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June 23, 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,

Following is the biweekly data summary for the Georgia-Pacific (GP) hydrogen sulfide (H_2S) and meteorological monitoring program, at the GP Crossett mill, covering the calendar period of May 31, 2017 through June 13, 2017.

Summary of Results

Included in this report are three plots presenting H_2S concentrations calculated with varied rolling average periods (30-minute, 8-hour, and 24-hour).

Also included in this report is a summary of results from the daily 1-point QC checks performed during this biweekly period. The QAPP establishes goals for precision and bias 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.

Additionally, weekly automated zero adjustments have been put in place beginning February 1, 2017, so as to limit the effect of the analyzer's zero drift. During this reporting period there were a total of eight zero checks performed; all within the acceptable range of ± 1.5 ppb, as defined in the QAPP. Results for these zero checks are presented below.

Date	Zero Check	Date	Zero Check
6/1/2017	-0.2	6/10/2017	0.3
6/6/2017	0.0	6/11/2017	0.1
6/8/2017	0.4	6/12/2017	0.1
6/9/2017	0.3	6/13/2017	0.4

There were multiple occurrences of data loss during this monitoring period, in addition to those

resulting from automated daily 1-point QC and weekly calibration checks. A multipoint calibration of the H_2S analyzer was performed June 6th, resulting in the loss of approximately seven and a half hours of data loss. For an unknown reason daily automated 1-point QC checks have been low since June 7th, therefore TRC performed manual multipoint checks (zero, ~70 ppb, and ~400 ppb) on a daily basis. The daily manual checks are responsible for approximately and hour and a half of data loss each day, from June 7th – June 13th. Results from the manual checks fall within the acceptable range, indicating the H_2S monitor was operating in accordance with the QAPP. These results were used in calculating the CV as shown in the table that follows. TRC has made plans to visit the site before the end of the month to identify and rectify the source of the automated calibration issue.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final table. There was a single period of missing met data on June 6th (less than one and a half hours) due to maintenance on the sensors.

