

6312 NW 18th Drive Suite 100 Gainesville, FL 32653

352.378.0332 PHONE 352.378.0354 FAX

www.TRCsolutions.com

July 7, 2016

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,

Following is the biweekly data summary for the Georgia-Pacific (GP) hydrogen sulfide (H₂S) and meteorological monitoring program, at the GP Crossett mill, covering the calendar period of June 15th through June 28th.

Summary of Results

Included in this report are three plots presenting H₂S concentrations calculated with varied rolling average periods (30-minute, 8-hour, and 24-hour). Please note, observed H₂S concentrations were elevated on June 26th. The highest recorded 30-min and 8-hour rolling average concentrations on the 26th were 83.6 ppb and 33.3 ppb, respectively.

Also included in this report is a summary of results from the daily 1-point QC checks performed during this biweekly period. The QAPP establishes goals for precision and bias as a coefficient of variation (CV) <10% and \pm 10%, respectively. Precision and bias are calculated in accordance with 40 CFR Part 58 Appendix A, Section 4.1.

There were no occurrences of data loss during this two week period, other than those resulting from automated daily 1-point QC and weekly calibration checks. Results for all available automated daily 1-point QC checks fall within the acceptable range, indicating the H₂S monitor was operating in accordance with the QAPP.

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

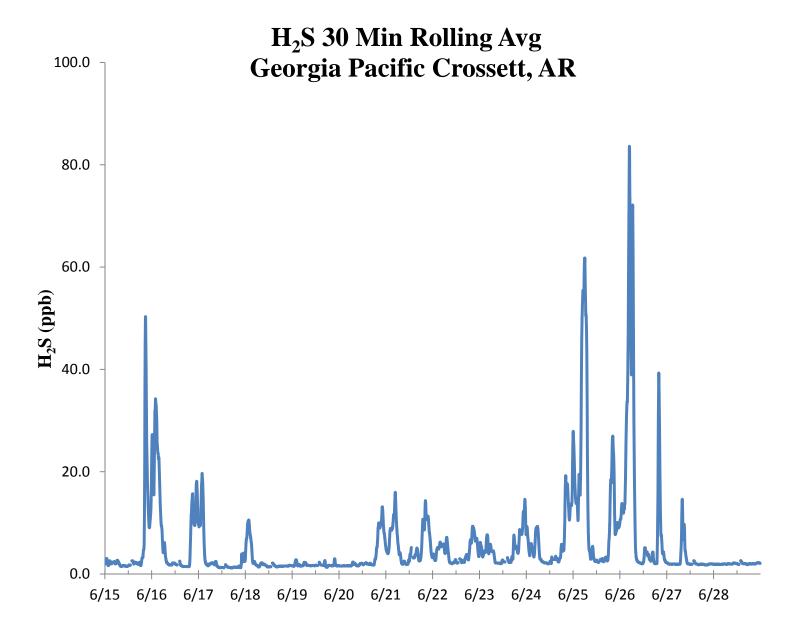
Manager, Air Quality and Meteorological Monitoring

Air Measurements – Gainesville Office 6312 NW 18th Drive, Suite 100 Gainesville, Florida 32653 (352) 260-1162

