

February 7, 2019



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February 7, 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 January 23, 2018 through February 5, 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.

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 two automated zero checks were performed. The results for these zero checks are presented on the following page.



Date	Zero Check Response (ppb)
1/23/2019	0.9
1/30/2019	0.9

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. Late in the evening of February 2nd the H₂S analyzer shut down. Power was cycled back to the analyzer the morning of February 3rd. Following analyzer start-up, a zero and calibration check was performed, and the zero was then adjusted to minimize analyzer drift. H₂S data came back online at 10:21 am on February 3rd, resulting in a total of approximately eight hours of H₂S data loss.

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,

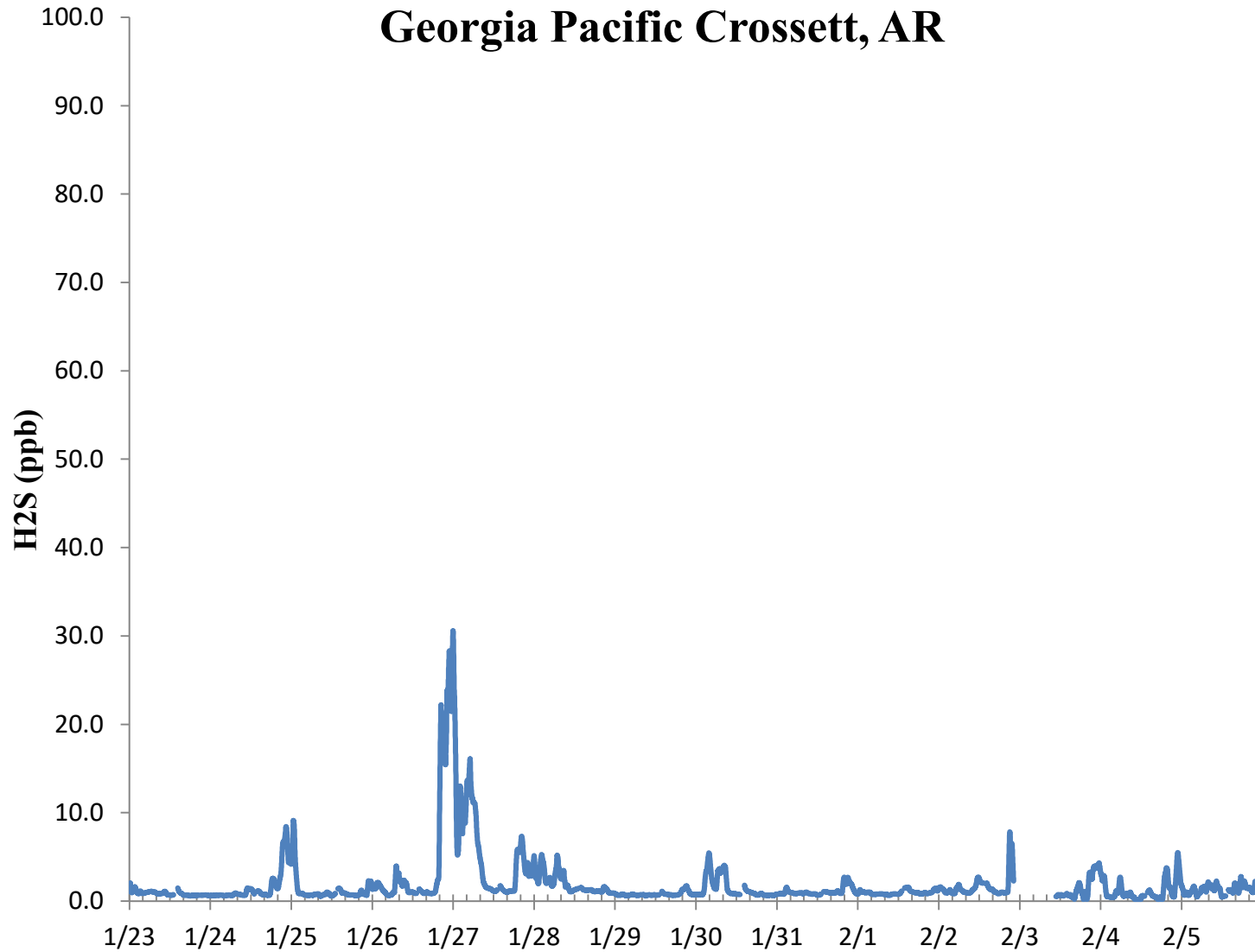


Jonathan Bowser
Manager, Air Quality and Meteorological Monitoring

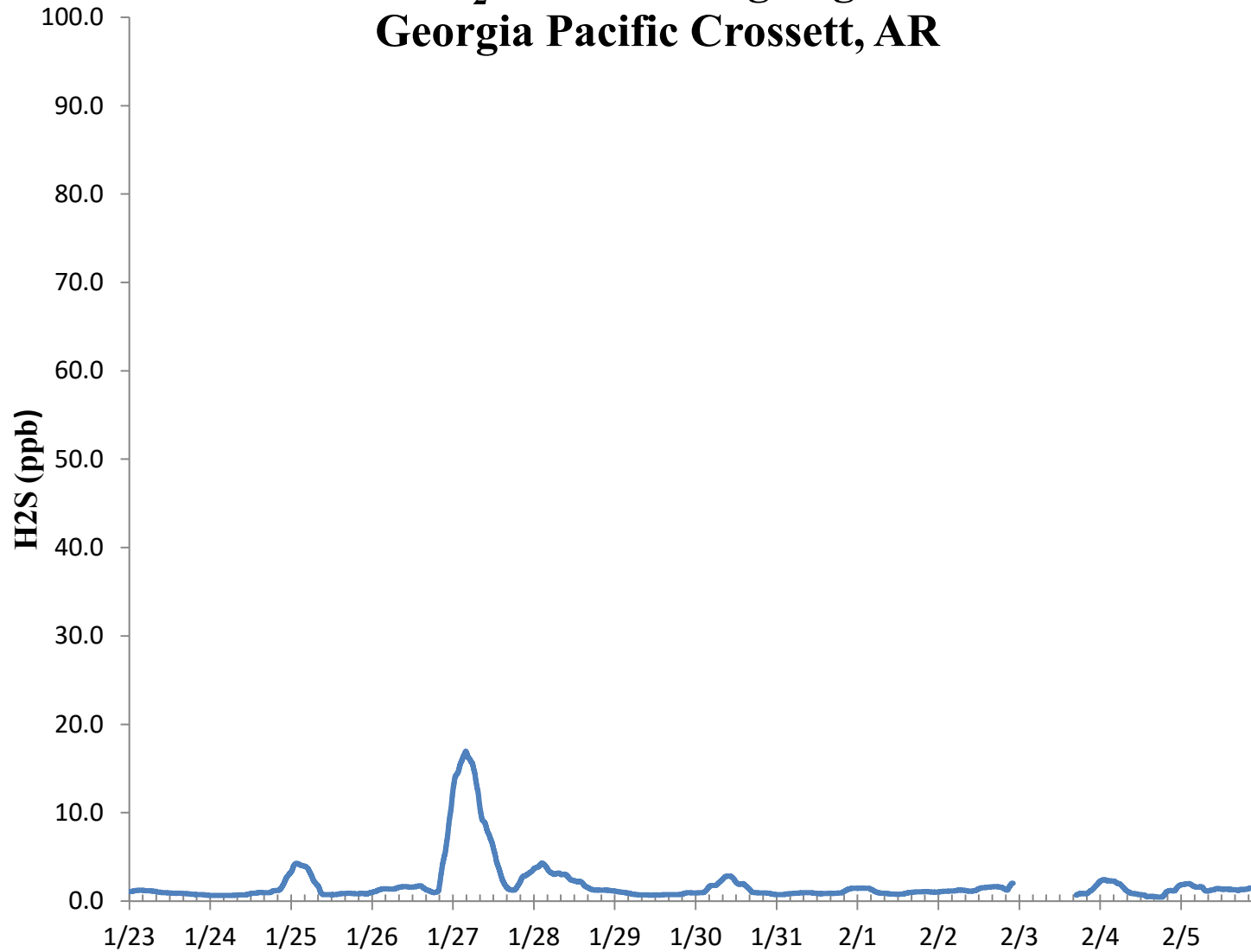
Air Measurements – Gainesville Office
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Email: jbowser@trcsolutions.com

