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September 22, 2017

Ms. Lori Simmons
Arkansas Department of Health
4815 West Markham Street
Little Rock, Arkansas 72205
Via email Lori.Simmons@arkansas.gov

Re: Georgia-Pacific, Crossett Mill - Biweekly Air Monitoring Report for Hydrogen Sulfide

Dear Ms. Simmons,

Please find the following biweekly report for the Georgia-Pacific (GP) Crossett Mill hydrogen sulfide (H_2S) and meteorological monitoring program covering the calendar period of August 23, 2017 through September 5, 2017.

Summary of Results

Included in this report are three plots presenting H_2S concentrations across different rolling average periods (30-minute, 8-hour, and 24-hour), daily 1-point quality control (QC) checks with precision and bias estimates and time series plots for all recorded meteorological (met) parameters for the two week period.

Data Quality

The Quality Assurance Project Plan (QAPP) establishes measurement quality objectives (MQOs) for H_2S regarding precision and bias expressed as a coefficient of variation (CV) <10% and ± 10%, respectively. Precision and bias are calculated in accordance with 40 CFR Part 58 Appendix A, Section 4.1. Precision and bias calculations are presented on page six of this report.

Results for available automated daily 1-point QC checks were within the accuracy objective, ± 10%, indicating the H_2S monitor was operating in accordance with MQOs as stated in the QAPP.

Additionally, weekly automated zero adjustments were implemented starting February 1, 2017. During this reporting period two automated zero checks were performed; within the acceptable range of ± 1.5 ppb, as defined in the QAPP. The result for these zero checks are presented below.

Date	Zero Check Response (ppb)
8/24/2017	-0.6

8/31/2017	-0.1

Data Capture

There was a single occurrence of data loss during this monitoring period, in addition to those resulting from automated daily 1-point QC and weekly calibration checks. Early in the morning on August 23rd TRC personnel connected remotely to perform a calibration check; approximately 30 minutes of H_2S data were lost.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final table. All met parameters have 100% data capture for this report period.

Please feel free to contact me if you have any questions or need any additional data.

