



Department of  
Environmental  
Conservation



# NGAM: H<sub>2</sub>S and SO<sub>2</sub>

NACAA Monitoring Steering Committee Meeting

RTP, NC  
Feb 1-2, 2023

# Sources

Landfills: Acrulog continuous monitoring with verification by Jerome (Picarro used to verify Jerome prior to enforcement)

Stationary Sources:

Chemical Manufacturing

Aluminum Smelter

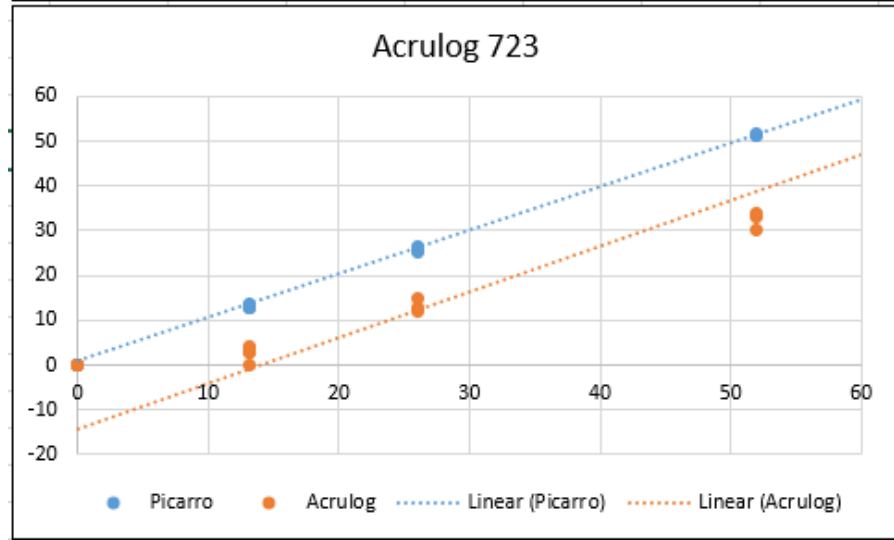
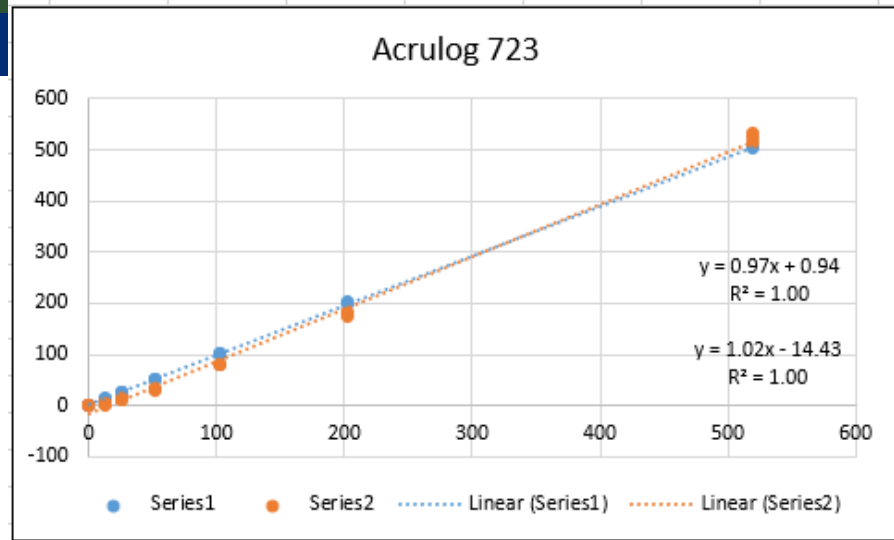
Sewage Treatment

# Acrulogs H2S

Battery powered, provide 5 –min data and can run for 2-weeks

Calibration is factory set and high concentrations are OK but zero cannot be adjusted

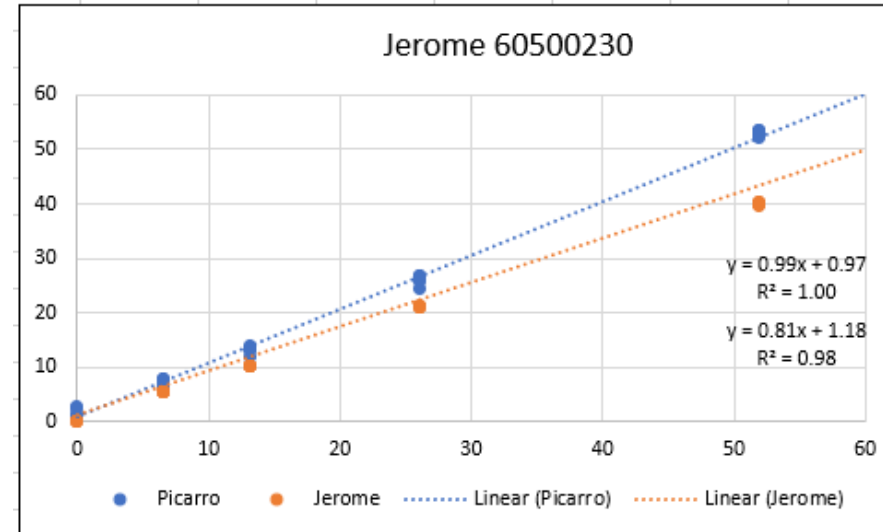
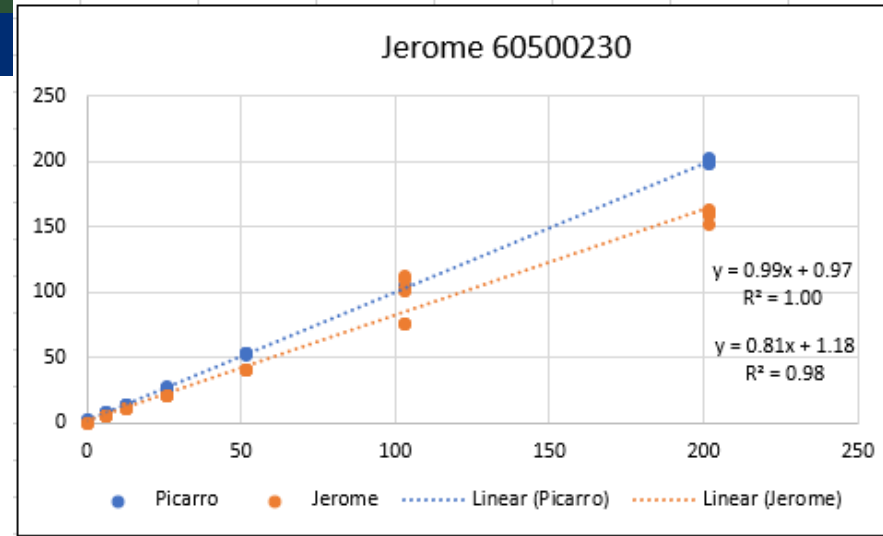
Data not useful near our State Std 10 ppb 1-Hr



