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October 2, 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 September 6, 2017 through September 19, 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)
9/7/2017	0.0

9/14/2017	-0.3

Data Capture

There were no occurrences of H_2S data loss this monitoring period, other than those resulting from automated daily 1-point QC and weekly calibration checks. The analyzer did lose communication with the server over the weekend of September 9th and 10th; communication was restored the morning of September 11th. Data from that period was recovered from the analyzer and uploaded into the database.

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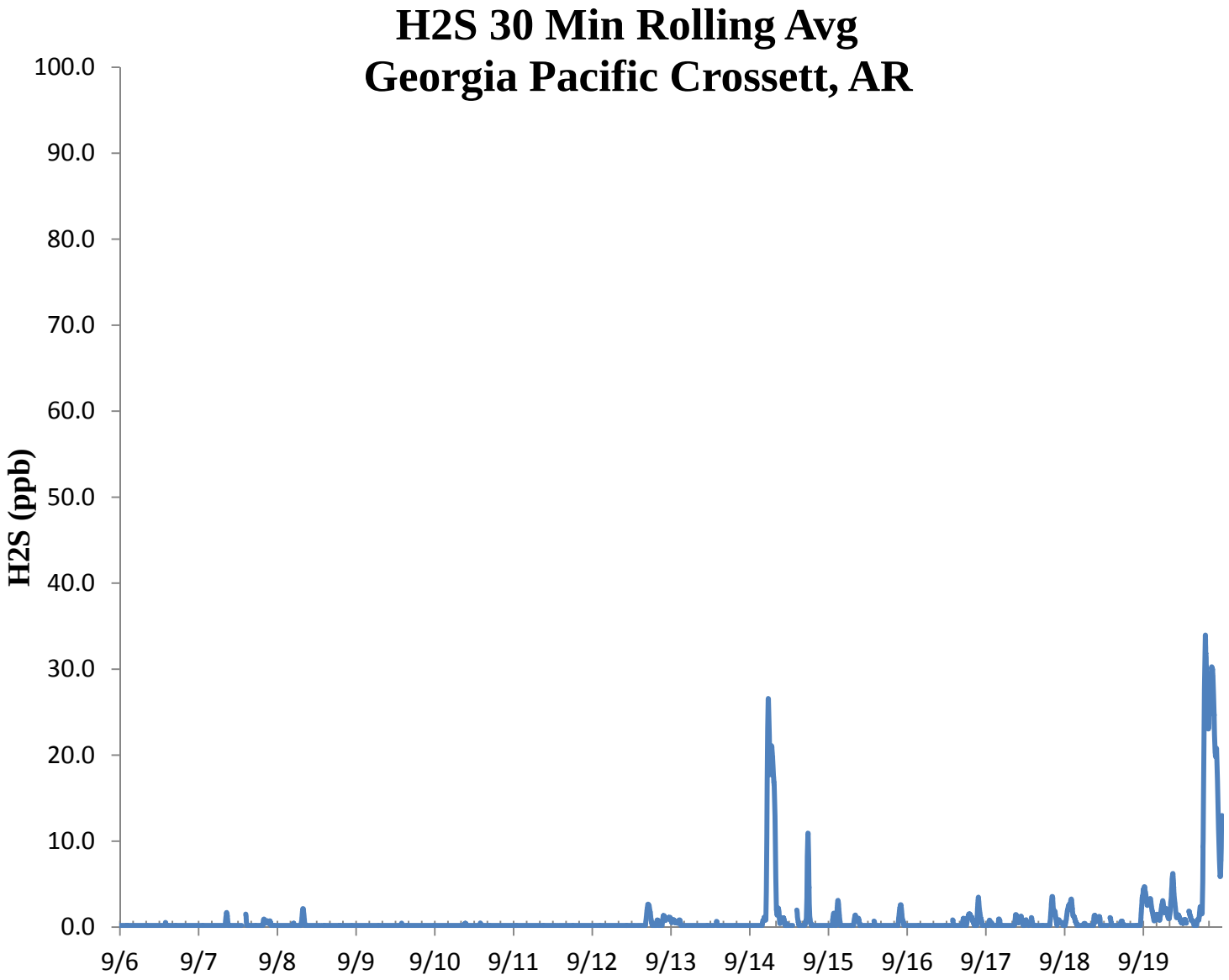
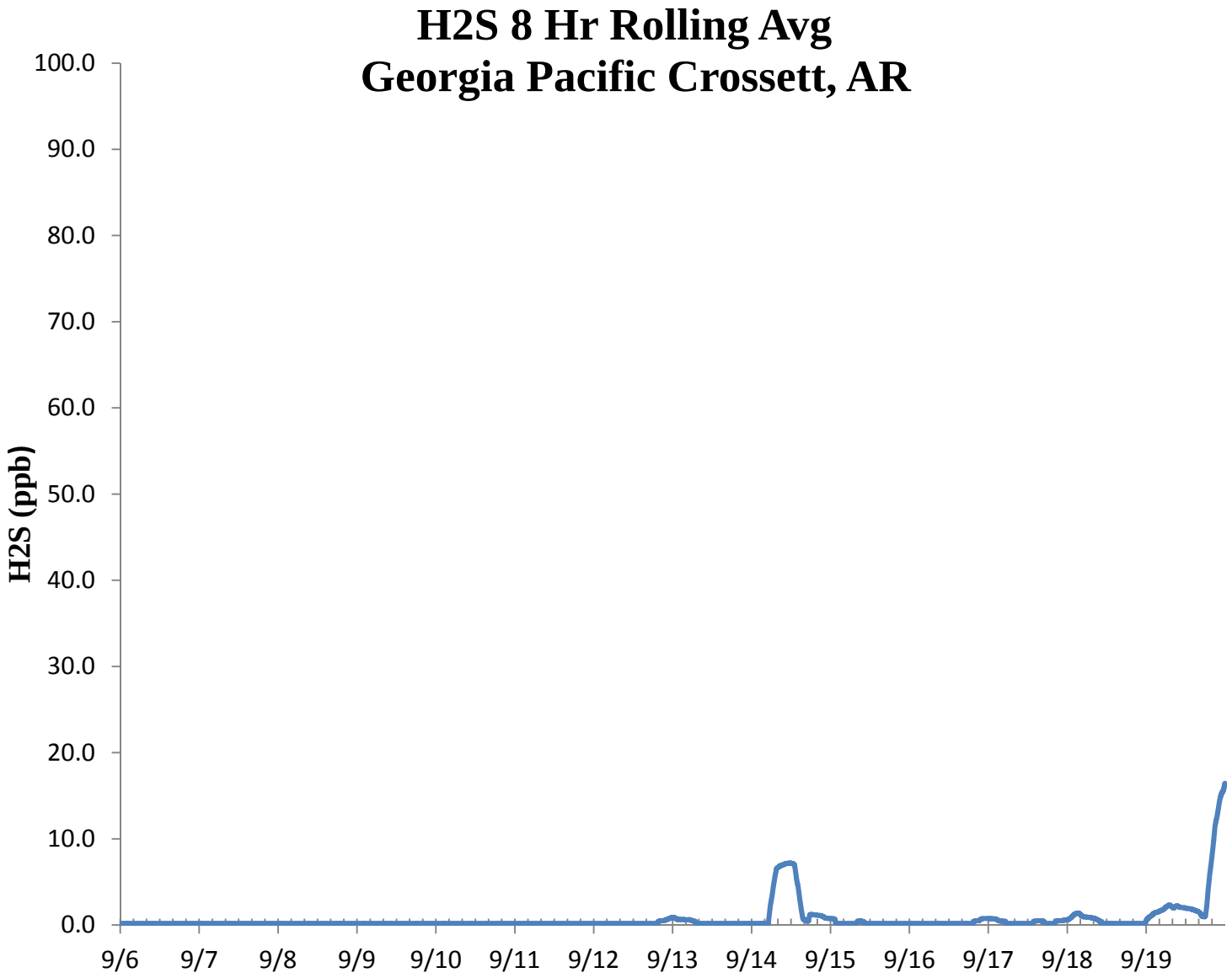
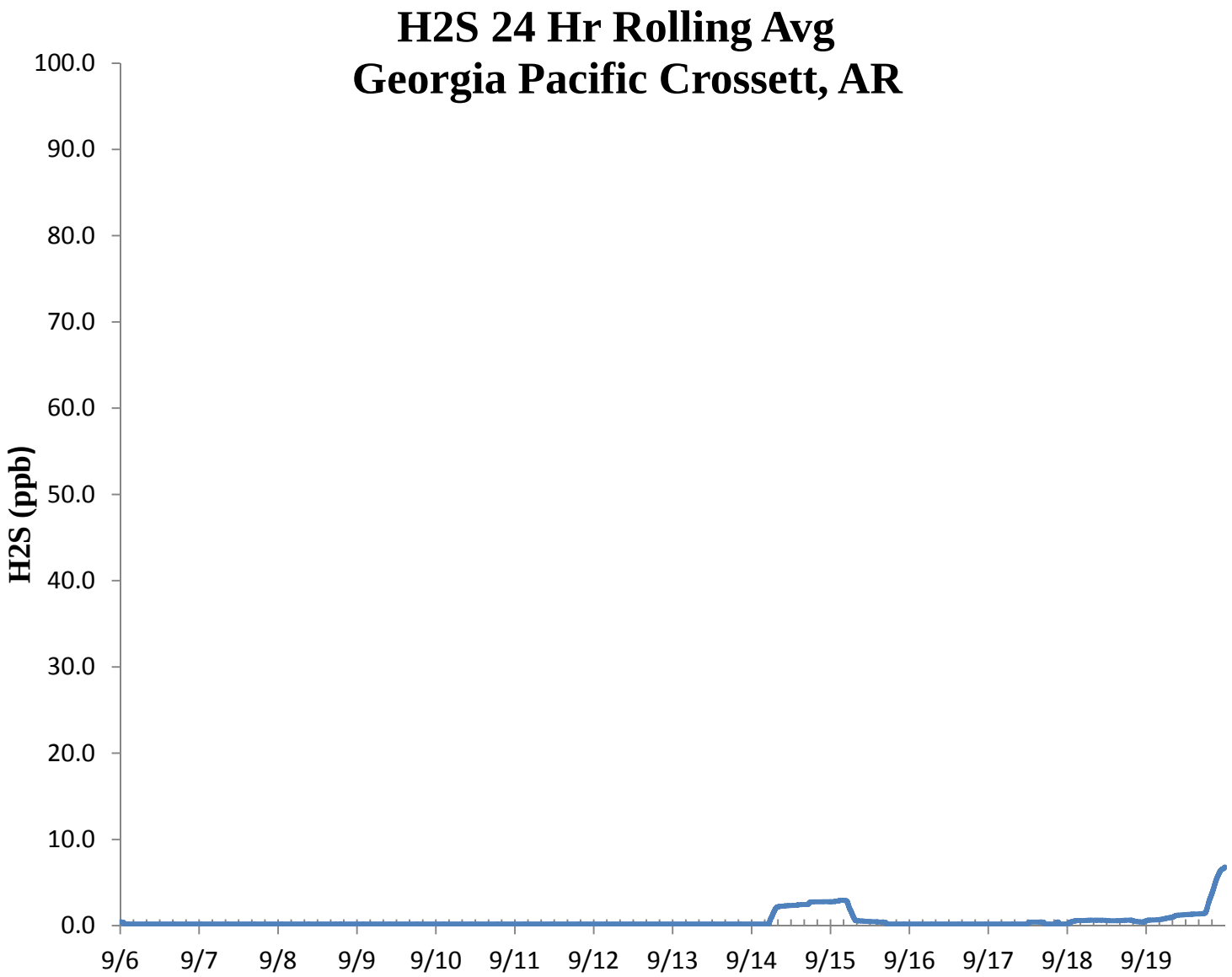
CC: Becky Keough, ADEQ Director via email: keogh@adeq.state.ar.us
Kara Allen, Environmental Engineer, USEPA Region 6 via email Allen.Kara@epa.gov

