

APPENDIX B: THERMISTOR FIGURES

APPENDIX C: WATER QUALITY METEOROLOGICAL STATION DATA

Susitna-Watana Hydroelectric Project

(FERC No. 14241)

Baseline Water Quality Study (5.5)

Appendix B

Thermistor Figures

Initial Study Report

Prepared for

Alaska Energy Authority



Prepared by

Tetra Tech

February 2014 Draft

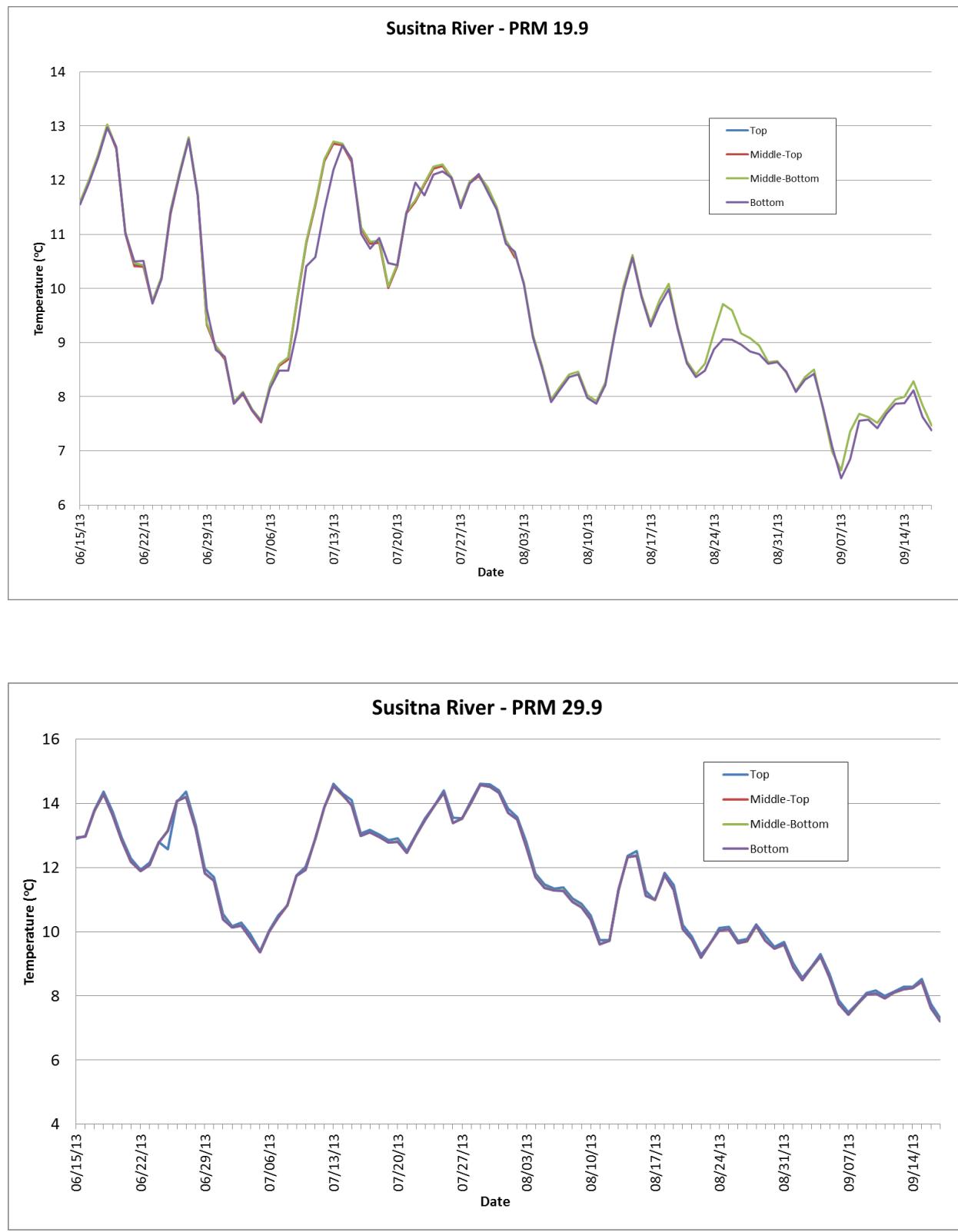


Figure B-1. 2013 Thermistor Temperature Data for the Susitna Project Area.

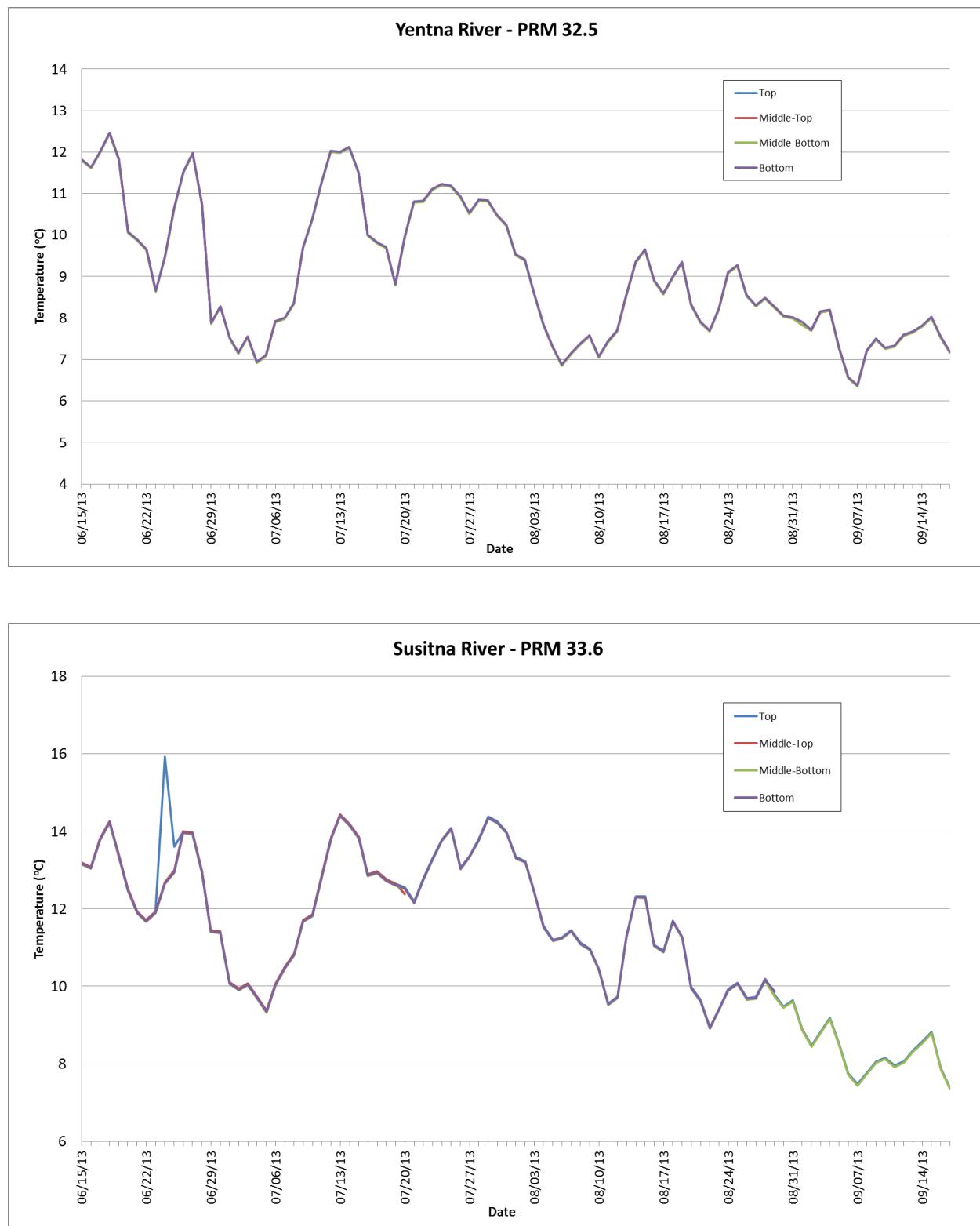


Figure B-2. 2013 Thermistor Temperature Data for the Susitna Project Area.

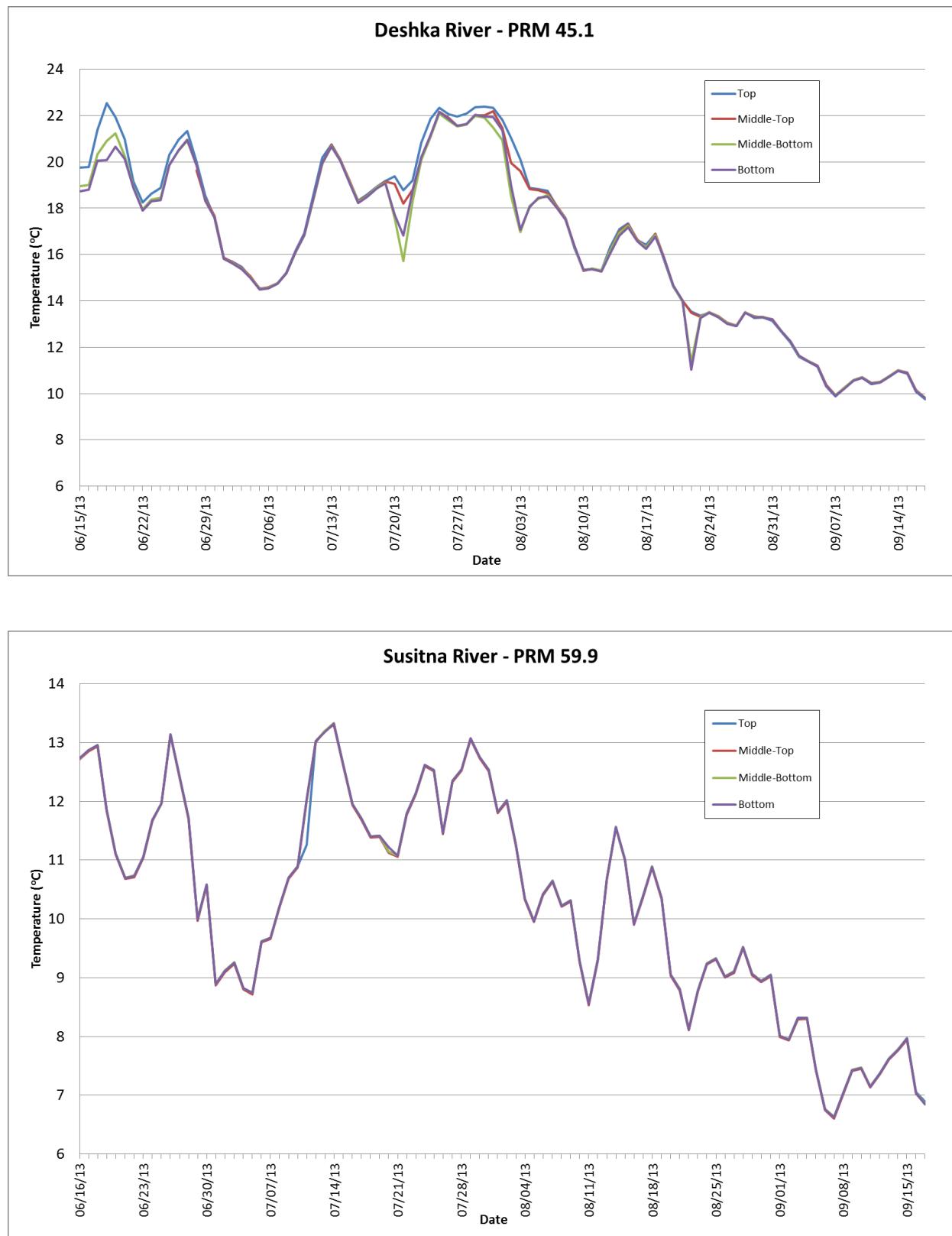


Figure B-3. 2013 Thermistor Temperature Data for the Susitna Project Area.