Sincerely,

Jonathan Bowser
Manager, Air Quality and Meteorological Monitoring

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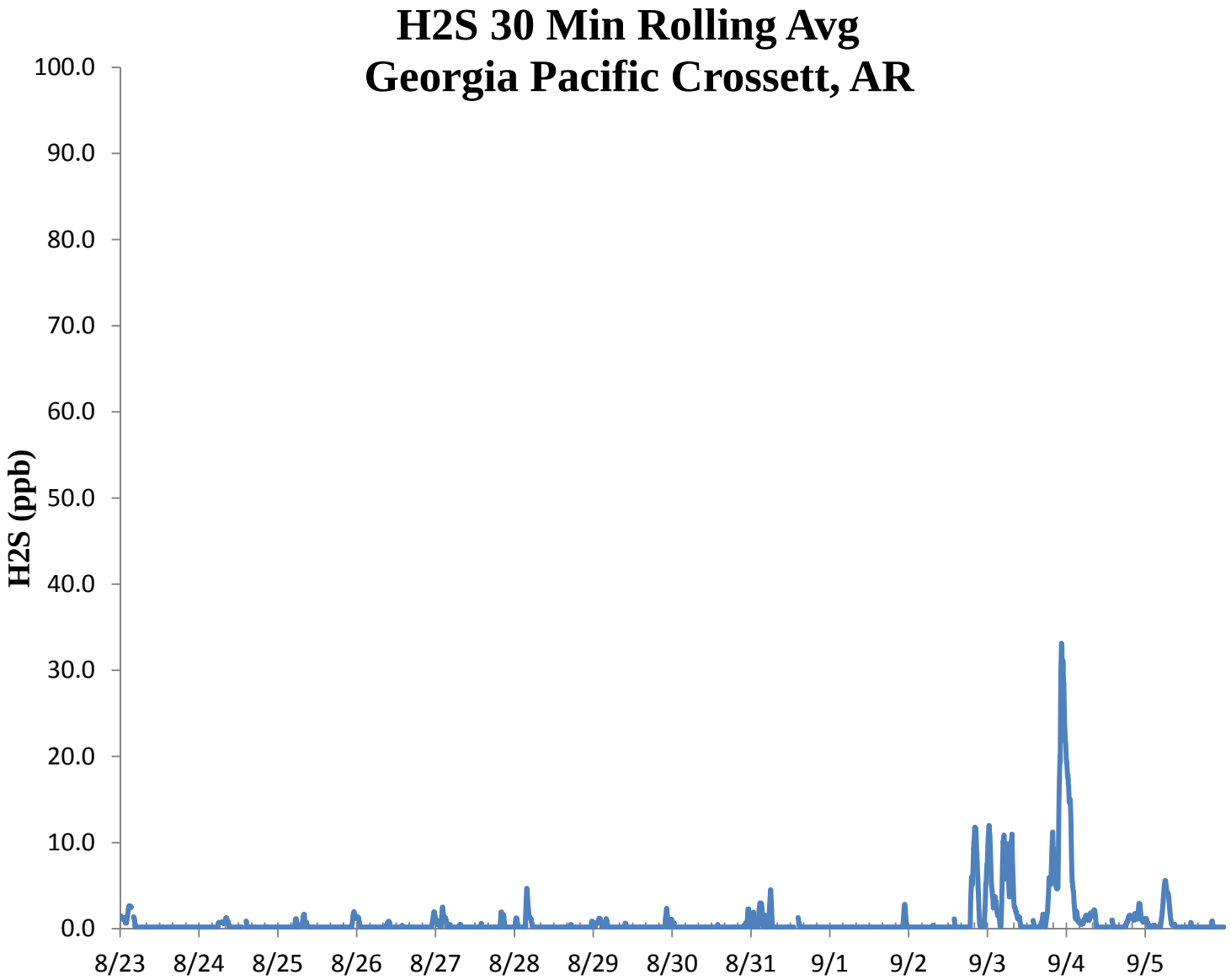
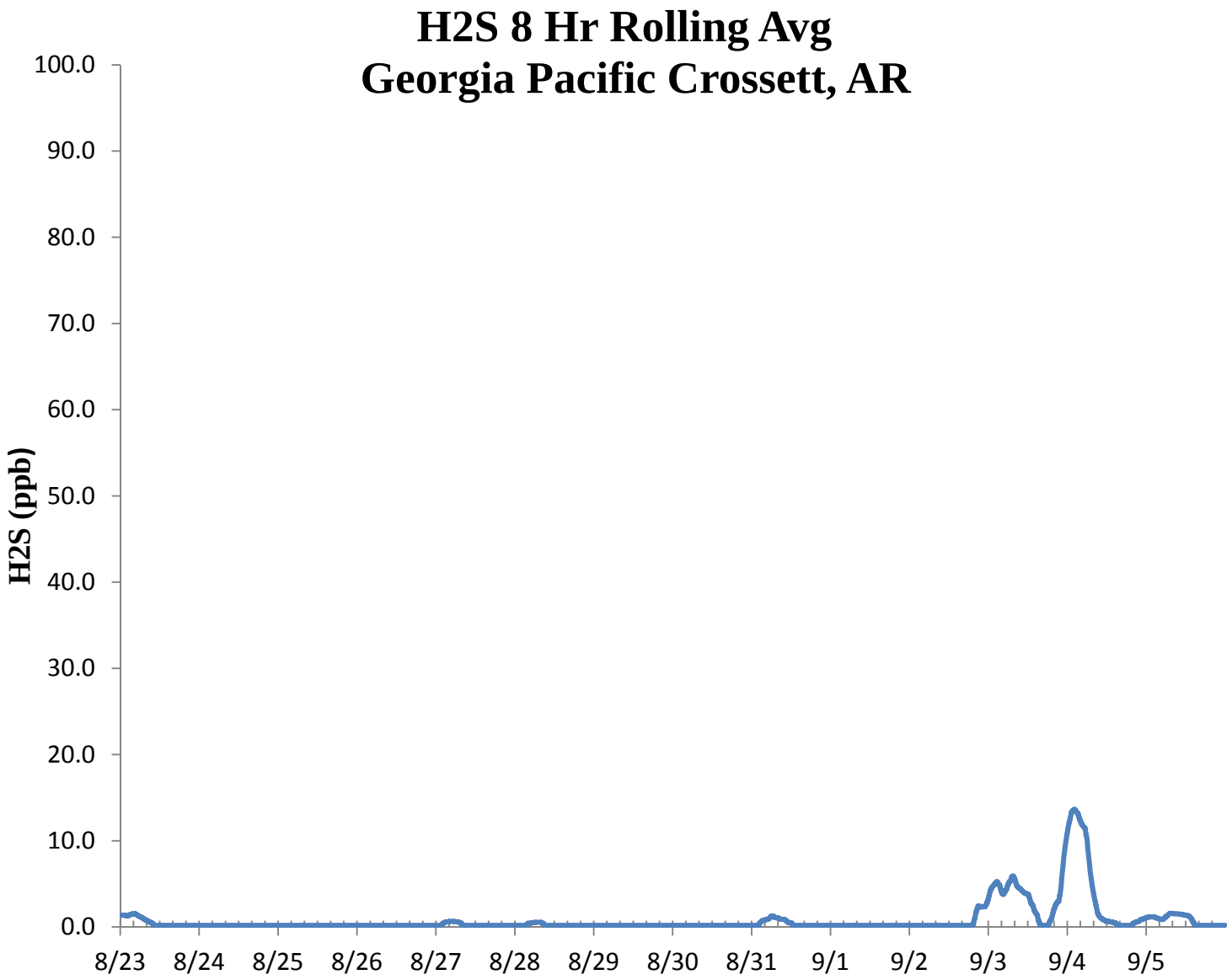