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

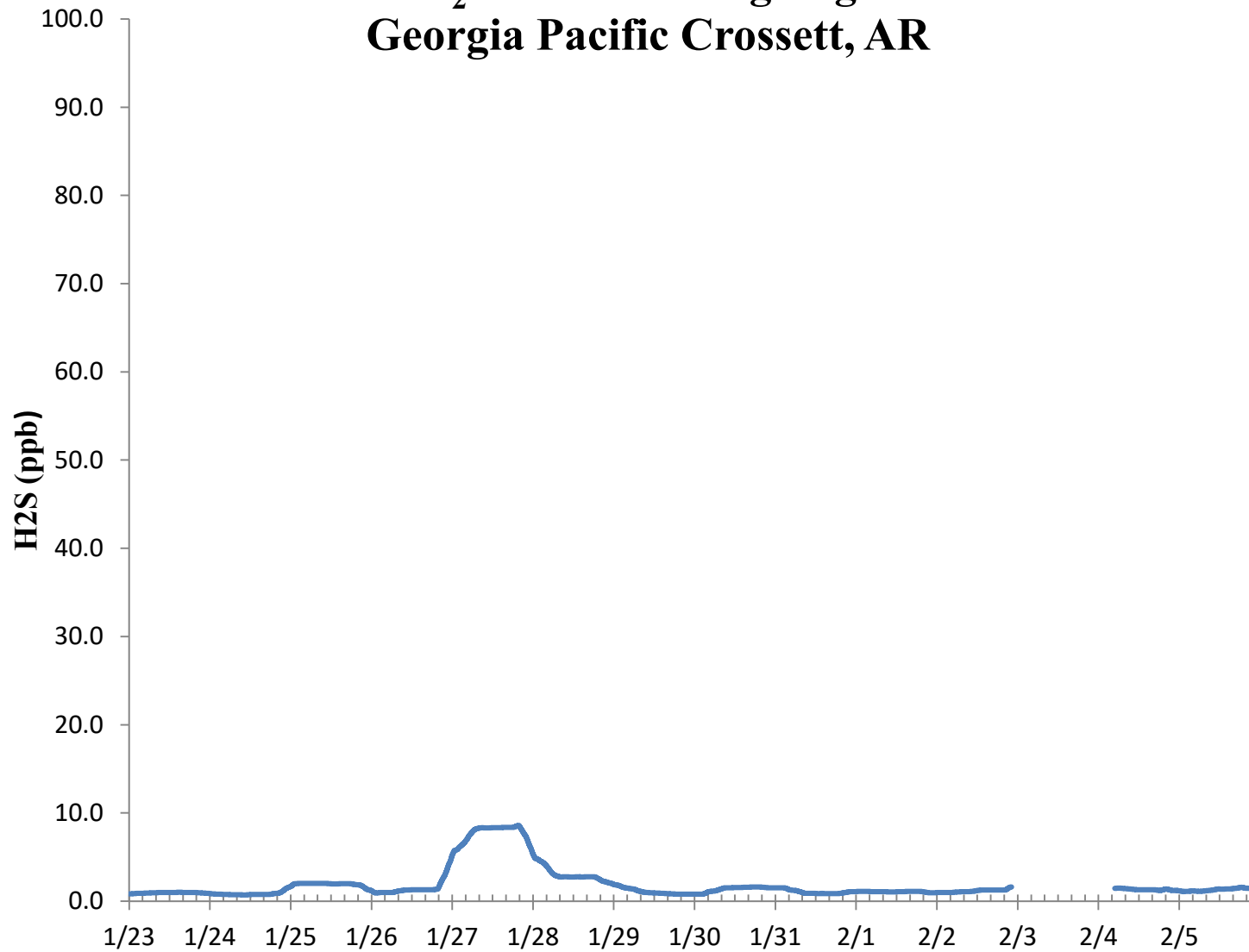
H₂S 30 Min Rolling Avg Georgia Pacific Crossett, AR