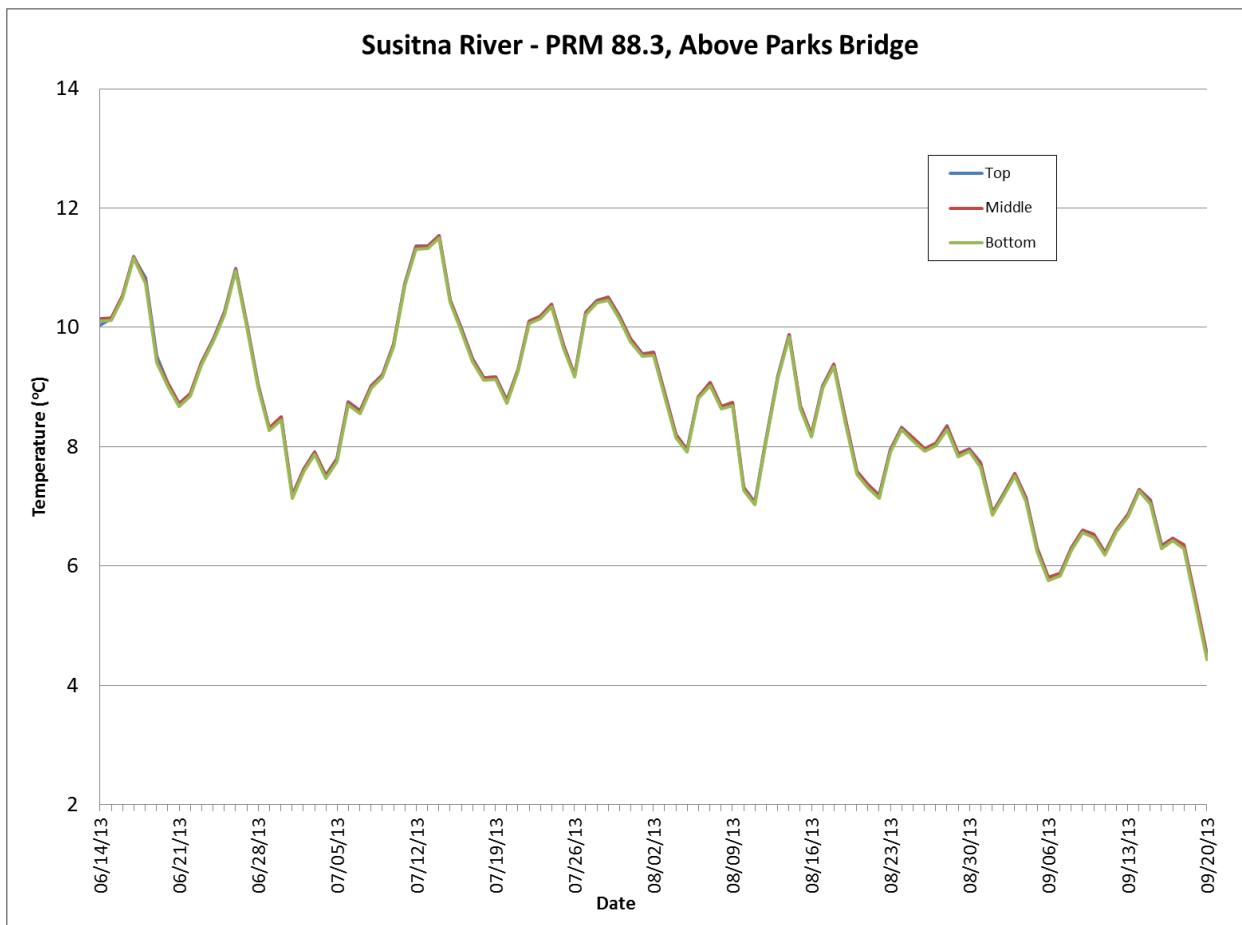
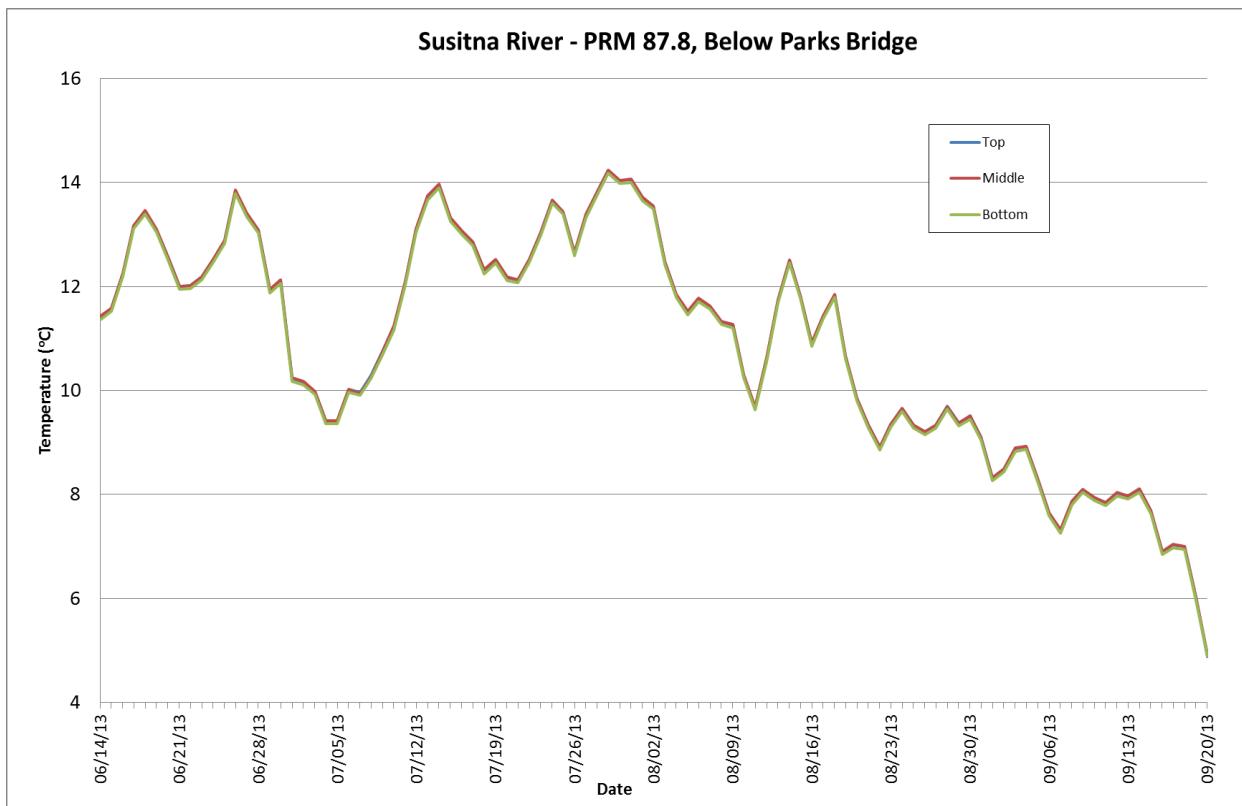
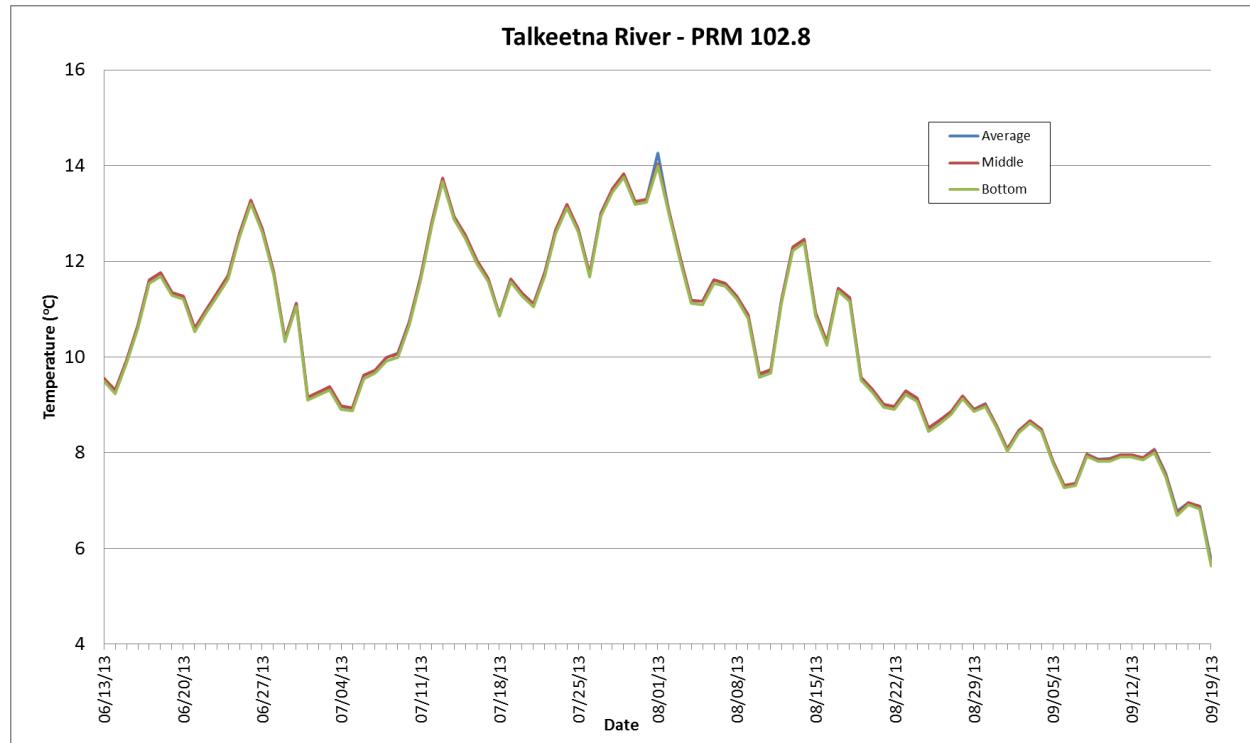
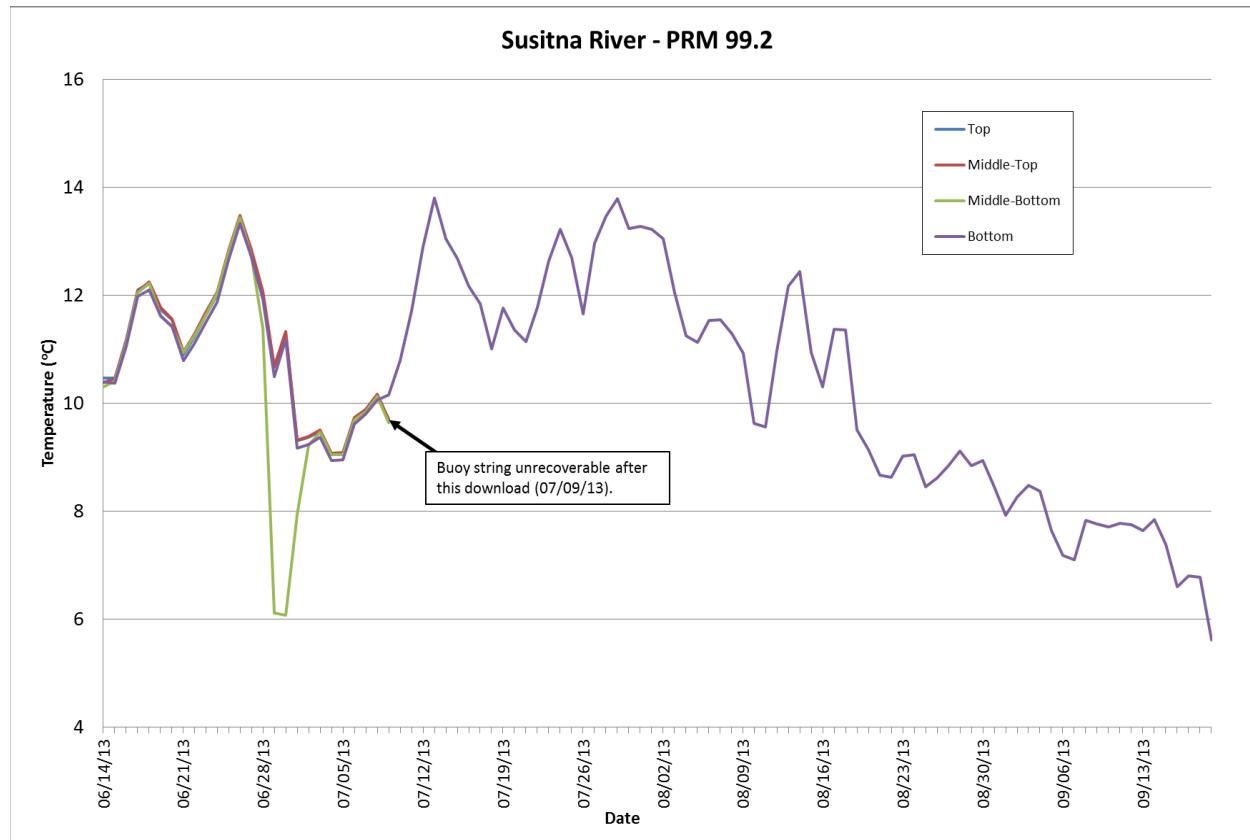


Figure B-4. 2013 Thermistor Temperature Data for the Susitna Project Area.**Figure B-5. 2013 Thermistor Temperature Data for the Susitna Project Area.**

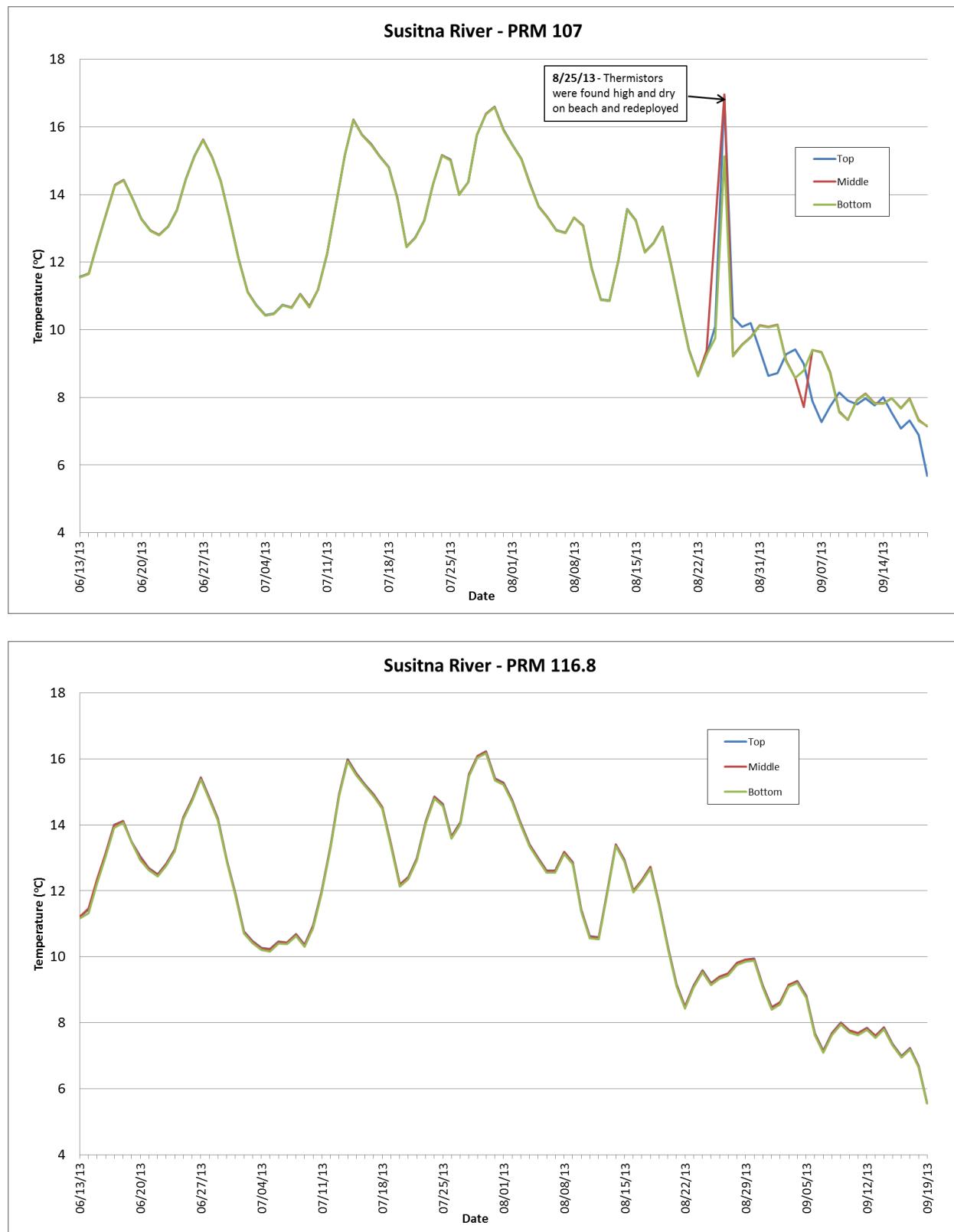


Figure B-6. 2013 Thermistor Temperature Data for the Susitna Project Area.