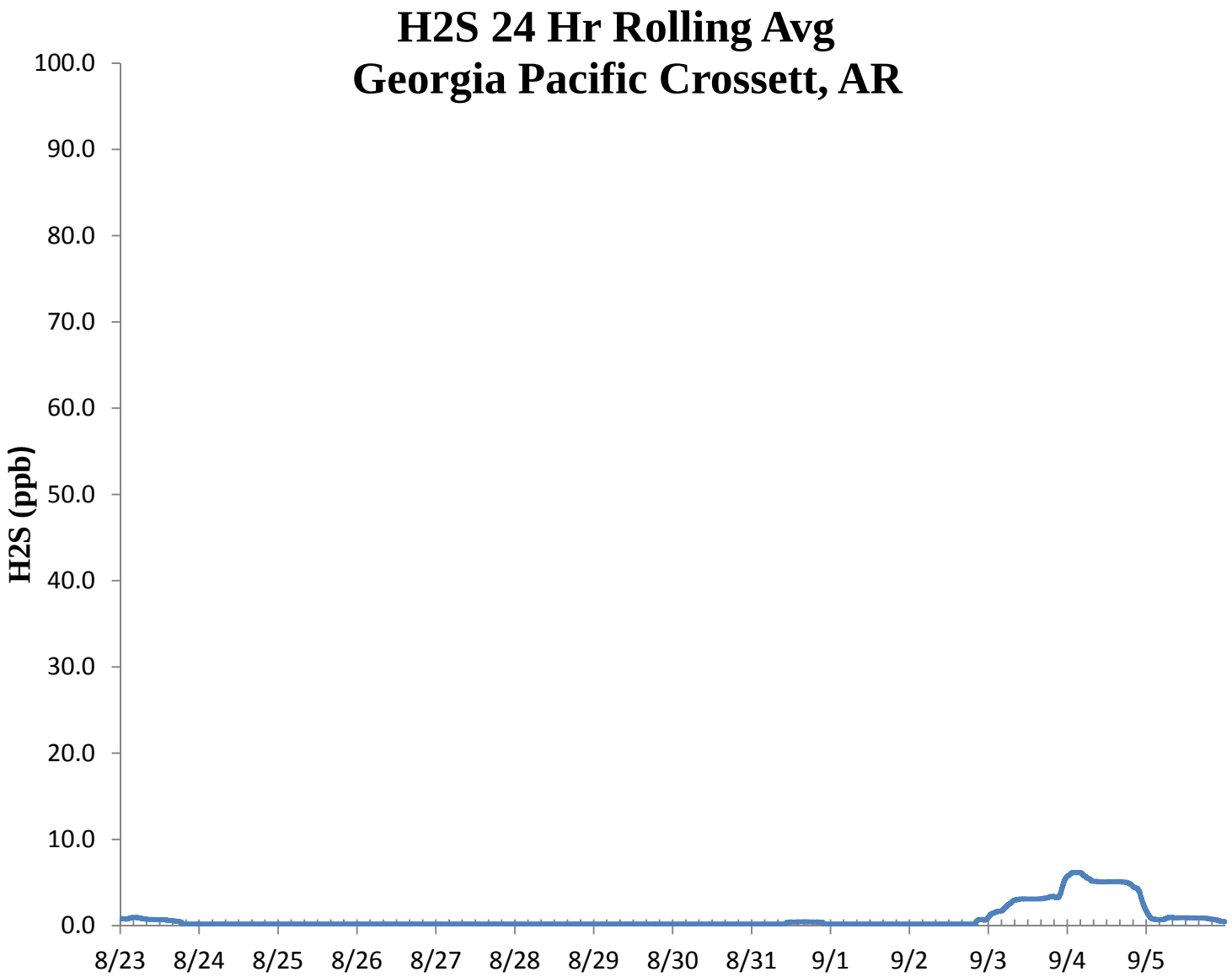
CC: Becky Keough, ADEQ Director via email: keogh@adeq.state.ar.us
Kara Allen, Environmental Engineer, USEPA Region 6 via email Allen.Kara@epa.gov


