

November 21, 2018



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)

November 21, 2018

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 October 17, 2018 through October 30, 2018.

#### 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.



Date	Zero Check Response (ppb)
10/17/2018	-0.2
10/24/2018	-0.3


### Data Capture

There were multiple occurrence 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. A server failure on October 27<sup>th</sup> was responsible for approximately five hours of H<sub>2</sub>S data loss. TRC personnel were on site on October 29<sup>th</sup> to perform maintenance on the H<sub>2</sub>S analyzer. Lamp replacement and subsequent calibration were responsible for approximately three hours of H<sub>2</sub>S data loss on the 29<sup>th</sup>.

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,



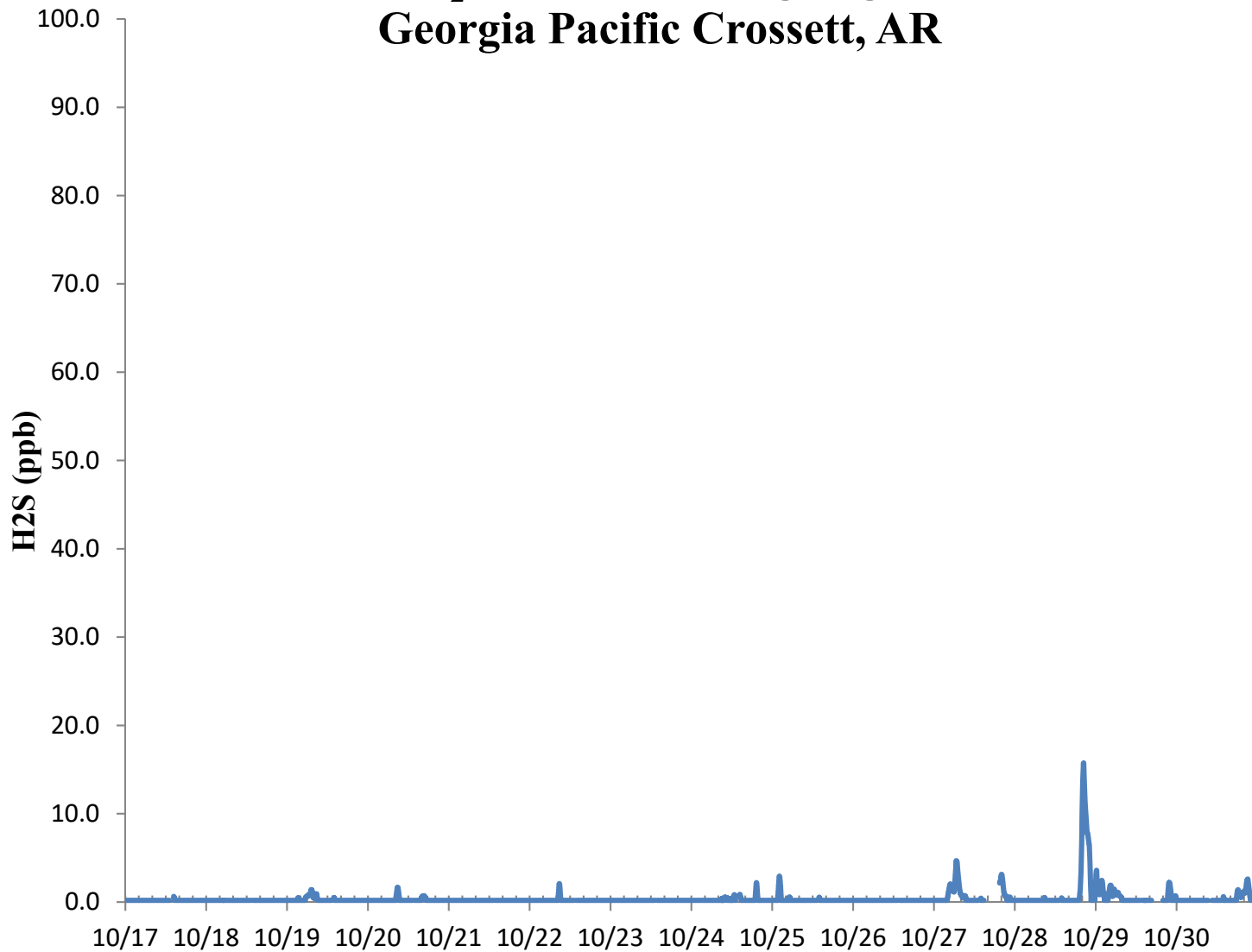

---

Jonathan Bowser  
Manager, Air Quality and Meteorological Monitoring

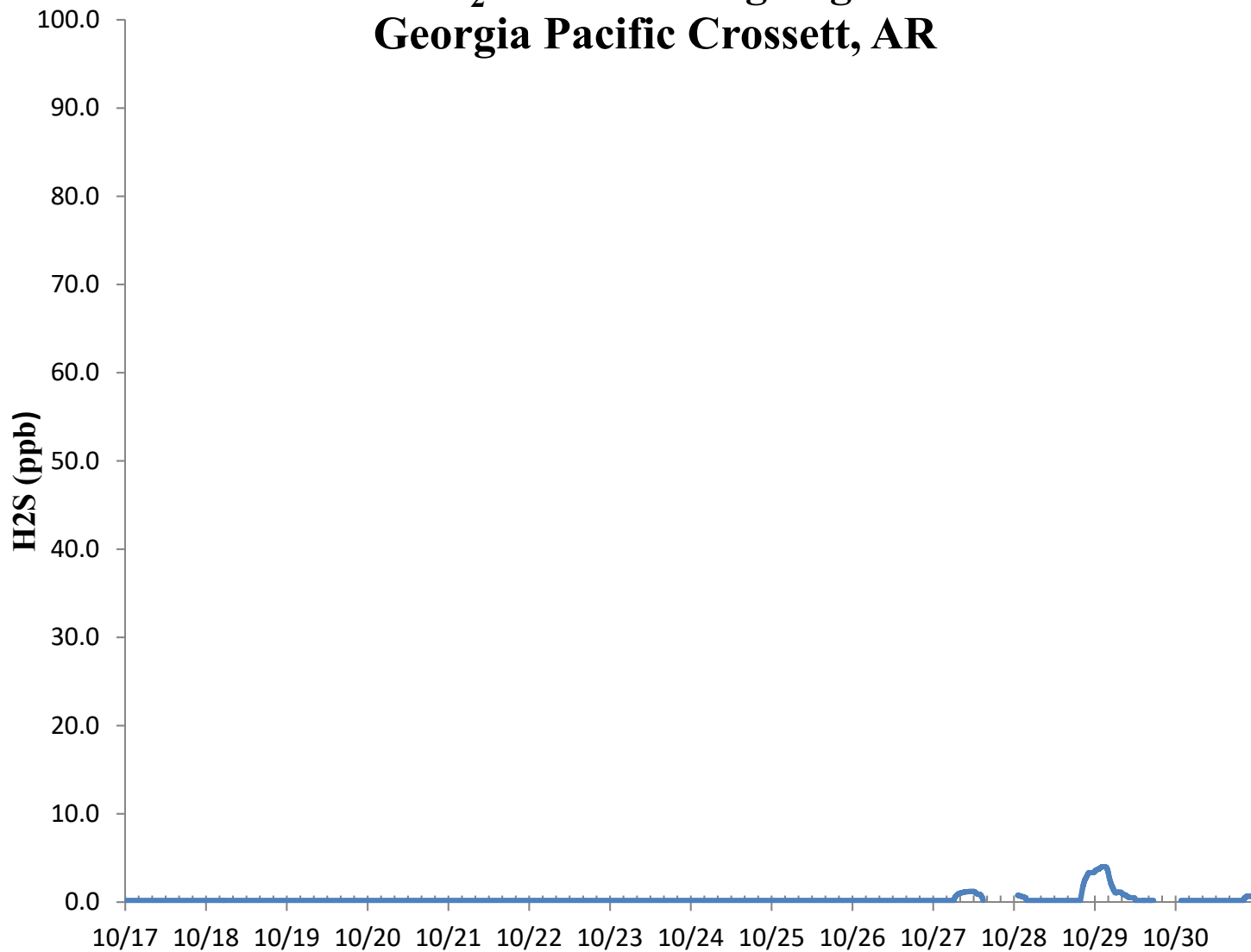
Air Measurements – Gainesville Office  
6312 NW 18th Drive, Suite 100  
Gainesville, Florida 32653  
(352) 260-1162  
Email: [jbowser@trcsolutions.com](mailto:jbowser@trcsolutions.com)

