitoring site to measure wind speed, wind direction, standard deviation of wind direction, temperature at 9 meters and 2 meters, delta temperature, solar radiation, barometric pressure, and precipitation. The station was established to accurately characterize 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 location of the monitoring site.

This report presents the data collected during the second quarter (April through June) of 2016. 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 the hourly meteorological data.

On June 23, 2015, an evaporation pan and manual precipitation gauge were installed adjacent to the existing meteorological system. The evaporation data will be used for hydrological / water balance studies. The manual rain gauge was installed to provide a backup data source for the existing automatic rain gauge, which has experienced occasional mechanical problems. Also, the automatic rain gauge is sometimes unreliable for measuring frozen precipitation.

Figure 1. Monitoring Site Location



Site Plan
Black Butte Copper Project
Meagher County, Montana
FIGURE 1

2.0 MONITORING SYSTEM OPERATIONS

The installation of the monitoring meteorological system equipment took place in April 2012, soon after the equipment was received from the manufacturers. The installation and calibration of the equipment required about two weeks to complete. All meteorological sensors were in full operation and producing valid data by April 30, 2012.

Jeff Bell of Bison conducted performance audits of the meteorological system on June 17, 2016, and made any necessary calibration adjustments to the meteorological system following the audits. The Bison report of the audits is presented in Appendix B.

Manual measurements of evaporation and precipitation were recorded by Tintina's on-site personnel two to three times per week.

3.0 CALIBRATION DATA

As discussed in Section 4.0, the system's as-found condition was audited on June 17, 2016. Immediately after the audit the existing wind speed / wind direction sensor was removed for annual off-site maintenance including bearing and potentiometer replacement. It was replaced with a refurbished unit; calibration results for that sensor are shown in Appendix B, under the "As Left" heading.

4.0 PERFORMANCE AUDIT DATA

Jeff Bell of Bison conducted performance audits of the meteorological system on June 17, 2016. The Bison report of the audits is presented in Appendix B. The wind speed / wind direction sensor was replaced immediately following the audit as described in Section 3.0.

5.0 DATA COMPLETENESS

The meteorological percentages of data recovery achieved during the second quarter of 2016 are given in Tables 1 and 2. In these tables, the number of possible data values during each month of the quarter is given, together with the number of valid readings and the number of hours spent on quality assurance activities (such as calibrations, performance audits, and maintenance on the sensors). The quality assurance hours are added to the number of hours of valid data to compute the net percentage data recovery.

During the second quarter the net percentage data recovery was 100.0 percent for all parameters at the site.

Table 1. Monthly Data Completeness

April 2016					
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
Temperature 9 Meters	720	720	100.0	0	100.0
Temperature 2 Meters	720	720	100.0	0	100.0
Temperature Delta T	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 1. Monthly Data Completeness (Continued)

May 2016					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	744	744	100.0	0	100.0
Wind Direction	744	744	100.0	0	100.0
Standard Deviation	744	744	100.0	0	100.0
Temperature 9 Meters	744	744	100.0	0	100.0
Temperature 2 Meters	744	744	100.0	0	100.0
Temperature Delta T	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	7,440	100.0	0	100.0

Table 1. Monthly Data Completeness (Continued)

June 2016					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	720	717	99.6	3	100.0
Wind Direction	720	717	99.6	3	100.0
Standard Deviation	720	717	99.6	3	100.0
Temperature 9 Meters	720	717	99.6	3	100.0
Temperature 2 Meters	720	717	99.6	3	100.0
Temperature Delta T	720	717	99.6	3	100.0
Solar Radiation	720	717	99.6	3	100.0
Barometric Pressure	720	717	99.6	3	100.0
Relative Humidity	720	717	99.6	3	100.0
Precipitation	720	717	99.6	3	100.0
Total	7,200	7,170	99.6	30	100.0

Table 2. Quarterly Data Completeness

Second Quarter 2016					
Parameter	Readings Possible	Valid Readings	Percentage Recovery	Quality Assurance Hours	Net Percentage Recovery
Black Butte Copper Project Met Tower					
Wind Speed	2,184	2,181	99.9	3	100.0
Wind Direction	2,184	2,181	99.9	3	100.0
Standard Deviation	2,184	2,181	99.9	3	100.0
Temperature 9 Meters	2,184	2,181	99.9	3	100.0
Temperature 2 Meters	2,184	2,181	99.9	3	100.0
Temperature Delta T	2,184	2,181	99.9	3	100.0
Solar Radiation	2,184	2,181	99.9	3	100.0
Barometric Pressure	2,184	2,181	99.9	3	100.0
Relative Humidity	2,184	2,181	99.9	3	100.0
Precipitation	2,184	2,181	99.9	3	100.0
Total	21,840	21,810	99.9	30	100.0

6.0 MONITORING DATA

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

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

A separate compilation of data collected from the evaporation pan and manual rain gauge is presented in Appendix C. For comparison purposes, the precipitation amounts reported by the automatic rain gauge over the same time periods are provided. Overall, the precipitation amounts obtained from the manual gauge were similar to those reported by the automated rain gauge.

Table 3. Missing Data Codes

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

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

April 2016																	
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
0.1 - 1.0	0.8	0.8	0.7	0.7	1.4	1.1	0.3	1.1	1.1	0.7	0.1	0.0	0.0	0.3	0.4	1.4	11.0
1.1 - 2.0	0.7	1.0	1.4	1.8	2.5	3.5	2.8	1.5	0.4	0.3	0.3	0.6	0.1	1.0	1.8	1.0	20.6
2.1 - 3.0	0.4	0.3	0.4	1.7	2.5	1.5	0.8	0.4	0.3	0.0	0.1	0.6	0.6	1.7	2.2	0.6	14.0
3.1 - 4.0	0.8	0.1	0.1	1.3	1.7	0.6	0.7	1.3	0.3	0.1	0.3	0.4	2.6	3.1	3.5	0.7	17.5
4.1 - 5.0	0.3	0.1	0.3	0.0	0.7	0.7	0.7	1.3	0.3	0.3	0.3	0.8	2.4	3.1	1.8	0.6	13.5
(μm/s)	5.1 - 6.0	0.3	0.1	0.0	0.0	0.0	0.3	0.6	0.7	0.1	0.1	0.6	2.5	1.4	1.8	1.1	9.6
Wind Speed (meters per second)	6.1 - 7.0	0.1	0.4	0.0	0.0	0.0	0.8	1.1	0.1	0.3	0.3	1.0	0.8	0.8	0.8	0.3	6.9
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	1.1	0.4	0.3	0.4	2.9
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	1.1	0.6	0.1	0.0	2.1
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.0	0.0	0.7
	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	1.1	0.1	0.0	0.0	1.3
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	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
	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
	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
	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
	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
	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
	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
	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
	> 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
	Calm																0.0
Total	3.5	2.9	2.9	5.4	8.8	7.4	6.5	7.8	3.3	1.8	1.5	4.2	12.8	12.5	12.8	6.0	100.0
Average Speed	2.7	2.5	1.9	2.2	2.3	2.1	3.0	3.7	3.0	2.9	3.7	4.7	5.9	4.4	3.8	3.4	3.6

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

May 2016																		
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	0.4	0.3	0.9	0.5	0.1	0.8	0.7	0.5	0.3	0.4	0.4	0.3	0.3	0.5	0.5	8.2	
	1.1 - 2.0	0.5	0.7	1.1	1.6	3.4	3.0	3.1	1.9	0.9	0.4	0.3	0.3	1.1	1.6	0.8	20.8	
	2.1 - 3.0	0.3	0.3	0.7	1.9	3.1	2.4	1.3	0.9	0.3	0.8	0.5	1.5	2.2	1.6	1.6	20.0	
	3.1 - 4.0	0.1	0.1	0.4	0.8	1.5	1.3	1.1	0.7	0.1	0.5	0.3	0.9	1.5	1.6	1.7	12.9	
	4.1 - 5.0	0.1	0.0	0.0	0.4	0.9	0.7	1.1	0.8	0.1	0.5	0.5	0.8	1.7	2.2	1.5	12.5	
	5.1 - 6.0	0.1	0.1	0.0	0.3	0.4	0.4	0.4	0.9	0.1	0.3	0.4	0.9	2.4	2.3	1.9	11.7	
	6.1 - 7.0	0.5	0.0	0.0	0.0	0.1	0.0	1.1	0.7	0.1	0.1	0.3	0.3	0.8	0.8	1.3	6.5	
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.0	0.1	0.3	0.4	0.5	0.5	0.8	4.0	
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.0	0.0	0.4	0.0	0.1	0.3	0.5	2.3	
	9.1 - 10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	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	
	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	
	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	
	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	
	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	
	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	
	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	
	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	
	> 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	
Calm																	0.0	
Total		2.2	1.5	3.1	5.5	9.5	8.6	9.3	9.0	2.0	3.2	3.4	5.4	10.6	11.6	10.8	4.4	100.0
Average Speed		3.2	2.0	1.7	2.6	2.6	2.5	3.3	4.8	2.4	3.4	4.4	4.1	4.2	4.1	4.5	3.4	3.6

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

June 2016																	
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total
Wind Speed (meters per second) (μm)	0.1 - 1.0	1.3	0.7	1.1	0.3	0.7	1.4	0.6	0.3	0.6	0.1	0.1	0.1	0.4	0.1	0.1	9.1
	1.1 - 2.0	1.3	0.8	2.0	2.9	3.5	3.5	4.0	1.5	1.1	0.4	0.7	0.3	0.8	1.0	1.1	26.2
	2.1 - 3.0	0.1	0.0	0.4	2.2	3.6	2.2	2.0	1.4	0.6	0.4	0.6	0.7	1.8	1.3	2.9	20.6
	3.1 - 4.0	0.1	0.4	0.0	0.4	1.4	0.3	1.4	1.5	0.6	0.3	0.4	1.3	2.2	2.0	2.1	14.8
	4.1 - 5.0	0.1	0.3	0.0	0.0	0.3	0.0	0.1	1.1	0.1	0.1	0.0	0.8	2.0	2.1	1.3	8.8
	5.1 - 6.0	0.1	0.0	0.0	0.0	0.3	0.0	0.4	1.4	0.4	0.3	0.3	1.0	1.1	1.5	0.3	7.1
	6.1 - 7.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.6	0.1	0.0	0.0	0.7	1.5	1.3	0.1	5.7
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.0	0.0	0.0	0.8	0.7	0.0	2.2
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.4	0.0	0.0	1.3	0.7	0.1	2.9
	9.1 - 10.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.0	1.4
	10.1 - 11.0	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	0.3	0.0	1.0
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	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
	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
	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
	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
	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
	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
	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
	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
	> 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
Calm																	0.0
Total	3.3	2.2	3.5	5.9	9.8	7.4	10.5	7.9	3.8	2.4	2.2	5.2	12.7	11.3	8.1	3.9	100.0
Average Speed	2.2	2.1	1.4	1.9	2.3	1.7	3.2	3.7	3.1	4.8	3.2	4.5	5.1	5.0	3.2	2.4	3.4

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

Second Quarter 2016																		
Direction>>>	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Total	
(μm/s (meters per second))	0.1 - 1.0	0.8	0.6	0.9	0.5	0.7	1.1	0.5	0.6	0.6	0.4	0.2	0.1	0.2	0.3	0.4	9.4	
	1.1 - 2.0	0.8	0.8	1.5	2.1	3.1	3.3	3.3	1.7	0.8	0.4	0.4	0.4	0.7	1.2	1.2	22.5	
	2.1 - 3.0	0.3	0.2	0.5	1.9	3.1	2.1	1.4	0.9	0.4	0.4	0.4	0.9	1.5	1.5	2.2	18.2	
	3.1 - 4.0	0.4	0.2	0.2	0.8	1.5	0.7	1.1	1.1	0.3	0.3	0.3	0.9	2.1	2.2	2.4	15.0	
	4.1 - 5.0	0.2	0.1	0.1	0.1	0.6	0.5	0.6	1.1	0.2	0.3	0.3	0.8	2.0	2.4	1.5	11.6	
	5.1 - 6.0	0.2	0.1	0.0	0.1	0.2	0.1	0.4	1.0	0.4	0.2	0.3	0.8	2.0	1.7	1.3	9.5	
	6.1 - 7.0	0.2	0.1	0.0	0.0	0.0	0.0	1.1	0.8	0.1	0.1	0.2	0.6	1.1	1.0	0.8	6.4	
	7.1 - 8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.1	0.0	0.1	0.1	0.8	0.6	0.4	3.1	
	8.1 - 9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.0	0.8	0.5	0.3	2.4	
	9.1 - 10.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.9	
	10.1 - 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.5	0.1	0.0	0.9	
	11.1 - 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
	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	
	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	
	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	
	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	
	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	
	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	
	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	
	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	
	> 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	
Calm																	0.0	
Total		3.0	2.2	3.2	5.6	9.4	7.8	8.8	8.3	3.0	2.5	2.4	4.9	12.0	11.8	10.5	4.8	100.0
Average Speed		2.7	2.2	1.7	2.3	2.4	2.1	3.2	4.1	2.9	3.7	3.9	4.4	5.1	4.5	3.9	3.2	3.5