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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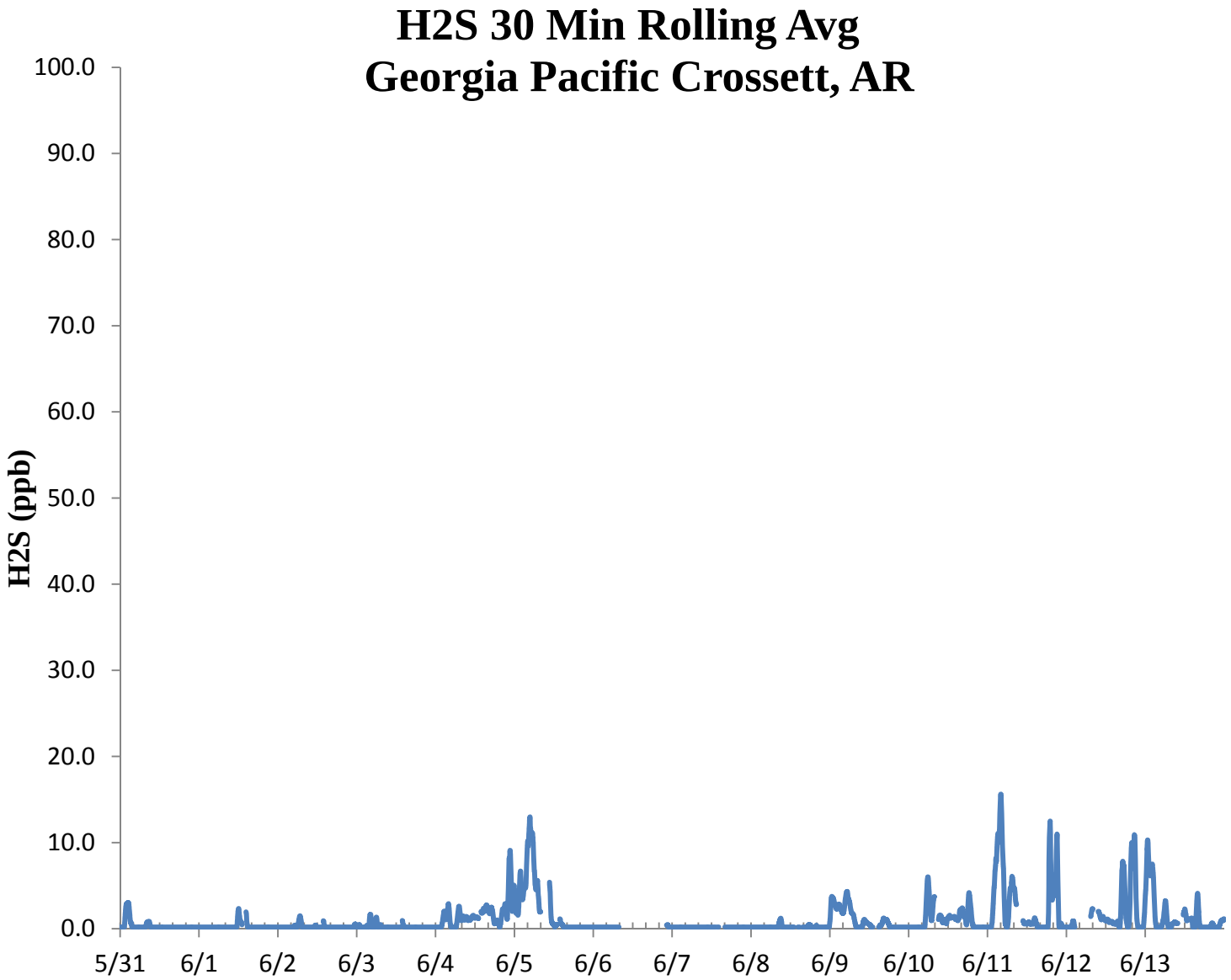
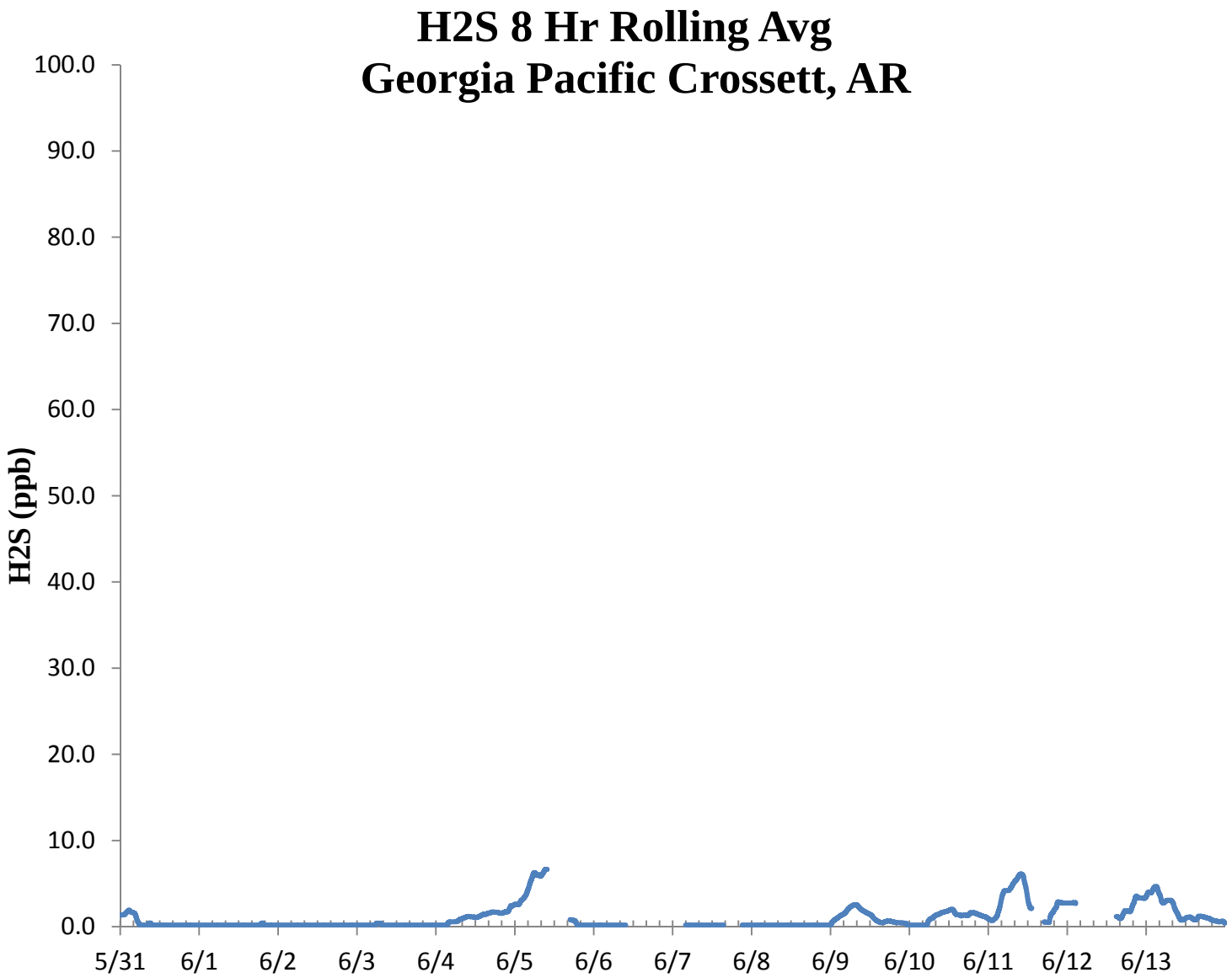
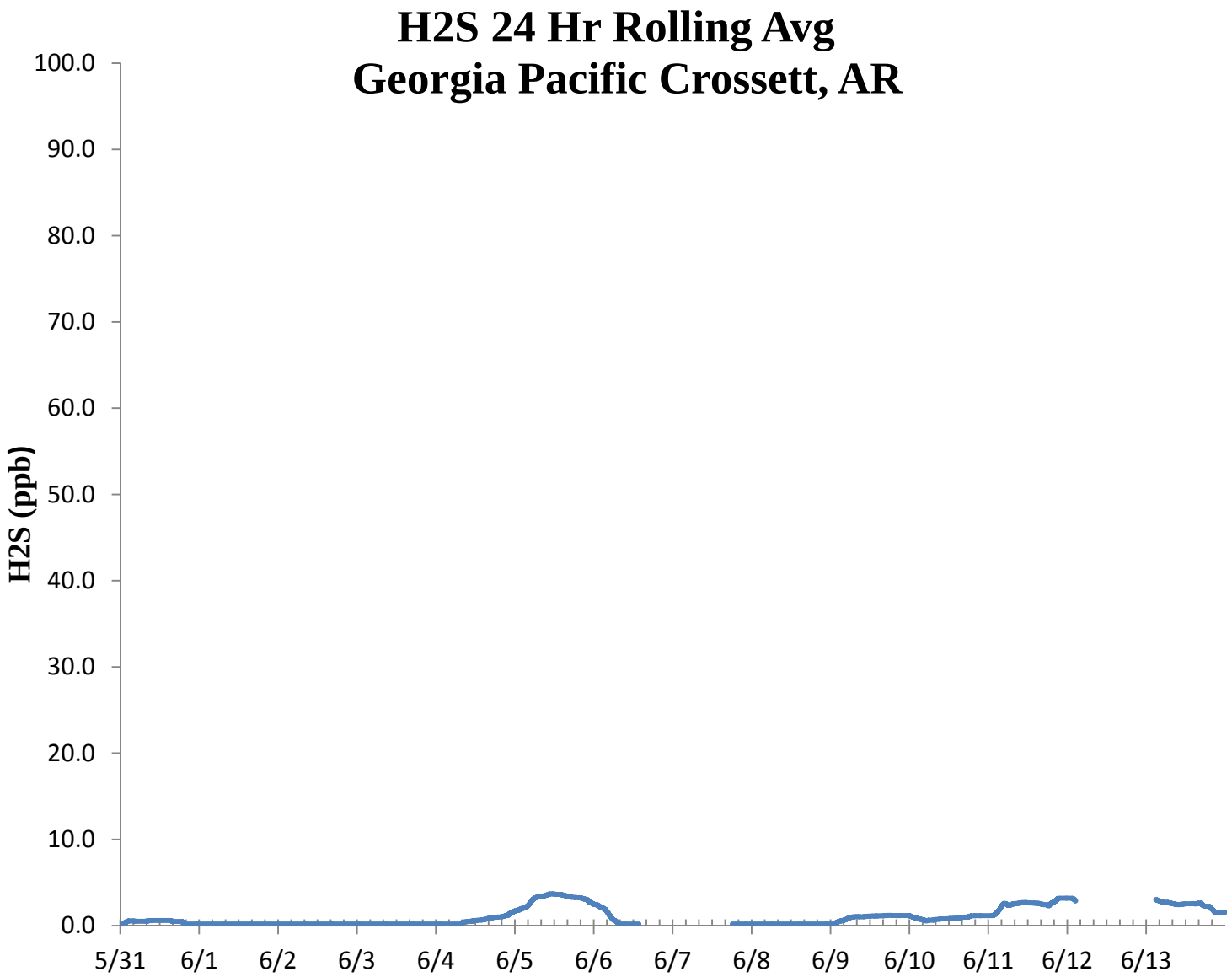