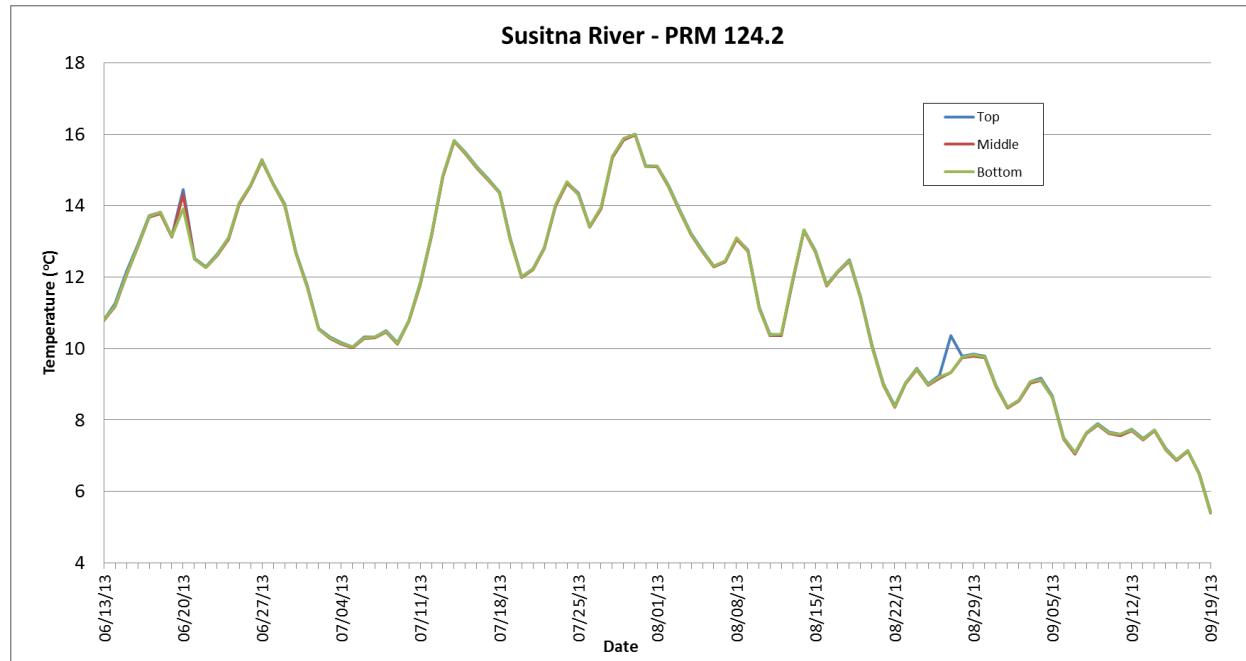
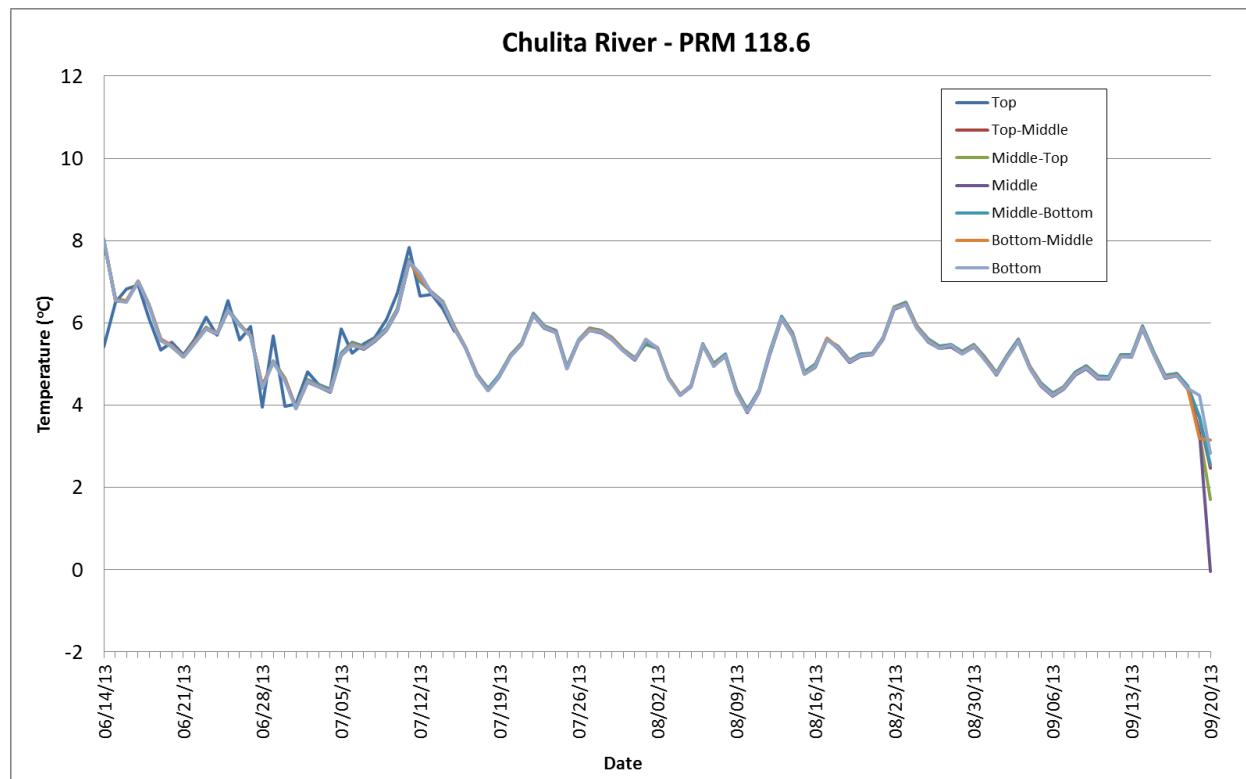


Figure B-7. 2013 Thermistor Temperature Data for the Susitna Project Area.



Figure B-8. 2013 Thermistor Temperature Data for the Susitna Project Area.

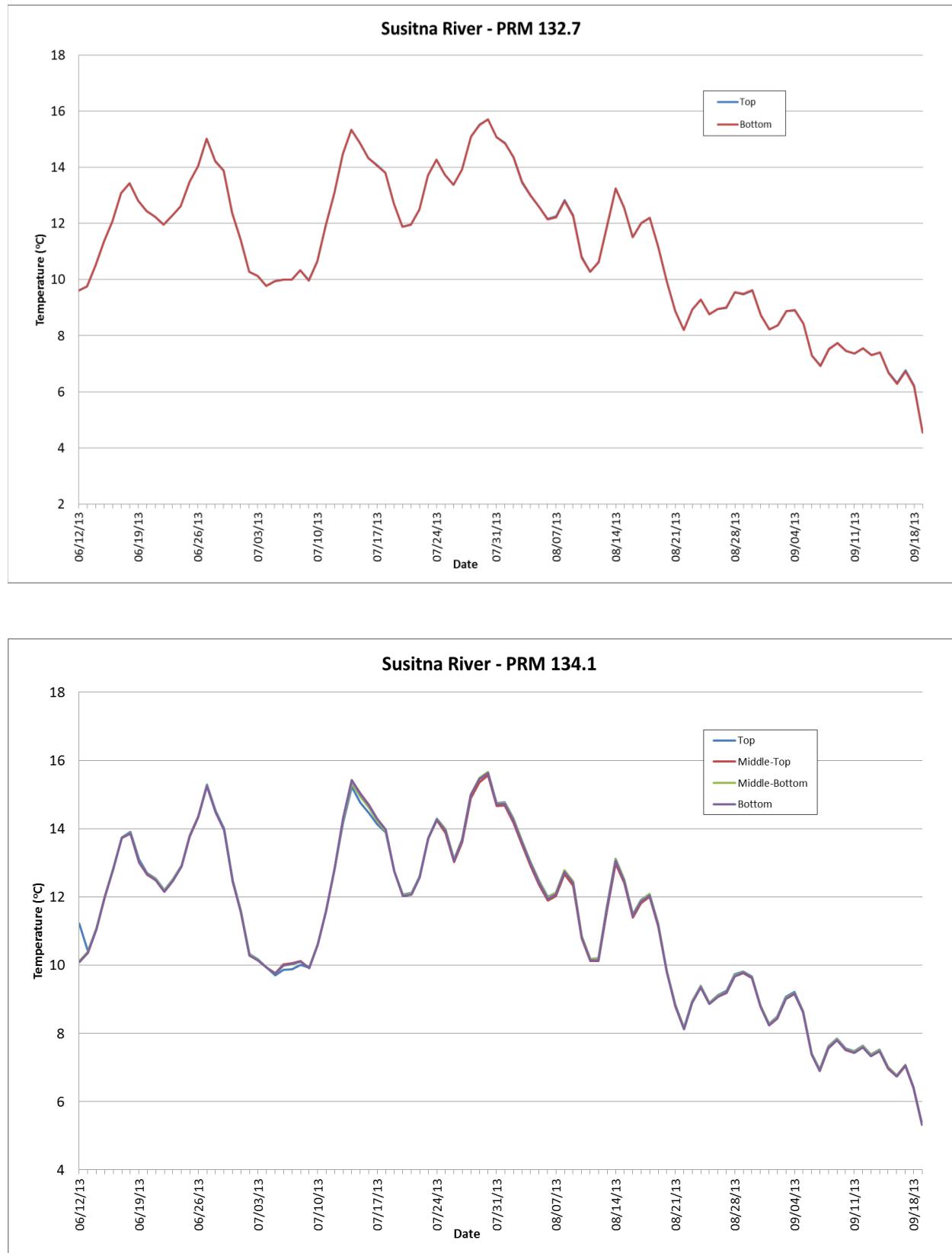


Figure B-9. 2013 Thermistor Temperature Data for the Susitna Project Area.

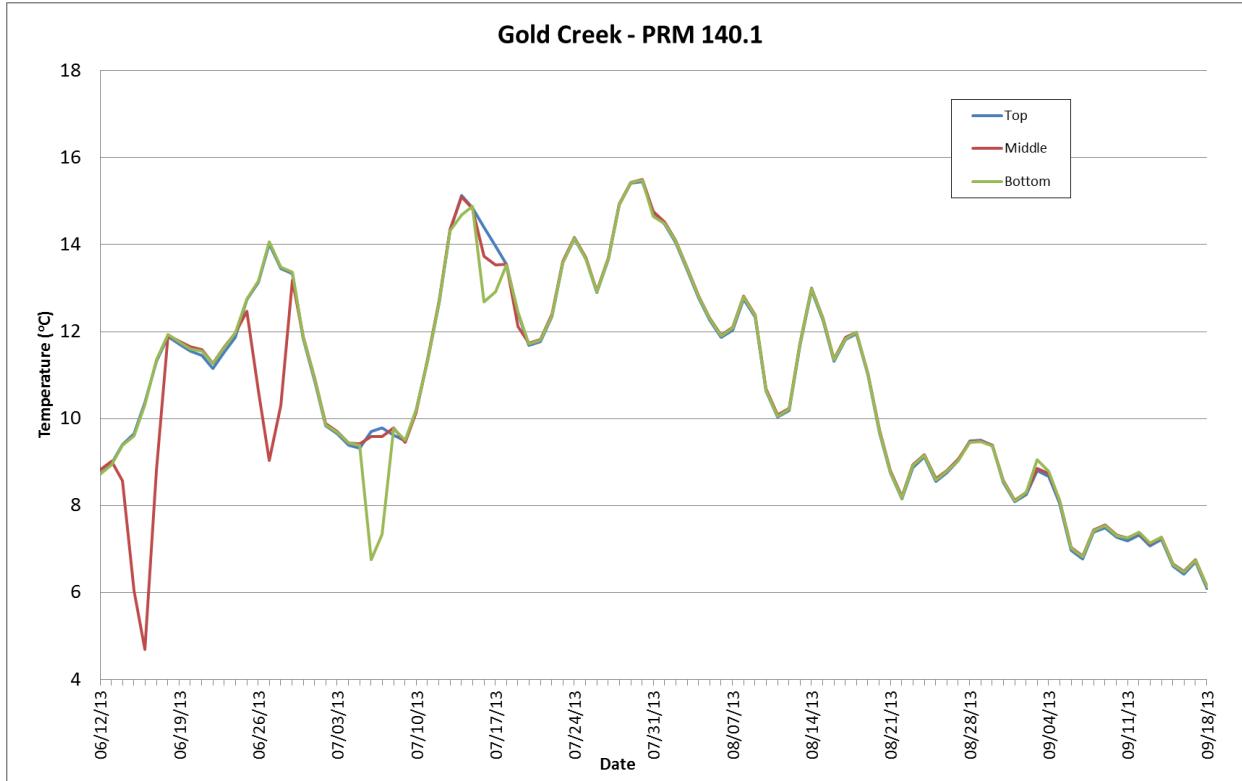
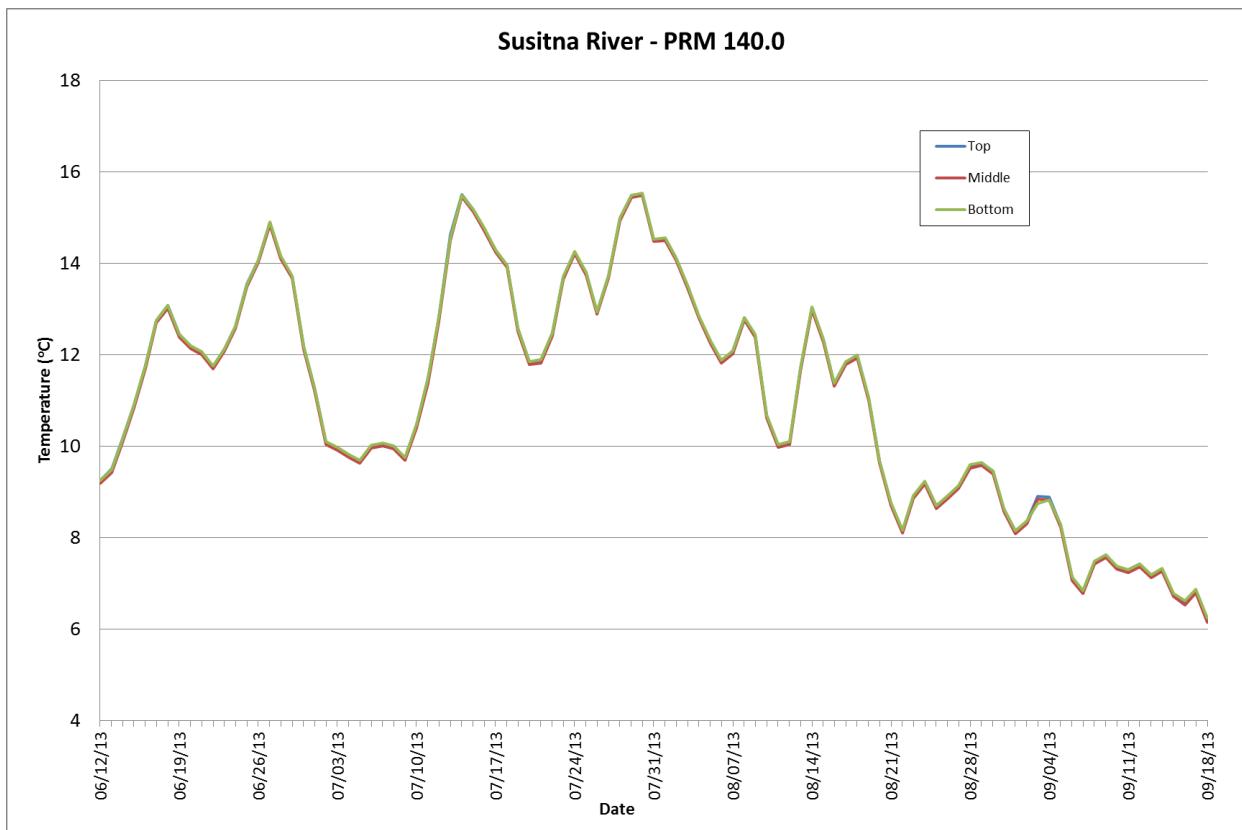


Figure B-10. 2013 Thermistor Temperature Data for the Susitna Project Area.

