

January 15, 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)

January 15, 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 December 26, 2018 through January 8, 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.



January 15, 2019

Date	Zero Check Response (ppb)
12/26/2018	-0.2
1/2/2019	-0.2

Data Capture

There were multiple brief occurrences of H<sub>2</sub>S data loss this monitoring period, in addition to those resulting from automated daily 1-point QC and weekly calibration checks. Communications were interrupted, resulting in brief losses (< 15 minutes) of H<sub>2</sub>S data, on January 7<sup>th</sup> and 8<sup>th</sup>.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final charts. The same communication interruption mentioned above caused similar losses brief of met data on January 7<sup>th</sup> and 8<sup>th</sup>.

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

Sincerely,



---

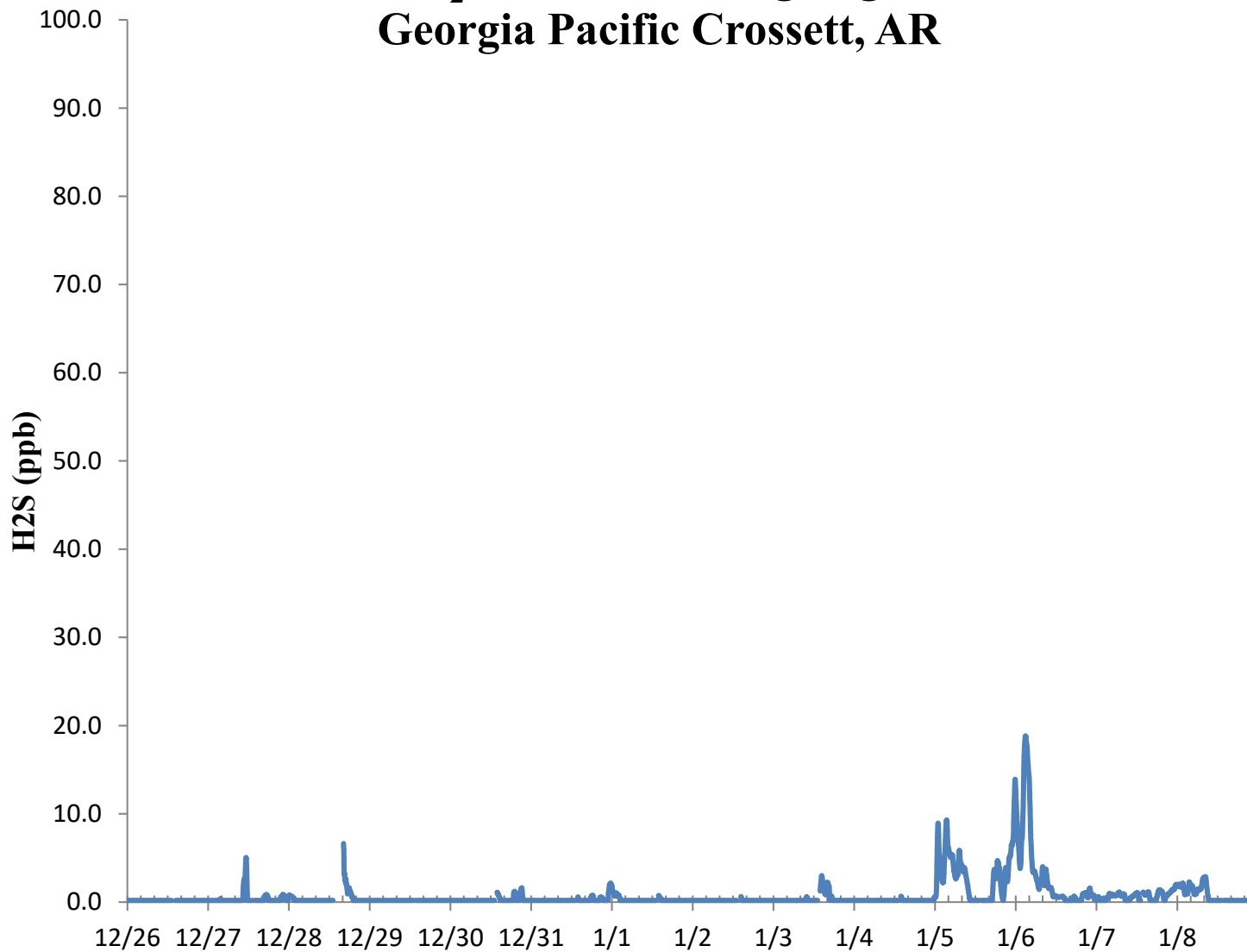
Jonathan Bowser  
Manager, Air Quality and Meteorological Monitoring