H2S 30 Min Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
5/31
6/1
6/2
6/3
6/4
6/5
6/6
6/7
6/8
6/9
6/10
6/11
6/12
6/13

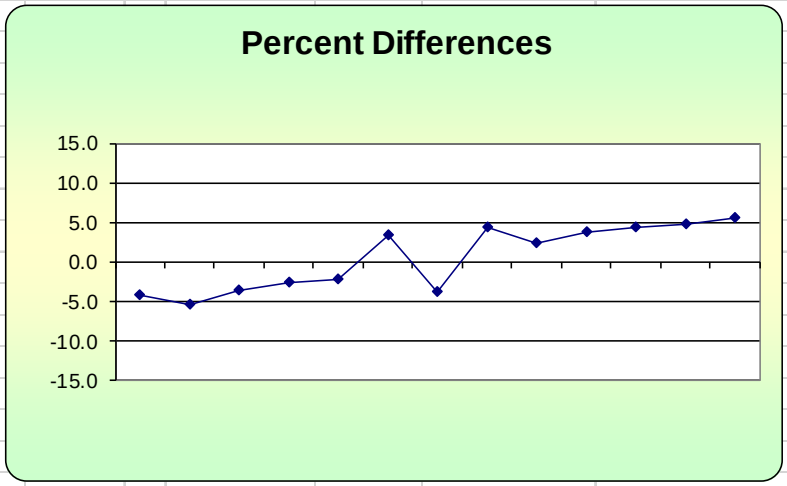

H2S 8 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
5/31
6/1
6/2
6/3
6/4
6/5
6/6
6/7
6/8
6/9
6/10
6/11
6/12
6/13


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
5/31
6/1
6/2
6/3
6/4
6/5
6/6
6/7
6/8
6/9
6/10
6/11
6/12
6/13