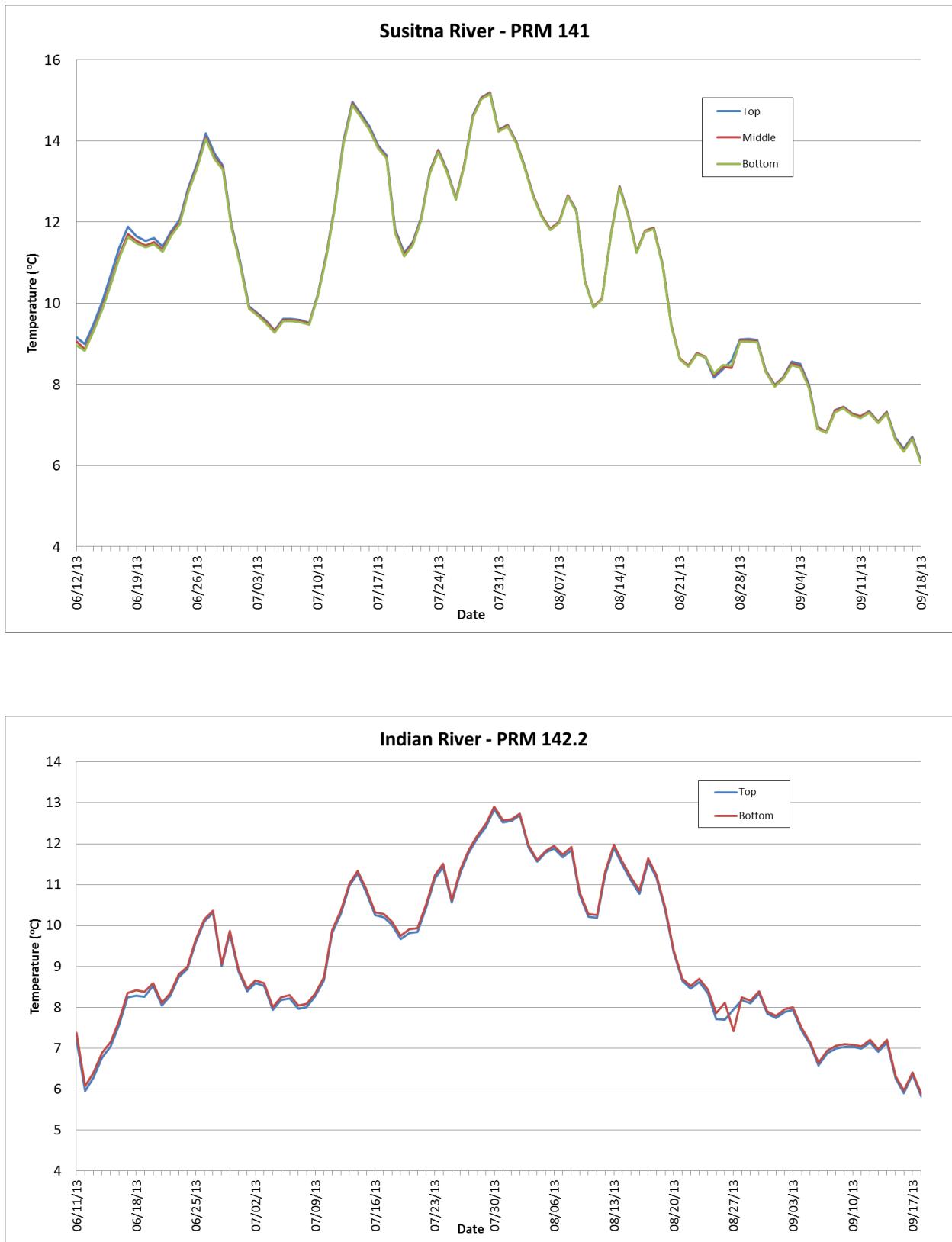


Figure B-11. 2013 Thermistor Temperature Data for the Susitna Project Area.

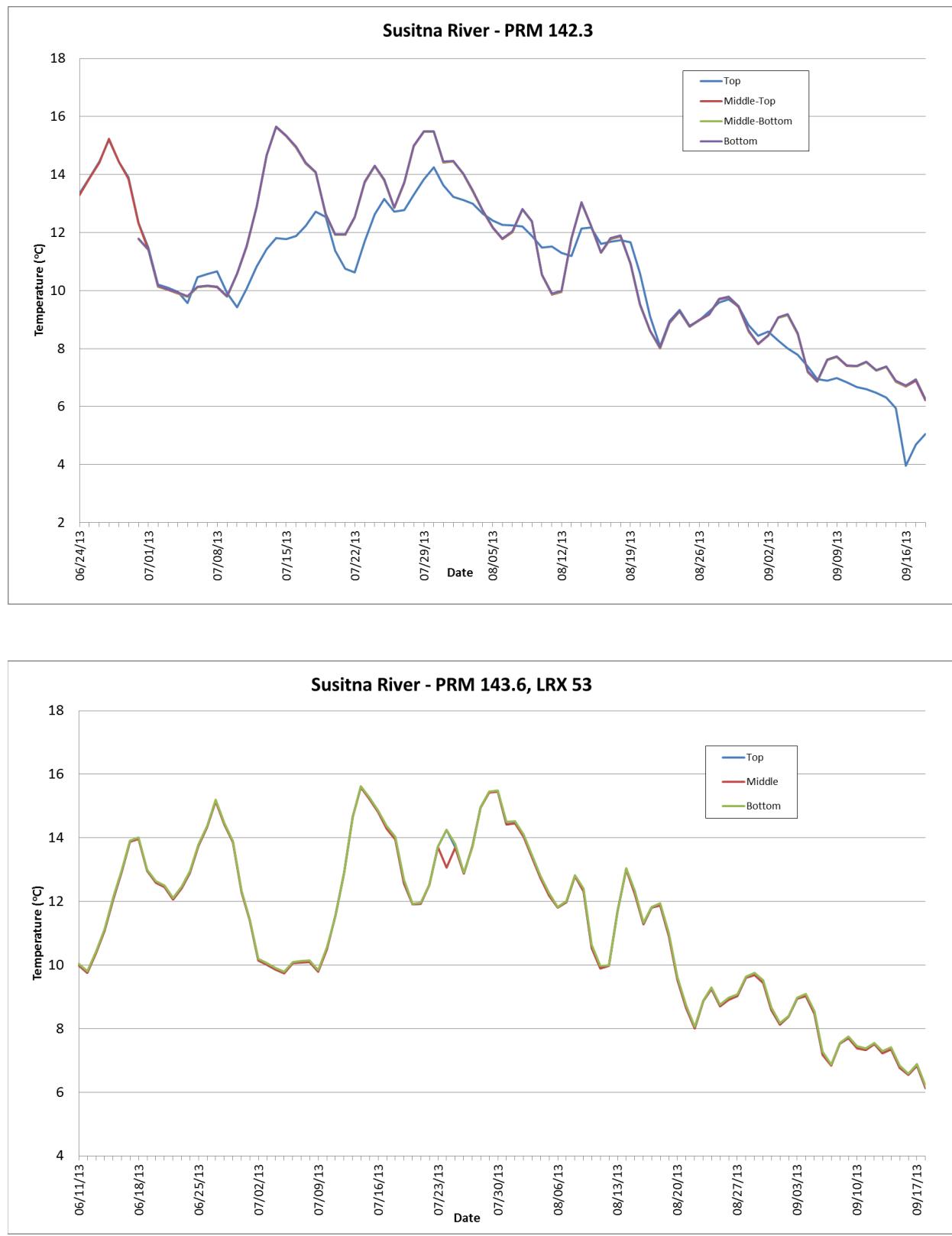


Figure B-12. 2013 Thermistor Temperature Data for the Susitna Project Area.

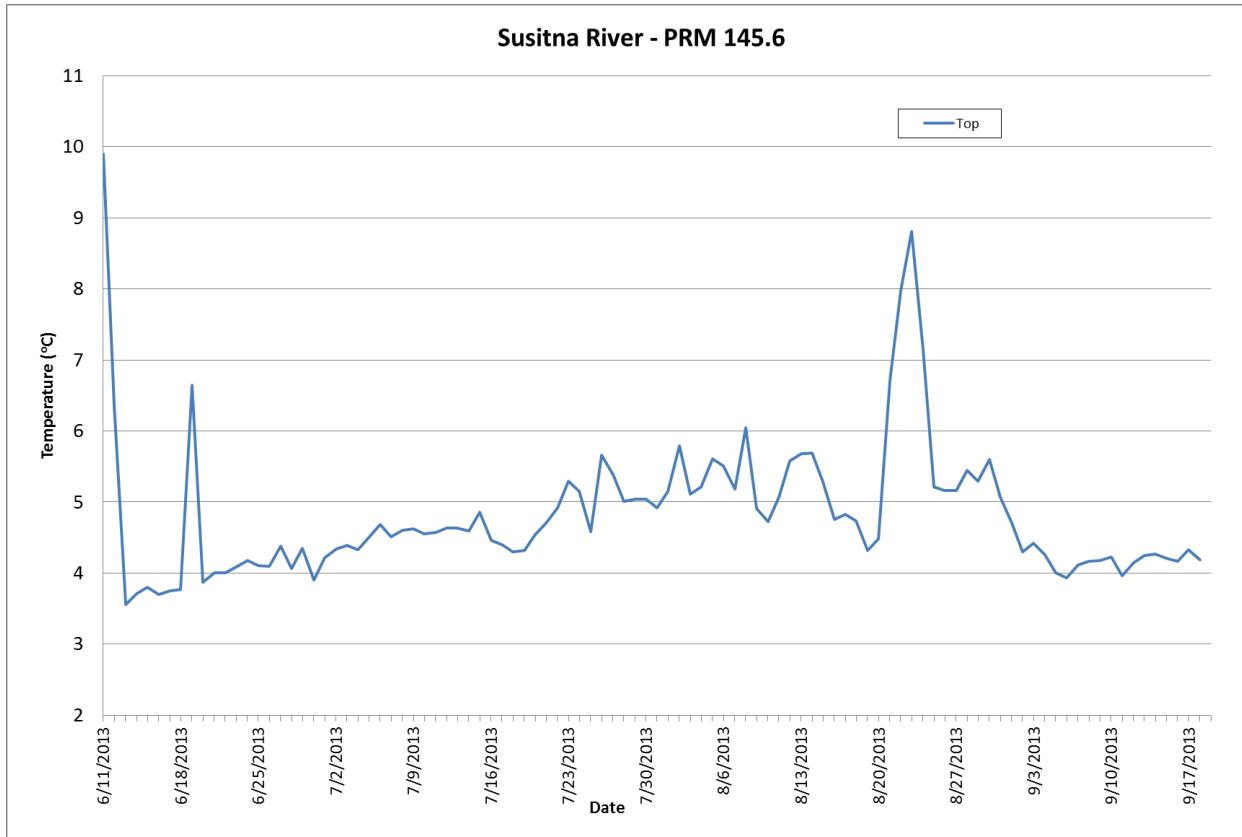
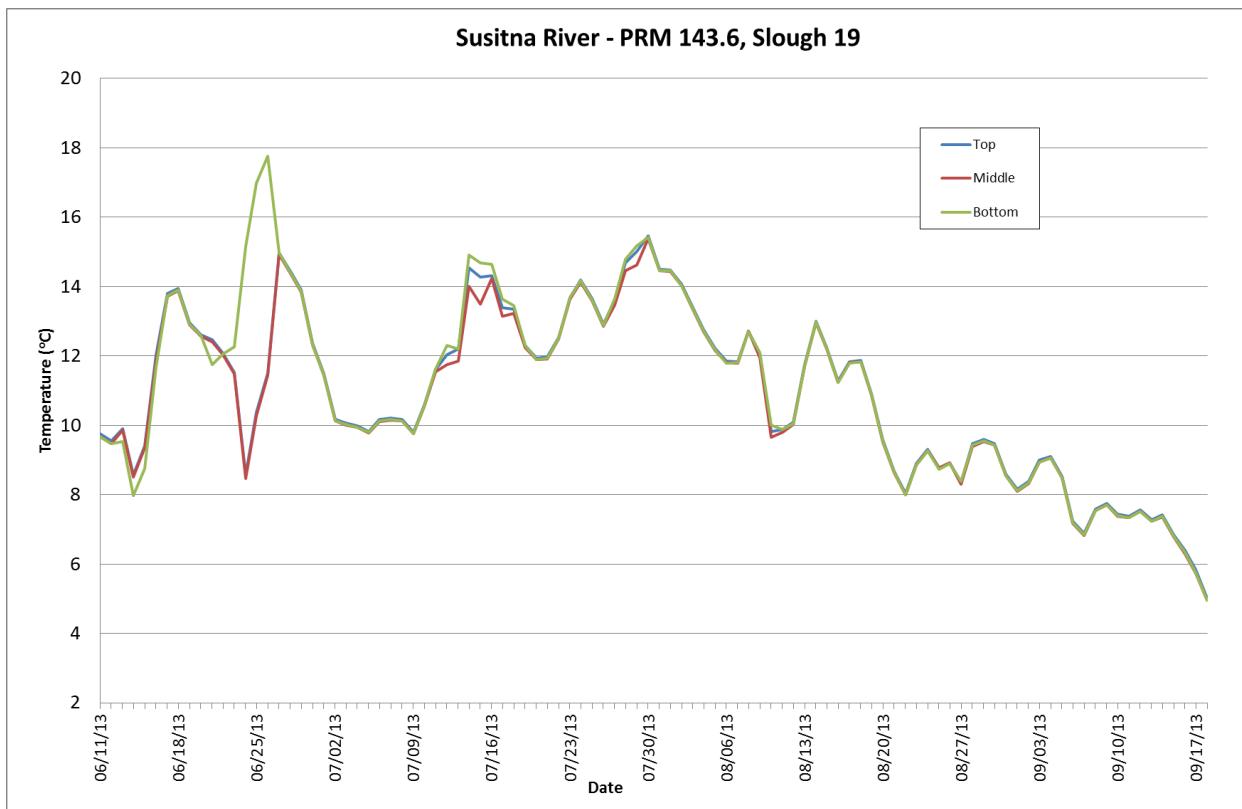


Figure B-13. 2013 Thermistor Temperature Data for the Susitna Project Area.

