

December 19, 2017



6312 NW 18th Drive
Suite 100
Gainesville, FL 32653

352.378.0332 PHONE
352.378.0354 FAX

www.TRCSolutions.com

December 19, 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 (H₂S) and meteorological monitoring program covering the calendar period of November 29, 2017 through December 12, 2017.

Summary of Results

Included in this report are three plots presenting H₂S 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 H₂S regarding precision and bias expressed as a coefficient of variation (CV) <10% and $\pm 10\%$, 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, $\pm 10\%$, indicating the H₂S 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)
11/30/2017	-0.1
12/7/2017	1.3

Data Capture

There were multiple occurrences of H₂S data loss this monitoring period, in addition to those resulting from automated daily 1-point QC and weekly calibration checks. There are approximately 15 minutes of lost H₂S during overnight hours on November 29th, due to a communication error. The H₂S analyzer experienced an internal processor error on the morning of December 2nd, resulting in approximately two hours of data loss. A server error on December 6th was responsible for the loss of approximately 40 minutes of data in the morning. Lastly, on December 7th, TRC personnel were onsite performing maintenance and calibrations resulting in approximately three and a half hours of invalid H₂S data.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final table. There were two brief periods (< 30 minutes) of met data loss during this monitoring period. On December 6th and 7th all met parameters were lost for 10 and 20 minutes, respectively, on account of a communication error.