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

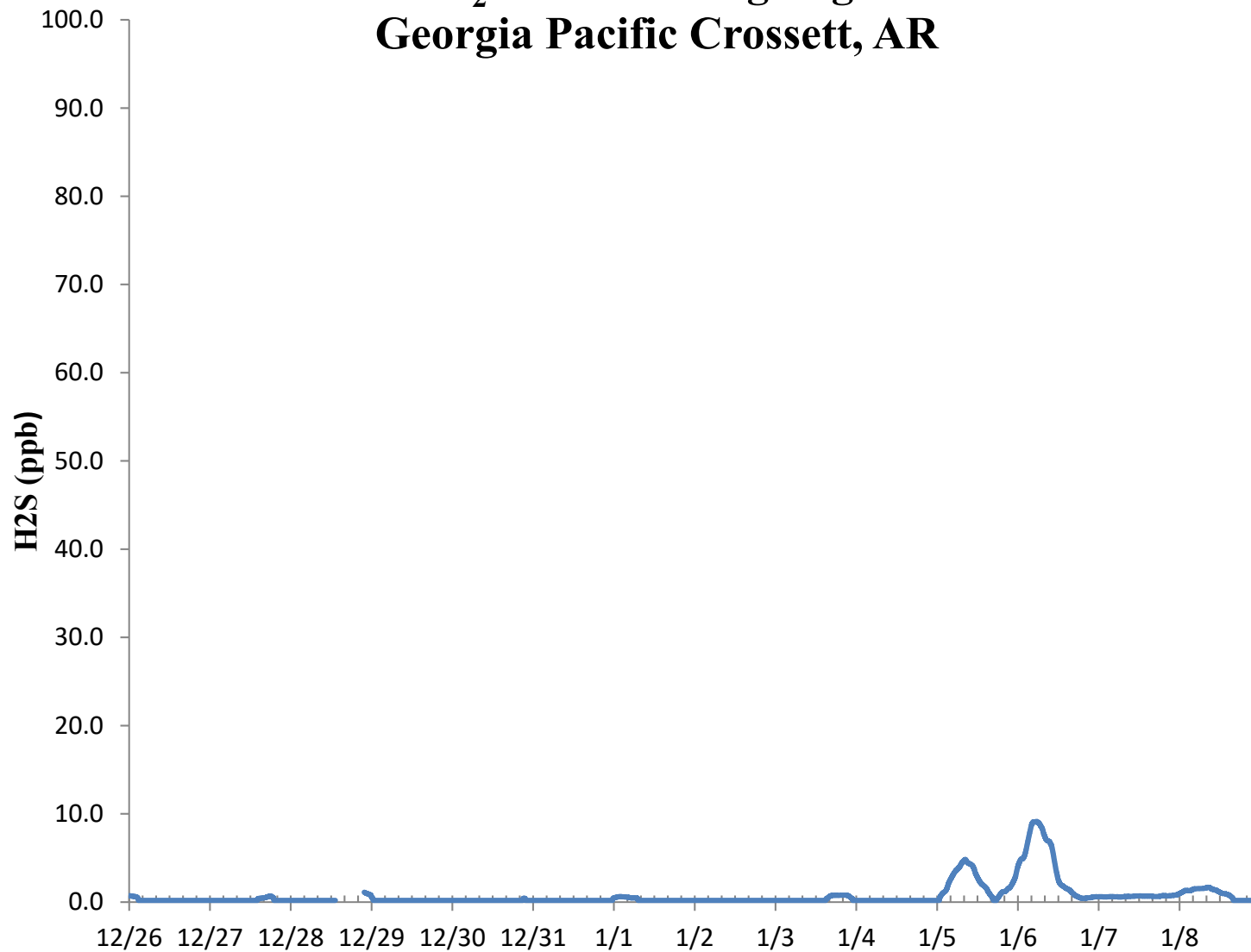
CC: Becky Keough, ADEQ Director via email: [keogh@adeq.state.ar.us](mailto:keogh@adeq.state.ar.us)  
Kara Allen, Environmental Engineer, USEPA Region 6 via email [Allen.Kara@epa.gov](mailto:Allen.Kara@epa.gov)