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

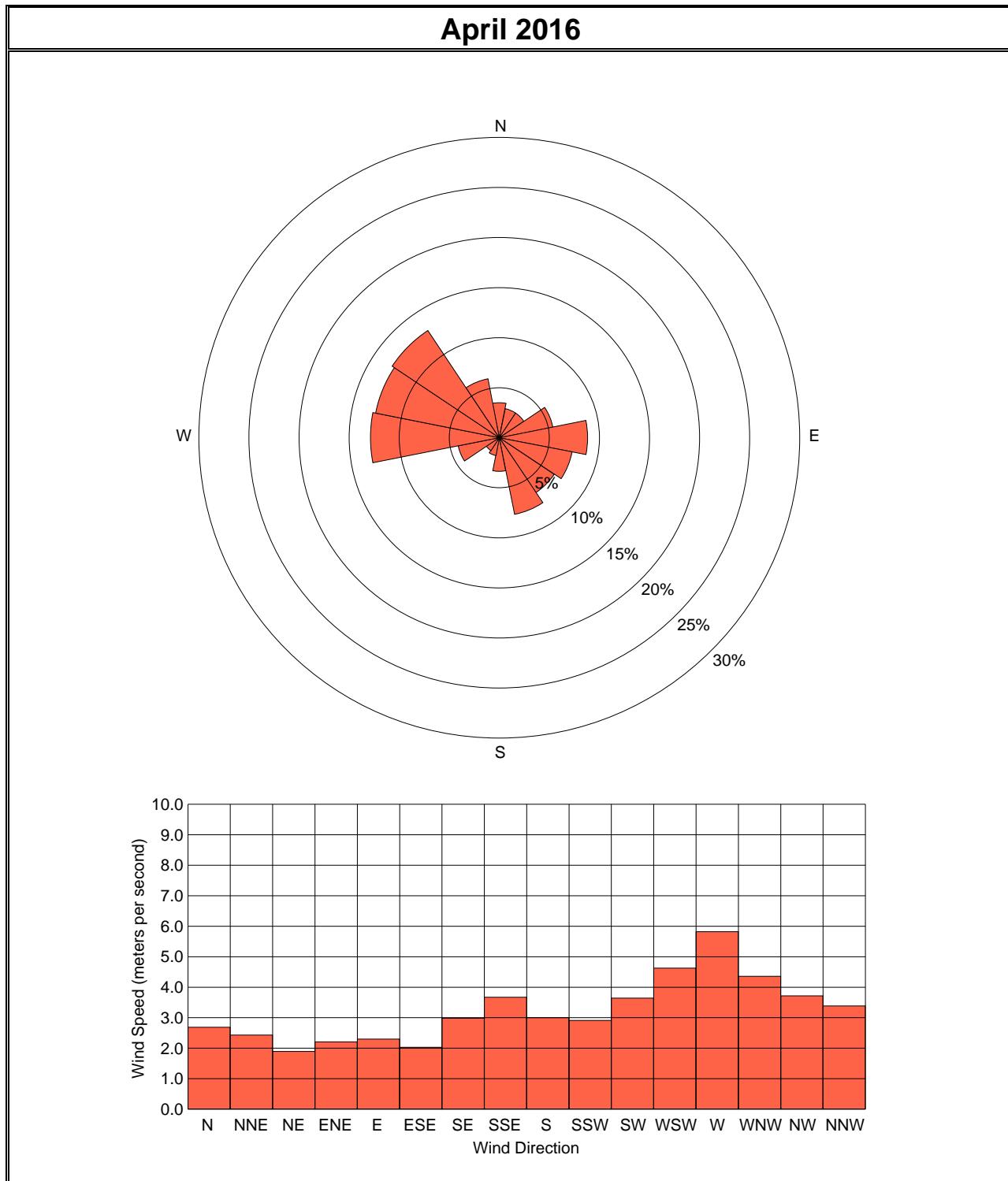


Figure 3. Monthly Wind Rose, Black Butte Copper Project Met Tower

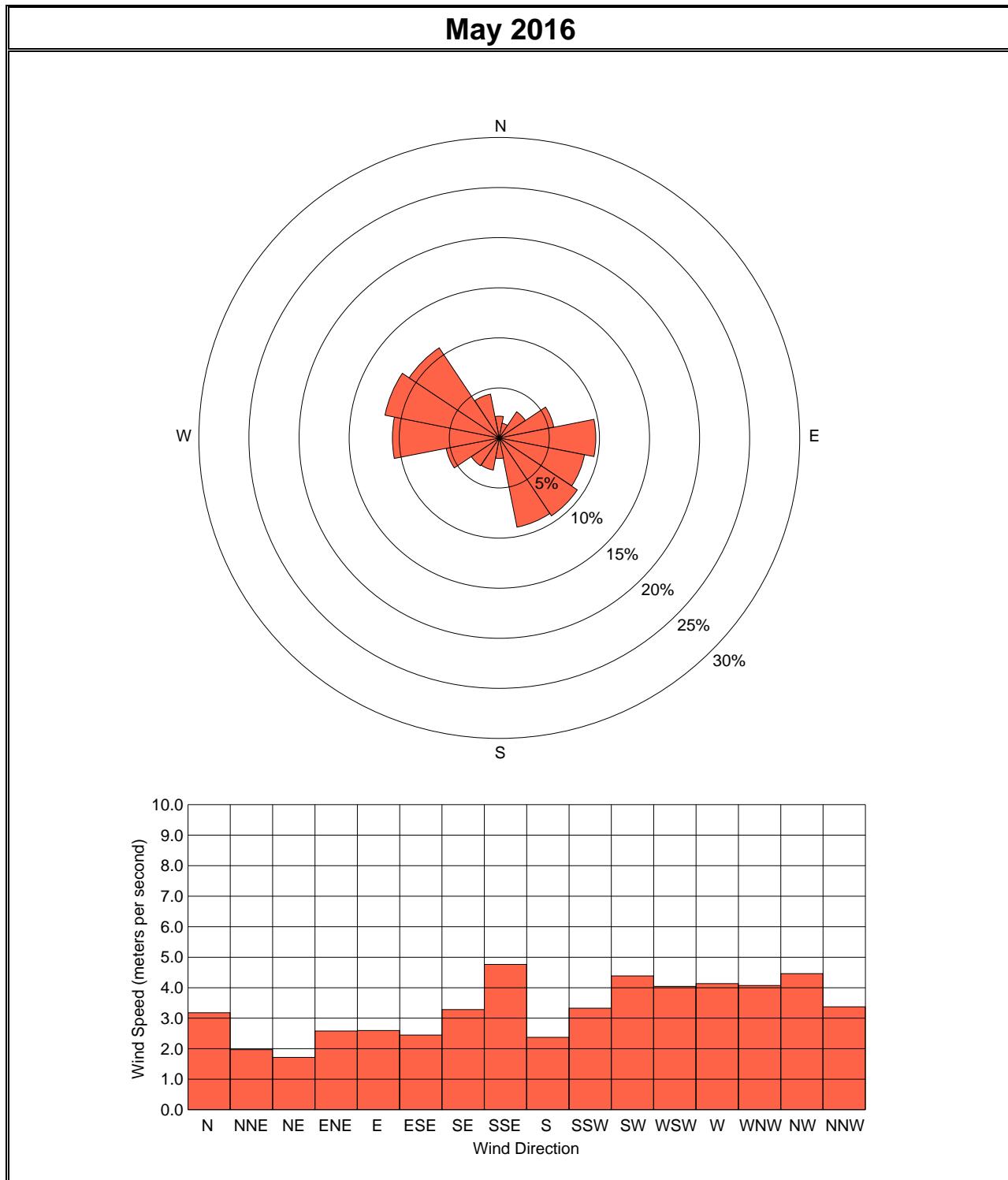


Figure 4. Monthly Wind Rose, Black Butte Copper Project Met Tower

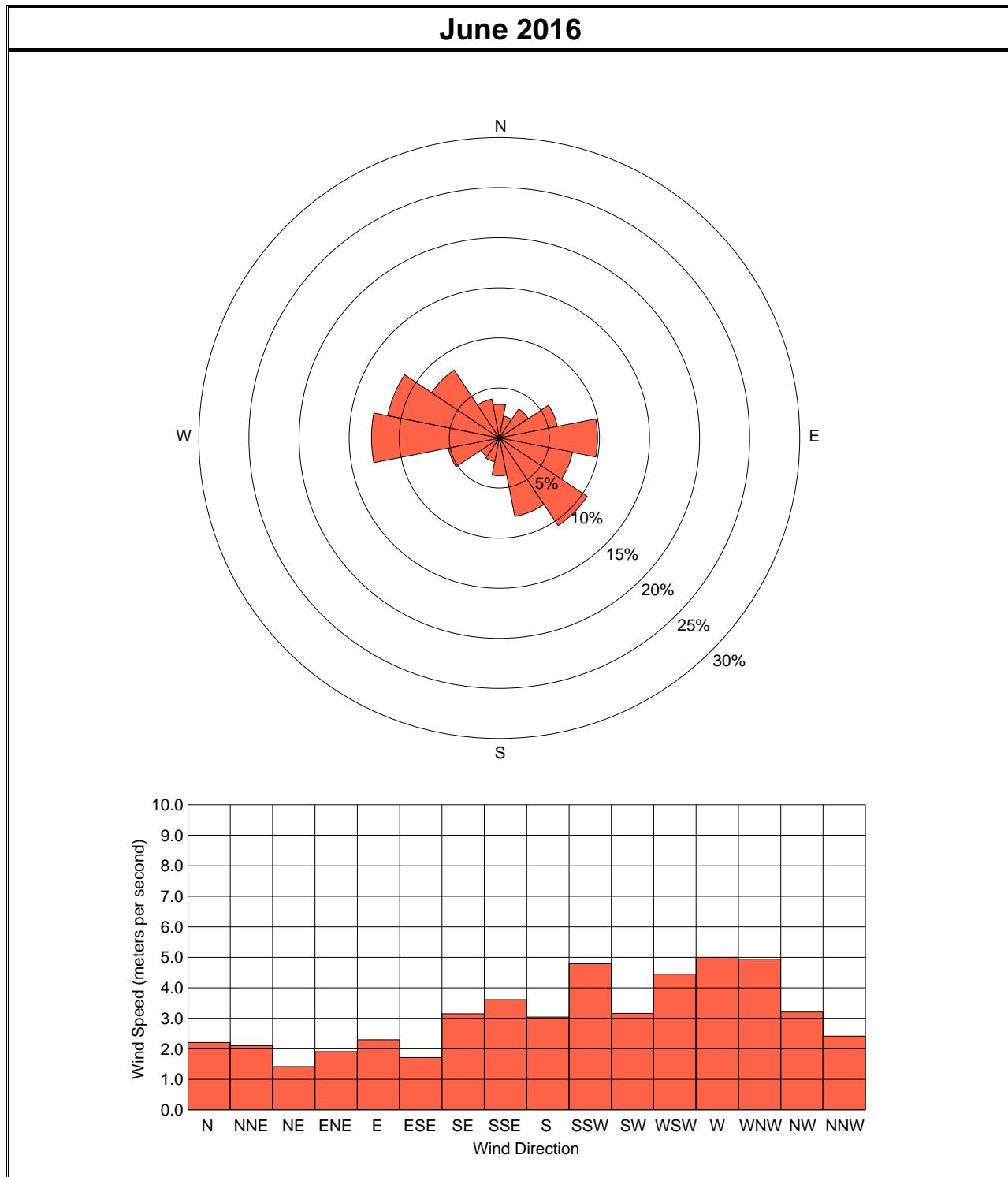
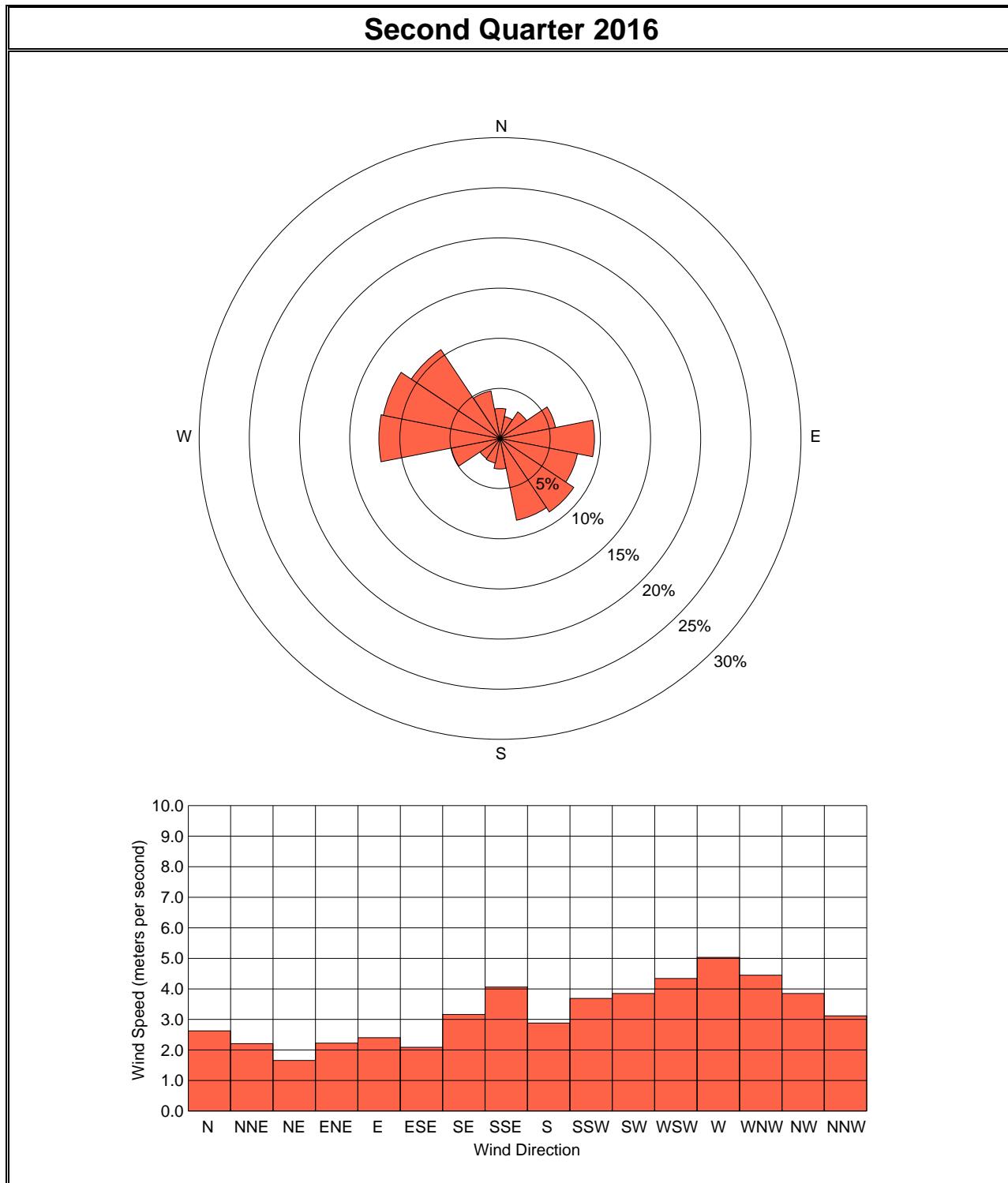