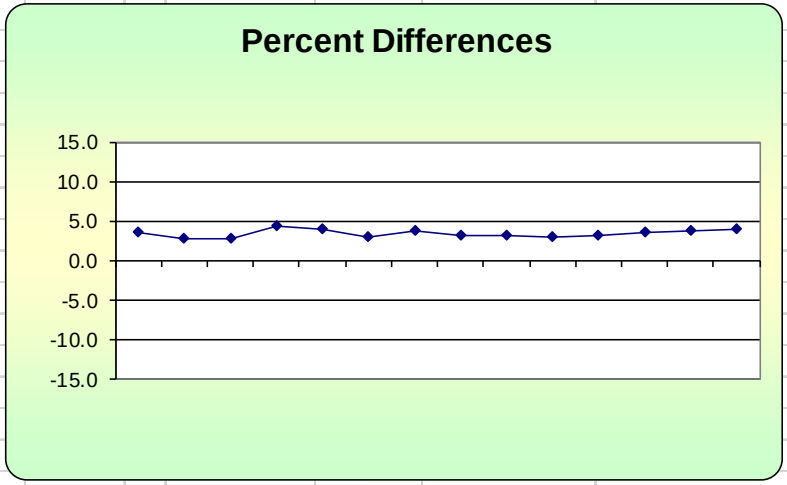

H2S 30 Min Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
9/6
9/7
9/8
9/9
9/10
9/11
9/12
9/13
9/14
9/15
9/16
9/17
9/18
9/19


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
9/6
9/7
9/8
9/9
9/10
9/11
9/12
9/13
9/14
9/15
9/16
9/17
9/18
9/19