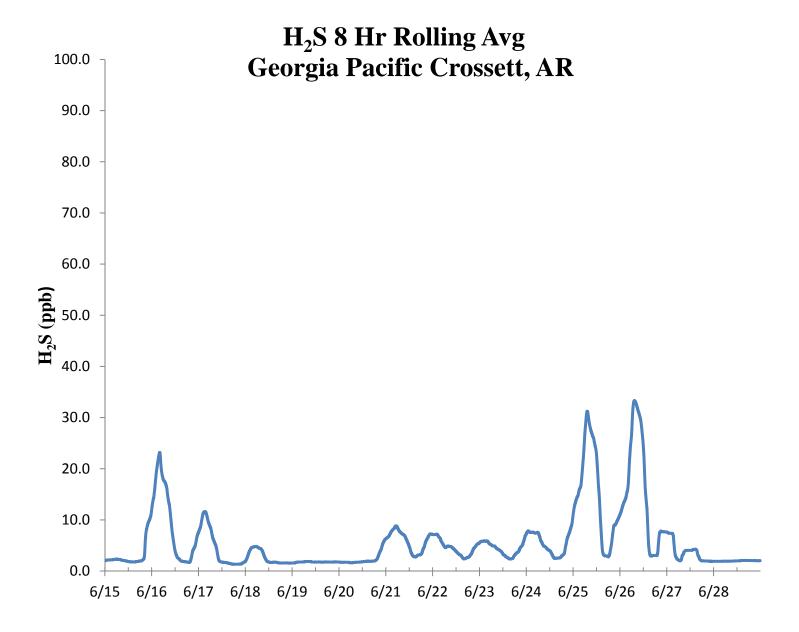
Email: jbowser@trcsolutions.com

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

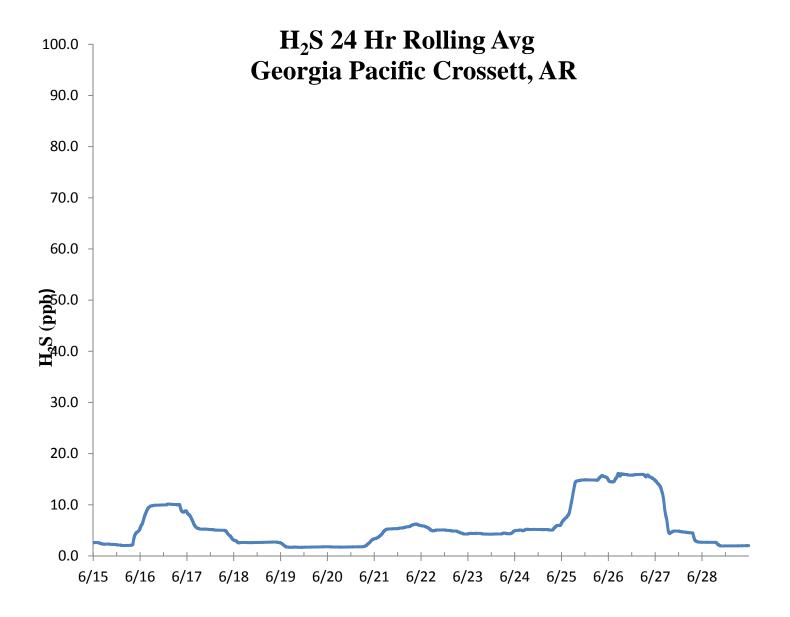














6/17/2016 13:00 70.9 70.0 1.3 2.536 1.653 1.286 1.653 14 0.474 1.943 29.429 6/18/2016 13:00 71.6 70.0 2.3 5.224 2.286 5.224 n-1 \(\sumsymbol{\text{\substack}\						H_2S	Asses	ssment	;				
Date	GP - Crossett, AR			Constituent type: H ₂ S						CV _{ub} (%)		Bias (%)	
6/16/2016 13:00 71.2 70.0 1.7 75th Percentile 2.939 1.714 2.939 n S _d S _{d2} \(\sum \text{Z[d]}\) 785 (17/2016 13:00 70.9 70.0 1.3 2.536 1.633 1.286 1.653 14 0.474 1.943 29.429 2.429 5/619/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 13 29.429 64.776 64.776 6/70/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 13 29.429 64.776 64.776 6/70/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 \(\begin{array}{c c c c c c c c c c c c c c c c c c c	Date	Meas Val (Y)	Audit Val (X)	d (Eqn. 1)	25th Percentile	d²	d	d ²					
6/17/2016 13:00 70.9 70.0 1.3 2.536 1.653 1.286 1.653 14 0.474 1.943 29.429 (182016 13:00 71.6 70.0 2.3 5.224 2.286 5.224 n-1 2d	6/15/2016 13:00	71.0	70.0	1.4	1.786	2.041	1.429	2.041					
6/18/2016 13:00 71.6 70.0 2.3 5.224 2.286 5.224 n-1 \(\sum \frac{\text{Zd}}{2} \) \(\tex	6/16/2016 13:00	71.2	70.0	1.7	75th Percentile	2.939	1.714	2.939	n	S _d	S _{d2}	∑ d	"AB" (Eqn 4)
6/19/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 13 29.429 64.776 64.776 6/20/2016 13:00 71.1 70.0 1.6 2.469 1.571 2.469	6/17/2016 13:00	70.9	70.0	1.3	2.536	1.653	1.286	1.653	14	0.474		29.429	2.10
6/20/2016 13:00 71.1 70.0 1.6 2.469 1.571 2.469 6/21/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 Blas (%) (Eqn 3) Both Sign 6/22/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 CV (%) (Eqn 2) Signed Blas (%) FA 6/24/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 6/25/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 6/25/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 6/25/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 6/25/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 6/25/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 6/25/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 7.367 6/25/2016 13:00 71.7 70.0 2.4 5.898 2.429 5.898 Percent Differences	6/18/2016 13:00	71.6	70.0	2.3		5.224	2.286	5.224	n-1	∑d	$\sum d^2$	$\sum \mathbf{d} ^2$	"AS" (Eqn 5)