Figure 5. Quarterly Wind Rose, Black Butte Copper Project Met Tower



**APPENDIX A: HOURLY AIR QUALITY AND
METEOROLOGICAL DATA, SECOND QUARTER 2016**

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
April 2016

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	1.8	1.0	0.4	0.8	0.7	0.7	1.0	0.9	1.0	2.0	3.4	3.8	4.0	3.8	5.7	6.0	5.7	3.7	2.7	1.2	3.4	3.4	1.8	1.2	2.5	6.0	0.4
2	1.1	0.9	0.8	1.6	1.0	1.1	0.7	0.5	0.7	5.6	8.2	10.1	10.1	8.9	9.1	9.0	9.0	8.0	6.7	5.4	4.6	5.6	6.4	5.9	5.0	10.1	0.5
3	10.2	8.1	6.3	3.8	1.4	2.1	2.3	1.9	3.1	4.3	4.8	5.0	5.3	5.3	5.0	4.7	4.0	3.2	1.7	3.0	4.0	3.7	2.7	1.3	4.0	10.2	1.3
4	1.2	0.9	0.7	1.2	1.8	1.5	1.5	1.2	1.5	4.1	4.9	4.7	6.3	7.0	8.6	2.9	3.6	1.4	9.3	5.6	2.8	6.4	6.9	6.2	3.8	9.3	0.7
5	4.0	5.3	5.7	5.6	7.0	7.6	7.2	6.7	8.2	7.8	9.2	10.3	8.9	6.6	7.9	8.0	9.3	8.7	9.2	7.4	7.2	6.0	4.9	3.4	7.2	10.3	3.4
6	3.4	3.8	4.6	2.9	2.2	2.9	2.8	5.6	7.9	8.5	10.7	10.4	8.4	9.0	10.1	10.1	10.5	8.6	8.4	6.3	3.6	2.4	2.0	0.9	6.1	10.7	0.9
7	1.3	1.7	1.8	1.5	1.2	1.2	1.0	0.8	0.7	3.6	3.9	3.7	5.0	4.4	5.4	5.8	5.6	4.6	1.7	2.8	3.4	3.5	1.8	2.0	2.8	5.8	0.7
8	1.7	1.4	1.0	1.0	1.6	1.4	1.5	1.1	0.7	2.0	1.7	3.4	3.4	4.0	4.4	3.9	4.9	4.5	2.4	4.1	4.3	4.6	3.1	2.6	2.7	4.9	0.7
9	1.6	1.7	1.5	1.6	1.1	1.1	0.9	3.4	4.8	5.8	5.0	4.6	5.3	5.5	6.5	6.0	4.9	6.4	3.6	1.6	1.6	3.6	2.3	1.2	3.4	6.5	0.9
10	1.1	0.9	0.7	1.8	2.7	4.1	3.7	5.0	4.8	3.6	2.8	4.3	4.3	3.9	5.0	4.5	4.1	3.4	2.8	2.4	2.6	3.4	2.0	2.4	3.2	5.0	0.7
11	1.9	2.2	1.7	1.5	1.6	1.0	1.4	1.1	0.8	1.4	3.9	4.3	5.3	4.8	5.3	5.3	5.4	5.8	4.4	2.2	3.3	3.0	2.4	1.5	3.0	5.8	0.8
12	1.7	1.1	1.3	1.0	1.1	0.7	0.8	1.0	0.9	3.4	4.9	5.4	6.9	5.6	3.9	5.7	3.8	4.0	3.0	1.4	1.6	3.0	3.1	3.9	2.9	6.9	0.7
13	3.0	2.6	1.7	1.1	3.9	1.4	1.6	3.4	6.6	3.6	4.4	5.1	6.0	6.3	6.9	6.7	6.3	6.4	2.7	1.9	3.1	3.2	2.1	2.3	3.8	6.9	1.1
14	1.5	1.8	1.8	0.9	0.9	1.3	1.2	3.6	6.2	6.2	4.0	3.5	2.4	2.4	3.0	3.5	3.6	4.2	3.7	5.0	4.0	3.1	3.7	3.9	3.1	6.2	0.9
15	3.0	4.2	5.9	5.9	6.8	7.6	7.6	5.6	4.2	4.4	4.9	5.7	5.6	4.3	4.0	4.5	4.9	2.8	2.3	3.4	3.4	1.6	2.9	1.5	4.5	7.6	1.5
16	1.4	1.2	1.0	1.0	0.5	0.8	0.5	0.5	0.8	0.7	2.1	2.8	2.9	4.0	4.3	5.5	4.7	4.3	2.9	1.5	2.0	2.2	1.6	1.6	2.1	5.5	0.5
17	2.0	1.6	1.8	1.8	1.6	2.2	1.0	0.7	1.0	1.3	2.6	3.3	3.7	3.2	4.3	4.5	2.9	4.8	4.5	3.5	3.3	1.5	1.0	0.8	2.5	4.8	0.7
18	0.7	0.9	0.9	0.8	0.8	0.9	0.7	0.9	0.9	1.4	2.6	4.2	4.6	2.9	3.5	3.1	2.9	3.9	2.5	2.7	1.6	1.5	1.3	1.2	2.0	4.6	0.7
19	1.3	0.6	1.4	1.0	1.0	0.7	0.6	0.9	0.8	1.4	3.1	3.3	2.6	2.8	3.1	4.6	4.8	5.2	4.9	3.7	2.6	4.2	2.2	2.1	2.5	5.2	0.6
20	2.3	2.0	1.5	1.1	1.0	1.2	0.8	1.0	0.9	3.1	5.6	6.9	6.5	6.1	5.0	4.9	4.5	5.0	3.7	2.0	2.0	3.1	2.2	1.6	3.1	6.9	0.8
21	1.6	3.1	1.7	1.0	1.6	2.2	1.2	0.9	4.0	4.1	4.2	4.5	4.9	4.4	5.6	5.8	5.1	4.7	5.0	3.1	1.4	2.4	2.9	2.7	3.3	5.8	0.9
22	2.1	2.3	2.4	2.0	2.4	2.9	2.0	0.9	0.7	1.5	5.5	7.2	6.4	5.3	6.3	5.1	6.3	4.2	2.1	2.5	3.6	3.8	3.1	1.3	3.4	7.2	0.7
23	1.3	1.5	1.3	1.2	1.5	1.7	1.3	1.5	0.7	1.6	3.3	3.3	5.1	5.7	3.6	5.7	2.7	4.0	6.2	5.8	4.1	3.0	4.6	3.2	3.1	6.2	0.7
24	2.8	2.7	2.7	3.2	2.8	2.9	3.1	3.1	4.5	4.1	4.8	3.9	3.4	4.5	6.2	5.1	4.8	4.6	4.1	3.4	2.0	1.7	1.5	1.9	3.5	6.2	1.5
25	2.3	2.1	1.4	2.0	3.1	3.6	3.5	3.6	4.4	4.8	5.8	6.2	6.5	7.2	7.3	5.8	7.2	6.1	4.5	5.6	3.2	3.9	5.6	4.5	7.3	1.4	
26	6.0	5.7	5.3	3.0	3.8	4.9	3.8	5.0	5.1	6.8	6.2	5.5	8.0	8.0	5.4	4.0	2.9	2.2	2.8	3.8	1.1	2.2	2.3	2.8	4.4	8.0	1.1
27	1.7	1.8	2.2	2.5	1.8	3.0	3.2	3.8	4.2	2.8	3.3	3.8	4.5	4.8	5.7	5.4	5.7	6.2	4.0	2.5	1.9	2.2	1.5	1.1	3.3	6.2	1.1
28	0.8	0.8	0.7	3.4	3.2	3.0	3.7	2.5	1.0	1.4	4.5	5.8	6.3	7.3	7.5	6.3	6.3	6.1	4.8	4.2	2.3	4.8	5.0	4.3	4.0	7.5	0.7
29	3.5	3.9	4.5	3.6	2.3	1.8	1.1	5.3	7.1	6.1	5.7	6.9	6.5	6.6	6.7	6.7	7.4	8.3	6.1	3.8	2.9	3.0	3.6	3.5	4.9	8.3	1.1
30	3.5	1.8	1.3	1.1	0.9	0.6	1.1	1.1	1.7	2.5	3.6	4.5	5.5	6.1	5.8	3.7	3.3	4.1	3.8	1.7	1.2	1.6	2.4	1.5	2.7	6.1	0.6
Avg	2.4	2.3	2.2	2.0	2.1	2.3	2.1	2.5	3.0	3.7	4.7	5.2	5.5	5.4	5.7	5.4	5.2	5.0	4.2	3.5	2.9	3.2	2.9	2.5	3.6	6.9	0.9
Max	10.2	8.1	6.3	5.9	7.0	7.6	7.6	6.7	8.2	8.5	10.7	10.4	10.1	9.0	10.1	10.1	10.5	8.7	9.3	7.4	7.2	6.4	6.9	6.2	7.2	10.7	3.4
Min	0.7	0.6	0.4	0.8	0.5	0.6	0.5	0.5	0.7	0.7	1.7	2.8	2.4	2.4	3.0	2.9	2.7	1.4	1.7	1.2	1.1	1.5	1.0	0.8	2.0	4.6	0.4

A1

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Speed (meters per second)
June 2016