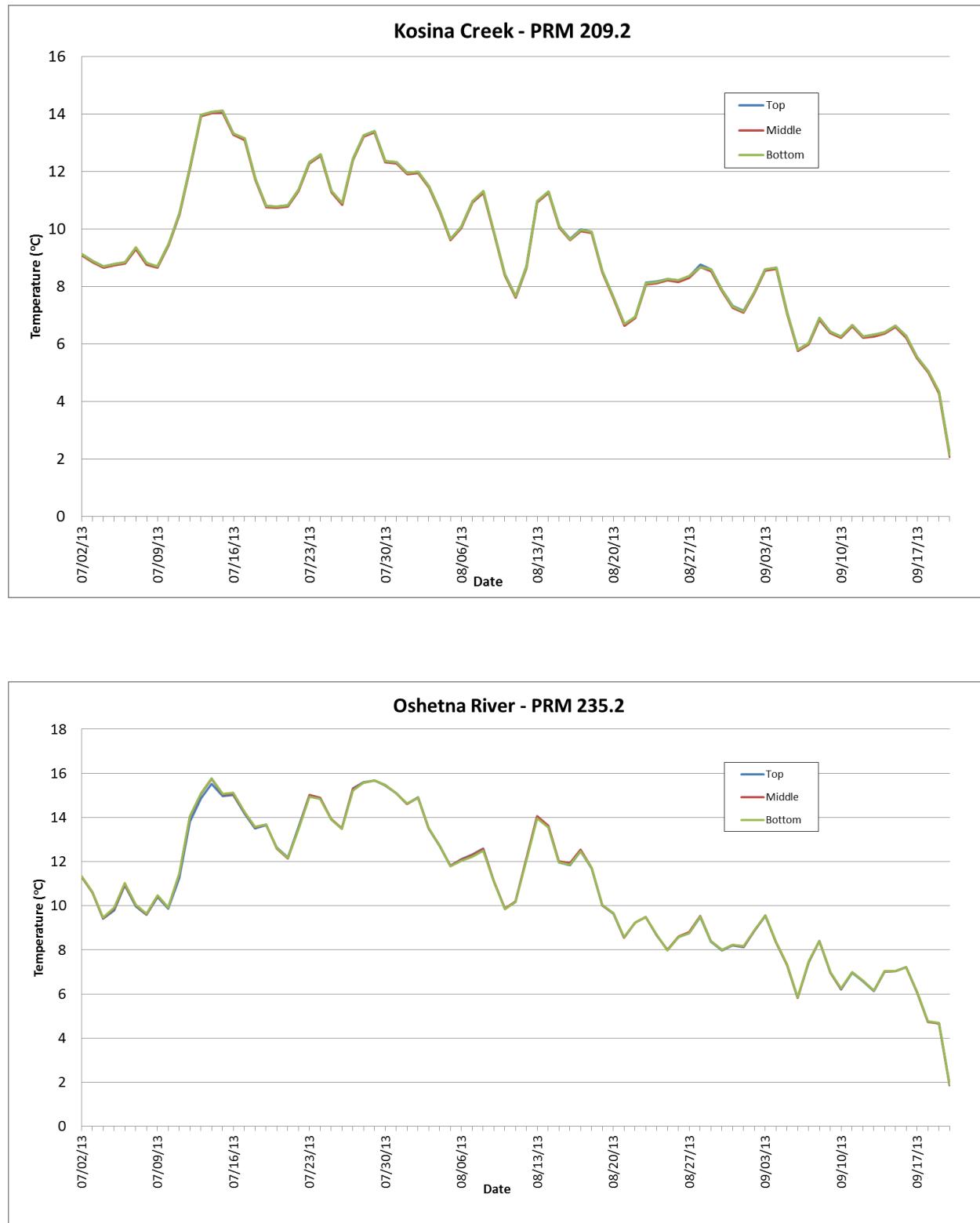


Figure B-14. 2013 Thermistor Temperature Data for the Susitna Project Area.

Susitna-Watana Hydroelectric Project

(FERC No. 14241)

Baseline Water Quality Study (5.5)

Appendix C

Water Quality Meteorological Station Data

Initial Study Report

Prepared for

Alaska Energy Authority

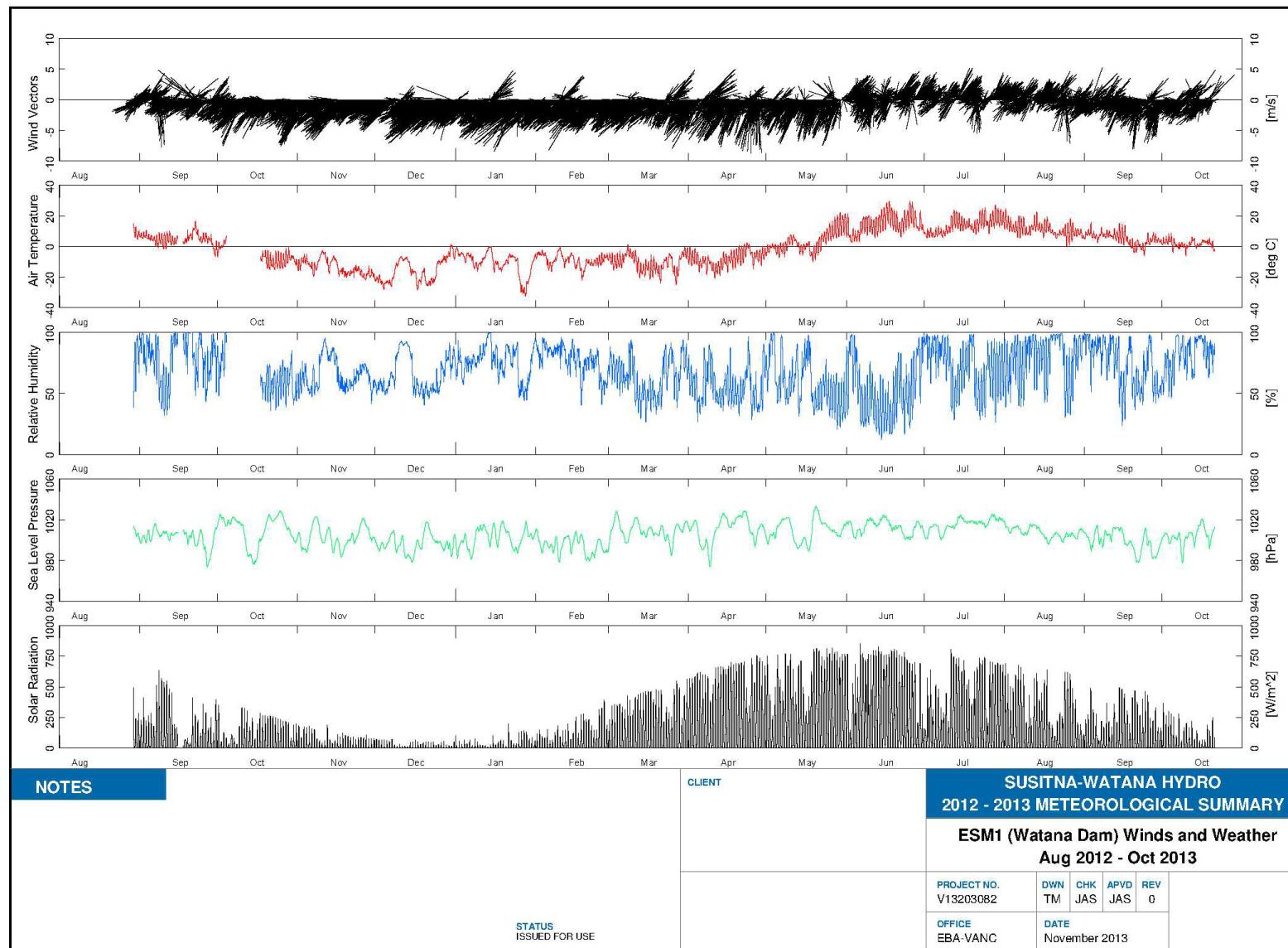


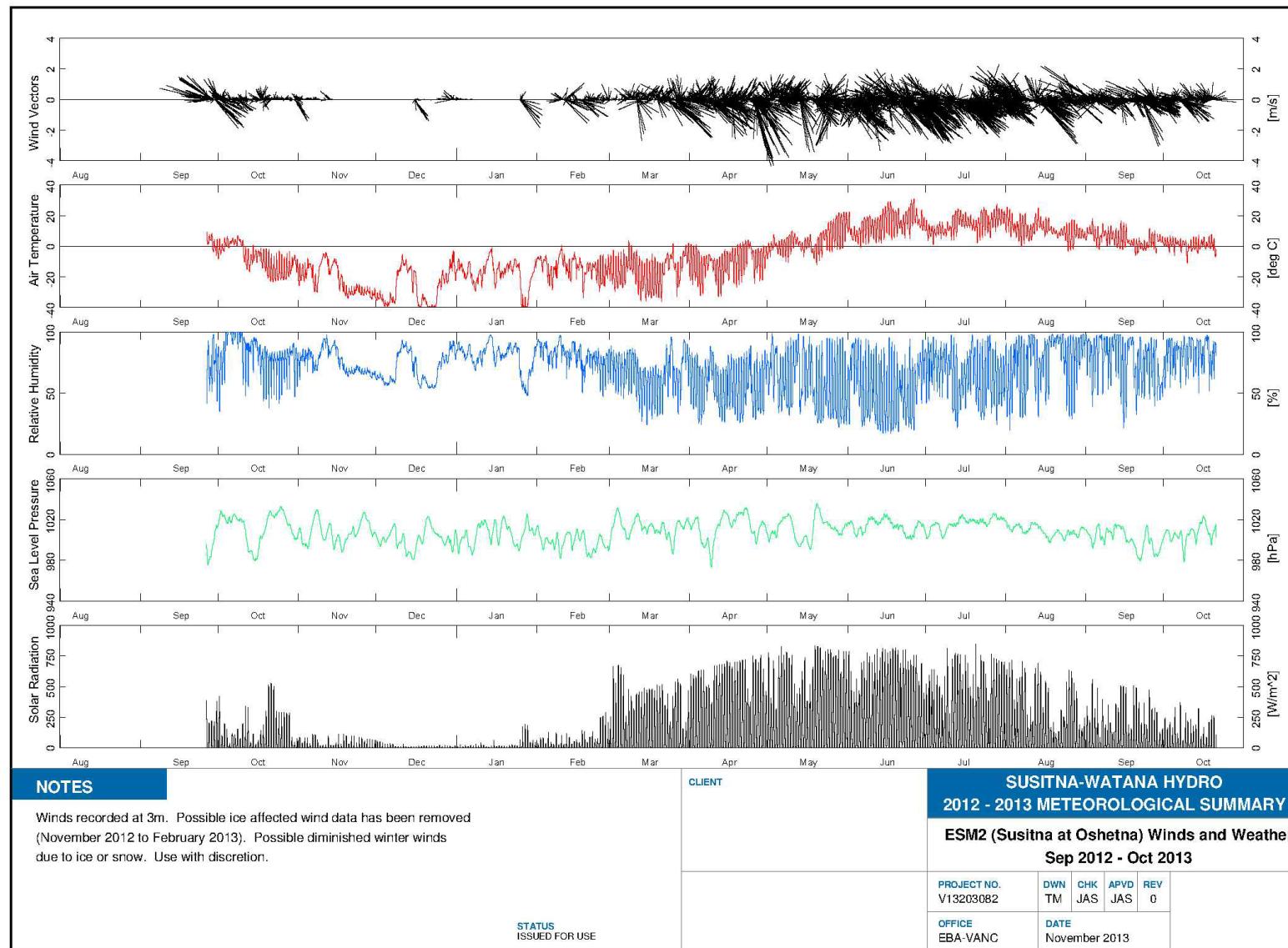
Clean, reliable energy for the next 100 years.