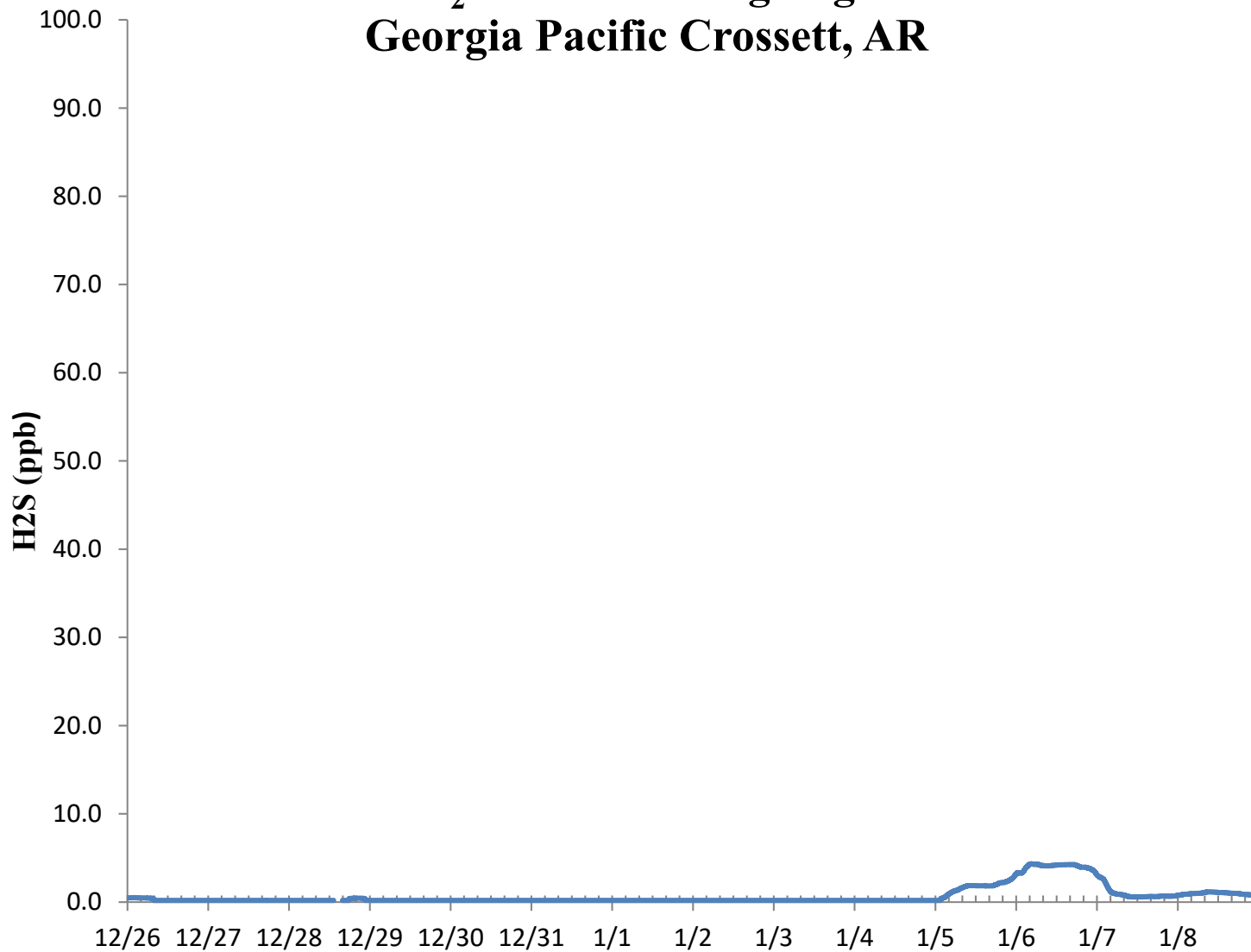
## H<sub>2</sub>S 30 Min Rolling Avg Georgia Pacific Crossett, AR