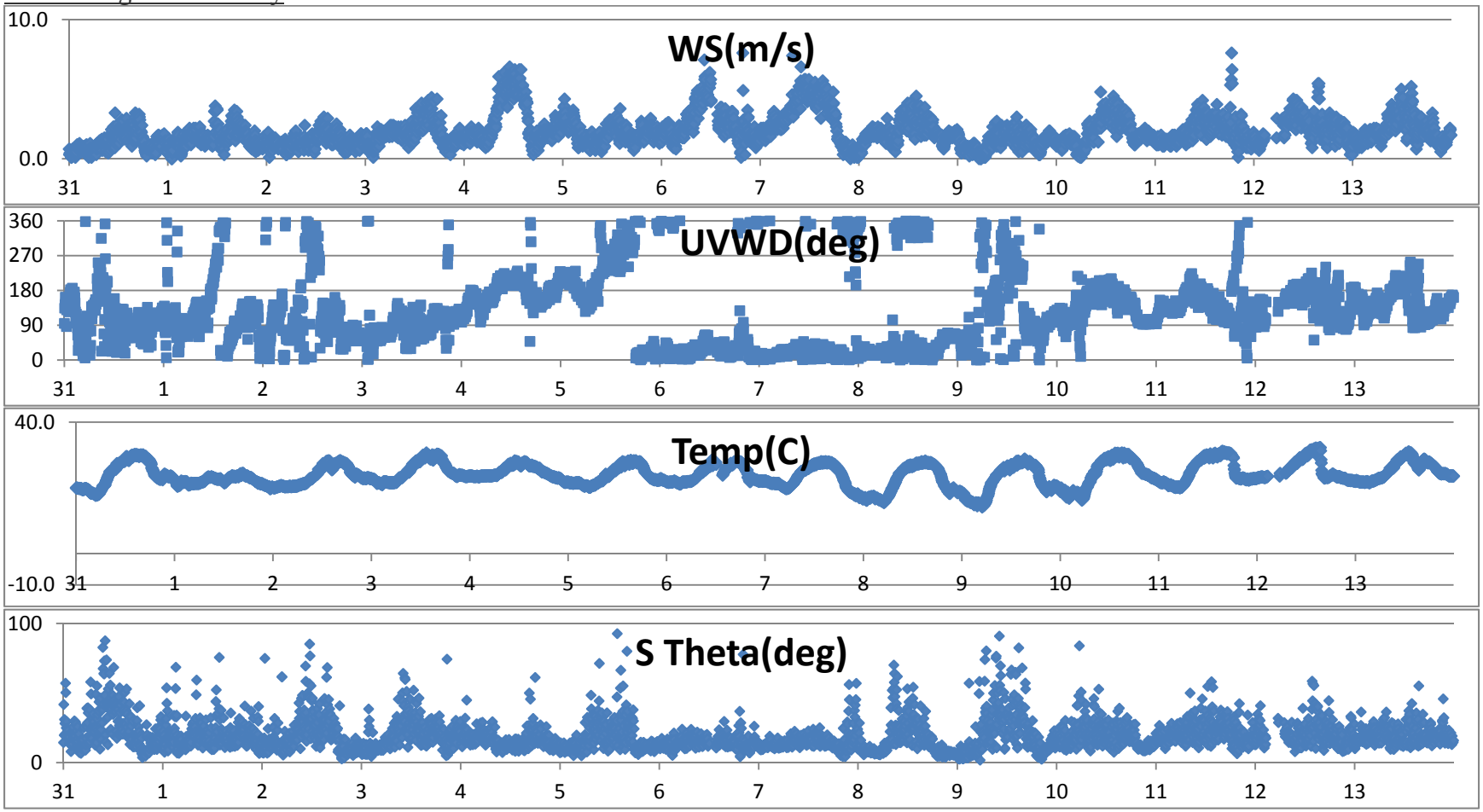
H_2S Assessment

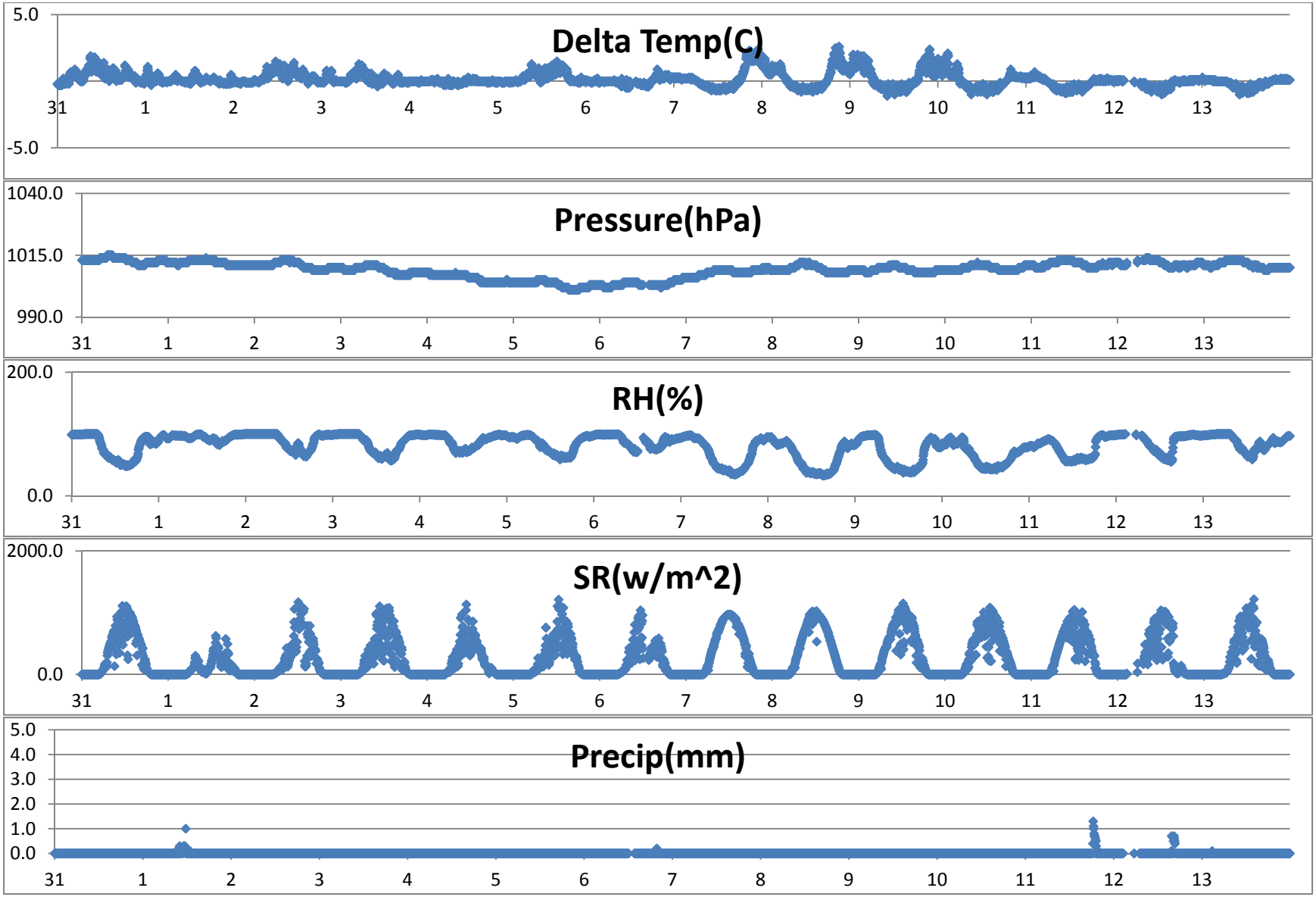
GP - Crossett, AR			Compound of Interest: H_2S					CV_{ub} (%)		Bias (%)	
Date	Meas Val (Y)	Audit Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	$\|d\|^2$				
5/31/2017 13:00	67.1	70.0	-4.1	-3.321	17.163	4.143	17.163				
6/1/2017 13:00	66.3	70.0	-5.3	75th Percentile	27.939	5.286	27.939	n	S_d	S_{d2}	$\sum\|d\|$
6/2/2017 13:00	67.5	70.0	-3.6	4.393	12.755	3.571	12.755	14	4.174	8.981	55.725
6/3/2017 13:00	68.2	70.0	-2.6		6.612	2.571	6.612	n-1	$\sum d$	$\sum d^2$	$\sum\|d\|^2$
6/4/2017 13:00	68.5	70.0	-2.1		4.592	2.143	4.592	13	12.846	238.287	238.287
6/5/2017 13:00	72.4	70.0	3.4		11.755	3.429	11.755				
6/6/2017 13:00	49.1	51.0	-3.7		13.879	3.725	13.879			Bias (%) (Eqn 3)	Both Signs Positive
6/7/2017 13:00	73.1	70.0	4.4		19.612	4.429	19.612			4.51	FALSE