H₂S 8 Hr Rolling Avg Georgia Pacific Crossett, AR



H₂S 24 Hr Rolling Avg Georgia Pacific Crossett, AR



H₂S Assessment

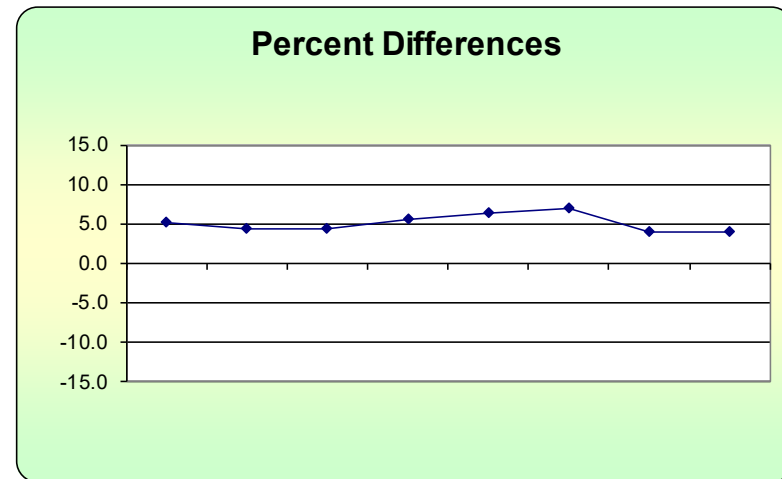
GP - Crossett, AR			Compound of Interest: H ₂ S			CV _{ub} (%)		Bias (%)	
Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d ²	d	d ²		
1/23/2019 13:00	73.6	70.0	5.1	4.500	26.449	5.143	26.449		
1/24/2019 13:00	73.0	70.0	4.3	75th Percentile	18.367	4.286	18.367		
1/25/2019 13:00	73.0	70.0	4.3	6.429	18.367	4.286	18.367		
1/26/2019 13:00	73.9	70.0	5.6		31.041	5.571	31.041		
1/27/2019 13:00	74.5	70.0	6.4		41.327	6.429	41.327		
1/28/2019 13:00	74.8	70.0	6.9		47.020	6.857	47.020		
1/29/2019 13:00	72.8	70.0	4.0		16.000	4.000	16.000		
1/30/2019 13:00	72.8	70.0	4.0		16.000	4.000	16.000		
1/31/2019 13:00	73.8	70.0	5.4		29.469	5.429	29.469		
2/1/2019 13:00	74.1	70.0	5.9		34.306	5.857	34.306		
2/2/2019 13:00	74.5	70.0	6.4		41.327	6.429	41.327		
2/3/2019 13:00	74.3	70.0	6.1		37.735	6.143	37.735		
2/4/2019 13:00	74.5	70.0	6.4		41.327	6.429	41.327		
2/5/2019 13:00	75.0	70.0	7.1		51.020	7.143	51.020		

n	S_d	S_{d2}	Σ d 	"AB" (Eqn 4)
14	1.081	11.794	78.000	5.571
n-1	Σd	Σd²	Σ d ²	"AS" (Eqn 5)
13	78.000	449.755	449.755	1.081

Bias (%) (Eqn 3)	Both Signs Positive
6.08	TRUE
Signed Bias (%)	Both Signs Negative
+6.08	FALSE

CV (%) (Eqn 2)	1.47
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Upper Probability Limit	Lower Probability Limit
7.69	3.45



Meteorological Summary