Prepared by

Tetra Tech

February 2014 Draft

**Figure C-1. ESM1 Watana Dam Site Winds and Weather Meteorological Summary, 2012-2013**

**Figure C-2. ESM2 Susitna at Oshetna Winds and Weather Meteorological Summary, 2012-2013**

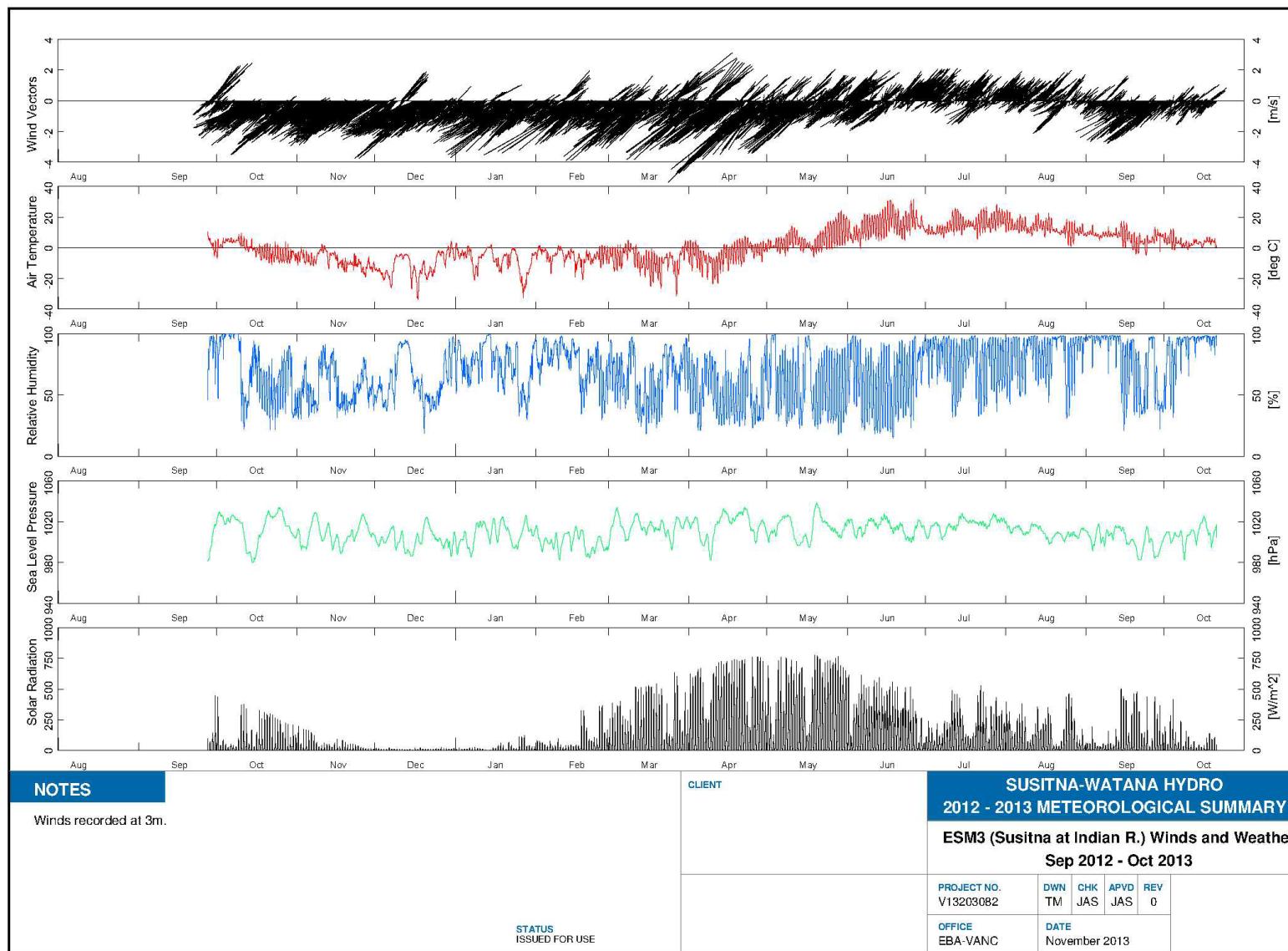
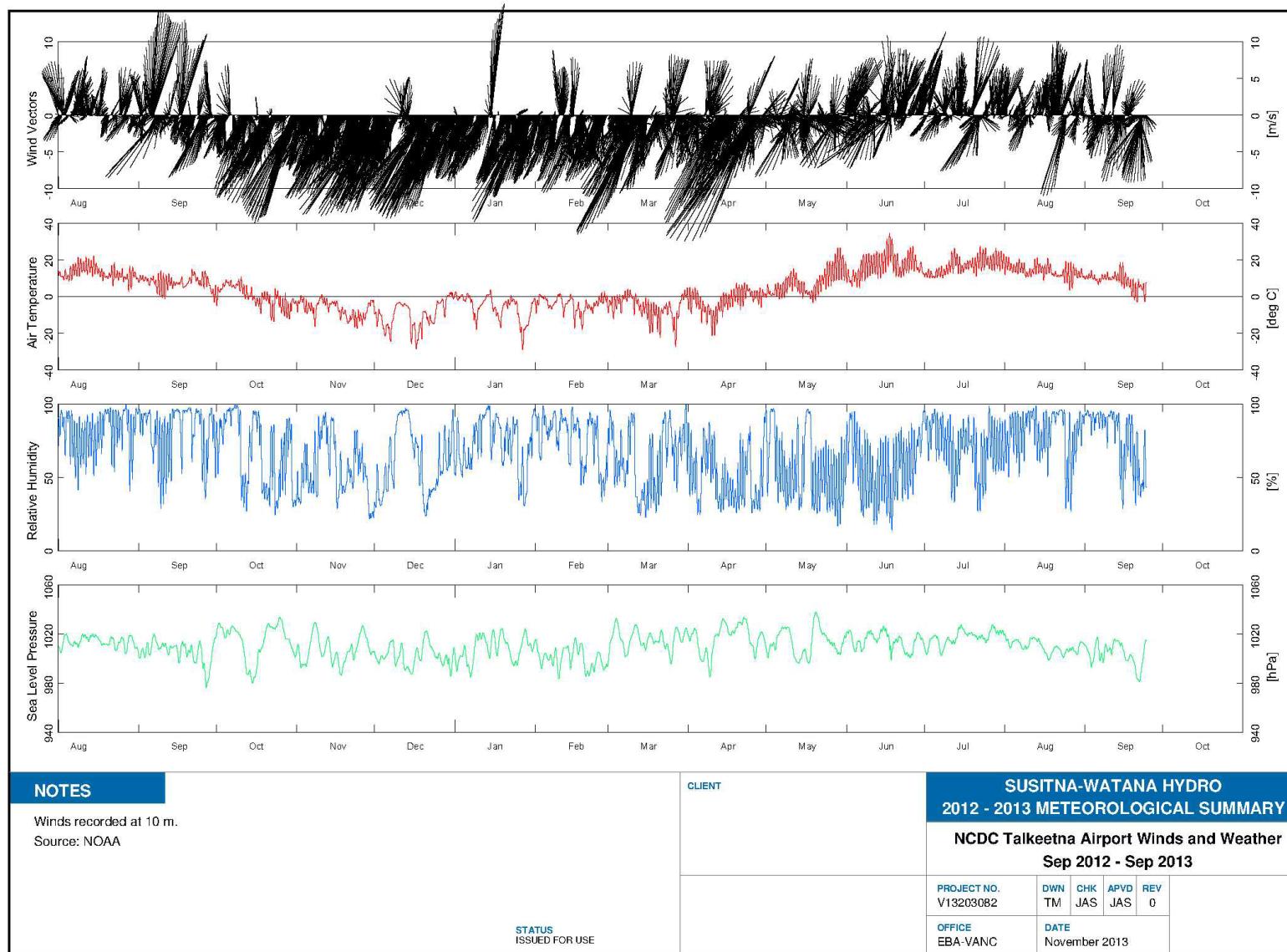
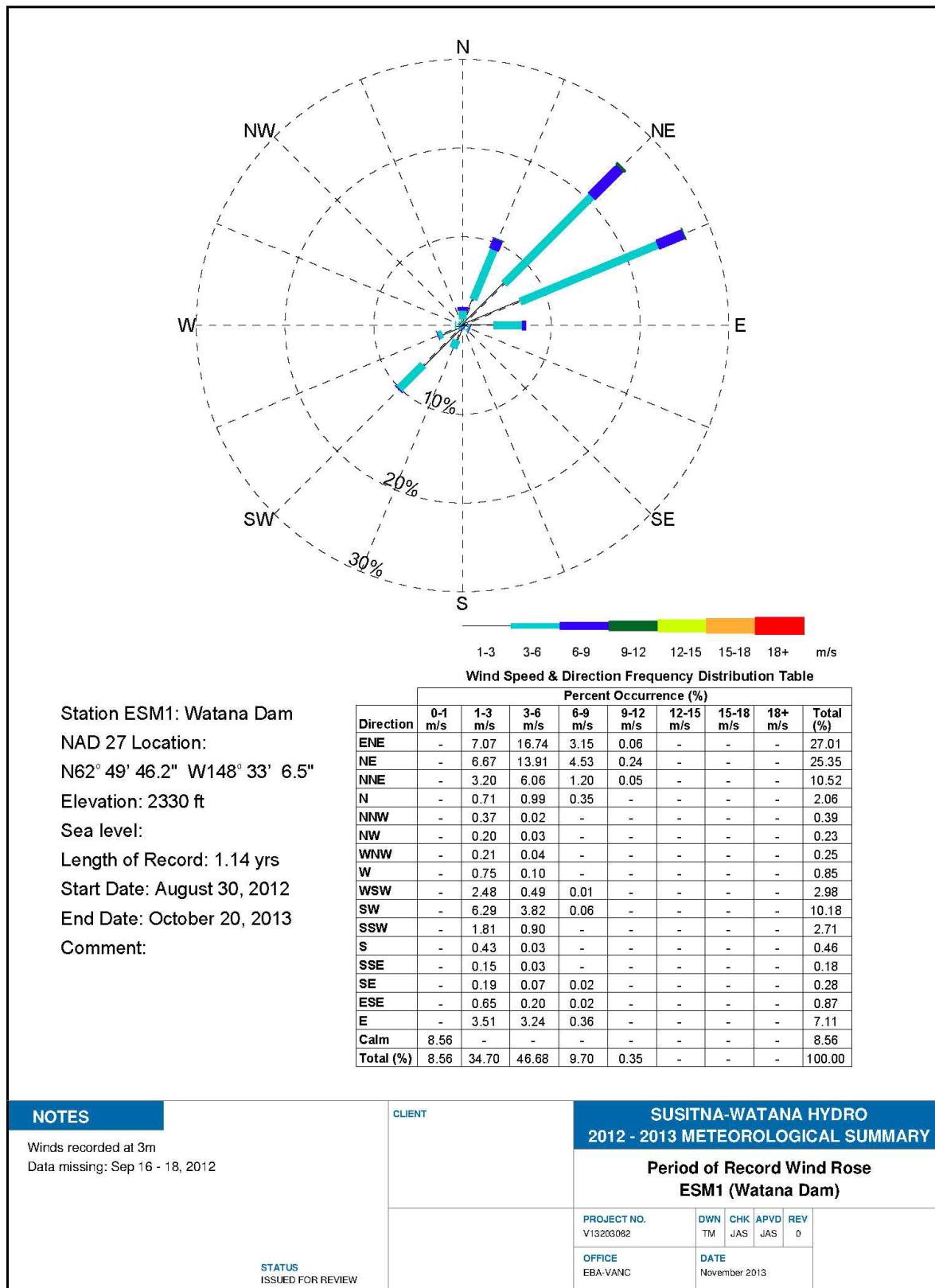
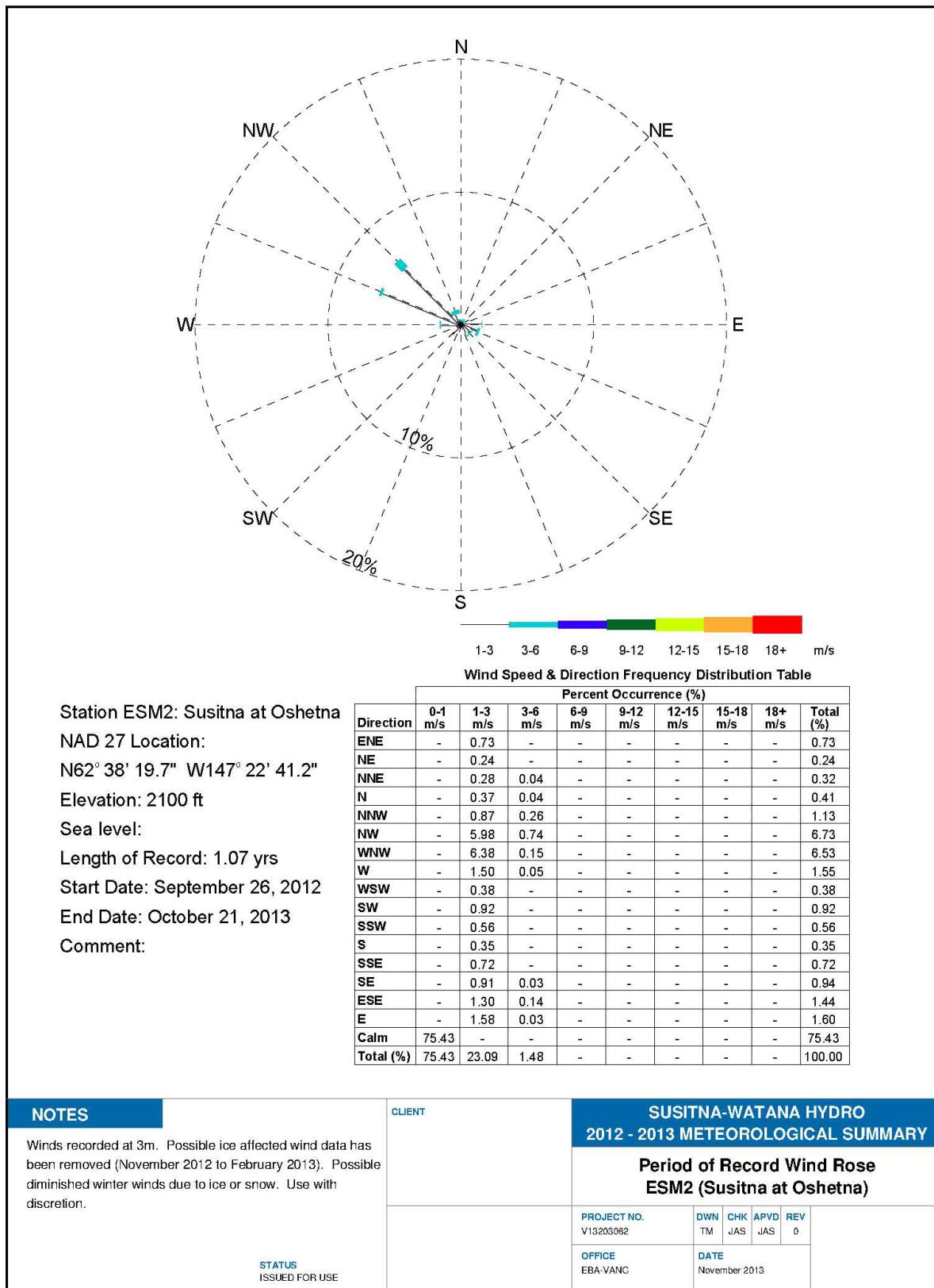


Figure C-3. ESM3 Susitna at Indian River Winds and Weather Meteorological Summary, 2012-2013

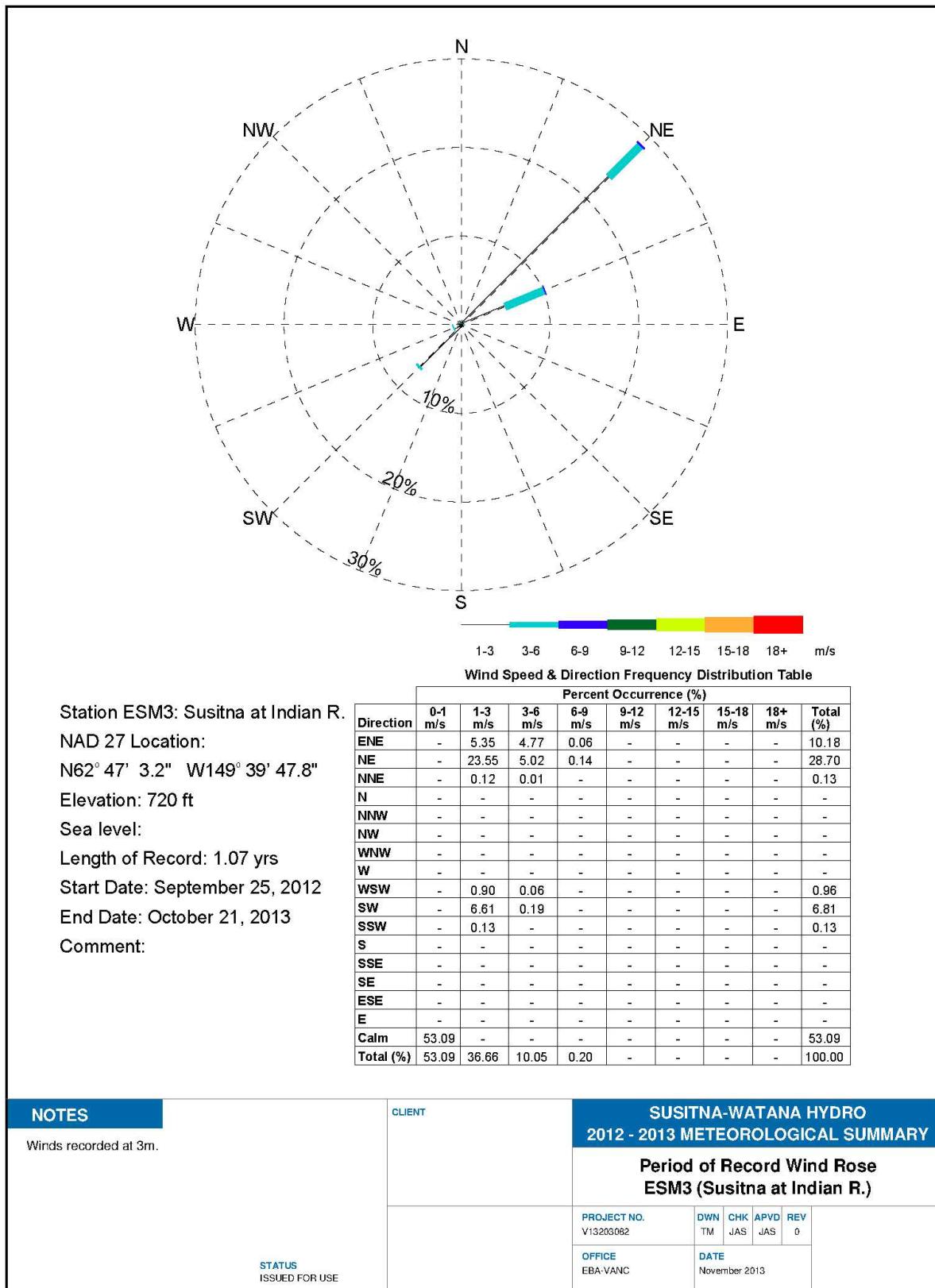
**Figure C-4. Talkeetna Airport Station Winds and Weather Meteorological Summary, 2012-2013**

