

April 9, 2019



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April 9, 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 (H₂S) and meteorological monitoring program covering the calendar period of March 20, 2019 through April 2, 2019.

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 ± 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.

TRC personnel were on -site to perform routine maintenance on March 27th, which interrupted the automated calibration check scheduled for that day. Results for available automated daily 1-point QC checks were within the accuracy objective, ± 10%, indicating the H₂S monitor was operating in accordance with MQOs as stated in the QAPP.

During this reporting period one automated zero check was performed. The result for this zero check is presented in the following table.



Date	Zero Check Response (ppb)
3/20/2019	0.2

Because the calibration check was interrupted on March 27th, TRC personnel performed manual zero and span checks on March 29th. The span concentration generated was 399 ppb with the analyzer's response at 427 ppb; the analyzer's response for the zero check was 1.1 ppb. Following this manual check the instrument zero was adjusted


Data Capture

There was a single occurrence of H₂S data loss this monitoring period, in addition to those resulting from automated daily 1-point QC and weekly calibration checks. On March 29th, TRC performed manual zero and span checks, responsible for approximately one hour of invalid H₂S data.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final charts. 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,

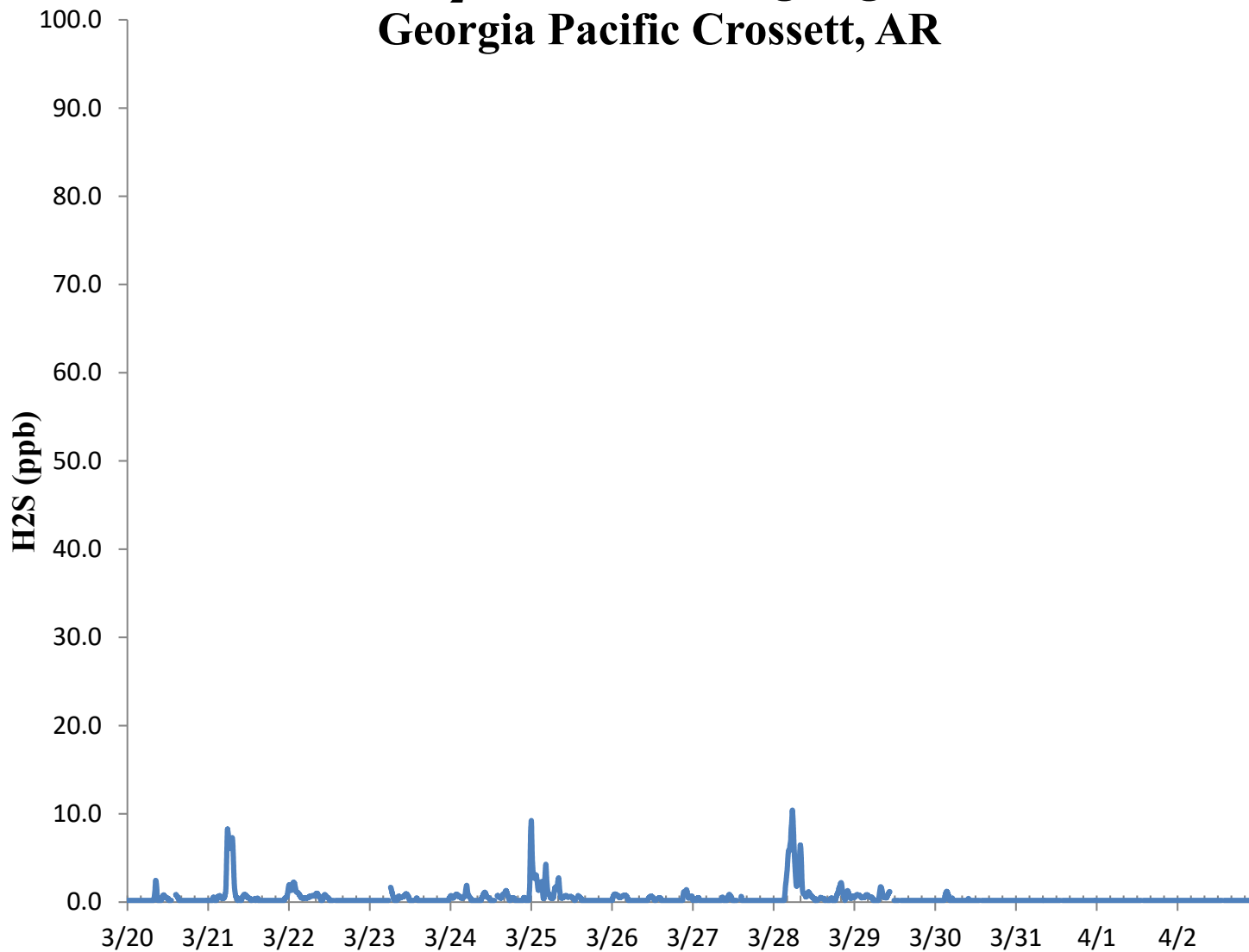


Jonathan Bowser
Manager, Air Quality and Meteorological Monitoring

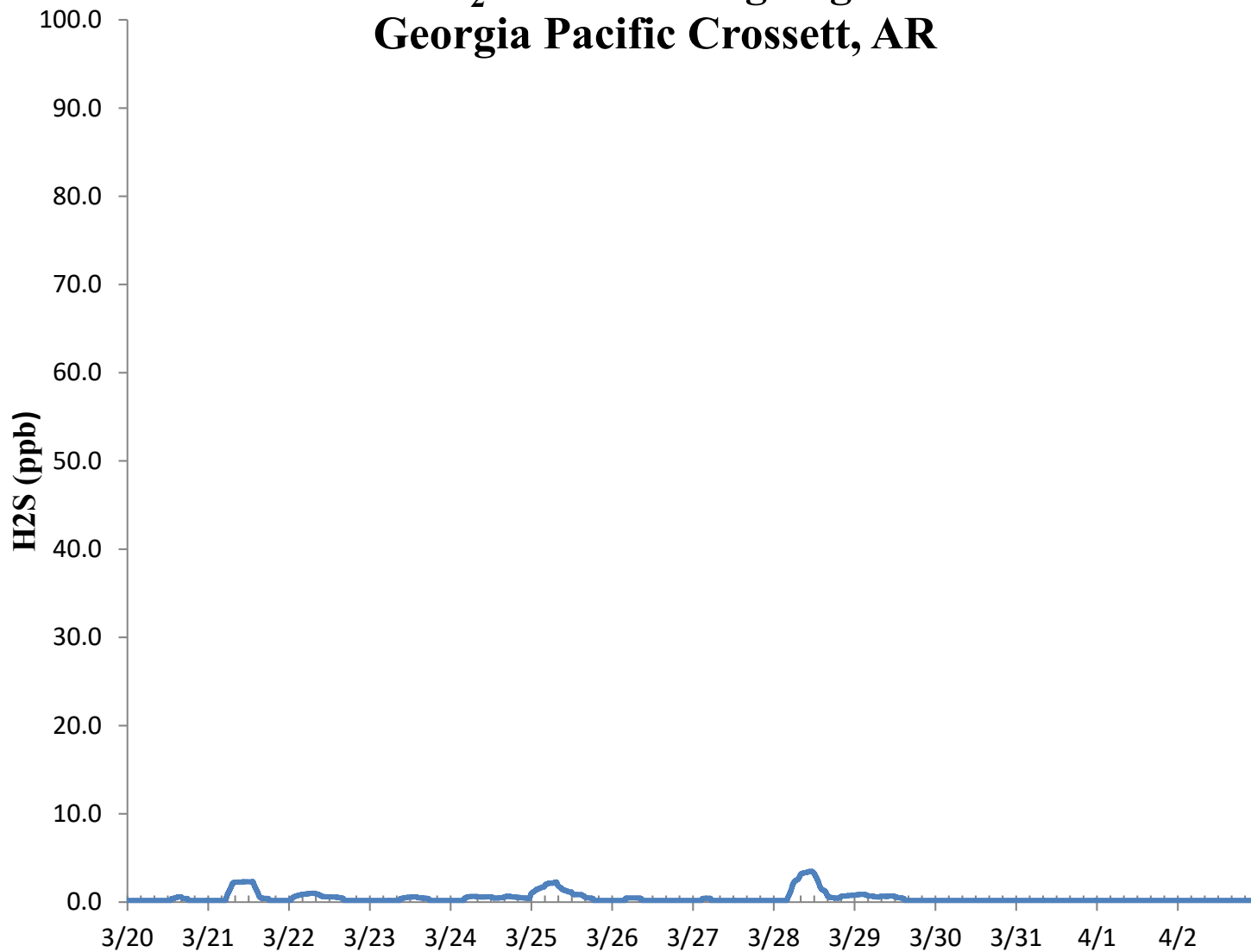
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CC: Becky Keough, ADEQ Director via email: keogh@adeq.state.ar.us
Kara Allen, Environmental Engineer, USEPA Region 6 via email Allen.Kara@epa.gov