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

Sincerely,

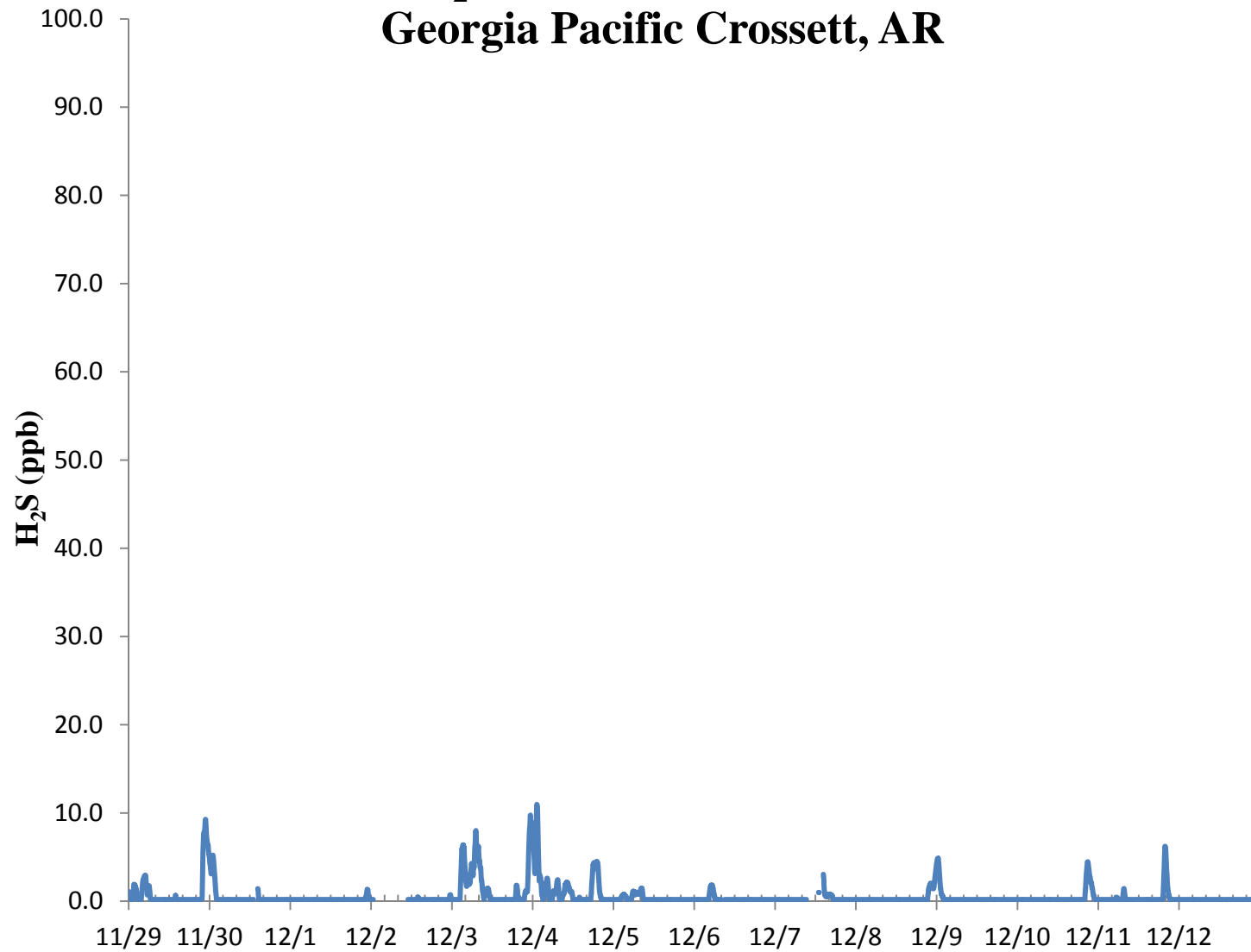


Jonathan Bowser
Manager, Air Quality and Meteorological Monitoring

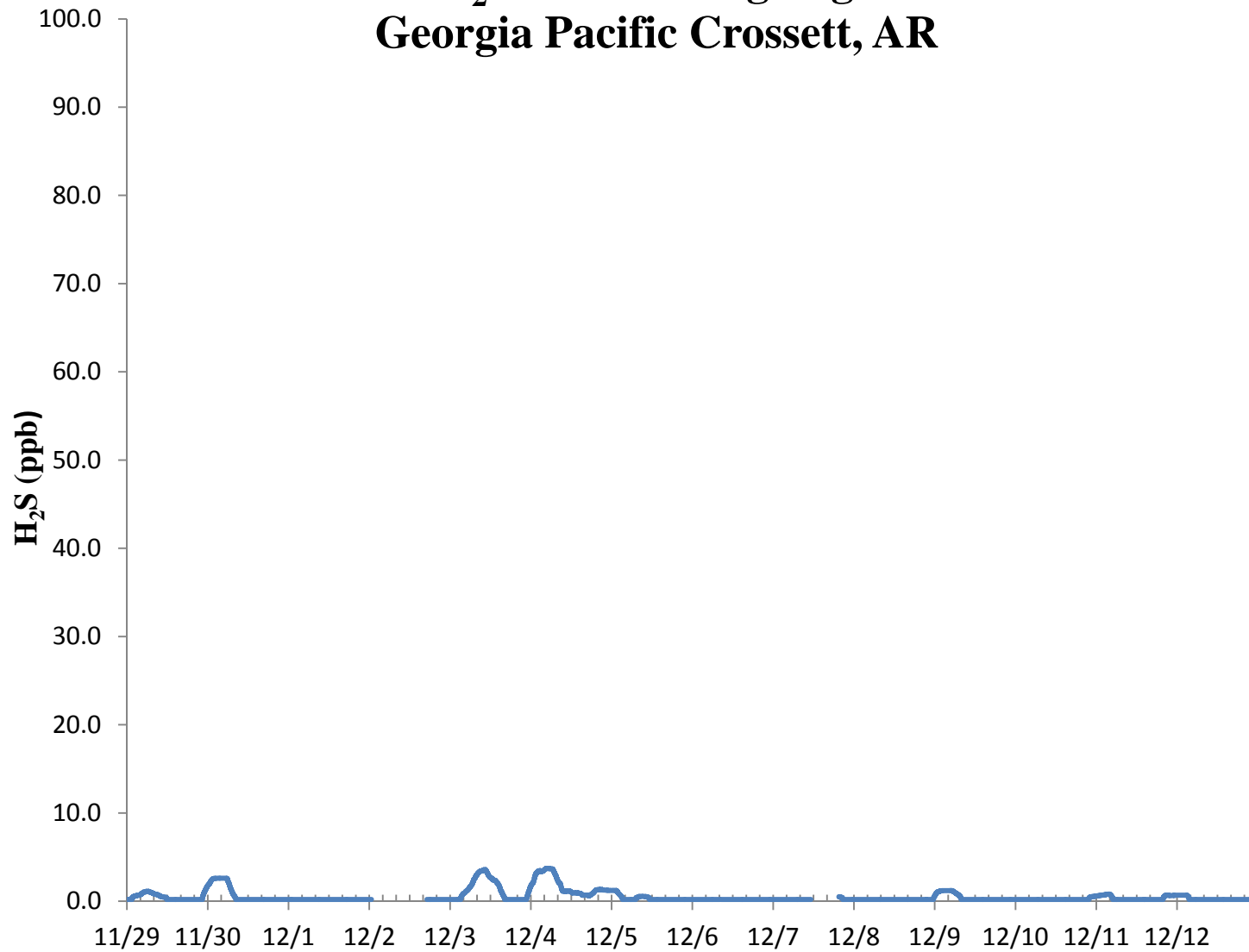
Air Measurements – Gainesville Office
6312 NW 18th Drive, Suite 100
Gainesville, Florida 32653
(352) 260-1162
Email: jbowser@trcsolutions.com

