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July 22, 2019

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 June 26, 2019 through July 9, 2019.

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.

During this reporting period two automated zero checks were performed. The results for these zero checks are presented in the following table.

Date	Zero Check Response (ppb)
6/26/2019	0.0
7/3/2019	-0.3

Data Capture

There were multiple occurrences of H_2S data loss this monitoring period, other than those resulting from automated daily 1-point QC and weekly calibration checks. TRC personnel were onsite for

routine checks and maintenance on June 27th, resulting in approximately one hour of H_2S data loss. Communications were interrupted, resulting in brief losses of data on June 29th and July 7th, for less than five minutes total. Total percent data capture for H_2S over this two-week reporting period is 99.6%

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final charts. TRC personnel were onsite June 27th to clean the tipping bucket sensor, resulting in approximately one hour of invalid precipitation data. Total percent data capture for all met parameters, excluding precipitation, over this two-week reporting period is 100%. Data capture for precipitation records during this period is 99.7%.

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

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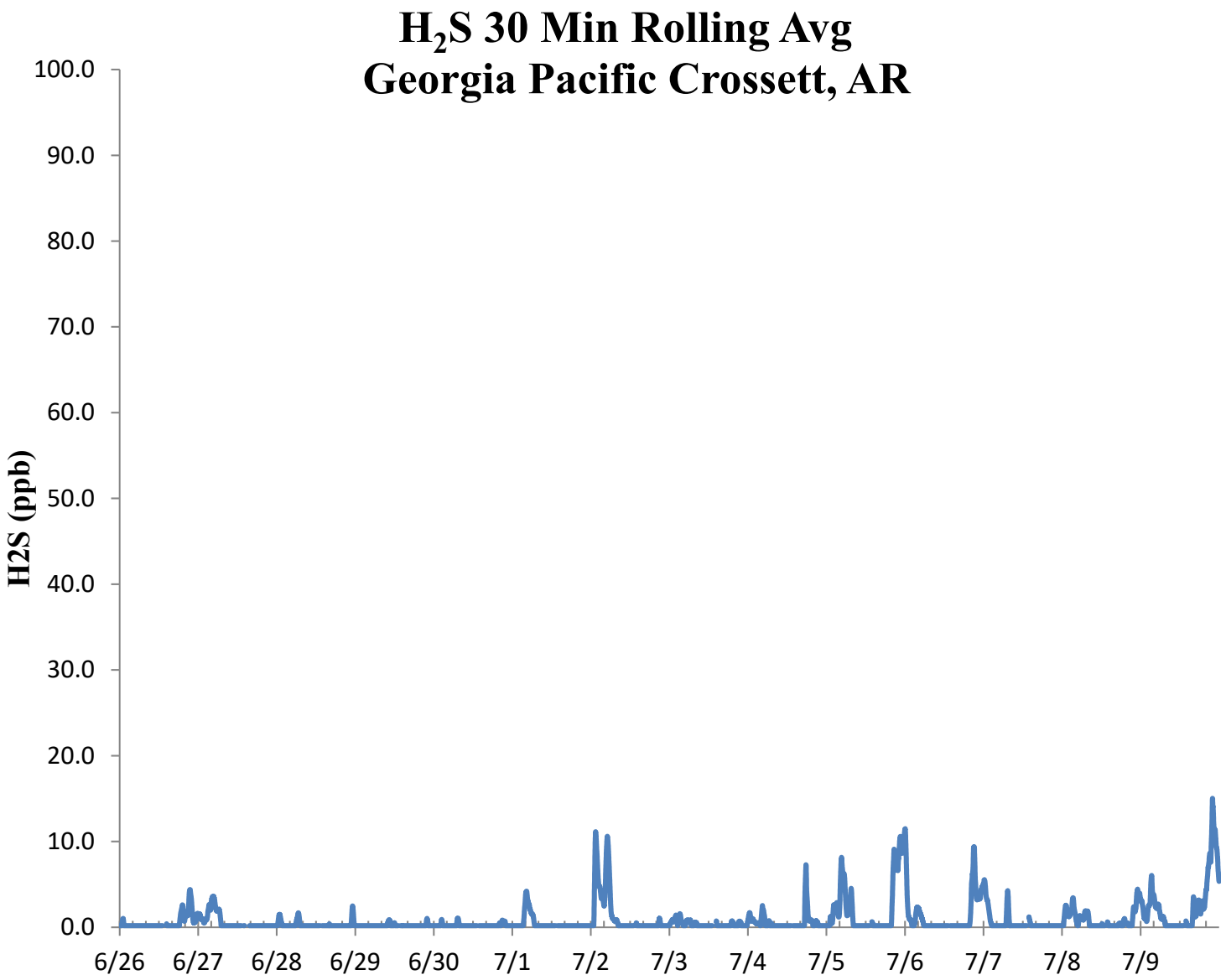
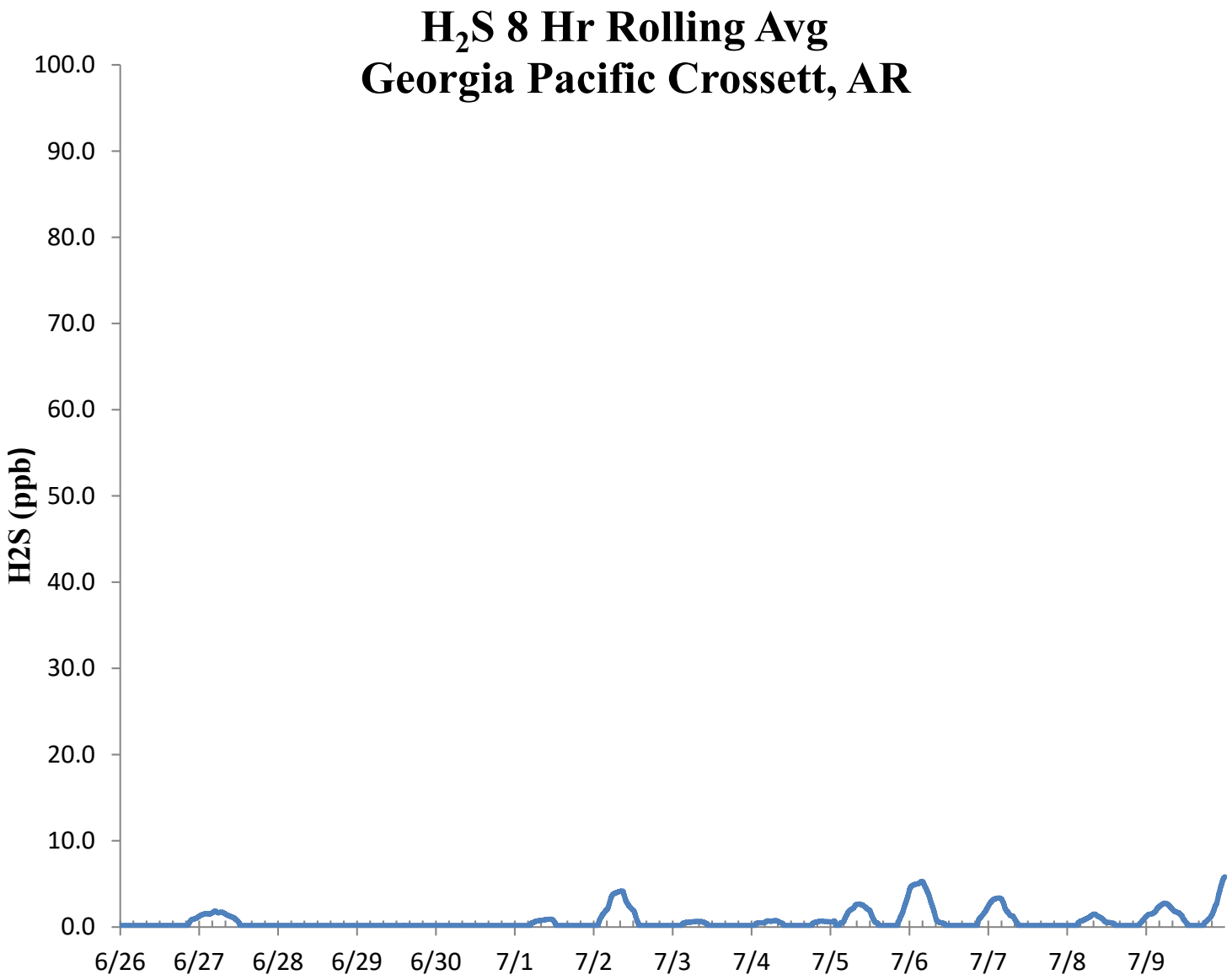
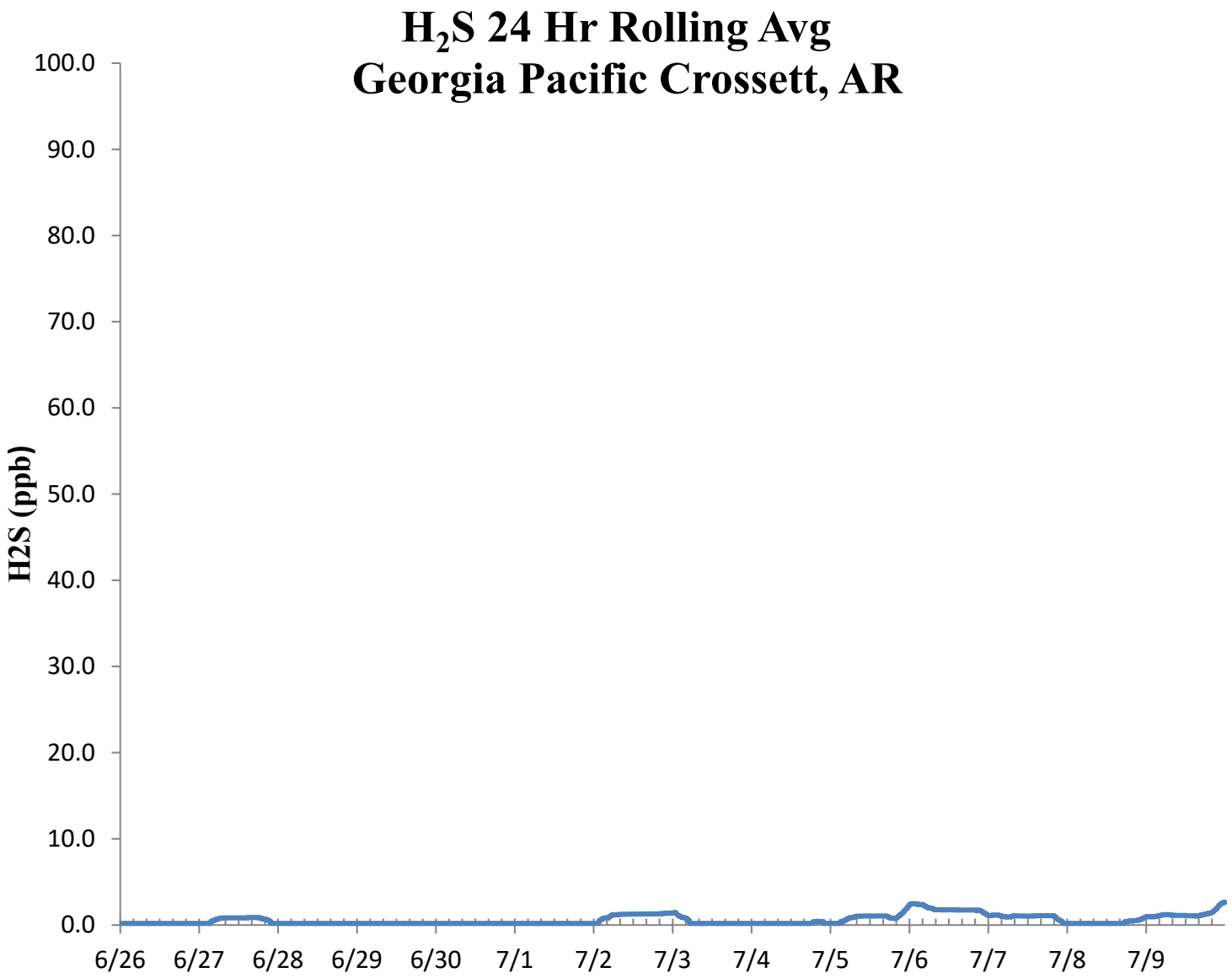
CC: Becky Keough, ADEQ Director via email: keogh@adeq.state.ar.us
Kara Allen, Environmental Engineer, USEPA Region 6 via email Allen.Kara@epa.gov