## 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)
12/26/2018 13:00	70.5	70.0	0.7	0.214	0.510	0.714	0.510	14	0.710	1.058	10.571	0.755
12/27/2018 13:00	70.3	70.0	0.4	0.964	0.184	0.429	0.184	n-1	Σd	Σd <sup>2</sup>	Σ d  <sup>2</sup>	"AS" (Eqn 5)
12/28/2018 13:00	70.4	70.0	0.6		0.327	0.571	0.327	13	8.571	11.796	11.796	0.542
12/29/2018 13:00	69.5	70.0	-0.7		0.510	0.714	0.510					
12/30/2018 13:00	70.1	70.0	0.1		0.020	0.143	0.020					
12/31/2018 13:00	70.7	70.0	1.0		1.000	1.000	1.000					
1/1/2019 13:00	69.9	70.0	-0.1		0.020	0.143	0.020					
1/2/2019 13:00	69.9	70.0	-0.1		0.020	0.143	0.020					
1/3/2019 13:00	70.4	70.0	0.6		0.327	0.571	0.327					
1/4/2019 13:00	70.6	70.0	0.9		0.735	0.857	0.735					
1/5/2019 13:00	70.3	70.0	0.4		0.184	0.429	0.184					
1/6/2019 13:00	71.0	70.0	1.4		2.041	1.429	2.041					
1/7/2019 13:00	71.3	70.0	1.9		3.449	1.857	3.449					
1/8/2019 13:00	71.1	70.0	1.6		2.469	1.571	2.469					

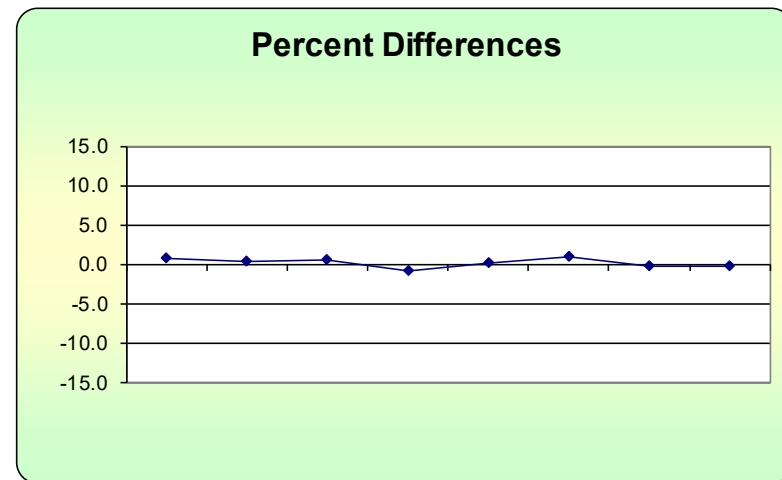
<b>Bias (%) (Eqn 3)</b>	Both Signs Positive
1.01	TRUE
<b>Signed Bias (%)</b>	Both Signs Negative
+1.01	FALSE

<b>CV (%) (Eqn 2)</b>	0.96
-----------------------	------

<b>Upper Probability Limit</b>	<b>Lower Probability Limit</b>
2	-0.78



Meteorological Summary