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)

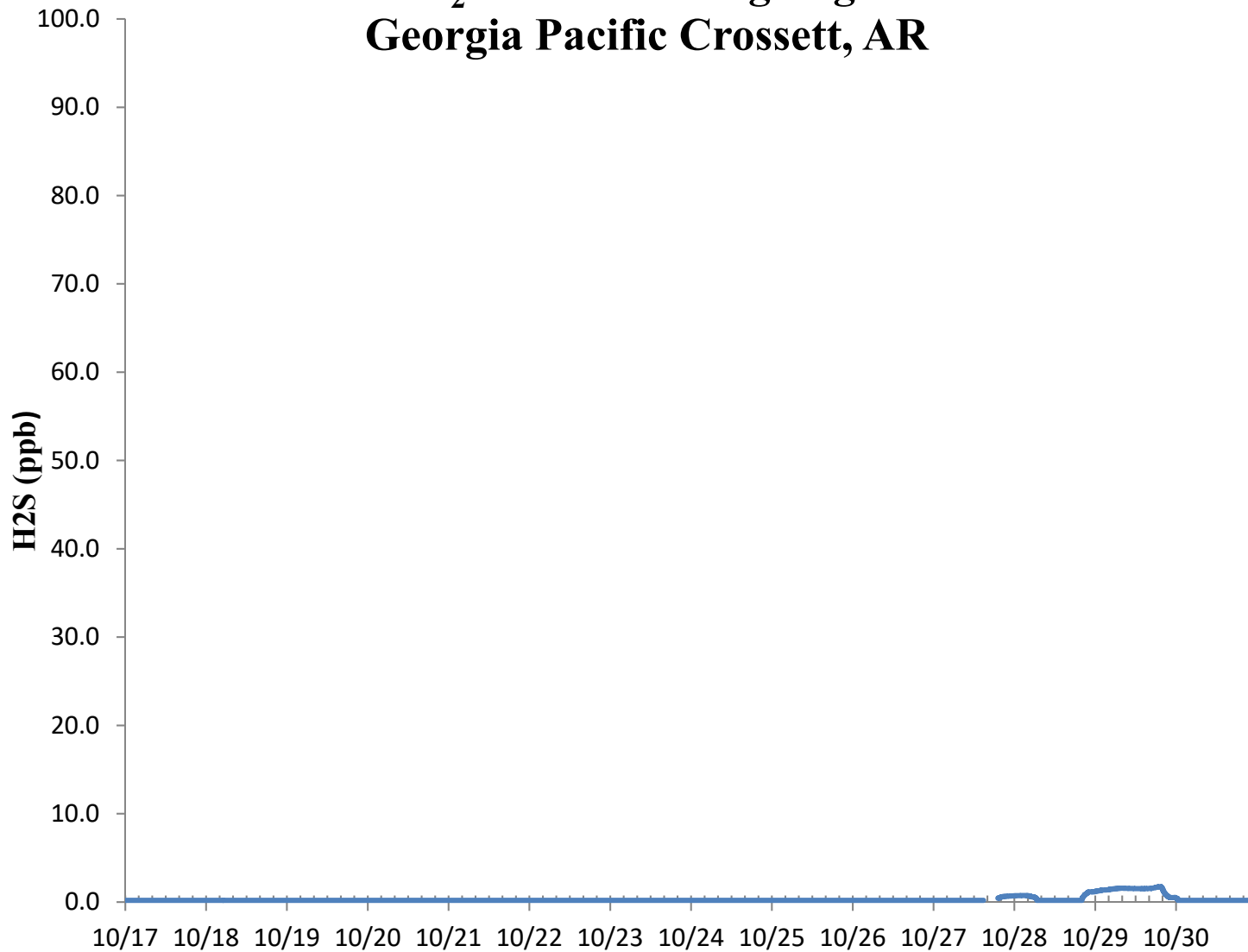
### H<sub>2</sub>S 30 Min Rolling Avg Georgia Pacific Crossett, AR



