

March 14, 2019



6312 NW 18<sup>th</sup> Drive  
Suite 100  
Gainesville, FL 32653

352.378.0332 PHONE  
352.378.0354 FAX

[www.TRCSolutions.com](http://www.TRCSolutions.com)

March 14, 2019

Ms. Lori Simmons  
Arkansas Department of Health  
4815 West Markham Street  
Little Rock, Arkansas 72205  
Via email [Lori.Simmons@arkansas.gov](mailto: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<sub>2</sub>S) and meteorological monitoring program covering the calendar period of February 20, 2019 through March 5, 2019.

#### Summary of Results

Included in this report are three plots presenting H<sub>2</sub>S 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<sub>2</sub>S 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<sub>2</sub>S 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.



<b>Date</b>	<b>Zero Check Response (ppb)</b>
2/20/2019	0.4
2/27/2019	0.4

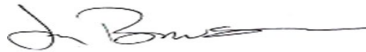
Data Capture

There were no occurrences of H<sub>2</sub>S data loss this monitoring period, other than those resulting from automated daily 1-point QC and weekly calibration checks.

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,



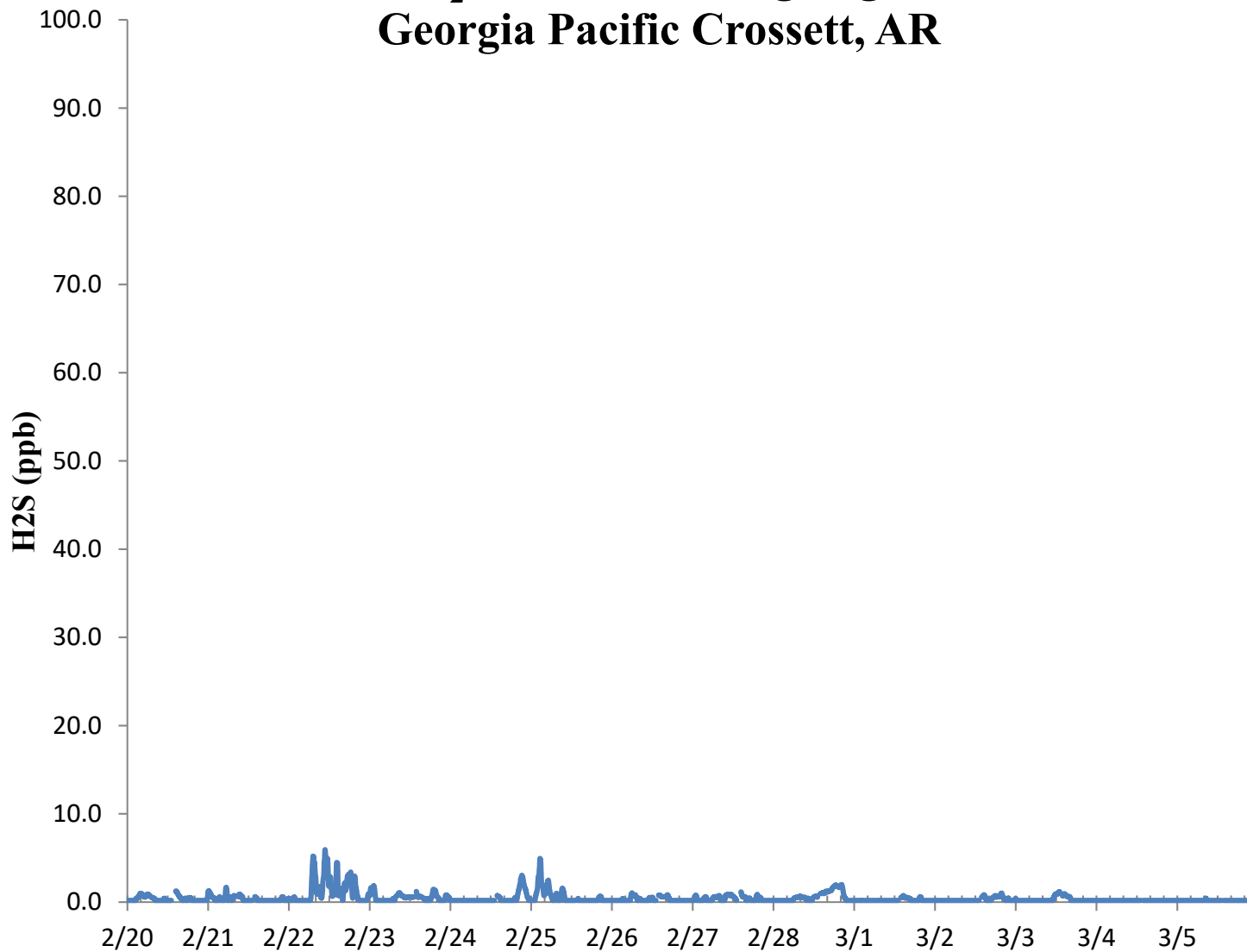
---

Jonathan Bowser  
Manager, Air Quality and Meteorological Monitoring

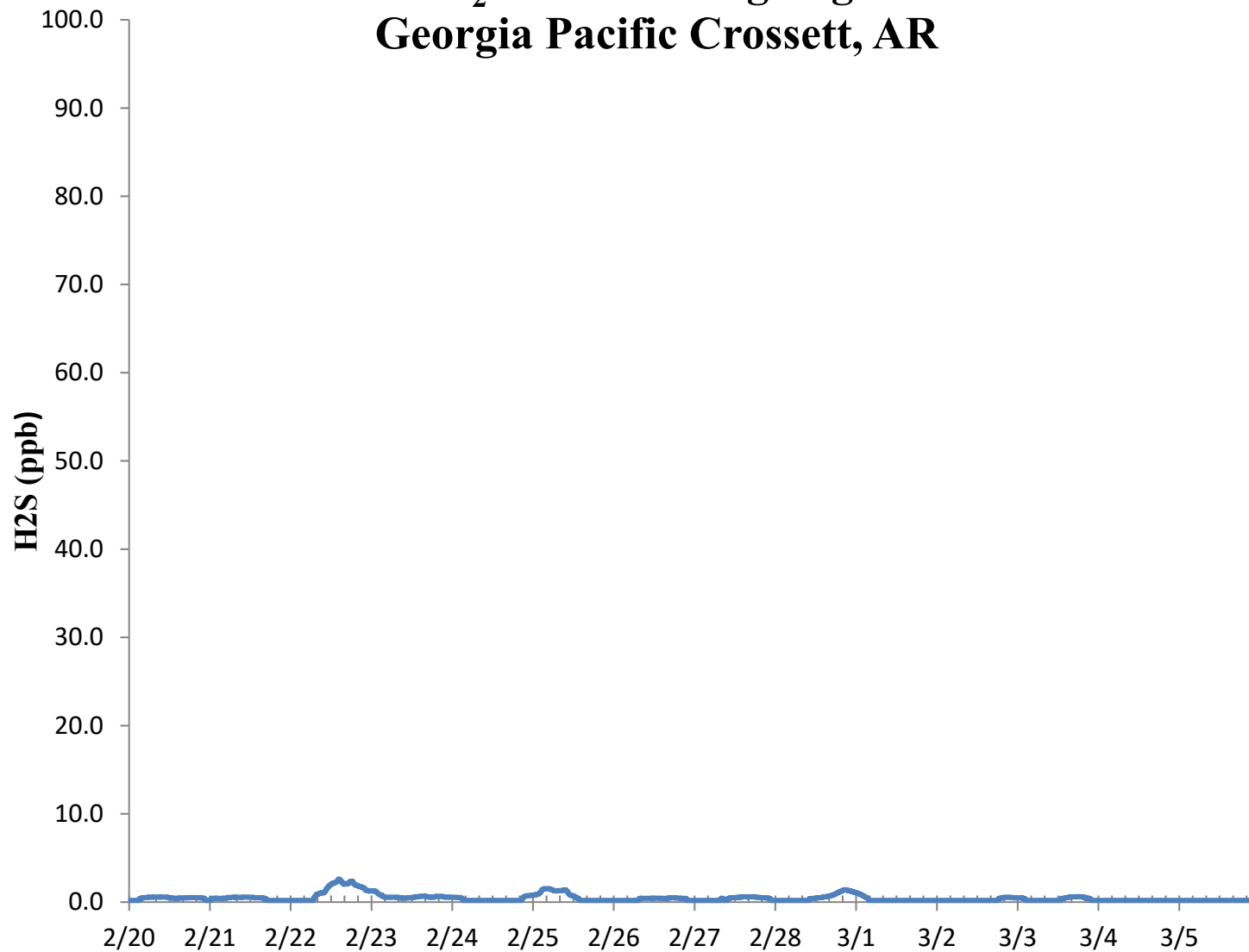
Air Measurements – Gainesville Office  
6312 NW 18th Drive, Suite 100  
Gainesville, Florida 32653  
(352) 260-1162  
Email: [jbowser@trcsolutions.com](mailto:jbowser@trcsolutions.com)