6/21/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 Bias (%) (Eqn 3) Both Sign C(22/2016 13:00 71.5 70.0 2.1 4.592 2.143 4.592 2.1	6/19/2016 13:00	71.4	70.0	2.0		4.000	2.000	4.000	13	29.429	64.776	64.776	0.47
6/22/2016 13:00 71.5 70.0 2.1 4.592 2.143 4.592	6/20/2016 13:00	71.1	70.0	1.6		2.469	1.571	2.469					
6/23/2016 13:00 71.4 70.0 2.0 4.000 2.000 4.000 CV (%) (Eqn 2) Signed Bias (%) Both Sign 6/24/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 0.64 +2.33 FA 6/25/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 6/26/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 6/27/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 6/27/2016 13:00 71.8 70.0 2.4 5.898 2.429 5.898 Percent Differences	6/21/2016 13:00	71.4	70.0	2.0		4.000	2.000	4.000				Bias (%) (Eqn 3)	Both Signs Positive
6/24/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 0.64 +2.33 FA 6/25/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 6/26/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 Upper Probability Limit Lower Probability Limit 6/27/2016 13:00 71.7 70.0 2.4 5.898 2.429 5.898 Percent Differences Percent Differences	6/22/2016 13:00	71.5	70.0	2.1		4.592	2.143	4.592				2.33	TRUE
6/25/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612	6/23/2016 13:00	71.4	70.0	2.0		4.000	2.000	4.000		CV (%) (Eqn 2)		Signed Bias (%)	Both Signs Negativ
6/26/2016 13:00 71.9 70.0 2.7 7.367 2.714 7.367 Upper Probability Limit Lower Probability Limit 6/27/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 3.03 1.17 6/28/2016 13:00 71.7 70.0 2.4 5.898 2.429 5.898 Percent Differences Percent Differences	6/24/2016 13:00	71.9	70.0	2.7		7.367	2.714	7.367		0.64		+2.33	FALSE
6/27/2016 13:00 71.8 70.0 2.6 6.612 2.571 6.612 3.03 1.17 6/28/2016 13:00 71.7 70.0 2.4 5.898 2.429 5.898 Percent Differences 15.0 0.0 -5.0 -10.0	6/25/2016 13:00	71.8	70.0	2.6		6.612	2.571	6.612					
6/28/2016 13:00 71.7 70.0 2.4 5.898 2.429 5.898 Percent Differences 15.0 10.0 5.0 10.0 10.0 10.0	6/26/2016 13:00	71.9	70.0	2.7		7.367	2.714	7.367		Upper Probabil	ity Limit	Lower Probabilit	ty Limit
Percent Differences 15.0 10.0 5.0 0.0 -5.0 -10.0	6/27/2016 13:00	71.8	70.0	2.6		6.612	2.571	6.612		3.03		1.17	•
15.0 10.0 5.0 0.0 -5.0	6/28/2016 13:00	71.7	70.0	2.4		5.898	2.429	5.898					
5.0								15.0		reice		ciciloes	
0.0 -5.0 -10.0								10.0					
-5.0 -10.0								5.0					
-5.0									•	•	-	**	
-10.0									1	1 1 1	1 1		
								-5.0					
-15.0								-10.0					
								-15.0					