## 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>
10/17/2018 13:00	66.5	70.0	-5.0	-5.393	25.000	5.000	25.000
10/18/2018 13:00	66.4	70.0	-5.1	<b>75th Percentile</b>	26.449	5.143	26.449
10/19/2018 13:00	67.2	70.0	-4.0	-4.857	16.000	4.000	16.000
10/20/2018 13:00	66.2	70.0	-5.4		29.469	5.429	29.469
10/21/2018 13:00	66.3	70.0	-5.3		27.939	5.286	27.939
10/22/2018 13:00	66.6	70.0	-4.9		23.592	4.857	23.592
10/23/2018 13:00	66.5	70.0	-5.0		25.000	5.000	25.000
10/24/2018 13:00	66.4	70.0	-5.1		26.449	5.143	26.449
10/25/2018 13:00	67.0	70.0	-4.3		18.367	4.286	18.367
10/26/2018 13:00	66.6	70.0	-4.9		23.592	4.857	23.592
10/27/2018 13:00	65.8	70.0	-6.0		36.000	6.000	36.000
10/28/2018 13:00	66.0	70.0	-5.7		32.653	5.714	32.653
10/29/2018 13:00	65.7	70.0	-6.1		37.735	6.143	37.735
10/30/2018 13:00	71.2	70.0	1.7		2.939	1.714	2.939

<b>n</b>	<b>S<sub>d</sub></b>	<b>S<sub>d2</sub></b>	<b>Σ d </b>	<b>"AB" (Eqn 4)</b>
14	1.923	8.727	68.571	4.898
<b>n-1</b>	<b>Σd</b>	<b>Σd<sup>2</sup></b>	<b>Σ d <sup>2</sup></b>	<b>"AS" (Eqn 5)</b>
13	-65.143	351.184	351.184	1.086

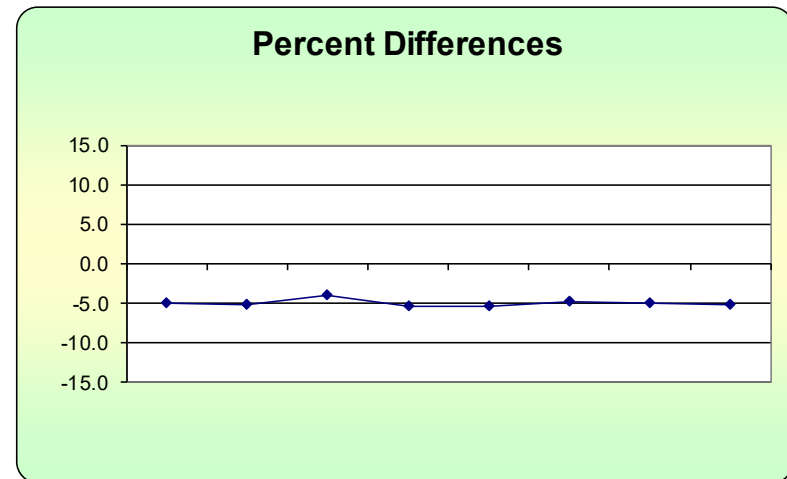
<b>Bias (%) (Eqn 3)</b>	Both Signs Positive
5.41	FALSE
<b>Signed Bias (%)</b>	Both Signs Negative
-5.41	TRUE

<b>CV (%) (Eqn 2)</b>	2.61
-----------------------	------

<b>Upper Probability Limit</b>	<b>Lower Probability Limit</b>
-0.88	-8.42



Meteorological Summary