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	3.0	2.2	1.9	1.5	1.3	1.8	0.8	0.8	1.1	2.9	3.7	4.2	3.2	3.7	4.0	3.5	3.8	3.5	2.6	1.7	3.2	2.0	2.2	2.9	2.6	4.2	0.8	
2	2.7	2.3	2.1	1.0	1.6	2.6	2.1	2.3	1.9	4.9	5.9	5.7	4.5	6.9	8.1	7.0	8.2	5.9	6.6	6.1	6.5	3.5	4.1	5.0	4.5	8.2	1.0	
3	7.7	4.7	1.3	1.3	2.4	1.4	1.2	3.0	5.6	6.7	6.9	7.2	6.1	5.2	6.0	6.4	6.4	5.8	4.9	2.7	1.4	2.2	1.7	1.8	4.2	7.7	1.2	
4	1.4	2.0	1.7	1.3	0.8	0.8	0.9	0.8	1.1	2.2	2.9	3.8	3.3	4.0	3.5	2.9	1.8	2.7	3.4	1.9	1.9	3.2	2.5	1.6	2.2	4.0	0.8	
5	1.3	1.7	1.7	1.2	1.0	0.9	0.9	0.7	0.9	1.2	1.9	3.4	3.3	5.2	5.7	4.5	4.9	3.7	4.9	3.4	1.5	1.6	1.1	1.4	2.4	5.7	0.7	
6	1.2	1.5	1.1	1.6	1.6	1.7	1.6	3.7	6.4	7.0	6.1	4.8	5.1	4.3	3.6	2.7	3.7	4.3	6.3	6.0	1.7	1.5	2.3	2.1	3.4	7.0	1.1	
7	2.1	2.6	2.1	2.5	1.8	1.6	1.0	1.1	1.8	3.0	2.9	2.8	2.6	4.0	4.3	4.7	10.5	7.8	3.6	3.2	1.4	1.8	0.9	1.0	3.0	10.5	0.9	
8	0.9	1.6	1.7	1.5	1.5	1.2	0.7	0.9	1.0	2.4	2.9	2.4	1.5	2.3	2.8	2.9	3.9	1.5	3.4	4.1	3.3	3.5	2.7	2.2	2.2	4.1	0.7	
9	1.5	1.6	1.5	1.0	1.3	1.8	0.9	1.1	0.9	2.1	2.6	4.3	5.3	5.5	3.2	2.7	3.0	2.4	1.7	1.2	1.6	1.7	2.2	0.8	2.2	5.5	0.8	
10	1.7	1.6	1.4	1.4	0.8	0.9	0.7	3.9	6.7	8.1	8.6	7.0	6.7	6.8	4.7	4.7	4.9	4.9	3.4	2.5	1.7	4.1	4.2	8.6	0.7			
11	1.4	2.2	1.3	0.6	1.2	1.0	0.8	0.7	2.7	2.2	4.0	4.7	4.9	3.9	4.4	4.2	5.3	3.7	2.9	0.8	0.9	1.0	2.2	1.6	2.4	5.3	0.6	
12	1.6	2.0	1.1	1.3	1.7	1.5	3.1	3.7	4.2	3.5	3.8	5.2	5.2	4.7	4.7	4.5	4.5	4.2	3.6	1.8	1.7	3.1	3.6	3.8	3.3	5.2	1.1	
13	2.7	2.2	1.8	1.3	1.1	0.9	1.1	0.8	3.2	5.3	5.8	8.7	6.8	5.3	2.5	2.4	2.4	1.6	1.6	2.5	2.0	4.0	2.4	2.0	2.9	8.7	0.8	
14	1.7	1.6	1.3	0.7	1.3	1.4	0.9	4.3	5.1	7.8	8.4	8.4	9.5	6.0	5.0	7.9	6.0	3.5	1.8	1.2	3.1	3.3	2.4	3.7	4.0	9.5	0.7	
15	2.4	1.9	1.3	1.4	1.6	1.6	2.2	2.0	1.8	3.9	6.0	6.8	6.4	4.6	3.8	4.2	3.8	2.1	3.3	2.3	3.2	3.8	2.6	4.1	3.2	6.8	1.3	
16	2.7	2.7	2.1	2.1	2.5	1.3	3.3	5.2	6.1	7.0	5.9	5.6	5.7	9.6	9.3	4.3	8.4	6.8	1.9	1.5	1.6	1.5	2.1	1.7	4.2	9.6	1.3	
17	2.2	1.9	2.0	2.3	1.7	1.4	1.2	0.8	Au	Au	Au	Au	1.8	1.7	1.3	1.7	1.9	1.1	1.9	2.2	2.6	3.0	1.7	2.8	1.5	1.8	3.0	0.8
18	2.1	2.9	2.4	2.5	1.7	2.6	1.3	2.5	5.8	5.5	5.2	6.0	7.4	9.0	10.9	10.6	6.7	3.9	4.9	5.2	3.0	1.7	2.2	2.1	4.5	10.9	1.3	
19	4.5	6.0	5.1	6.2	2.8	2.5	4.6	4.8	6.4	6.9	8.4	9.5	9.4	8.8	8.0	6.9	5.7	6.2	5.0	2.6	1.0	2.7	2.4	1.9	5.3	9.5	1.0	
20	1.5	2.2	1.0	1.6	0.9	0.8	1.4	5.5	5.6	5.3	4.0	3.0	2.3	1.6	2.7	3.7	3.6	5.1	7.0	6.9	2.2	2.6	5.3	1.8	3.2	7.0	0.8	
21	2.3	1.5	1.6	2.0	2.3	1.3	0.9	0.8	1.2	6.3	5.8	8.3	8.9	10.5	11.2	10.8	9.0	9.8	7.7	4.6	4.8	4.8	2.1	2.1	5.0	11.2	0.8	
22	1.6	1.8	1.3	1.2	1.3	1.4	1.3	1.3	3.0	3.6	3.5	4.7	4.1	3.8	3.7	3.9	3.2	3.0	2.5	1.1	2.3	1.5	1.5	0.9	2.4	4.7	0.9	
23	1.1	1.0	1.1	1.0	1.0	0.9	0.6	0.8	2.5	2.2	2.3	3.0	5.4	5.5	6.7	5.9	3.8	5.0	3.5	2.3	9.1	9.2	5.2	3.4	3.4	9.2	0.6	
24	2.3	1.8	1.4	2.3	1.4	1.2	1.1	1.7	1.5	2.8	4.6	5.0	6.4	7.7	3.3	4.3	7.7	8.8	8.4	6.2	7.3	5.2	4.8	5.5	4.3	8.8	1.1	
25	3.8	4.7	6.6	5.7	7.3	8.9	8.1	8.3	9.5	10.0	10.7	10.1	8.6	8.9	7.6	6.8	7.5	7.0	6.6	3.6	1.3	2.2	2.6	2.5	6.6	10.7	1.3	
26	1.6	1.9	1.4	1.4	0.9	0.7	0.7	0.7	2.9	3.8	4.0	3.3	4.4	4.9	3.5	3.9	2.5	3.5	4.0	4.7	2.4	2.6	1.5	0.9	2.6	4.9	0.7	
27	1.1	0.7	1.0	0.8	1.3	1.0	0.6	2.8	4.6	3.7	3.1	2.2	2.2	3.6	3.7	2.8	2.6	1.4	1.0	3.7	4.0	1.2	2.3	3.8	2.3	4.6	0.6	
28	3.1	2.8	2.3	2.3	1.9	3.4	2.2	1.8	3.3	1.9	2.8	3.6	3.2	3.4	3.4	2.5	2.5	1.1	2.9	2.1	3.0	1.8	1.8	2.6	3.6	1.1		
29	0.9	1.2	1.8	1.5	1.4	1.0	1.2	1.0	1.3	2.4	3.3	4.1	3.6	3.1	3.9	5.4	5.3	4.4	2.3	2.5	2.8	2.5	1.6	2.6	5.4	0.9		
30	2.4	1.9	1.3	1.3	1.4	3.4	4.5	3.4	3.4	3.9	3.5	4.2	3.7	2.9	3.0	4.3	7.3	5.3	3.2	2.2	2.6	2.7	2.0	2.8	3.2	7.3	1.3	
Avg	2.2	2.2	1.9	1.8	1.7	1.8	1.7	2.4	3.5	4.4	4.8	5.1	5.0	5.2	5.0	4.8	5.0	4.4	4.0	3.2	2.9	2.8	2.5	2.4	3.4	7.0	0.9	
Max	7.7	6.0	6.6	6.2	7.3	8.9	8.1	8.3	9.5	10.0	10.7	10.1	9.5	10.5	11.2	10.8	10.5	9.8	8.4	6.9	9.1	9.2	5.3	5.5	6.6	11.2	1.3	
Min	0.9	0.7	1.0	0.6	0.8	0.7	0.6	0.7	0.9	1.2	1.9	1.8	1.5	1.3	1.7	1.9	1.1	1.4	1.0	0.8	0.9	1.0	0.9	0.8	1.8	3.0	0.6	

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Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
April 2016

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	308	197	70	332	345	111	86	359	356	5	332	302	282	295	290	282	297	298	303	60	86	82	87	103	349
2	35	49	50	111	158	147	191	125	32	252	262	274	274	263	258	264	262	270	271	274	290	287	278	292	268
3	278	283	277	310	303	21	46	53	280	283	265	258	258	280	281	287	294	292	283	106	81	76	108	118	299
4	105	87	122	92	109	154	145	160	120	148	189	200	223	227	242	308	197	112	268	297	266	244	249	258	186
5	264	271	269	261	274	271	282	282	288	293	291	298	306	289	275	268	277	278	277	275	273	269	278	272	278
6	272	275	285	304	28	65	36	312	284	276	280	276	267	278	277	276	279	287	284	282	295	94	73	52	299
7	126	88	54	49	121	91	110	26	360	292	296	295	293	286	294	321	306	319	341	93	81	87	100	82	27
8	75	105	72	101	88	130	108	167	338	103	337	260	248	266	259	263	264	255	247	104	86	81	66	101	112
9	101	74	54	82	29	100	171	69	287	289	299	298	315	320	316	298	319	14	358	7	41	65	81	59	15
10	287	120	203	336	338	10	345	339	17	5	324	263	283	282	262	277	290	305	323	122	69	80	125	128	326
11	136	137	140	111	137	154	109	146	32	334	269	255	259	255	274	268	267	250	266	224	103	84	67	87	180
12	112	35	116	26	114	119	71	172	42	291	254	259	254	274	219	175	249	295	69	7	132	73	73	81	97
13	81	73	112	351	303	335	237	272	276	285	277	254	268	255	247	239	265	299	245	146	79	66	113	84	274
14	147	60	158	193	27	257	254	168	166	159	233	317	344	90	129	295	263	256	263	264	272	273	276	273	242
15	272	268	260	281	285	279	278	278	276	297	324	324	323	321	313	319	332	319	320	324	309	308	340	221	300
16	172	57	336	152	338	150	162	344	102	342	300	285	285	279	283	277	274	270	271	207	60	77	60	93	302
17	86	28	43	26	12	93	85	207	318	330	303	282	269	305	294	296	70	87	104	88	83	101	96	89	41
18	10	57	161	85	174	180	188	347	332	304	303	101	130	91	5	16	245	161	139	76	348	150	33	189	92
19	134	235	148	110	115	90	22	158	286	356	309	242	287	256	297	288	311	159	157	159	99	82	98	65	144
20	58	63	26	77	71	122	140	198	9	309	328	348	8	28	207	263	46	41	52	60	86	91	126	65	55
21	126	97	100	85	102	81	125	326	140	144	151	163	167	171	184	183	210	229	160	152	35	93	110	114	135
22	123	113	108	111	111	95	113	80	45	282	185	169	177	185	208	226	213	225	169	101	78	72	63	33	130
23	158	131	85	122	134	150	115	305	349	305	294	312	332	346	10	17	38	335	316	332	331	311	312	291	344
24	309	294	306	309	286	278	279	313	310	315	307	312	325	298	314	317	301	292	303	317	288	306	306	304	304
25	311	315	320	322	310	319	319	317	305	304	301	310	314	314	312	337	327	333	336	329	315	321	317	306	317
26	307	310	315	308	316	306	283	270	281	300	304	321	340	328	333	339	356	4	334	11	316	318	318	314	319
27	323	279	303	308	319	301	312	333	8	295	301	304	299	299	344	355	7	13	8	360	302	82	37	297	328
28	288	160	172	167	166	153	157	161	179	210	158	152	148	147	143	139	146	142	137	119	151	123	110	124	152
29	178	161	149	139	128	138	129	152	147	144	146	154	158	155	149	153	147	147	133	112	99	104	109	121	140
30	126	127	145	130	326	345	236	176	241	183	184	168	156	146	128	127	139	141	152	155	100	117	72	102	144
Prev	112	85	99	63	41	112	137	266	330	295	282	273	277	278	274	285	283	288	287	66	44	74	67	82	308