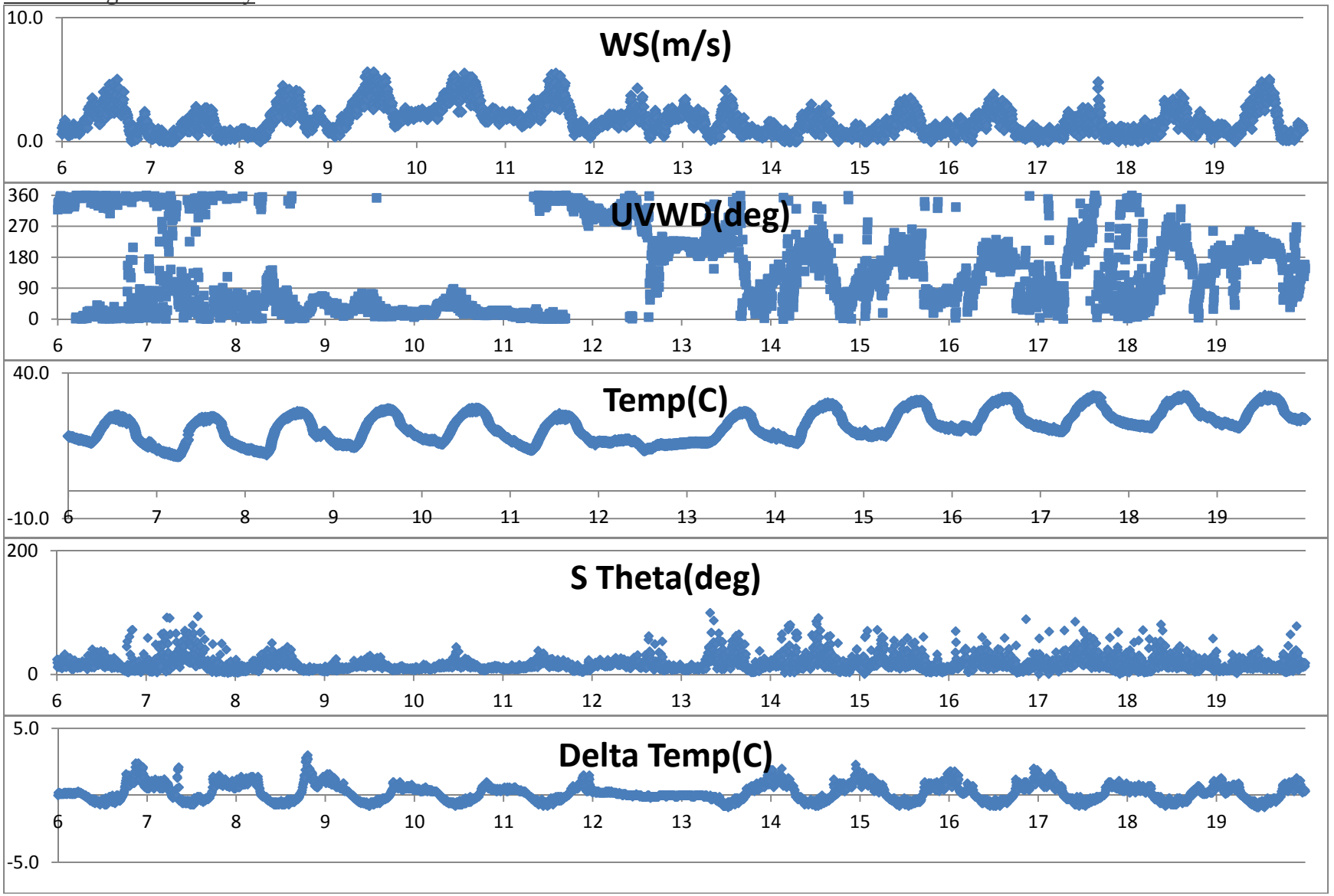

H2S 24 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
9/6
9/7
9/8
9/9
9/10
9/11
9/12
9/13
9/14
9/15
9/16
9/17
9/18
9/19