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

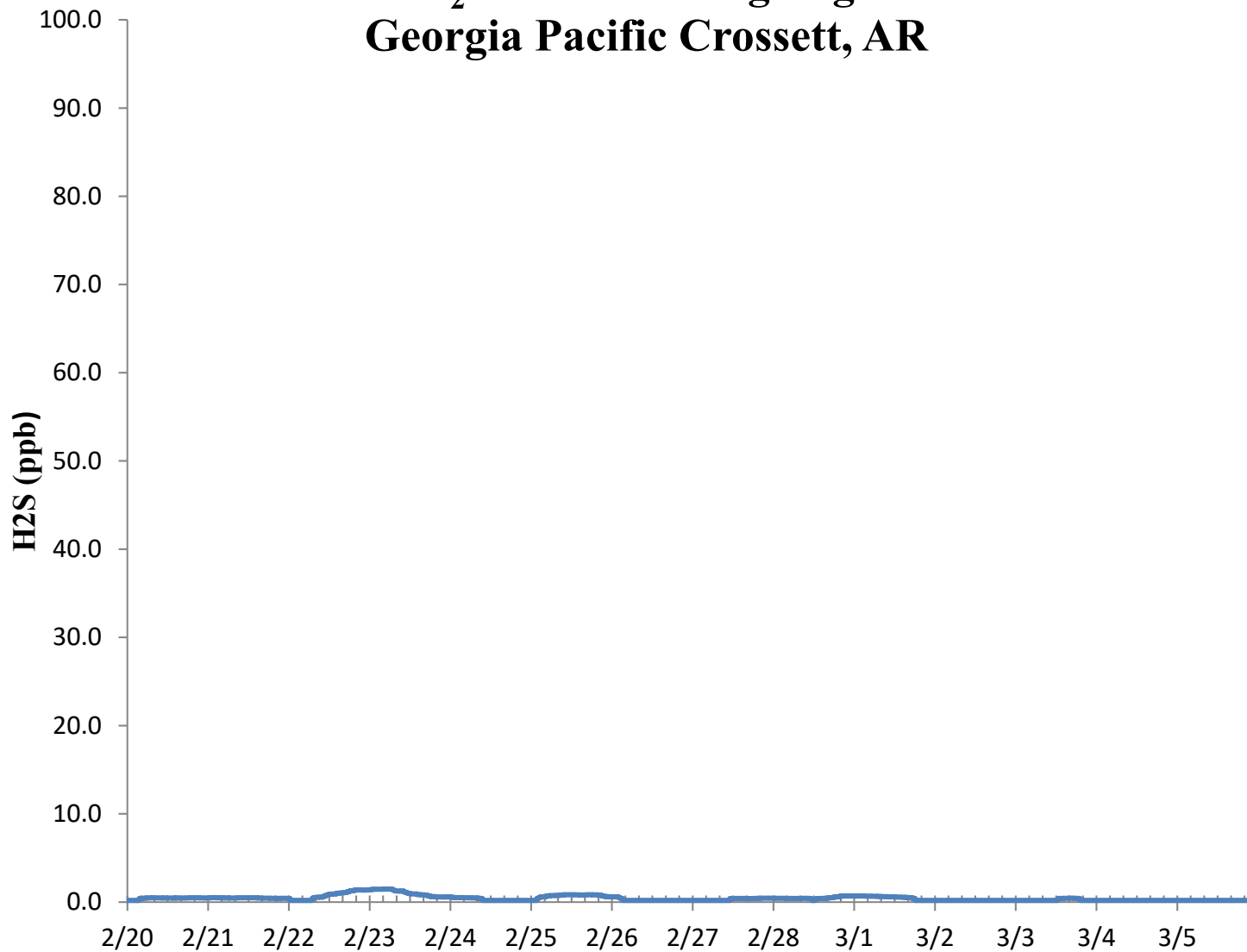
### H<sub>2</sub>S 30 Min Rolling Avg Georgia Pacific Crossett, AR