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
May 2016

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	72	118	79	88	135	49	139	132	145	151	161	158	160	163	171	166	164	160	150	151	94	82	77	61	128
2	51	45	32	97	156	133	217	45	286	298	288	294	252	273	275	281	270	288	325	76	79	86	105	99	342
3	58	55	74	46	60	48	137	329	353	287	289	291	245	269	251	259	255	264	266	103	102	83	77	84	4
4	100	108	90	108	115	96	143	117	144	185	223	224	238	202	199	214	225	211	227	185	90	80	98	68	153
5	46	66	79	77	88	117	140	200	125	114	333	289	255	243	256	222	266	294	351	76	2	342	327	345	8
6	340	32	218	255	339	41	84	94	65	34	72	89	94	82	70	92	100	101	118	116	133	103	91	101	83
7	99	99	95	107	149	132	117	141	143	149	151	159	157	161	156	147	140	138	136	150	95	106	134	128	133
8	154	97	68	40	91	127	170	330	23	274	271	285	299	288	280	282	282	283	52	72	86	88	81	352	10
9	313	306	311	320	321	347	339	354	345	351	351	352	320	320	331	325	332	324	329	315	299	109	312	311	329
10	306	323	281	314	305	309	314	306	304	299	302	306	303	301	300	304	298	295	291	290	294	288	288	285	300
11	286	300	324	325	77	71	129	35	241	253	265	289	290	274	284	278	294	335	284	157	96	90	84	140	300
12	144	151	137	152	151	153	109	107	135	231	243	263	289	330	306	312	315	331	348	358	5	319	287	270	277
13	291	296	306	172	185	195	221	83	103	180	197	161	160	182	28	115	153	151	152	162	151	120	129	119	159
14	140	138	154	137	137	115	126	133	138	151	156	158	160	155	155	157	156	155	150	130	102	109	115	111	139
15	141	145	132	146	163	159	138	156	156	166	152	130	136	134	145	151	86	90	146	119	178	214	323	345	144
16	337	308	311	345	90	168	261	316	75	131	123	116	123	141	141	145	145	135	136	134	122	124	136	269	130
17	155	170	314	177	340	62	86	130	163	176	163	208	220	235	208	268	288	272	305	284	102	76	79	94	183
18	95	103	122	112	83	123	349	348	309	298	292	263	276	283	268	256	266	243	292	30	83	78	98	114	341
19	129	115	97	112	139	151	131	89	161	194	198	181	216	296	312	289	110	298	285	258	105	271	239	211	181
20	298	285	137	1	49	53	64	56	281	112	163	102	76	104	94	94	105	116	165	312	306	112	309	55	76
21	190	302	296	18	316	282	139	289	314	304	312	291	290	78	101	51	192	193	192	174	284	71	297	268	283
22	48	109	129	132	86	148	168	198	203	222	222	222	229	222	234	254	270	263	266	270	270	269	253	245	221
23	252	250	245	220	212	245	251	244	255	260	266	251	259	252	261	266	277	262	264	259	258	275	269	263	255
24	209	276	245	260	232	261	308	298	269	278	237	297	291	320	328	332	324	316	329	308	118	58	63	78	295
25	50	89	103	34	152	151	293	344	274	275	260	262	265	265	296	32	142	248	263	288	294	156	210	100	263
26	79	117	91	67	86	116	29	299	229	282	309	310	314	300	282	261	258	312	2	74	78	16	143	66	5
27	83	106	79	61	76	109	128	127	279	254	73	212	282	199	80	272	274	320	330	301	344	10	9	164	39
28	113	99	98	73	53	115	7	221	276	249	264	280	268	255	259	259	268	290	258	245	107	63	103	101	243
29	77	134	36	113	30	92	155	140	314	254	267	271	265	258	224	199	204	281	289	317	126	301	319	196	244
30	103	153	264	270	18	105	270	296	316	298	319	287	304	300	301	315	317	324	337	340	317	310	267	263	305
31	307	331	328	320	305	311	308	310	316	323	308	317	295	314	311	297	301	286	308	304	94	64	102	87	319
Prev	84	97	79	80	94	115	139	51	255	243	250	253	256	252	262	259	250	272	282	256	87	73	78	97	220

A5

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Wind Direction (degrees)
June 2016

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	87	99	109	143	58	118	175	335	3	281	258	261	256	265	258	233	186	197	205	127	160	82	122	118	169	
2	101	88	89	193	47	130	141	100	24	266	255	288	316	277	277	272	282	272	260	259	253	276	277	275	268	
3	280	290	146	134	96	82	74	312	278	262	270	279	266	270	287	289	296	297	307	313	177	107	97	37	288	
4	70	58	94	129	148	52	144	353	334	325	301	265	276	278	306	320	277	264	289	311	124	82	69	42	348	
5	106	122	136	115	90	113	121	354	342	326	301	255	276	258	298	357	332	26	18	19	188	127	87	119	49	
6	354	92	84	116	129	126	131	141	153	156	162	162	154	147	148	138	152	152	149	143	97	24	85	118	129	
7	120	95	75	90	96	79	167	340	343	269	276	310	280	228	246	260	328	341	162	87	138	149	177	113	137	
8	17	47	82	53	110	123	340	285	18	293	268	278	308	308	280	243	225	279	112	328	146	124	221	323	313	
9	306	319	297	6	68	112	238	89	330	311	308	290	298	304	324	94	69	37	147	101	72	78	89	4		
10	87	107	123	349	170	135	63	150	146	141	140	133	127	130	132	129	342	313	305	308	313	296	250	282	131	
11	130	139	163	121	105	108	122	43	266	286	281	280	309	326	291	310	300	285	302	273	279	268	318	298	287	
12	322	290	294	189	156	170	242	266	262	285	279	284	271	268	250	249	257	270	294	261	114	99	77	74	260	
13	77	73	124	74	75	87	153	344	159	200	190	197	176	175	238	265	260	215	157	171	130	81	111	87	146	
14	110	113	69	344	96	154	114	197	152	162	195	182	233	279	289	287	314	285	283	357	269	278	62	91	209	
15	82	94	133	64	147	146	127	121	117	138	148	142	140	152	138	136	143	113	126	351	13	308	147	254	126	
16	89	116	200	295	69	151	249	238	258	257	257	253	247	241	286	276	286	293	25	357	143	167	113	133	238	
17	94	126	71	68	50	95	175	338	Au	Au	Au	328	12	107	77	132	40	48	61	83	77	74	93	150	77	
18	126	127	141	131	265	93	10	164	169	160	155	161	176	195	208	204	252	306	300	311	322	268	237	255	199	
19	288	289	277	291	318	284	298	293	289	274	268	263	255	265	263	262	283	304	302	310	41	66	54	112	291	
20	51	123	112	135	52	7	32	155	143	148	156	163	189	345	165	183	189	167	135	129	86	127	126	199	134	
21	136	121	143	115	55	84	3	34	302	284	277	284	278	286	285	286	286	287	290	298	313	300	315	110	106	310
22	102	69	70	53	53	64	108	345	279	243	264	274	281	277	273	286	316	316	312	1	97	255	141	314	326	
23	196	125	32	106	230	93	118	19	165	174	195	249	210	215	239	224	200	269	323	221	9	10	356	319	213	
24	302	92	62	161	59	57	325	220	180	165	174	151	139	298	327	297	303	305	288	293	277	288	301	272	280	
25	246	257	268	258	266	270	278	274	267	275	270	277	269	262	272	287	294	281	283	298	231	86	98	114	269	
26	88	84	77	53	55	36	57	351	289	288	269	293	294	266	325	311	320	332	357	31	71	40	141	134	6	
27	139	354	19	340	64	49	353	147	156	147	145	112	337	314	318	321	331	337	185	80	82	106	72	86	54	
28	82	106	145	117	136	294	313	232	318	260	147	154	182	268	287	298	324	320	341	229	88	82	45	95	228	
29	85	134	4	212	85	359	342	32	326	215	292	299	293	329	314	105	151	98	101	86	81	69	83	89	52	
30	127	128	175	228	360	87	82	133	152	153	144	159	238	271	329	160	142	98	67	73	174	140	174	152	141	
Prev	91	99	104	107	85	95	100	342	266	238	235	244	255	265	276	265	281	298	313	337	114	79	103	106	206	

A-6

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
April 2016

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

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)

May 2016

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

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Standard Deviation of Wind Direction (degrees)
June 2016

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

A6

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Temperature 9 Meters (degrees Celsius)
April 2016