**Figure C-5. Period of Record Wind Rose for ESM1, the Watana Dam Site, 2012-2013.**



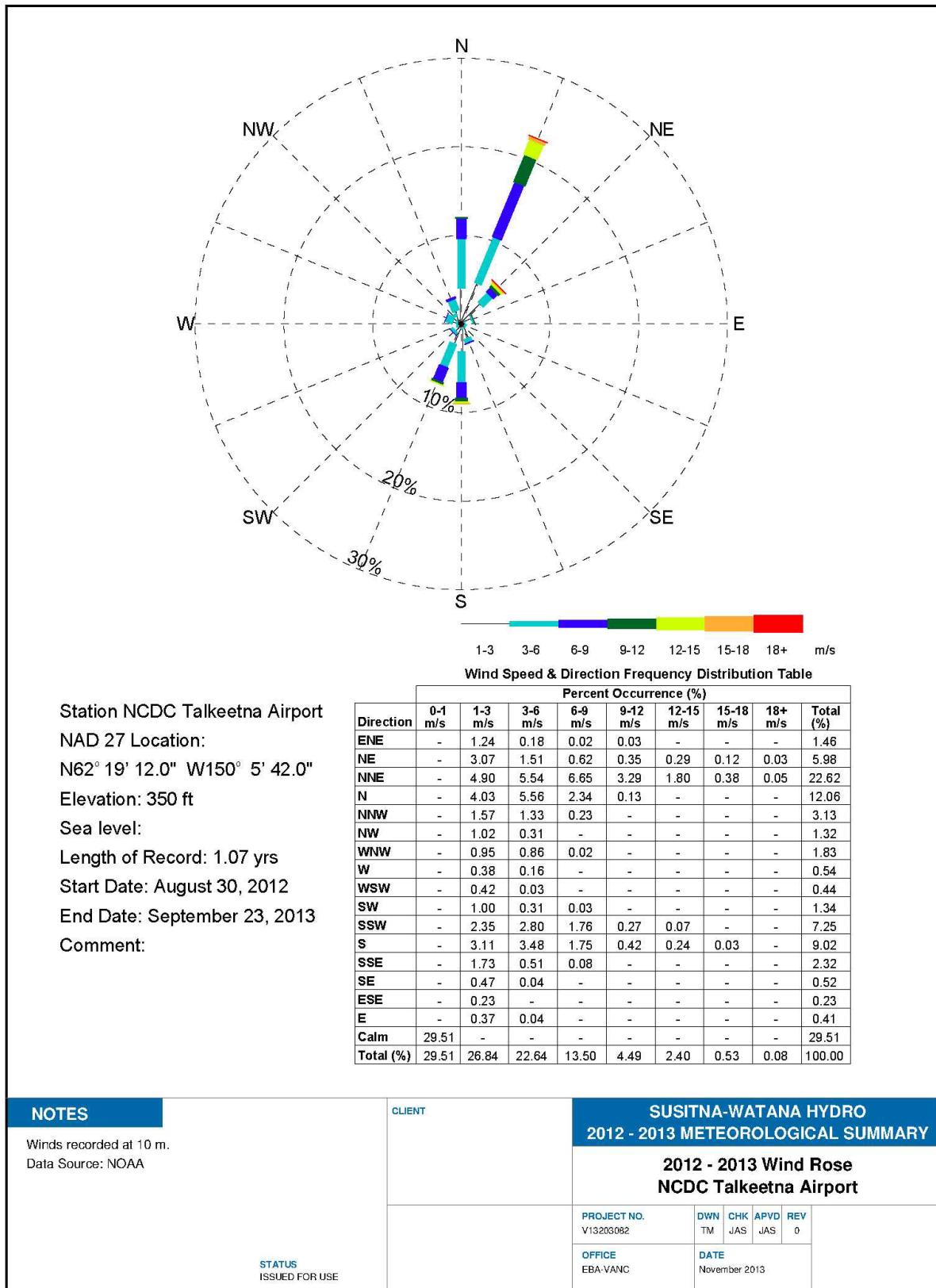
Wed Nov 13 14:14:48 2013 C:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Meteorology\ESM2 - Susitna at Oshetna\Data Reduction\Plotting

Figure C-6. Period of Record Wind Rose for ESM2 the Susitna at Oshetna Site, 2012-2013.



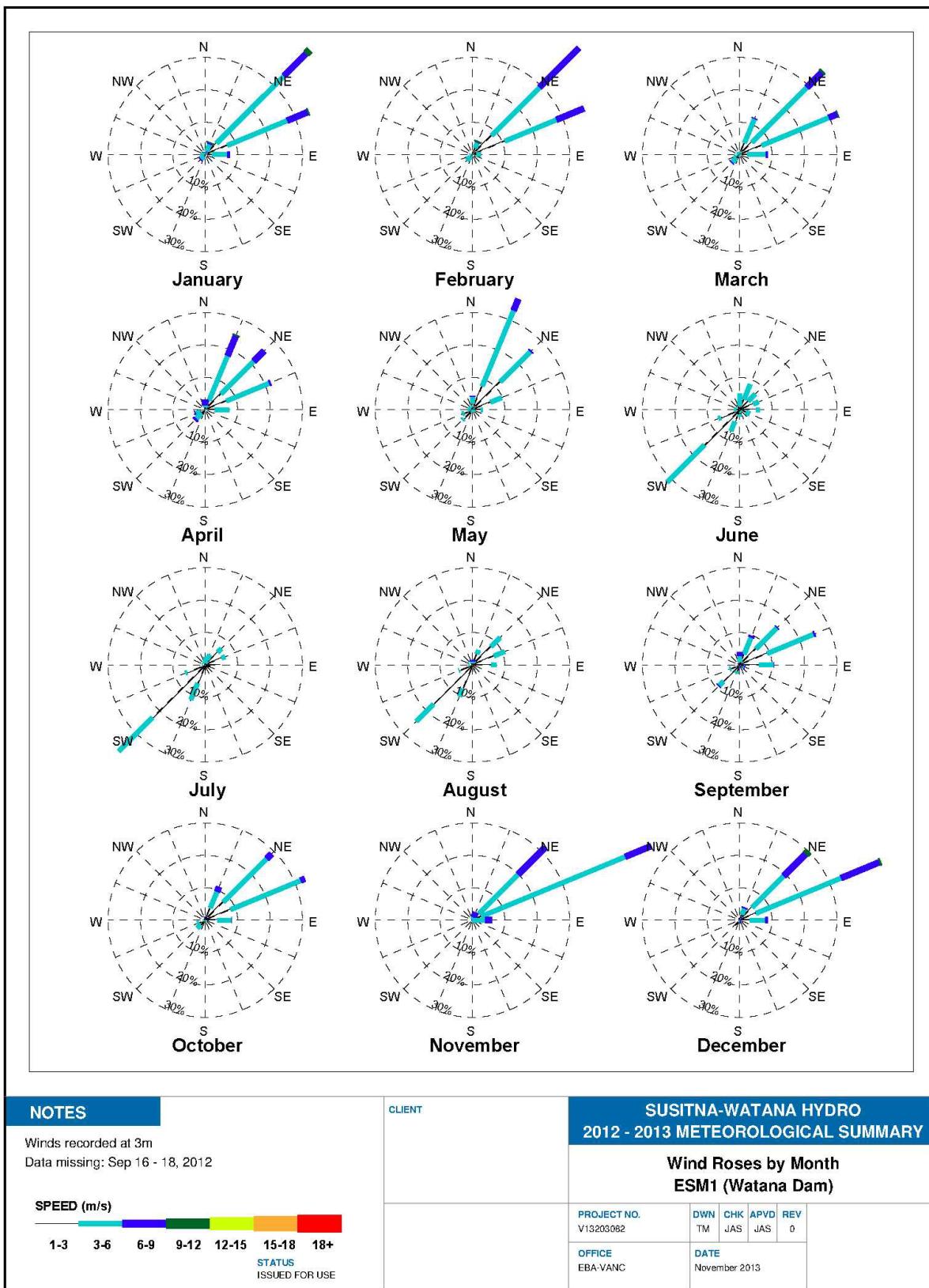
Wed Nov 13 15:45:56 2013 Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Meteorology\ESM3 - Susitna at Indian River\data_reductionPlot

Figure C-7. Period of Record Wind Rose for ESM3 Susitna at Indian River, 2012-2013.



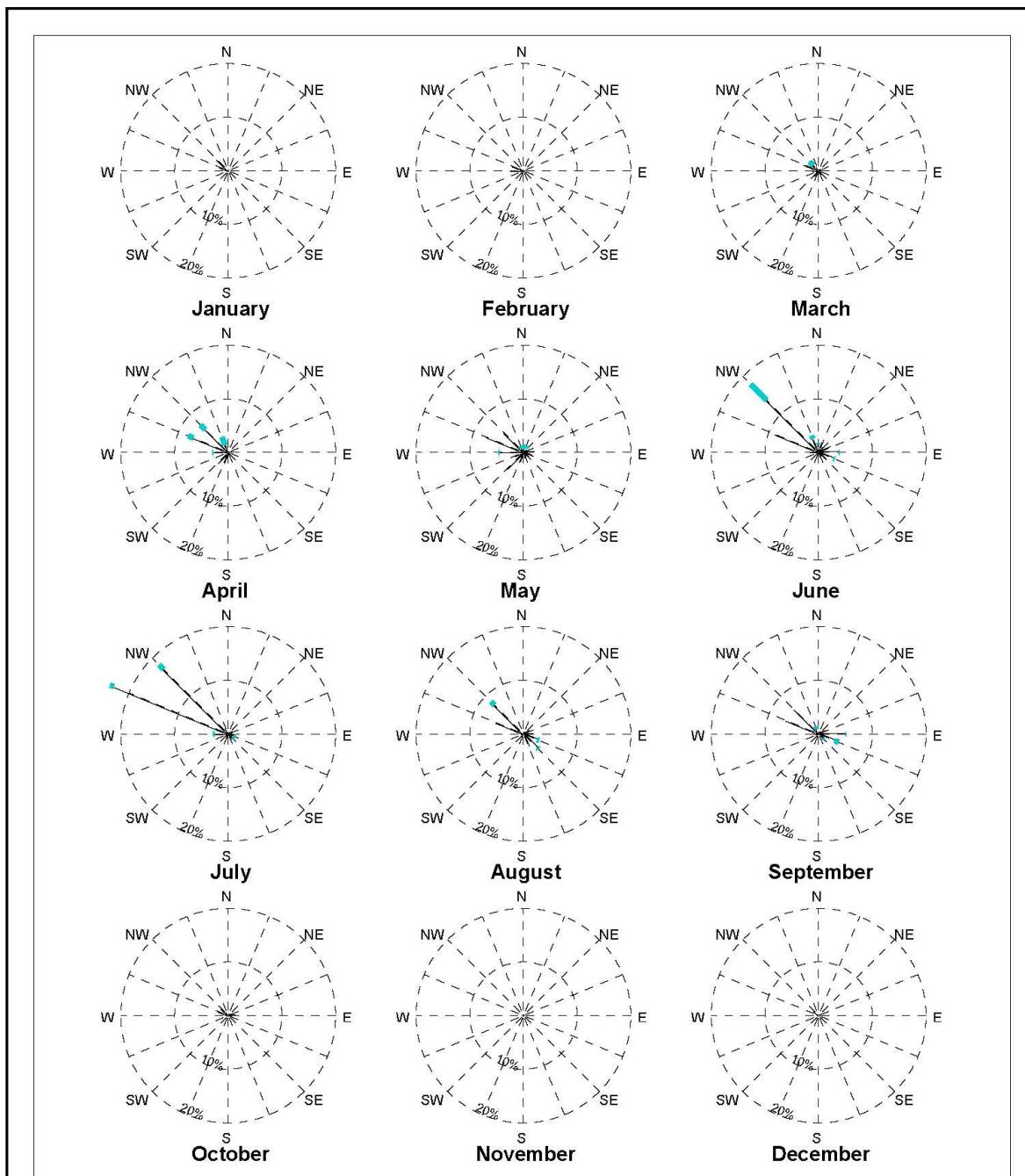
Wed Nov 13 16:23:37 2013 Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Meteorology\NCDC - Talkeetna\data_reduction\Plotting program

Figure C-8. Period of Record Wind Rose for Talkeetna Airport, 2012-2013

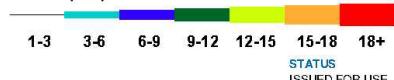


Thu Oct 31 13:15:30 2013:Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Mete

Figure C-9. Wind Roses by Month for ESM1, the Watana Dam Site, 2012-2013

**NOTES**

Winds recorded at 3m. Possible ice affected data has been removed (Nov. 2012 to Feb. 2013). Possible diminished winter winds due to ice or snow. Use with discretion.