H2S 30 Min Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
8/23
8/24
8/25
8/26
8/27
8/28
8/29
8/30
8/31
9/1
9/2
9/3
9/4
9/5


H2S 8 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
8/23
8/24
8/25
8/26
8/27
8/28
8/29
8/30
8/31
9/1
9/2
9/3
9/4
9/5


H2S 24 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
8/23
8/24
8/25
8/26
8/27
8/28
8/29
8/30
8/31
9/1
9/2
9/3
9/4
9/5

H_2S Assessment

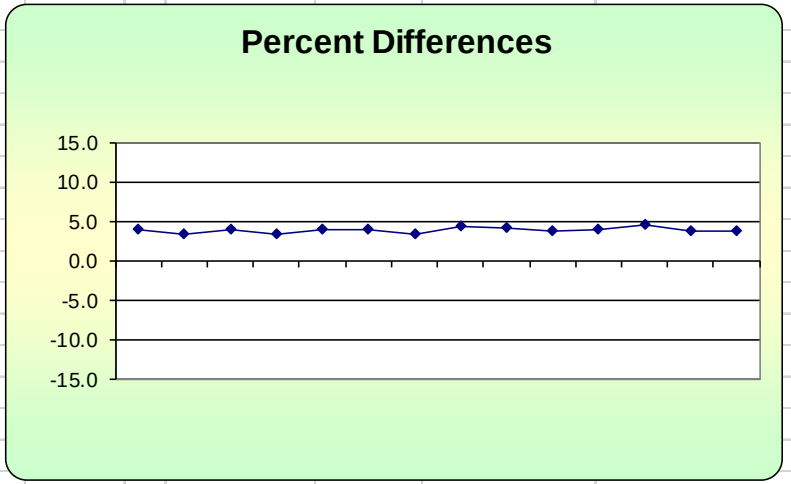
GP - Crossett, AR			Compound of Interest: H_2S					CV_{ub} (%)		Bias (%)	
Date	Meas Val (Y)	Cal Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	$\|d\|^2$				
8/23/2017 13:00	72.8	70.0	4.0	3.714	16.000	4.000	16.000				
8/24/2017 13:00	72.3	70.0	3.3	75th Percentile	10.796	3.286	10.796	n	S_d	S_{d2}	$\sum\|d\|$
8/25/2017 13:00	72.8	70.0	4.0	4.000	16.000	4.000	16.000	14	0.367	2.832	54.286
8/26/2017 13:00	72.4	70.0	3.4		11.755	3.429	11.755	n-1	$\sum d$	$\sum d^2$	$\sum\|d\|^2$
8/27/2017 13:00	72.8	70.0	4.0		16.000	4.000	16.000	13	54.286	212.245	212.245
8/28/2017 13:00	72.8	70.0	4.0		16.000	4.000	16.000				
8/29/2017 13:00	72.3	70.0	3.3		10.796	3.286	10.796				
8/30/2017 13:00	73.0	70.0	4.3		18.367	4.286	18.367				
8/31/2017 13:00	72.9	70.0	4.1		17.163	4.143	17.163				
9/1/2017 13:00	72.6	70.0	3.7		13.796	3.714	13.796				
9/2/2017 13:00	72.8	70.0	4.0		16.000	4.000	16.000				
9/3/2017 13:00	73.2	70.0	4.6		20.898	4.571	20.898				
9/4/2017 13:00	72.7	70.0	3.9		14.878	3.857	14.878				
9/5/2017 13:00	72.6	70.0	3.7		13.796	3.714	13.796				