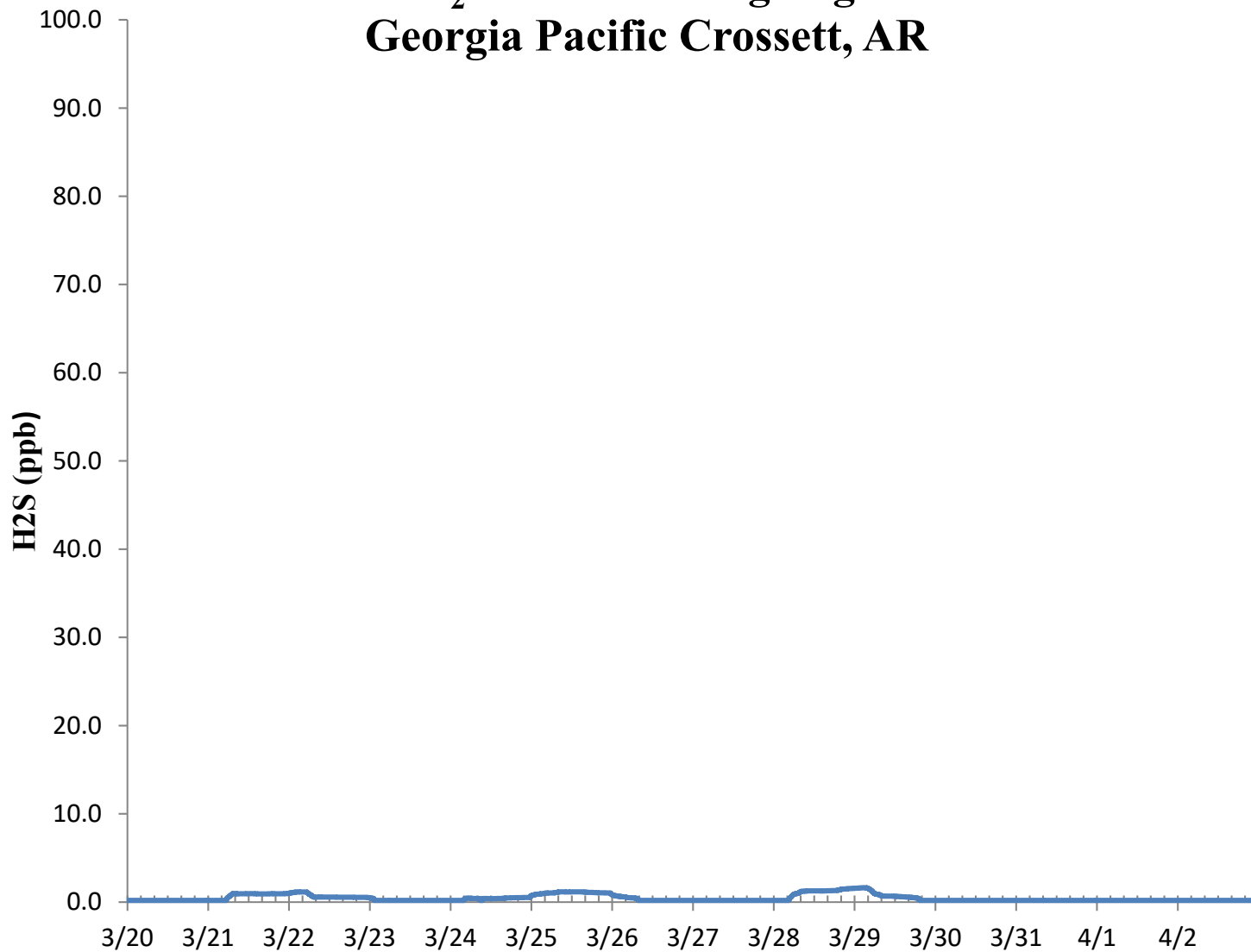
H₂S 30 Min Rolling Avg Georgia Pacific Crossett, AR