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	-1.6	-1.6	-1.7	-2.1	-1.9	-1.9	-2.3	-2.3	-0.3	2.2	3.3	5.0	6.1	7.2	8.8	9.2	9.4	9.3	8.5	5.1	2.0	0.4	-1.3	-1.9	2.4	9.4	-2.3
2	-2.6	-2.8	-3.3	-3.7	-4.4	-4.9	-4.8	-3.1	2.1	8.3	9.5	10.7	11.5	12.5	13.4	13.9	13.9	13.2	12.2	11.1	10.4	9.9	10.0	9.7	5.9	13.9	-4.9
3	9.6	9.2	8.3	6.8	4.2	1.6	0.7	2.8	7.1	8.5	9.6	10.4	11.0	11.7	11.7	12.1	12.3	12.0	10.7	5.2	3.5	2.2	0.3	-0.9	7.1	12.3	-0.9
4	-1.5	-1.9	-2.0	-1.8	-2.4	-2.6	-2.5	0.0	5.9	10.5	12.3	12.9	14.7	15.5	9.7	6.2	5.8	5.0	2.2	-0.2	-0.2	-0.7	-1.1	-1.3	3.4	15.5	-2.6
5	-1.5	-1.7	-1.5	-1.5	-1.8	-2.4	-2.8	-2.7	-2.4	-1.9	-0.8	0.1	1.0	1.8	2.7	2.9	2.9	2.6	1.9	1.0	0.5	-0.1	-0.2	-0.3	-0.2	2.9	-2.8
6	-0.3	-0.2	-0.3	-0.2	-0.9	-2.1	-2.0	1.9	3.6	4.2	4.9	5.2	6.1	7.3	8.3	9.1	9.6	9.3	9.1	8.0	6.7	4.5	3.1	2.1	4.0	9.6	-2.1
7	2.0	1.5	0.2	0.0	-0.9	-2.1	-2.7	-0.4	4.0	7.2	7.7	8.7	9.4	10.7	11.7	12.5	12.7	12.8	11.6	6.3	3.9	2.3	0.6	-0.3	5.0	12.8	-2.7
8	-1.6	-1.9	-3.0	-3.4	-3.5	-3.6	-4.0	-0.6	3.9	10.6	13.2	14.8	16.0	16.8	17.3	17.9	18.3	18.1	16.6	9.3	5.9	4.2	2.9	0.9	6.9	18.3	-4.0
9	-0.8	-0.4	-0.7	-1.4	-1.6	-1.9	-0.8	4.9	11.9	12.1	11.5	10.7	11.2	12.6	13.1	13.3	13.1	11.6	9.7	7.7	6.0	4.8	3.6	2.3	6.4	13.3	-1.9
10	0.7	-0.2	0.4	2.5	2.3	1.3	0.5	0.3	0.6	2.0	3.5	4.8	5.7	6.9	7.4	7.5	7.4	6.2	3.6	1.9	0.9	-0.9	-0.1	3.0	7.5	-0.9	
11	0.0	-0.7	-1.4	-2.2	-4.5	-5.0	-4.8	-1.6	2.9	6.5	8.7	10.1	11.3	12.6	13.4	14.0	14.3	14.2	13.5	10.3	5.3	2.5	1.1	-0.1	5.0	14.3	-5.0
12	-0.8	-1.5	-2.0	-2.7	-3.0	-3.3	-3.1	1.0	5.7	11.5	12.9	14.2	15.3	15.8	15.8	15.0	13.1	11.5	10.6	8.2	6.6	6.8	6.8	5.2	6.6	15.8	-3.3
13	4.7	4.2	3.9	4.7	5.1	4.5	4.4	3.9	2.2	0.9	2.1	2.9	4.2	6.0	7.0	7.3	6.8	6.4	6.1	3.0	0.8	-0.3	-1.4	-0.7	3.7	7.3	-1.4
14	-0.7	0.4	0.4	1.0	1.9	3.6	4.3	5.2	5.3	5.9	4.8	3.6	3.5	4.0	4.4	3.4	2.3	1.8	1.5	0.2	-0.3	-0.7	-0.9	-1.2	2.2	5.9	-1.2
15	-1.4	-1.5	-1.6	-1.9	-2.1	-2.2	-2.5	-2.4	-2.3	-2.1	-1.9	-1.5	-1.7	-1.5	-1.1	-0.7	-0.6	-0.7	-0.9	-1.2	-2.0	-2.4	-3.5	-5.5	-1.9	-0.6	-5.5
16	-6.8	-6.4	-7.2	-8.9	-10.2	-10.7	-10.7	-8.8	-5.9	-3.0	-0.1	1.5	2.9	3.5	4.5	4.8	5.1	5.1	4.2	1.7	-0.9	-1.5	-3.1	-3.8	-2.3	5.1	-10.7
17	-4.6	-5.0	-5.7	-5.8	-6.2	-7.0	-6.9	-3.8	0.1	4.2	6.0	6.9	7.9	8.7	9.7	10.2	10.7	10.3	8.9	5.9	3.9	1.0	-1.2	-2.9	1.9	10.7	-7.0
18	-4.0	-4.2	-5.0	-5.9	-6.1	-6.6	-6.3	-3.1	-0.9	2.9	6.0	8.0	8.6	9.4	10.2	10.6	10.8	10.3	9.5	6.8	5.0	3.2	2.5	2.3	2.7	10.8	-6.6
19	2.4	2.0	0.4	-1.3	-2.7	-2.8	-2.0	2.2	7.1	10.5	12.1	12.9	13.7	14.7	15.6	16.1	16.5	15.3	12.7	10.0	7.9	5.1	2.6	1.8	7.2	16.5	-2.8
20	0.9	0.1	-1.0	-2.0	-2.5	-2.9	-2.5	2.1	7.5	12.4	15.0	16.2	17.3	17.9	18.3	18.1	17.9	16.6	15.0	12.4	10.5	8.0	5.2	3.4	8.5	18.3	-2.9
21	3.7	5.0	4.4	3.2	2.3	1.7	2.6	7.2	12.5	13.8	15.2	16.8	17.9	18.7	19.4	19.9	19.9	19.7	18.4	15.1	13.7	12.8	10.4	7.2	11.7	19.9	1.7
22	6.1	4.6	4.3	3.4	3.0	3.0	3.4	6.2	10.6	16.7	18.6	18.7	19.0	19.9	20.4	20.5	20.2	19.3	17.5	14.7	11.6	8.0	7.0	5.3	11.8	20.5	3.0
23	4.9	3.1	0.8	0.0	-0.1	-0.3	1.1	2.6	4.4	5.9	6.3	7.6	10.6	11.1	8.4	6.6	7.0	6.3	5.5	5.2	4.2	3.8	3.6	3.4	4.7	11.1	-0.3
24	3.2	3.1	2.6	2.2	2.2	2.1	2.2	2.2	2.9	3.3	3.7	4.0	4.0	4.9	5.7	5.5	5.4	5.2	4.9	4.6	4.3	4.3	4.0	3.8	3.8	5.7	2.1
25	3.6	3.4	3.5	3.4	3.3	3.2	3.3	3.3	3.4	3.9	4.5	4.8	5.0	4.7	5.0	4.6	4.5	4.1	3.0	2.4	1.9	1.6	1.3	1.0	3.4	5.0	1.0
26	0.6	0.4	0.1	-0.1	-0.3	-0.4	-0.7	-1.0	-0.6	0.1	0.7	1.1	1.2	1.3	1.2	1.3	1.3	1.1	0.9	0.4	0.1	0.0	-0.2	-0.2	0.3	1.3	-1.0
27	0.0	-0.2	-0.4	-0.6	-0.6	-0.7	-0.3	0.5	0.8	0.7	1.0	1.6	1.4	2.3	3.0	2.3	1.6	0.9	1.0	0.6	-0.1	-0.3	-1.1	-1.5	0.5	3.0	-1.5
28	-1.7	-1.9	-1.9	-2.3	-2.6	-2.8	-2.7	-2.4	-1.7	-1.1	-0.8	-0.6	-0.1	0.0	0.1	0.7	1.0	0.1	0.3	-0.3	-0.6	-0.6	-0.8	-0.7	-1.0	1.0	-2.8
29	-1.1	-1.2	-1.4	-1.5	-1.4	-2.1	-1.6	-0.3	0.3	0.8	1.2	1.9	3.2	4.4	5.1	5.2	5.1	4.4	3.6	3.0	2.5	2.6	2.7	2.5	1.6	5.2	-2.1
30	2.3	1.9	1.7	0.7	-0.1	0.0	0.7	2.4	3.2	3.4	3.7	3.5	4.0	4.3	4.8	5.1	4.9	4.6	4.2	3.0	1.4	0.0	-1.2	-2.4	2.3	5.1	-2.4
Avg	0.5	0.2	-0.3	-0.7	-1.2	-1.6	-1.4	0.5	3.1	5.4	6.5	7.3	8.1	8.9	9.2	9.2	9.1	8.6	7.6	5.4	3.9	2.7	1.7	0.9	3.9	9.9	-2.5
Max	9.6	9.2	8.3	6.8	5.1	4.5	4.4	7.2	12.5	16.7	18.6	18.7	19.0	19.9	20.4	20.5	20.2	19.7	18.4	15.1	13.7	12.8	10.4	9.7	11.8	20.5	3.0
Min	-6.8	-6.4	-7.2	-8.9	-10.2	-10.7	-10.7	-8.8	-5.9	-3.0	-1.9	-1.5	-1.7	-1.5	-1.1	-0.7	-0.6	-0.7	-0.9	-1.2	-2.0	-2.4	-3.5	-5.5	-2.3	-0.6	-10.7

A-10

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Temperature 9 Meters (degrees Celsius)
May 2016

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	-3.3	-4.0	-4.6	-4.8	-4.8	-4.8	-3.2	2.0	5.5	6.4	7.5	8.7	9.6	10.6	11.4	12.1	12.2	11.8	10.7	8.6	6.2	3.7	1.2	0.4	4.1	12.2	-4.8	
2	-0.6	-2.1	-2.8	-3.7	-4.3	-4.4	-2.5	2.3	7.6	10.5	12.0	13.3	14.8	16.0	16.8	17.2	17.4	17.2	16.3	13.6	9.3	6.8	4.8	3.0	7.4	17.4	-4.4	
3	2.4	2.5	1.4	0.2	-0.9	-1.5	0.2	5.5	11.4	15.1	16.6	17.5	18.3	19.1	19.7	20.0	20.3	20.2	19.5	15.3	10.6	7.8	6.9	5.1	10.6	20.3	-1.5	
4	3.6	3.2	2.9	1.9	1.1	1.7	3.3	10.6	16.0	17.6	18.8	19.5	19.5	20.0	20.3	20.4	20.8	20.2	19.5	16.7	11.0	8.8	6.5	6.1	12.1	20.8	1.1	
5	5.0	4.5	3.7	3.6	2.8	2.0	3.1	6.9	14.1	17.3	18.6	19.5	20.4	20.7	21.1	21.1	21.0	20.6	19.2	17.3	15.2	14.5	12.7	10.8	13.2	21.1	2.0	
6	9.3	8.2	7.1	7.4	7.1	7.9	8.4	9.3	9.8	10.5	10.9	11.1	11.1	10.8	10.1	10.2	10.6	10.2	9.8	9.0	8.4	8.0	7.8	7.7	9.2	11.1	7.1	
7	7.1	5.0	5.4	5.6	6.8	7.0	7.9	9.0	9.9	10.7	11.8	12.8	14.2	15.6	16.1	16.2	16.2	16.0	15.2	12.9	11.7	10.6	8.9	7.0	10.8	16.2	5.0	
8	4.3	2.2	1.8	1.4	0.5	0.0	1.9	7.1	12.2	14.7	16.0	16.8	17.7	18.7	19.4	18.9	19.8	19.7	17.9	14.7	12.2	9.8	8.3	9.2	11.0	19.8	0.0	
9	9.1	6.2	5.2	4.5	3.5	3.0	3.4	4.2	3.7	2.9	2.1	1.1	0.5	0.2	1.2	1.4	0.8	0.2	-0.1	0.0	0.0	0.3	0.1	0.0	2.2	9.1	-0.1	
10	0.0	-0.2	-0.8	-1.0	-1.7	-1.8	-2.3	-2.4	-2.5	-2.2	-2.0	-1.7	-1.3	-0.9	-0.8	-0.5	-0.6	-0.6	-0.4	-0.3	-0.3	-0.4	-0.4	0.0	-1.0	0.0	-2.5	
11	0.0	-0.4	-1.6	-2.9	-4.6	-5.6	-6.5	-4.6	-0.4	1.4	2.7	3.7	4.7	5.7	5.4	5.8	6.4	6.5	5.7	4.7	1.5	0.1	-0.9	-2.0	1.0	6.5	-6.5	
12	-2.7	-2.8	-3.1	-3.0	-2.4	-2.7	0.5	5.1	8.3	10.4	11.4	12.8	12.8	12.6	12.6	12.5	11.8	9.4	6.0	3.8	3.1	2.4	1.8	1.2	5.1	12.8	-3.1	
13	0.9	0.6	0.9	0.5	0.3	0.1	0.3	0.8	1.2	1.7	2.4	2.9	3.1	3.5	4.3	5.0	5.0	4.3	4.0	3.3	3.1	3.0	2.1	1.8	2.3	5.0	0.1	
14	1.7	2.0	0.8	1.3	1.5	1.3	1.3	1.4	1.7	2.5	3.5	4.4	5.5	5.6	6.6	7.6	8.1	8.3	7.9	7.0	5.8	5.1	5.0	4.9	4.6	4.2	8.3	0.8
15	3.9	3.0	2.4	1.7	2.5	3.0	3.1	3.3	3.1	3.9	4.9	5.8	5.6	5.9	6.1	3.3	2.8	3.3	3.4	3.3	2.8	2.6	2.5	2.5	3.5	6.1	1.7	
16	2.5	2.5	2.4	2.5	3.4	3.4	3.7	3.9	5.6	7.0	7.5	8.6	9.9	10.6	10.8	11.5	11.8	12.0	11.3	9.7	8.5	7.8	6.8	4.1	7.0	12.0	2.4	
17	3.9	4.0	3.0	1.8	1.1	0.7	3.7	7.8	10.0	11.3	12.2	13.2	13.8	14.4	14.6	14.6	14.6	14.7	14.3	12.6	8.9	6.8	5.1	3.9	8.8	14.7	0.7	
18	3.4	2.7	1.9	1.6	0.8	0.7	2.7	7.9	12.2	13.5	14.4	15.3	15.5	16.2	16.9	17.6	17.1	16.6	15.0	13.4	11.1	9.0	6.8	4.9	9.9	17.6	0.7	
19	3.5	3.3	3.0	2.7	2.4	3.1	7.2	11.8	14.4	15.3	15.6	15.9	14.7	17.5	7.1	8.7	9.4	9.9	9.0	8.4	7.7	7.6	7.2	6.7	8.4	15.9	2.4	
20	6.3	6.5	6.5	6.4	5.8	5.4	5.4	7.2	9.0	10.3	11.3	10.9	10.8	10.6	10.7	10.7	11.0	11.8	11.2	6.1	6.7	7.4	6.6	5.1	8.3	11.8	5.1	
21	6.6	5.5	5.3	5.5	4.4	3.5	4.0	5.0	5.9	5.7	3.9	4.6	2.5	3.3	5.1	6.9	8.0	8.7	8.8	8.0	5.5	5.0	4.4	4.0	5.4	8.8	2.5	
22	3.4	2.4	0.9	0.1	0.7	0.3	1.9	4.7	6.0	6.0	6.6	7.7	7.3	7.3	8.0	8.7	7.9	7.4	7.5	6.8	6.3	5.8	5.3	5.1	5.2	8.7	0.1	
23	5.1	4.9	4.9	4.2	3.9	4.0	3.4	3.4	3.7	4.2	4.8	5.2	5.6	5.4	4.1	4.0	4.1	3.9	3.7	3.2	2.7	2.5	2.5	2.4	4.0	5.6	2.4	
24	2.3	2.3	2.2	2.2	2.0	1.8	2.3	3.0	4.1	4.7	5.9	5.7	6.7	7.3	8.5	8.4	8.7	8.6	8.7	7.5	5.4	4.1	3.2	1.7	4.9	8.7	1.7	
25	0.9	-0.3	-0.9	-1.6	-1.5	-1.5	-0.4	4.6	6.6	7.6	8.8	10.0	10.9	11.4	11.1	6.2	6.3	7.8	8.1	6.7	6.0	5.4	4.7	3.3	5.0	11.4	-1.6	
26	2.7	2.3	2.0	1.9	1.9	2.3	3.3	4.6	6.1	6.8	8.2	9.9	9.6	11.2	12.2	12.0	11.8	12.0	12.3	10.5	8.9	7.8	7.4	6.5	7.3	12.3	1.9	
27	5.1	4.5	3.9	3.1	3.0	2.7	4.5	7.8	8.5	7.1	7.9	9.7	10.9	9.4	9.8	8.9	7.5	7.5	7.1	7.0	6.5	6.0	5.7	3.7	6.6	10.9	2.7	
28	2.2	1.6	1.0	0.8	0.2	0.0	1.4	4.5	5.4	6.4	7.5	7.9	8.4	9.2	10.1	10.3	10.4	10.7	10.3	9.0	5.3	3.3	1.7	0.4	5.3	10.7	0.0	
29	-0.3	-1.1	-1.3	-1.0	-1.4	-0.7	1.4	6.3	10.4	11.6	12.3	13.0	13.9	14.8	15.2	15.2	15.1	15.3	14.7	13.4	11.7	11.3	10.6	9.4	8.7	15.3	-1.4	
30	8.7	7.4	7.4	7.9	6.6	5.6	8.3	8.4	7.5	8.8	8.7	5.9	8.4	9.0	8.4	9.7	9.6	9.8	8.7	6.9	5.8	4.5	2.8	3.8	7.4	9.8	2.8	
31	4.7	5.2	4.9	4.7	4.3	4.2	4.6	5.1	6.1	6.5	7.1	8.0	8.7	9.1	9.9	10.4	11.0	11.1	10.9	10.1	6.8	4.0	2.1	1.3	6.7	11.1	1.3	
Avg	3.3	2.6	2.1	1.8	1.5	1.3	2.5	5.0	7.2	8.3	9.0	9.7	10.1	10.4	10.8	10.8	10.9	10.8	10.2	8.6	6.9	5.8	4.8	4.0	6.6	12.0	0.6	
Max	9.3	8.2	7.4	7.9	7.1	7.9	8.4	11.8	16.0	17.6	18.8	19.5	20.4	20.7	21.1	21.1	21.0	20.6	19.5	17.3	15.2	14.5	12.7	10.8	13.2	21.1	7.1	
Min	-3.3	-4.0	-4.6	-4.8	-4.8	-5.6	-6.5	-4.6	-2.5	-2.2	-2.0	-1.7	-1.3	-0.9	-0.8	-0.5	-0.6	-0.6	-0.4	-0.3	-0.3	-0.4	-0.9	-2.0	-1.0	0.0	-6.5	