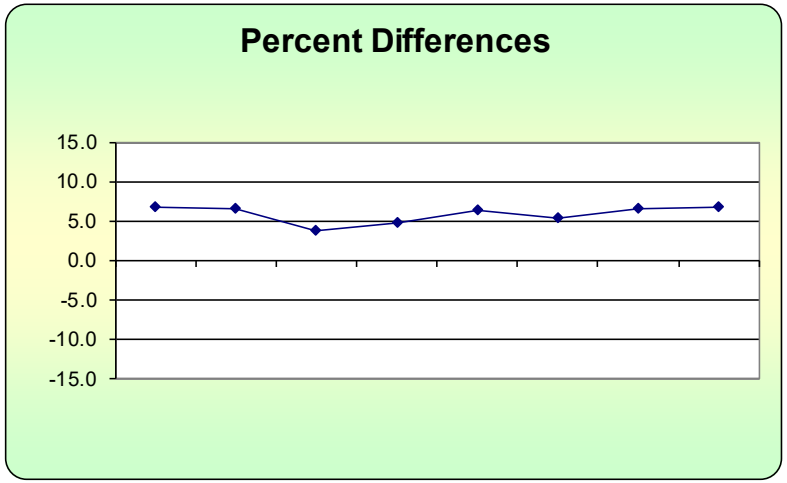

H2S 30 Min Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
6/26
6/27
6/28
6/29
6/30
7/1
7/2
7/3
7/4
7/5
7/6
7/7
7/8
7/9


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
6/26
6/27
6/28
6/29
6/30
7/1
7/2
7/3
7/4
7/5
7/6
7/7
7/8
7/9