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

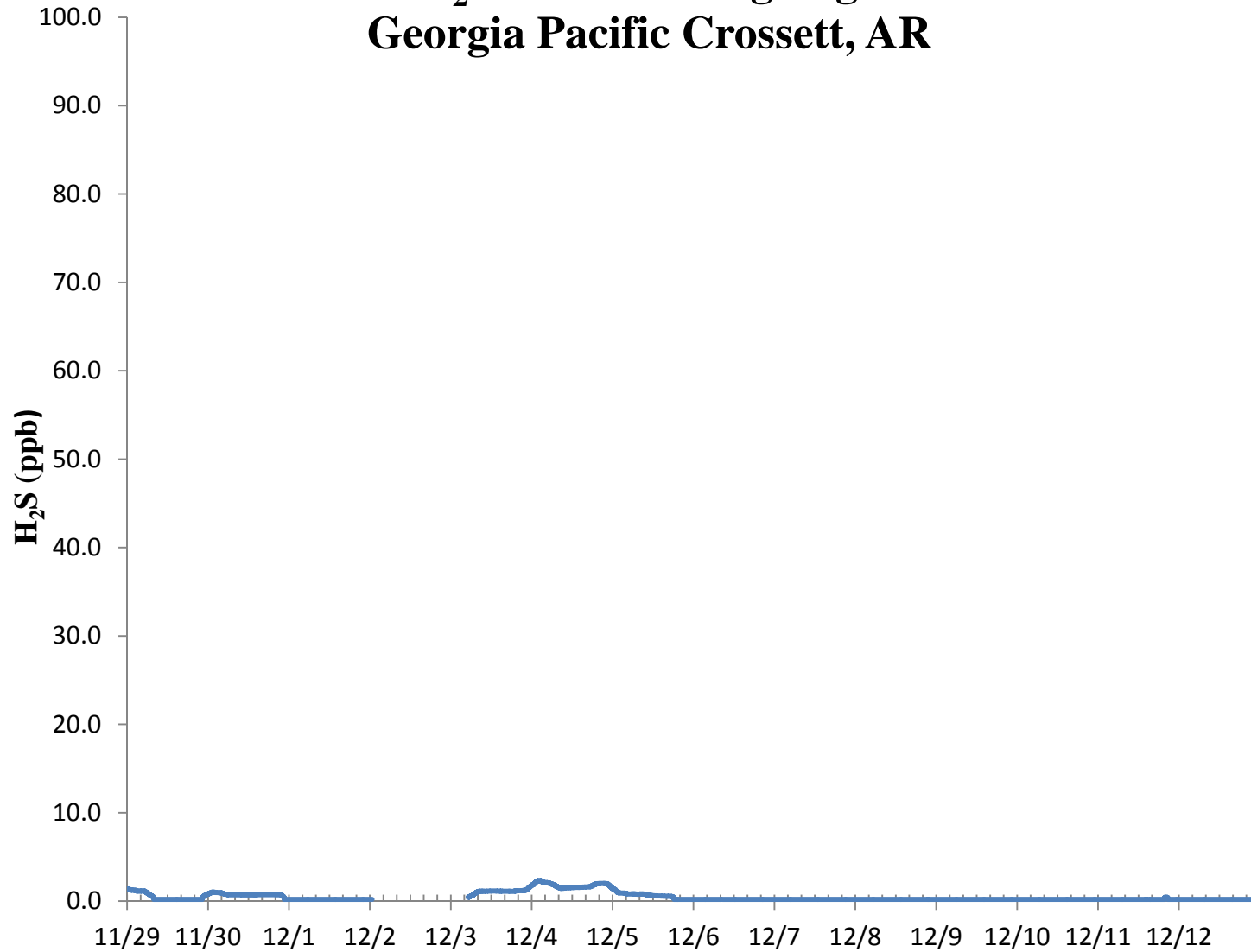
H₂S 30 Min Rolling Avg Georgia Pacific Crossett, AR