A-11

Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Temperature 2 Meters (degrees Celsius)
April 2016

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	-1.6	-1.6	-1.7	-2.2	-2.0	-2.0	-2.6	-2.1	0.0	2.7	3.7	5.6	6.7	7.7	9.2	9.3	9.2	8.8	7.5	4.4	1.5	0.3	-2.0	-2.5	2.3	9.3	-2.6
2	-3.0	-3.9	-4.3	-4.6	-5.4	-5.7	-5.9	-2.8	2.4	8.5	9.9	10.8	11.7	13.0	13.9	14.1	14.0	12.9	11.3	9.9	8.5	8.7	9.3	9.0	5.5	14.1	-5.9
3	9.1	8.5	7.5	5.6	3.4	0.8	0.1	2.9	7.6	9.1	10.5	11.5	11.9	12.5	12.1	12.7	12.8	11.9	10.3	4.7	3.4	2.0	-0.4	-2.3	7.0	12.8	-2.3
4	-3.1	-3.3	-3.6	-3.5	-3.9	-4.2	-3.8	0.1	6.3	11.1	13.1	13.6	15.6	16.5	9.6	6.2	5.8	5.1	2.1	-0.1	-0.4	-0.9	-1.4	-1.5	3.1	16.5	-4.2
5	-1.7	-2.0	-1.6	-1.6	-1.9	-2.3	-2.7	-2.7	-2.3	-1.8	-0.7	0.1	1.0	1.8	2.6	2.8	2.7	2.4	1.6	0.7	0.2	-0.3	-0.5	-0.5	-0.3	2.8	-2.7
6	-0.6	-0.6	-0.7	-0.6	-2.1	-3.3	-2.8	1.6	3.4	4.0	4.7	4.9	5.9	7.0	8.0	8.8	9.3	8.8	8.5	7.1	5.5	3.0	2.4	1.4	3.5	9.3	-3.3
7	0.6	0.0	-0.2	-0.6	-1.5	-3.1	-2.9	0.0	4.5	7.9	8.3	9.6	10.3	11.7	12.7	13.3	13.3	13.1	11.2	5.4	3.6	2.0	-0.3	-1.3	4.9	13.3	-3.1
8	-3.0	-3.4	-4.1	-4.6	-4.9	-5.2	-4.7	-0.4	4.2	11.0	13.8	15.8	16.9	17.8	18.3	18.7	19.1	18.5	15.6	8.7	5.7	4.1	2.5	-0.2	6.7	19.1	-5.2
9	-2.1	-1.9	-1.8	-2.7	-2.6	-2.8	-1.4	5.1	12.5	12.8	12.1	11.7	12.3	13.8	14.3	14.5	14.1	12.1	9.6	6.8	5.3	4.5	3.4	1.7	6.3	14.5	-2.8
10	-0.6	-1.5	-0.6	2.0	2.2	1.4	0.6	0.6	1.2	2.9	4.5	6.1	7.1	8.1	8.7	8.7	8.3	8.1	6.2	3.3	1.8	0.5	-1.7	-0.7	3.2	8.7	-1.7
11	-0.8	-1.5	-2.6	-3.8	-6.2	-6.5	-5.4	-1.3	3.4	7.1	9.8	11.3	12.7	13.9	14.7	15.1	15.2	14.7	13.2	9.1	4.5	2.2	0.7	-1.0	4.9	15.2	-6.5
12	-1.7	-2.5	-3.4	-3.6	-4.2	-4.3	-3.3	1.3	6.2	12.4	13.9	15.5	16.7	17.0	16.3	15.5	12.5	11.0	10.4	7.5	6.4	6.6	6.6	5.1	6.6	17.0	-4.3
13	4.8	4.2	3.9	4.5	5.1	4.5	4.5	4.0	2.4	1.1	2.8	3.6	4.8	6.9	8.1	8.3	7.5	6.6	6.0	2.2	0.4	-0.4	-1.7	-0.8	3.9	8.3	-1.7
14	-0.6	0.3	0.3	0.4	1.3	2.8	4.0	5.3	5.7	6.5	5.1	4.0	3.7	4.3	4.7	3.7	2.6	2.1	1.7	0.3	-0.2	-0.6	-0.8	-1.1	2.3	6.5	-1.1
15	-1.3	-1.4	-1.6	-1.9	-2.0	-2.1	-2.4	-2.3	-2.1	-1.9	-1.7	-1.3	-1.5	-1.2	-0.8	-0.6	-0.5	-0.6	-0.8	-1.3	-2.2	-2.8	-4.2	-6.5	-1.9	-0.5	-6.5
16	-7.3	-6.4	-7.5	-9.5	-10.8	-12.0	-11.7	-9.0	-5.7	-2.7	0.3	2.0	3.5	4.2	5.2	5.6	5.8	5.6	4.2	0.9	-1.1	-2.1	-4.2	-5.2	-2.4	5.8	-12.0
17	-5.7	-5.8	-6.3	-6.2	-7.0	-7.3	-6.8	-3.5	0.5	4.7	6.8	8.0	9.0	9.7	10.9	11.3	11.2	10.6	8.8	5.3	2.9	-0.2	-2.9	-4.3	1.8	11.3	-7.3
18	-5.0	-5.4	-6.2	-6.9	-7.3	-7.3	-6.3	-2.8	-0.6	3.3	7.0	8.3	8.9	9.8	10.9	11.3	11.3	10.5	9.5	6.4	4.3	2.6	1.6	1.9	2.5	11.3	-7.3
19	2.1	1.7	-0.7	-2.4	-3.7	-3.7	-1.9	2.5	7.5	11.1	13.3	13.9	14.6	15.7	16.6	17.1	17.5	15.8	12.9	9.4	7.4	5.1	1.9	1.4	7.3	17.5	-3.7
20	0.4	-0.3	-1.6	-3.1	-3.9	-4.5	-2.9	2.5	7.9	13.3	16.2	17.3	18.4	18.9	19.3	19.1	18.6	16.9	15.0	11.7	10.1	7.4	4.5	2.9	8.5	19.3	-4.5
21	2.4	3.5	2.8	1.8	0.8	0.8	2.4	7.6	13.1	14.6	16.1	17.9	19.0	19.7	20.4	20.8	20.6	20.1	18.3	14.4	13.1	12.1	9.2	5.9	11.6	20.8	0.8
22	4.5	3.3	3.0	2.3	2.1	2.2	2.9	6.4	11.0	17.3	19.4	19.5	20.0	21.0	21.3	21.2	20.4	19.1	16.8	14.3	11.2	7.6	6.6	4.6	11.6	21.3	2.1
23	2.8	1.3	0.0	-0.7	-1.3	-1.0	0.8	2.6	4.6	6.2	6.7	8.3	11.4	12.0	8.5	6.6	7.1	6.3	5.5	5.1	4.2	3.9	3.6	3.5	4.5	12.0	-1.3
24	3.3	3.2	2.7	2.3	2.3	2.2	2.3	2.4	3.4	3.6	4.1	4.3	4.4	5.4	6.2	5.9	5.8	5.4	5.1	4.6	4.3	4.1	3.7	3.7	3.9	6.2	2.2
25	3.6	3.4	3.5	3.3	3.2	3.2	3.4	3.4	3.7	4.5	5.3	5.6	5.8	5.6	5.8	5.2	5.1	4.7	3.2	2.5	2.0	1.7	1.4	1.1	3.8	5.8	1.1
26	0.7	0.5	0.2	0.0	-0.2	-0.3	-0.6	-0.7	-0.2	0.8	1.4	1.5	1.8	1.9	1.6	1.7	1.6	1.4	1.1	0.5	0.2	0.1	-0.1	-0.1	0.6	1.9	-0.7
27	0.0	-0.2	-0.4	-0.5	-0.6	-0.7	-0.1	0.8	1.2	1.3	1.7	2.6	2.4	3.7	3.9	3.2	2.4	1.4	1.3	0.7	0.0	-0.2	-1.0	-1.4	0.9	3.9	-1.4
28	-1.7	-1.8	-1.9	-2.2	-2.5	-2.7	-2.5	-2.1	-1.5	-0.7	-0.1	0.0	0.5	0.5	0.6	1.3	1.5	0.4	0.5	-0.2	-0.5	-0.7	-0.6	-0.7	1.5	2.7	-2.7
29	-1.0	-1.1	-1.3	-1.4	-1.3	-2.1	-1.3	0.3	1.2	1.6	2.1	3.4	4.8	6.1	6.6	6.4	6.0	5.1	3.8	3.1	2.5	2.6	2.7	2.5	2.1	6.6	-2.1
30	2.3	1.7	1.3	0.3	-0.3	-0.1	0.9	2.6	3.5	3.8	4.2	4.0	4.5	4.8	5.4	5.4	5.2	4.9	4.4	2.4	0.8	-0.8	-1.5	-3.3	2.4	5.4	-3.3
Avg	-0.1	-0.4	-0.9	-1.3	-1.8	-2.2	-1.7	0.7	3.5	5.9	7.1	8.0	8.8	9.7	9.9	9.8	9.5	8.8	7.5	5.0	3.5	2.4	1.2	0.4	3.9	10.6	-3.1
Max	9.1	8.5	7.5	5.6	5.1	4.5	4.5	7.6	13.1	17.3	19.4	19.5	20.0	21.0	21.3	21.2	20.6	20.1	18.3	14.4	13.1	12.1	9.3	9.0	11.6	21.3	2.2
Min	-7.3	-6.4	-7.5	-9.5	-10.8	-12.0	-11.7	-9.0	-5.7	-2.7	-1.7	-1.3	-1.5	-1.2	-0.8	-0.6	-0.5	-0.6	-0.8	-1.3	-2.2	-2.8	-4.2	-6.5	-2.4	-0.5	-12.0

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Tintina Resources, Inc.
Black Butte Copper Project Met Tower Air Monitoring Summary
Solar Radiation (watts m²)
April 2016