"AB" (Eqn 4)
3.878
"AS" (Eqn 5)
0.367

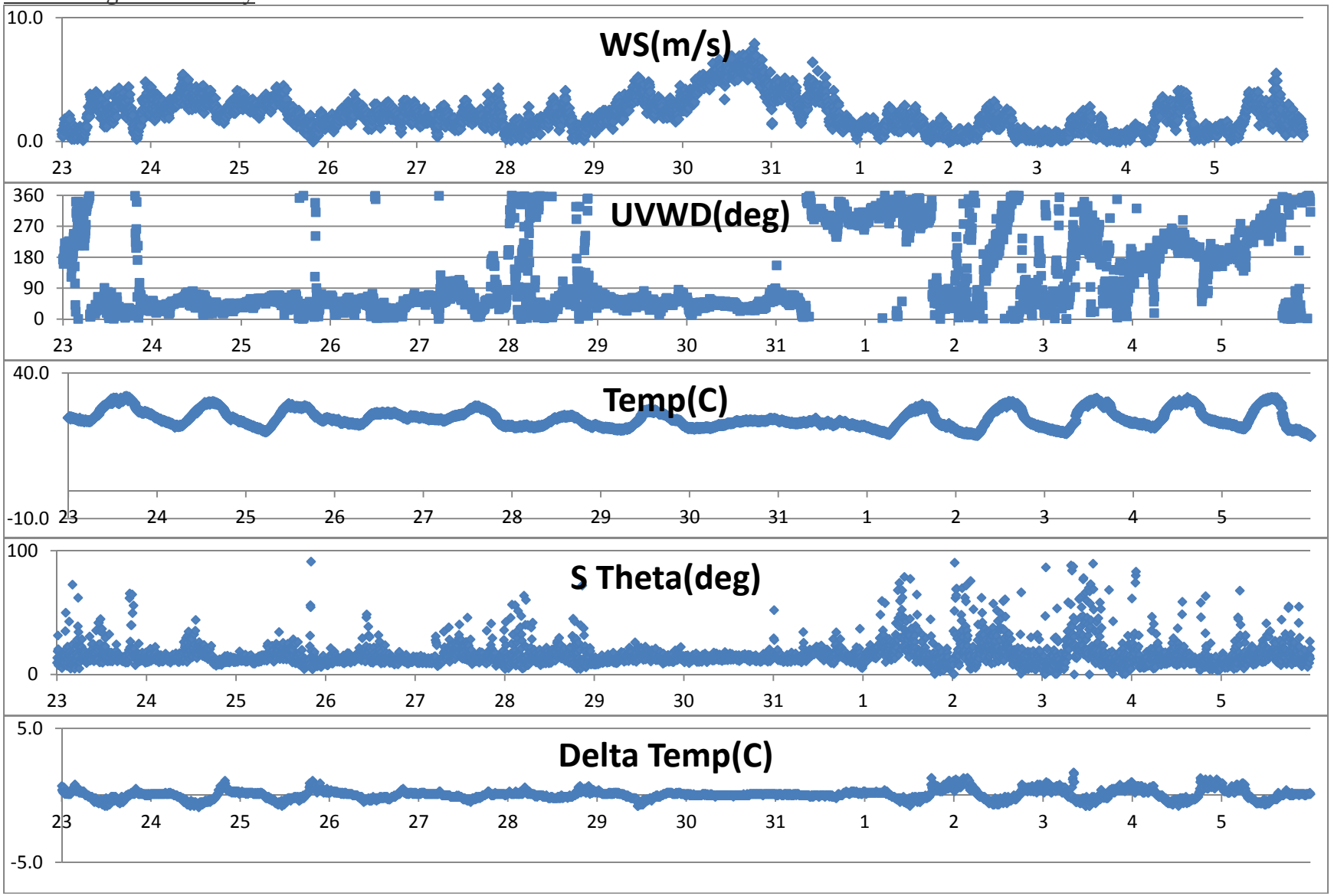
Bias (%) (Eqn 3)	
4.05	Both Signs Positive
Signed Bias (%)	Both Signs Negative
+4.05	FALSE