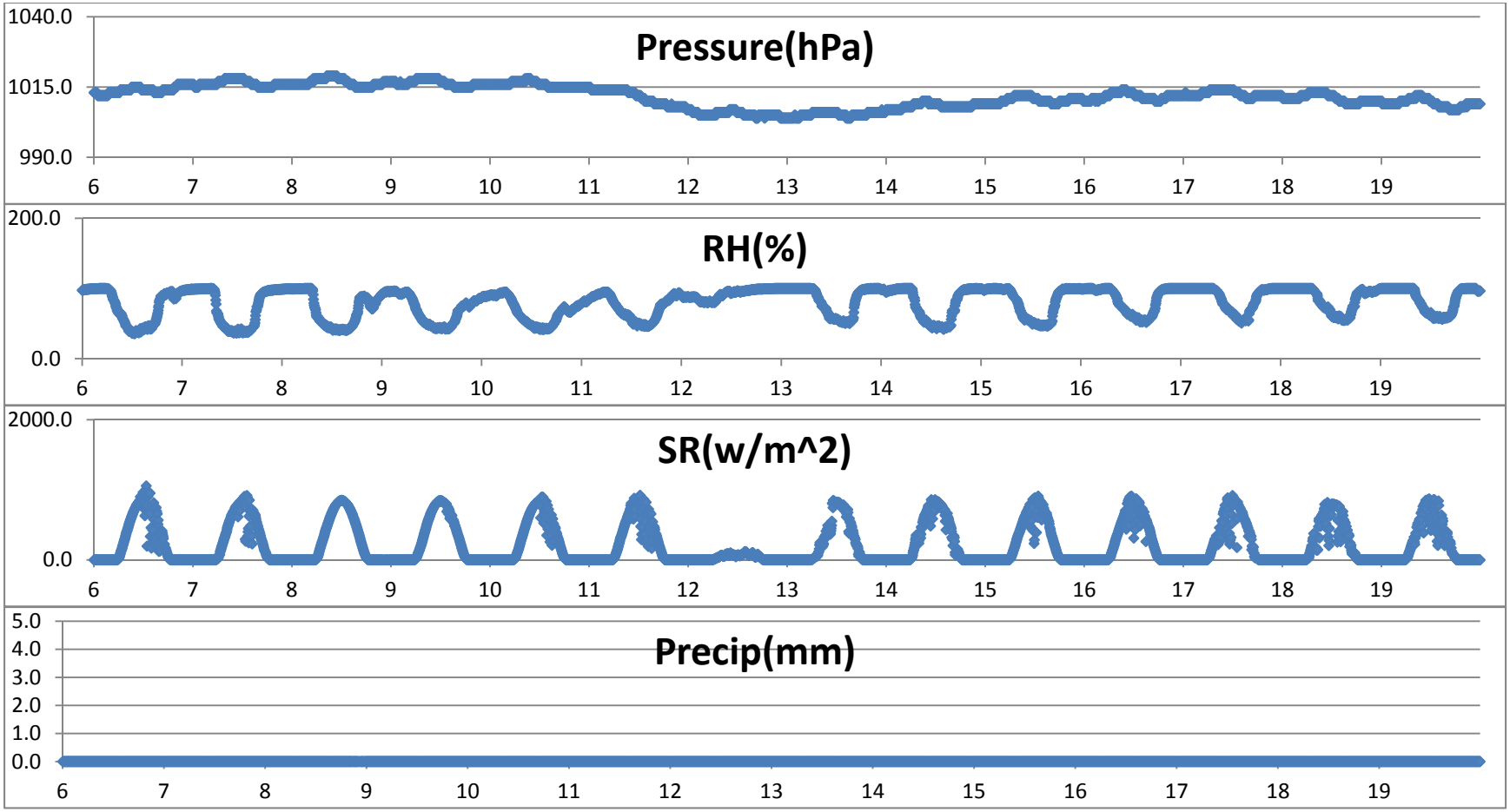
H_2S Assessment

GP - Crossett, AR			Compound of Interest: H_2S					CV_{ub} (%)			Bias (%)	
Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	$\|d\|^2$					
9/6/2017 13:00	72.5	70.0	3.6	3.036	12.755	3.571	12.755					
9/7/2017 13:00	71.9	70.0	2.7	75th Percentile	7.367	2.714	7.367	n	S_d	S_{d2}	$\sum\|d\|$	"AB" (Eqn 4)
9/8/2017 13:00	72.0	70.0	2.9	3.857	8.163	2.857	8.163	14	0.499	3.485	48.143	3.439
9/9/2017 13:00	73.0	70.0	4.3		18.367	4.286	18.367	n-1	$\sum d$	$\sum d^2$	$\sum\|d\|^2$	"AS" (Eqn 5)
9/10/2017 13:00	72.8	70.0	4.0		16.000	4.000	16.000	13	48.143	168.796	168.796	0.499
9/11/2017 13:00	72.1	70.0	3.0		9.000	3.000	9.000					
9/12/2017 13:00	72.7	70.0	3.9		14.878	3.857	14.878				Bias (%) (Eqn 3)	Both Signs Positive
9/13/2017 13:00	72.2	70.0	3.1		9.878	3.143	9.878				3.68	TRUE
9/14/2017 13:00	72.2	70.0	3.1		9.878	3.143	9.878	CV (%) (Eqn 2)			Signed Bias (%)	Both Signs Negative
9/15/2017 13:00	72.1	70.0	3.0		9.000	3.000	9.000	0.68			+3.68	FALSE
9/16/2017 13:00	72.2	70.0	3.1		9.878	3.143	9.878					
9/17/2017 13:00	72.5	70.0	3.6		12.755	3.571	12.755	Upper Probability Limit			Lower Probability Limit	
9/18/2017 13:00	72.7	70.0	3.9		14.878	3.857	14.878	4.42			2.46	
9/19/2017 13:00	72.8	70.0	4.0		16.000	4.000	16.000					



Meteorological Summary




Pressure(hPa)
1040.0
1015.0
990.0
6 7 8 9 10 11 12 13 14 15 16 17 18 19
RH(%)
200.0
0.0
6 7 8 9 10 11 12 13 14 15 16 17 18 19
SR(w/m^2)
2000.0
0.0
6 7 8 9 10 11 12 13 14 15 16 17 18 19
Precip(mm)
5.0
4.0
3.0
2.0
1.0
0.0
6 7 8 9 10 11 12 13 14 15 16 17 18 19

C