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	28	122	346	436	468	718	668	643	705	392	219	77	25	0	0	0	0	0	202	718	0	
2	0	0	0	0	0	1	60	256	432	595	729	810	830	795	702	558	401	178	43	0	0	0	0	0	266	830	0	
3	0	0	0	0	0	1	61	240	426	511	725	847	685	684	367	426	352	147	43	0	0	0	0	0	230	847	0	
4	0	0	0	0	0	1	56	238	441	498	603	522	687	687	51	51	37	47	4	0	0	0	0	0	163	687	0	
5	0	0	0	0	0	0	13	63	137	364	687	784	699	406	362	345	272	131	34	0	0	0	0	0	179	784	0	
6	0	0	0	0	0	0	1	53	84	176	331	407	288	367	452	528	335	333	102	16	0	0	0	0	0	145	528	0
7	0	0	0	0	0	0	1	86	268	450	595	421	758	665	788	708	567	408	234	55	1	0	0	0	0	250	788	0
8	0	0	0	0	0	0	2	107	267	466	639	767	850	862	820	711	570	436	256	61	1	0	0	0	0	284	862	0
9	0	0	0	0	0	0	0	35	371	410	404	370	490	695	811	732	599	421	235	61	1	0	0	0	0	235	811	0
10	0	0	0	0	0	0	1	30	96	425	641	777	846	869	832	738	601	373	236	57	1	0	0	0	0	272	869	0
11	0	0	0	0	0	0	3	100	283	466	638	759	836	856	818	731	600	430	242	69	1	0	0	0	0	285	856	0
12	0	0	0	0	0	0	5	102	192	433	590	719	852	870	700	311	204	71	48	36	1	0	0	0	0	214	870	0
13	0	0	0	0	0	0	0	12	34	47	124	379	318	354	634	725	639	295	138	73	2	0	0	0	0	157	725	0
14	0	0	0	0	0	0	2	51	139	240	284	113	95	96	163	90	105	75	73	20	1	0	0	0	0	64	284	0
15	0	0	0	0	0	0	3	48	182	224	236	382	439	440	522	459	305	230	87	56	5	0	0	0	0	151	522	0
16	0	0	0	0	0	0	5	136	323	515	687	810	885	901	854	764	628	458	272	91	3	0	0	0	0	306	901	0
17	0	0	0	0	0	0	6	153	339	526	687	810	881	898	858	768	629	464	283	95	3	0	0	0	0	308	898	0
18	0	0	0	0	0	0	8	181	183	206	356	673	397	322	418	537	434	266	110	71	3	0	0	0	0	174	673	0
19	0	0	0	0	0	0	9	142	324	509	673	844	825	874	838	752	521	521	264	108	4	0	0	0	0	300	874	0
20	0	0	0	0	0	0	12	171	350	527	687	810	871	898	837	775	625	453	200	91	4	0	0	0	0	305	898	0
21	0	0	0	0	0	0	14	163	340	526	684	742	827	862	788	673	577	453	297	105	3	0	0	0	0	294	862	0
22	0	0	0	0	0	0	10	91	206	370	487	594	537	685	840	615	480	276	131	55	3	0	0	0	0	224	840	0
23	0	0	0	0	0	0	6	32	42	91	128	141	353	403	512	38	62	88	49	26	2	0	0	0	0	82	512	0
24	0	0	0	0	0	0	4	16	47	151	72	97	112	126	170	214	115	127	47	26	2	0	0	0	0	55	214	0
25	0	0	0	0	0	0	3	21	40	94	257	336	407	397	438	319	219	254	207	26	2	0	0	0	0	126	438	0
26	0	0	0	0	0	0	3	17	50	116	258	211	153	264	232	115	125	91	49	15	3	0	0	0	0	71	264	0
27	0	0	0	0	0	0	11	68	128	159	236	316	477	486	580	417	437	258	127	53	3	0	0	0	0	157	580	0
28	0	0	0	0	0	0	4	39	107	238	253	303	282	309	267	230	269	217	68	80	9	0	0	0	0	111	309	0
29	0	0	0	0	0	0	39	119	341	365	341	403	758	870	899	806	492	356	246	66	15	0	0	0	0	255	899	0
30	0	0	0	0	0	0	17	77	107	131	207	178	151	188	216	340	177	87	77	60	15	0	0	0	0	85	340	0
Avg	0	0	0	0	0	0	6	76	192	321	430	519	579	604	617	509	403	291	155	54	3	0	0	0	0	198	683	0
Max	0	0	0	0	0	0	39	181	371	527	687	844	885	901	899	806	639	521	297	108	15	0	0	0	0	308	901	0
Min	0	0	0	0	0	0	0	12	34	47	72	97	95	96	163	38	51	37	47	4	0	0	0	0	0	55	214	0

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**APPENDIX B: PERFORMANCE AUDIT REPORTS
SECOND QUARTER 2016**



PRELIMINARY METEOROLOGICAL AUDIT REPORT

Client : Tintina Resources

SITE : Black Butte

DATE : 06/17/16

Audit Start Time : 8:50 MST Audit End Time : 12:00 MST

Temperature

Audit Device : Control Company Digital Thermometer
 Model Number : 4000 Serial Number : 140251289
 Last certified : 04/18/16
 Sensor Make : Climatronics
 Model Number : 100093 Serial Number Upper: P12535 Serial Number Lower: P12535

Temperature bath results as is

	9m	9m	2m	2m	9m - 2m
Audit	DAS	DAS	DAS	DAS	
Value	Value	Diff.	Value	Diff.	Diff.
oC	oC	oC	oC	oC	
-10.00	-9.60	0.40	-9.20	0.80	0.40
25.00	24.90	-0.10	24.80	-0.20	-0.10
50.00	49.50	-0.50	49.30	-0.70	-0.20

Wind Direction

Alignment Audit Device :		Linearity Check from DAS (as found)				
Model Number :	Nexstar	Setpoint	Clockwise	Counter-CW	Diff CW	Diff CCW
Linearity Audit Device :	X3-T	0	0.4	0.3	0.4	0.3
Model Number :	101966	72	33.0	32.9	3.0	2.9
Sensor height :	10 Meter	60	62.0	61.8	2.0	1.8
Sensor Make :	Climatronics	90	91.6	91.4	1.6	1.4
Model Number :	102083	120	122.8	122.5	2.8	2.5
		150	152.0	151.7	2.0	1.7
		180	181.9	181.4	1.9	1.4
Crossarm Orientation :	N-S	210	211.4	211.1	1.4	1.1
Magnetic Declination :	12	240	241.3	240.8	1.3	0.8
Measured Degrees :	1.5	270	270.3	270.6	0.3	0.6
Sensor response aligned with crossarm (as found) :	0.4	300	301.0	300.8	1.0	0.8
Sensor response aligned with crossarm (as left) :	0.0	330	330.8	330.5	0.8	0.5
				Max Diff	3.0	2.9

Linearity Check from DAS (as left)				
Setpoint	Clockwise	Counter-CW	Diff CW	Diff CCW
0	0.4	0.3	0.4	0.3
90	92	91	2.0	1.0
180	181	181	1.0	1.0
270	271	271	1.0	1.0
		Max Diff	2.0	1.0

Replaced sensor with SN P1336C

Wind Speed

Audit Device :	RMYoung	Serial Number :	CA02929
Model Number :	18811		
Last certified :	NA		
Sensor height :	10 Meter		
Sensor Make :	Climatronics		
Model Number :	102083	Serial Number :	1849

Synchronous motor checks

DAS

Known Value	Audit Value	Station Value	DAS Diff.
RPM	MPS	MPS	MPS
0	0.2	0.2	0.0
300	6.7	6.7	0.0
600	13.1	13.0	-0.1
950	20.6	20.5	-0.1

Synchronous motor checks (as left)

DAS

Known Value	Audit Value	Station Value	DAS Diff.
RPM	MPS	MPS	MPS
0	0.2	0.2	0.0
300	6.7	6.7	0.0
600	13.1	13.1	0.0
950	20.6	20.6	0.0

Relative Humidity

Audit Device :	Control company Hygrometer	Serial Number :	61644981
Model Number :	4185		
Last certified :	4/14/16		
Sensor height :	10 Meter		
Sensor Make :	Met One		
Model Number :	083E-0-35	Serial Number :	P18245

Audit Dry-Bulb:	Audit Wet-Bulb	Audit Audit RH	Audit Station RH	Audit Diff %RH
oC	oC	%RH	%RH	%RH
58.0	49.0	31.0	38.0	7

Barometric Pressure

Audit Device :	Delta Cal	Serial Number :	999
Model Number :	Delta Cal		
Last certified :	04/26/16		
Sensor Make :	Climatronics		
Model Number :	102663-G0	Serial Number :	42017

Audit Value	Station Value	Audit Diff.
In Hg	In Hg	In Hg
24.55	24.47	-0.08

Solar Radiation

Audit Device : Li Cor	Serial Number : PY82228
Model Number : LI-200	uA/m ² : 98.51
Last certified : 05/21/15	
Sensor Make : Met One	
Model Number : 096-1	Serial Number : PY69829

	DAS	
Audit	Station	DAS
Value	Value	Diff.
w/m ²	w/m ²	%
410	464	13.2

Precipitation

Audit Device : Fisher Scientific	Serial Number : 250 ml
Model Number : S32814A	
Last certified : NA	
Sensor Make : Climatronics	
Model Number : 100097-1-G0-H0	Serial Number : N3939
Opening : 8	Inch
Bucket Tip : 0.254	MM
Bucket Tip Volume : 8.24	ML
Level checked : OK	
Wind Screen in place : OK	

Known Value	Known Value	Station Value	%
ML	Bucket Tips	Bucket Tips	Diff
250.0	30	28	-7.7
250.0	30	28	-7.7

Signature Site Operator : Signature Auditor : 

Note: These preliminary results are subject to appropriate changes
following verification of audit equipment, procedures, and calculations.

**APPENDIX C: EVAPORATION AND PRECIPITATION
SUMMARY, SECOND QUARTER 2016**

EVAPORATION AND PRECIPITATION SUMMARY FOR TINTINA SITE
(All values in inches)

DATE	TIME	EVAPORATION AS-FOUND	EVAPORATION AS-LEFT	PRECIPITATION (MANUAL)	PRECIPITATION (AUTOMATED)	TOTAL EVAPORATION	NET EVAPORATION
4/1/2016	0900	No Data	No Data	0.00	0.00	No Data	No Data
4/6/2016	1220	No Data	No Data	0.38	0.54	No Data	No Data
4/18/2016	1315	No Data	No Data	0.68	0.78	No Data	No Data
4/27/2016	1300	No Data	No Data	0.26	0.20	No Data	No Data
TOTAL FOR MAR 31 - APRIL 27				1.32	1.52	No Data	No Data

EVAPORATION AND PRECIPITATION SUMMARY FOR TINTINA SITE
(All values in inches)

DATE	TIME	EVAPORATION AS-FOUND	EVAPORATION AS-LEFT	PRECIPITATION (MANUAL)	PRECIPITATION (AUTOMATED)	TOTAL EVAPORATION	NET EVAPORATION
5/3/2016	0900	No Data	No Data	0.00	0.03	No Data	No Data
5/9/2016	1300	No Data	No Data	0.01	0.00	No Data	No Data
5/11/2016	1315	No Data	No Data	0.25	0.24	No Data	No Data
5/19/2016	0910	Start	3.500	0.20	0.13	No Data	No Data
5/25/2016	1000	4.652	3.500	1.78	1.68	0.628	-1.152
5/27/2016	1300	3.865	3.500	0.60	0.51	0.235	-0.365
6/1/2016	0950	2.826	2.826	0.15	0.10	0.824	0.674
TOTAL PRECIPITATION FOR APRIL 27 - JUNE 1				2.99	2.69		

EVAPORATION AND PRECIPITATION SUMMARY FOR TINTINA SITE
(All values in inches)

DATE	TIME	EVAPORATION AS-FOUND	EVAPORATION AS-LEFT	PRECIPITATION (MANUAL)	PRECIPITATION (AUTOMATED)	TOTAL EVAPORATION	NET EVAPORATION
6/1/2016	0950		2.826				
6/6/2016	1420	1.742	3.500	0.00	0.00	1.084	1.084
6/8/2016	1300	3.150	3.150	0.09	0.08	0.440	0.350
6/10/2016	1015	2.898	2.898	0.17	0.17	0.422	0.252
6/16/2016	----	2.816	2.816	1.05	0.98	1.132	0.082
6/20/2016	1005	1.832	1.832	0.05	0.01	1.034	0.984
6/22/2016	1330	1.325	1.325	0.00	0.00	0.507	0.507
6/27/2016	0845	1.220	3.500	0.10	0.09	0.205	0.105
7/1/2016	0830	2.824	2.824	0.00	0.00	0.676	0.676
TOTAL FOR JUNE 1 - JULY 1				1.46	1.33	5.50	4.04