## H<sub>2</sub>S 8 Hr Rolling Avg Georgia Pacific Crossett, AR



## H<sub>2</sub>S 24 Hr Rolling Avg Georgia Pacific Crossett, AR



### H<sub>2</sub>S Assessment

GP - Crossett, AR			Compound of Interest: H <sub>2</sub> S			CV <sub>ub</sub> (%)			Bias (%)			
Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d <sup>2</sup>	d	d  <sup>2</sup>	n	S <sub>d</sub>	S <sub>d2</sub>	Σ d	"AB" (Eqn 4)
2/20/2019 13:00	74.1	70.0	5.9	4.143	34.306	5.857	34.306	14	1.490	14.017	70.429	5.031
2/21/2019 13:00	74.1	70.0	5.9	<b>75th Percentile</b>	34.306	5.857	34.306	n-1	Σd	Σd <sup>2</sup>	Σ d  <sup>2</sup>	"AS" (Eqn 5)
2/22/2019 13:00	73.8	70.0	5.4	5.857	29.469	5.429	29.469	13	70.429	383.163	383.163	1.490
2/23/2019 13:00	75.2	70.0	7.4		55.184	7.429	55.184					
2/24/2019 13:00	72.8	70.0	4.0		16.000	4.000	16.000					
2/25/2019 13:00	72.8	70.0	4.0		16.000	4.000	16.000					
2/26/2019 13:00	74.0	70.0	5.7		32.653	5.714	32.653					
2/27/2019 13:00	74.1	70.0	5.9		34.306	5.857	34.306					
2/28/2019 13:00	74.7	70.0	6.7		45.082	6.714	45.082					
3/1/2019 13:00	73.8	70.0	5.4		29.469	5.429	29.469					
3/2/2019 13:00	73.2	70.0	4.6		20.898	4.571	20.898					
3/3/2019 13:00	73.5	70.0	5.0		25.000	5.000	25.000					
3/4/2019 13:00	71.7	70.0	2.4		5.898	2.429	5.898					
3/5/2019 13:00	71.5	70.0	2.1		4.592	2.143	4.592					

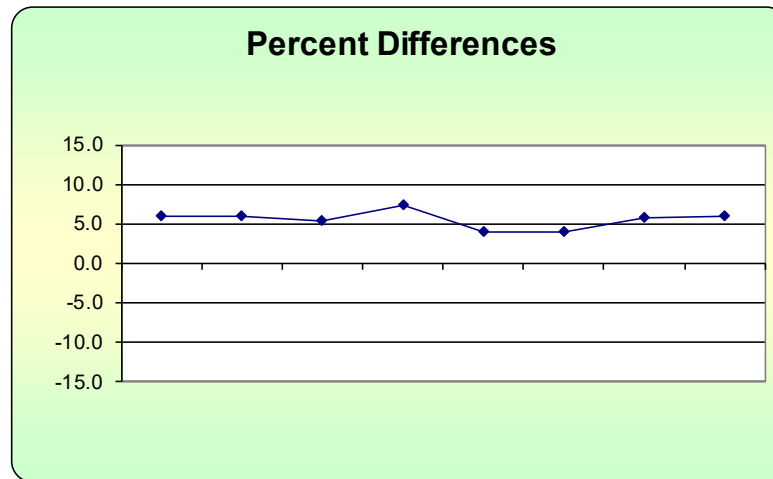
<b>Bias (%) (Eqn 3)</b>	5.74	Both Signs Positive
<b>Signed Bias (%)</b>	+5.74	Both Signs Negative
<b>FALSE</b>		

<b>CV (%) (Eqn 2)</b>	2.02
-----------------------	------

<b>Upper Probability Limit</b>	7.95	<b>Lower Probability Limit</b>	2.11
--------------------------------	------	--------------------------------	------



Meteorological Summary