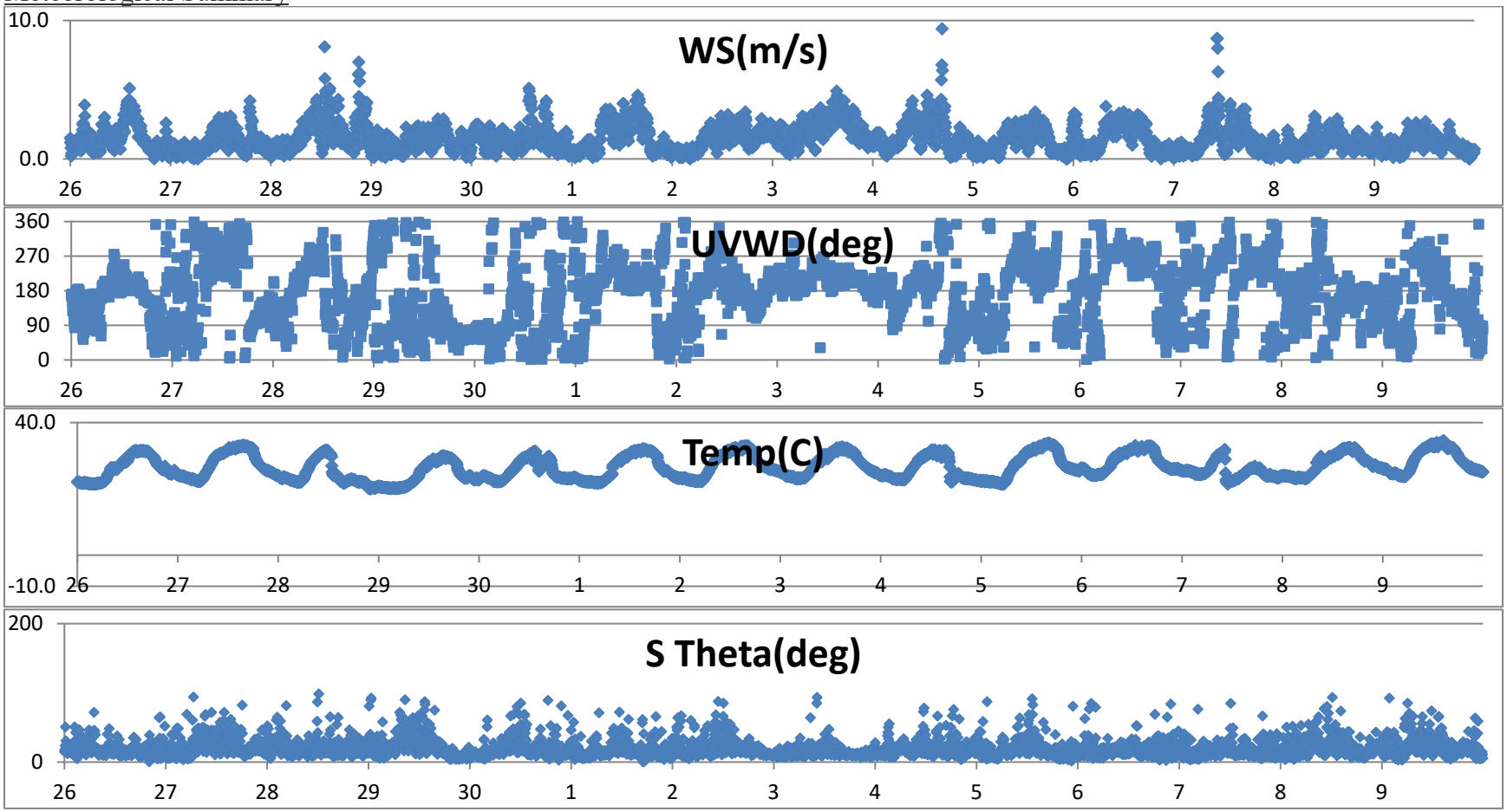

H2S 24 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
6/26
6/27
6/28
6/29
6/30
7/1
7/2
7/3
7/4
7/5
7/6
7/7
7/8
7/9