SPEED (m/s)

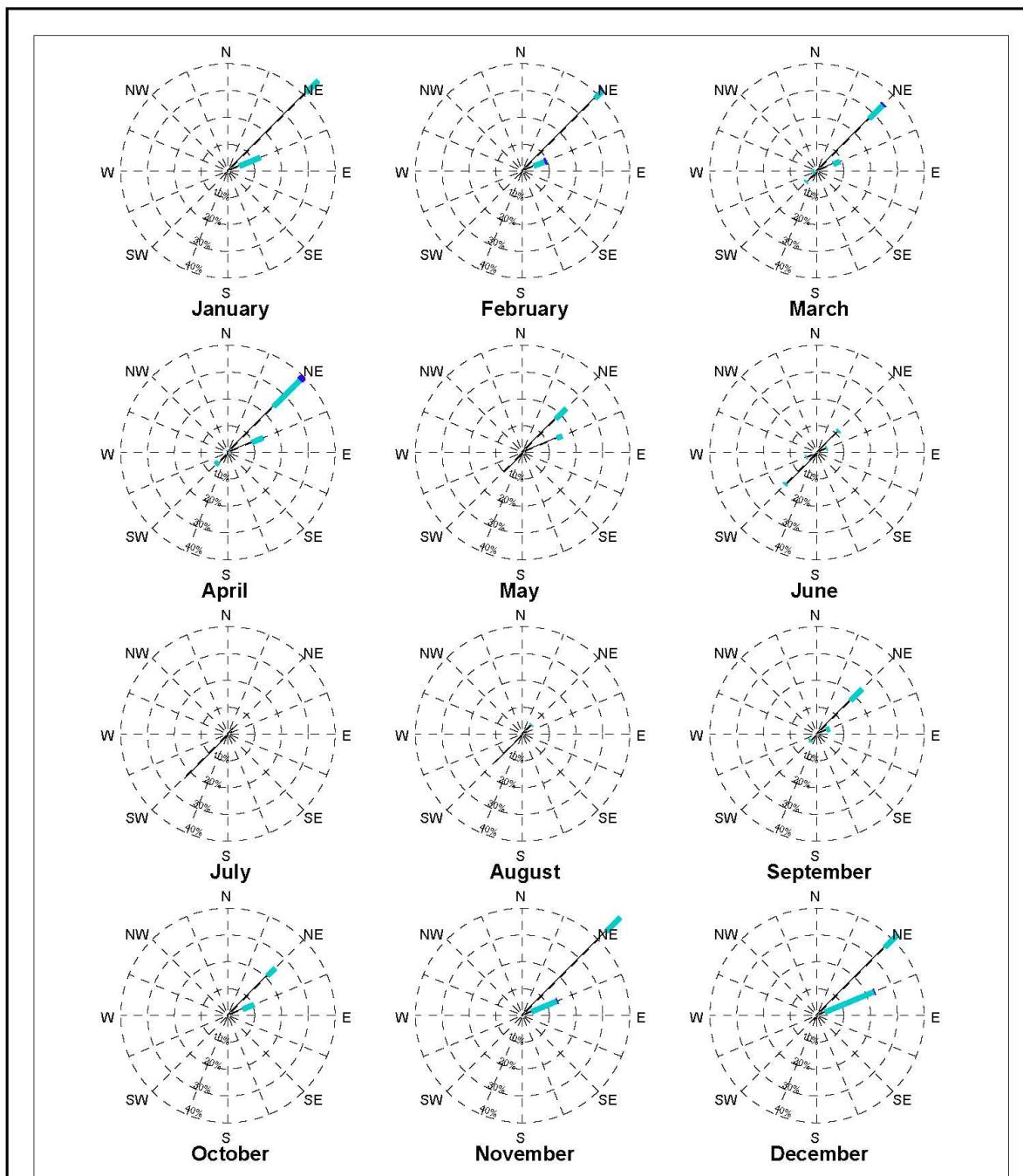
STATUS
ISSUED FOR USE

CLIENT**SUSITNA-WATANA HYDRO
2012 - 2013 METEOROLOGICAL SUMMARY****Wind Roses by Month
ESM2 (Susitna at Oshetna)**

PROJECT NO. V13203082	DWN TM	CHK JAS	APVD JAS	REV 0	
OFFICE EBA-VANC		DATE November 2013			

Mon Nov 04 13:17:40 2013:Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Mete

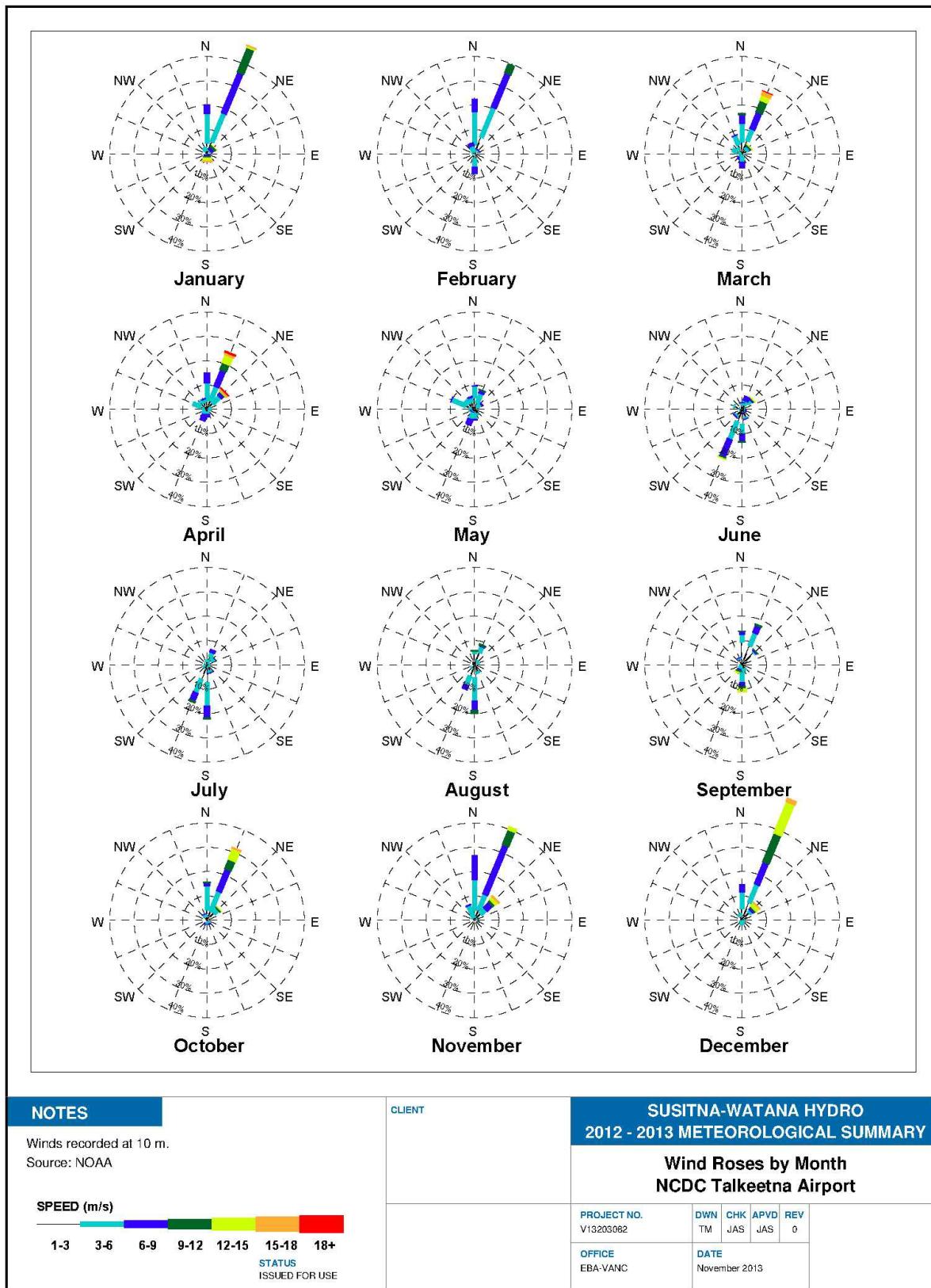
Figure C-10. Wind Roses by Month for ESM2, the Susitna at Oshetna Site, 2012-2013



NOTES		CLIENT	SUSITNA-WATANA HYDRO 2012 - 2013 METEOROLOGICAL SUMMARY				
			Wind Roses by Month ESM3 (Susitna at Indian R.)				
		PROJECT NO.	DWN TM	CHK JAS	APVD JAS	REV 0	
SPEED (m/s)	1-3 3-6 6-9 9-12 12-15 15-18 18+	OFFICE	DATE				
	STATUS ISSUED FOR USE	EBA-VANC	November 2013				

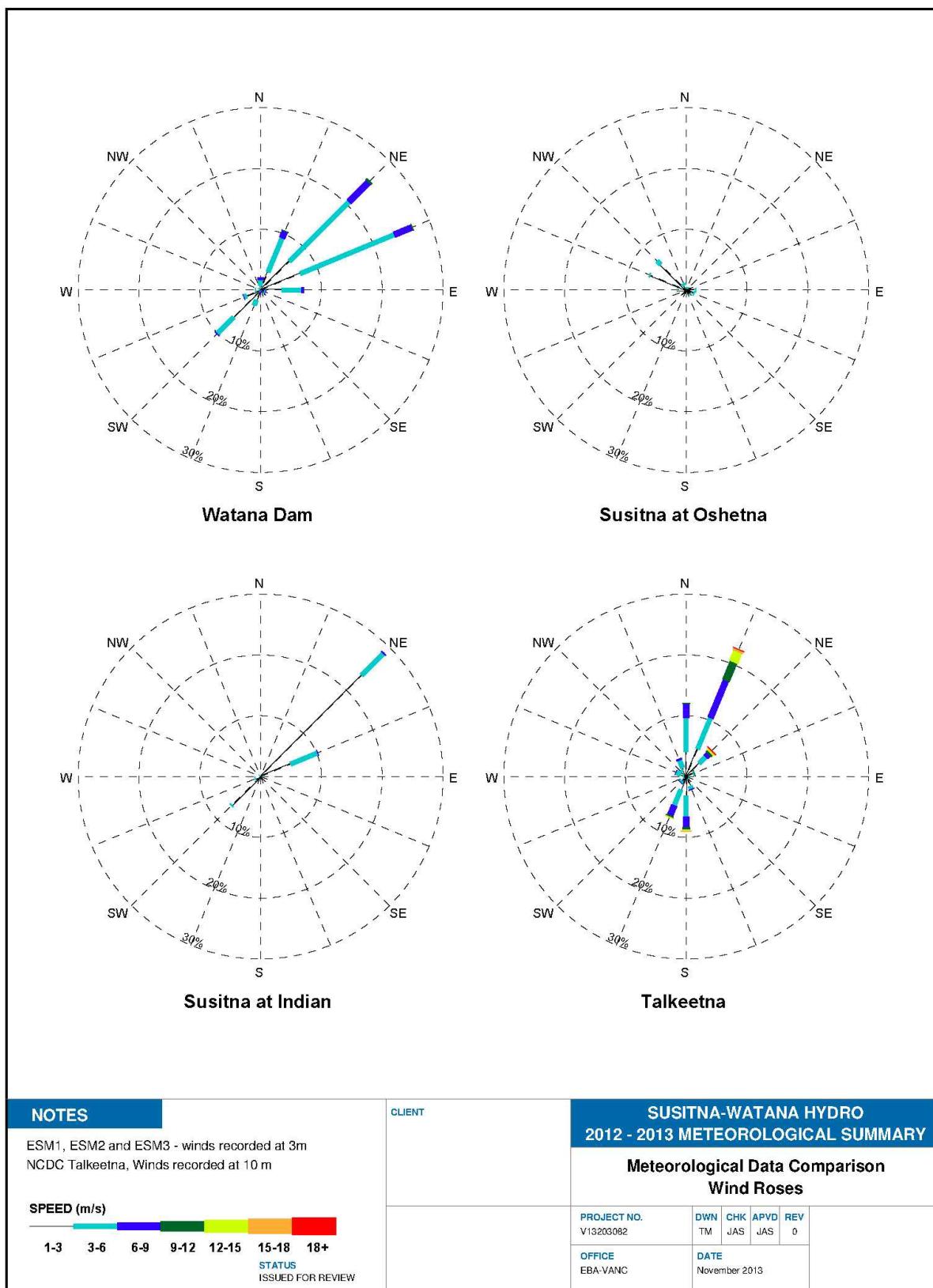
Tue Nov 05 11:35:28 2013:Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Met

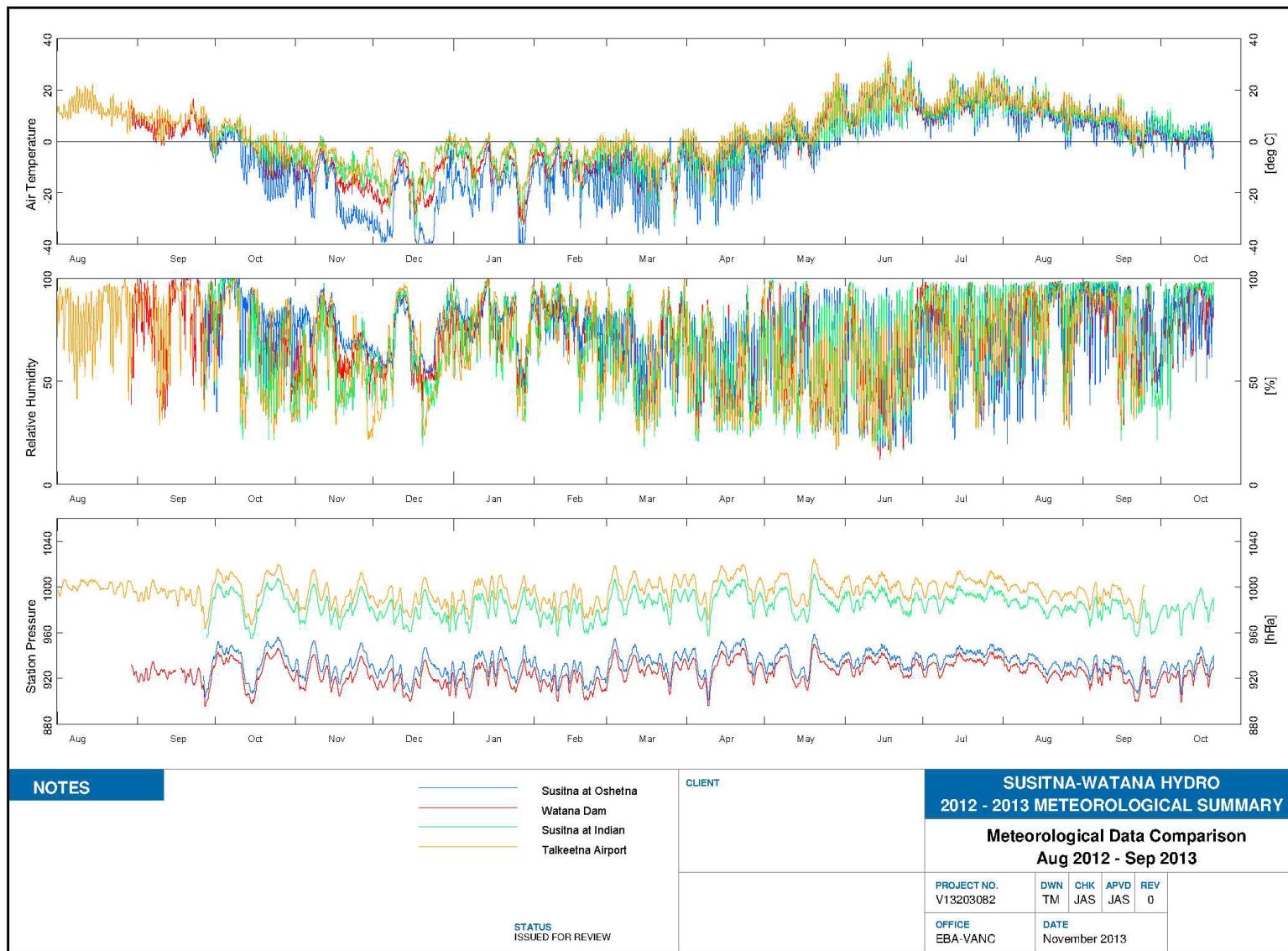
Figure C-11. Wind Roses by Month for ESM3, the Susitna at Indian River Site, 2012-2013



Tue Nov 05 16:47:54 2013:Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Met

Figure C-12. Wind Roses by Month for the Talkeetna Airport Site, 2012-2013

**Figure C-13. Comparison of Wind Roses for all Susitna Sites, 2012-2013**



Wed Nov 06 13:06:58 2013 Q:\Vancouver\Engineering\V132\Projects\V13203082 Susitna-Watana Dam - fm V13201483 and V13203026\2013 Study - V13203086\Meteorology\Station Comparison Plots

Figure C-14. Meteorological Data Comparison for all Susitna Sites, 2012-2013