H₂S 8 Hr Rolling Avg Georgia Pacific Crossett, AR



H₂S 24 Hr Rolling Avg Georgia Pacific Crossett, AR



H₂S Assessment

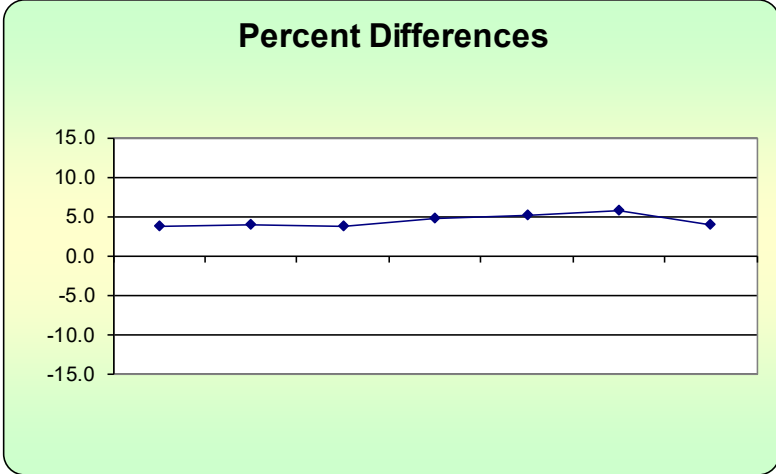
GP - Crossett, AR			Compound of Interest: H ₂ S			CV _{ub} (%)	Bias (%)	
Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d ²	d	d ²	
3/20/2019 13:00	72.6	70.0	3.7	3.714	13.796	3.714	13.796	
3/21/2019 13:00	72.8	70.0	4.0	75th Percentile	16.000	4.000	16.000	
3/22/2019 13:00	72.7	70.0	3.9	5.143	14.878	3.857	14.878	
3/23/2019 13:00	73.3	70.0	4.7		22.224	4.714	22.224	
3/24/2019 13:00	73.6	70.0	5.1		26.449	5.143	26.449	
3/25/2019 13:00	74.0	70.0	5.7		32.653	5.714	32.653	
3/26/2019 13:00	72.8	70.0	4.0		16.000	4.000	16.000	
3/28/2019 13:00	73.2	70.0	4.6		20.898	4.571	20.898	
3/29/2019 13:00	73.9	70.0	5.6		31.041	5.571	31.041	
3/30/2019 13:00	74.1	70.0	5.9		34.306	5.857	34.306	
3/31/2019 13:00	71.9	70.0	2.7		7.367	2.714	7.367	
4/1/2019 13:00	71.4	70.0	2.0		4.000	2.000	4.000	
4/2/2019 13:00	72.1	70.0	3.0		9.000	3.000	9.000	

n	S_d	S_{d2}	Σ d 	"AB" (Eqn 4)
13	1.195	9.821	54.857	4.220
n-1	Σd	Σd²	Σ d ²	"AS" (Eqn 5)
12	54.857	248.612	248.612	1.195

Bias (%) (Eqn 3)	Both Signs Positive
4.81	TRUE
Signed Bias (%)	Both Signs Negative
+4.81	FALSE

CV (%) (Eqn 2)	1.65
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Upper Probability Limit	Lower Probability Limit
6.56	1.88



Meteorological Summary