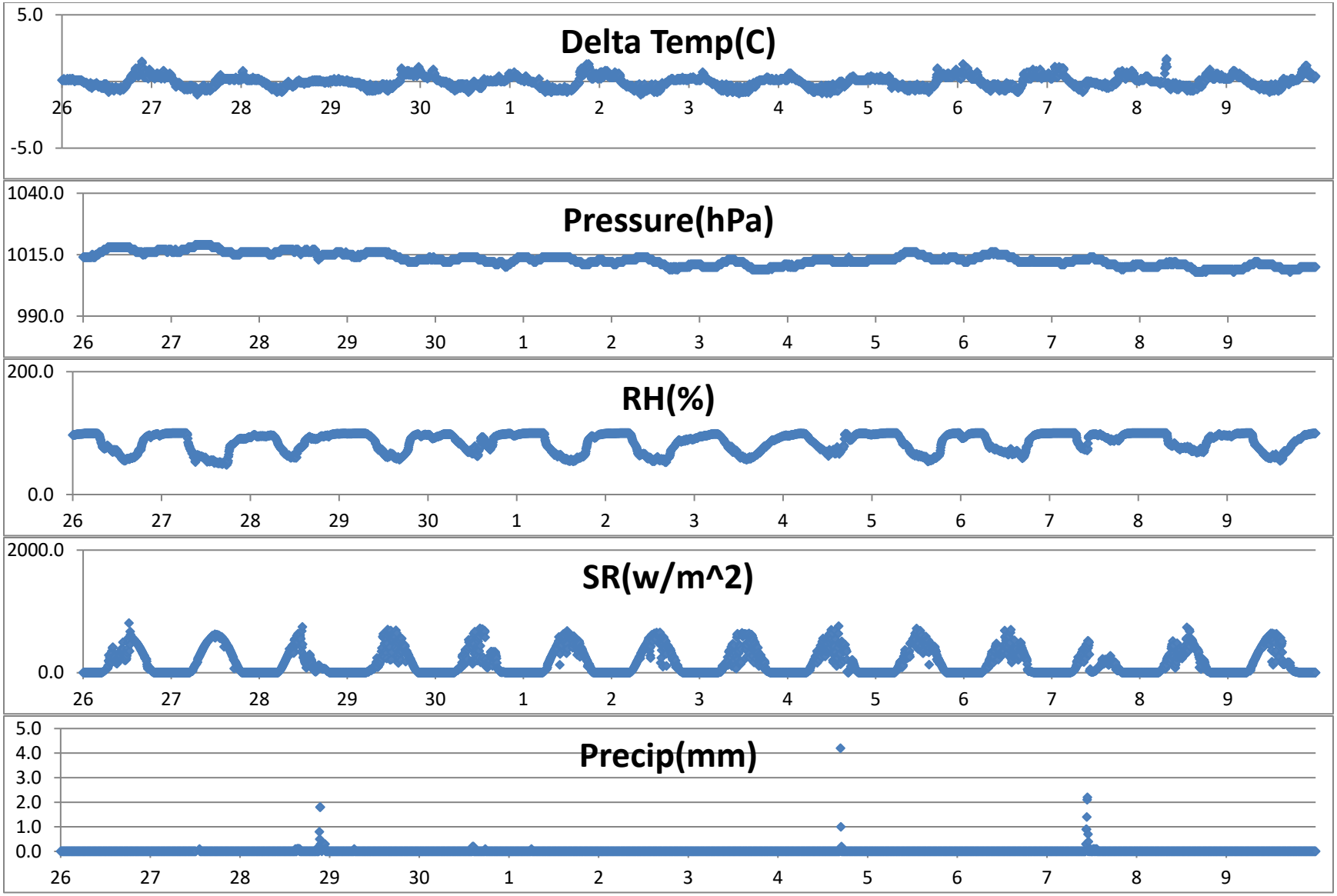
H_2S Assessment

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|	$\|d\|^2$					
6/26/2019 13:00	74.7	70.0	6.7	6.464	45.082	6.714	45.082					
6/27/2019 13:00	74.6	70.0	6.6	75th Percentile	43.184	6.571	43.184	n	S_d	S_{d2}	$\Sigma\|d\|$	"AB" (Eqn 4)
6/28/2019 13:00	72.7	70.0	3.9	6.857	14.878	3.857	14.878	14	1.098	13.066	90.286	6.449
6/29/2019 13:00	73.4	70.0	4.9		23.592	4.857	23.592	n-1	Σd	Σd^2	$\Sigma\|d\|^2$	"AS" (Eqn 5)
6/30/2019 13:00	74.5	70.0	6.4		41.327	6.429	41.327	13	90.286	597.918	597.918	1.098
7/1/2019 13:00	73.7	70.0	5.3		27.939	5.286	27.939					
7/2/2019 13:00	74.6	70.0	6.6		43.184	6.571	43.184				Bias (%) (Eqn 3)	Both Signs Positive
7/3/2019 13:00	74.7	70.0	6.7		45.082	6.714	45.082				6.97	TRUE
7/4/2019 13:00	74.7	70.0	6.7		45.082	6.714	45.082	CV (%) (Eqn 2)			Signed Bias (%)	Both Signs Negative
7/5/2019 13:00	74.8	70.0	6.9		47.020	6.857	47.020	1.49			+6.97	FALSE
7/6/2019 13:00	74.8	70.0	6.9		47.020	6.857	47.020					
7/7/2019 13:00	75.0	70.0	7.1		51.020	7.143	51.020	Upper Probability Limit			Lower Probability Limit	
7/8/2019 13:00	75.4	70.0	7.7		59.510	7.714	59.510	8.6			4.3	
7/9/2019 13:00	75.6	70.0	8.0		64.000	8.000	64.000					



Meteorological Summary




Delta Temp(C)
5.0
-5.0
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
26 27 28 29 30 1 2 3 4 5 6 7 8 9