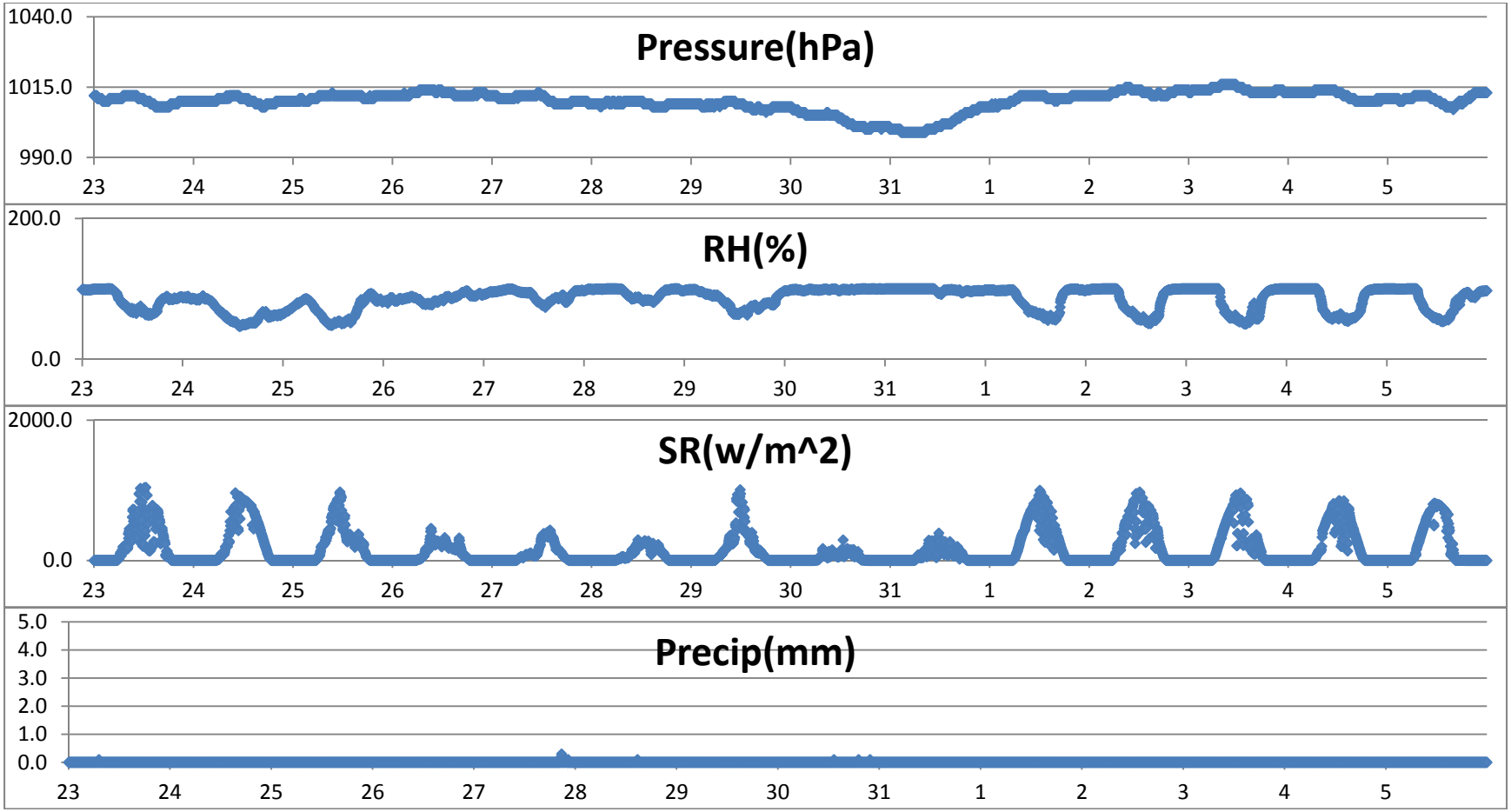
CV (%) (Eqn 2)
0.5

Upper Probability Limit	Lower Probability Limit
4.6	3.16



Meteorological Summary




Pressure(hPa)
1040.0
1015.0
990.0
RH(%)
200.0
0.0
SR(w/m^2)
2000.0
0.0
Precip(mm)
5.0
4.0
3.0
2.0
1.0
0.0
23 24 25 26 27 28 29 30 31 1 2 3 4 5