H₂S 8 Hr Rolling Avg Georgia Pacific Crossett, AR



H₂S 24 Hr Rolling Avg Georgia Pacific Crossett, AR



H₂S Assessment

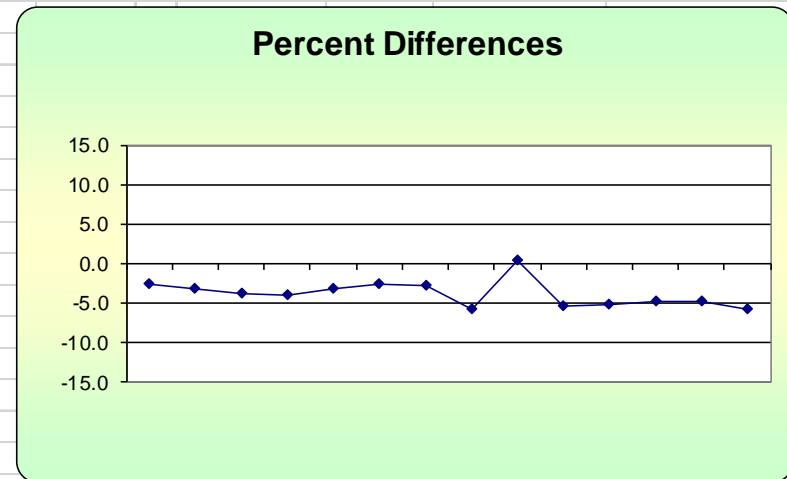
GP - Crossett, AR			Compound of Interest: H ₂ S				CV _{ub} (%)	Bias (%)	
Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d ²	d	d ²		
11/29/2017 13:00	68.2	70.0	-2.6	-5.036	6.612	2.571	6.612		
11/30/2017 13:00	67.8	70.0	-3.1	75th Percentile	9.878	3.143	9.878		
12/1/2017 13:00	67.3	70.0	-3.9	-2.821	14.878	3.857	14.878		
12/2/2017 13:00	67.2	70.0	-4.0		16.000	4.000	16.000		
12/3/2017 13:00	67.8	70.0	-3.1		9.878	3.143	9.878		
12/4/2017 13:00	68.2	70.0	-2.6		6.612	2.571	6.612		
12/5/2017 13:00	68.1	70.0	-2.7		7.367	2.714	7.367		
12/6/2017 13:00	66.0	70.0	-5.7		32.653	5.714	32.653		
12/7/2017 13:00	70.3	70.0	0.4		0.184	0.429	0.184		
12/8/2017 13:00	66.3	70.0	-5.3		27.939	5.286	27.939		
12/9/2017 13:00	66.4	70.0	-5.1		26.449	5.143	26.449		
12/10/2017 13:00	66.7	70.0	-4.7		22.224	4.714	22.224		
12/11/2017 13:00	66.7	70.0	-4.7		22.224	4.714	22.224		
12/12/2017 13:00	66.0	70.0	-5.7		32.653	5.714	32.653		

n	S_d	S_{d2}	Σ d 	"AB" (Eqn 4)
14	1.664	10.567	53.714	3.837
n-1	Σd	Σd²	Σ d ²	"AS" (Eqn 5)
13	-52.857	235.551	235.551	1.505

Bias (%) (Eqn 3)	Both Signs Positive
4.55	FALSE
Signed Bias (%)	Both Signs Negative
-4.55	TRUE

CV (%) (Eqn 2)	2.26
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Upper Probability Limit	Lower Probability Limit
-0.51	-7.04



Meteorological Summary