6/8/2017 13:00	71.7	70.0	2.4		5.898	2.429	5.898	CV (%) (Eqn 2)		Signed Bias (%)	Both Signs Negative
6/9/2017 13:00	72.6	70.0	3.7		13.796	3.714	13.796	5.67		+/-4.51	FALSE
6/10/2017 13:00	73.0	70.0	4.3		18.367	4.286	18.367				
6/11/2017 13:00	73.3	70.0	4.7		22.224	4.714	22.224	Upper Probability Limit		Lower Probability Limit	
6/12/2017 13:00	73.9	70.0	5.6		31.041	5.571	31.041	9.1		-7.26	
6/13/2017 13:00	74.0	70.0	5.7		32.653	5.714	32.653				

"AB" (Eqn 4)	"AS" (Eqn 5)
3.980	1.126



Meteorological Summary




Delta Temp(C)
5.0
-5.0
31 1 2 3 4 5 6 7 8 9 10 11 12 13
Pressure(hPa)
1040.0
1015.0
990.0
31 1 2 3 4 5 6 7 8 9 10 11 12 13
RH(%)
200.0
0.0
31 1 2 3 4 5 6 7 8 9 10 11 12 13
SR(w/m^2)
2000.0
0.0
31 1 2 3 4 5 6 7 8 9 10 11 12 13
Precip(mm)
5.0
4.0
3.0
2.0
1.0
0.0
31 1 2 3 4 5 6 7 8 9 10 11 12 13