# Jerome H2S

The Jerome DL is low enough to make measurements around 10 ppb

Over time the span drifts down  
Factory recal annually brings it back up.



# Sulfuric Acid Manufacturer

100+ Yr old facility in Buffalo, NY

Makes and Recycles Sulfuric Acid

Accepts deliveries of molten sulfur by rail

Neighboring industrial property was a brownfields redevelopment, now a college and community athletic facility

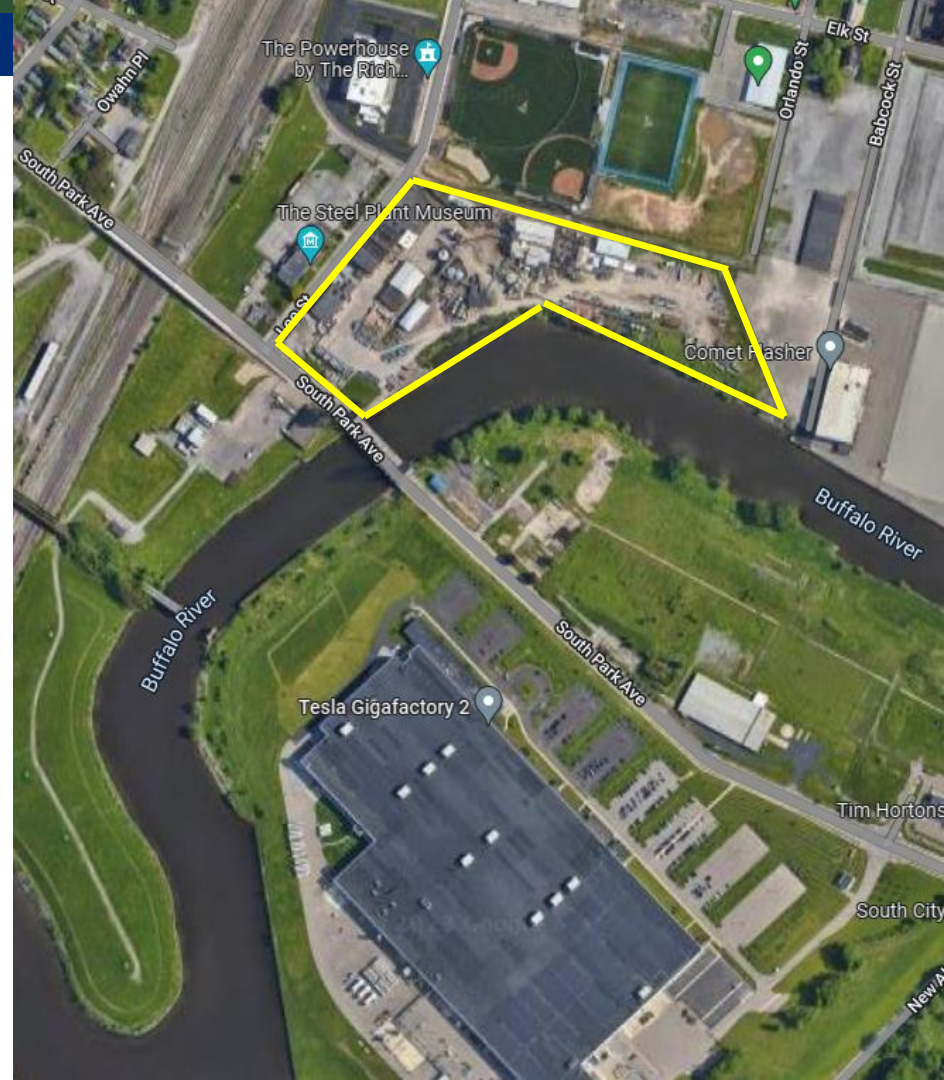
# Big Picture

Chemical plant is on the river and has a rail siding

The property to the north is the new sports facility

Prevalent winds are typically from the SW

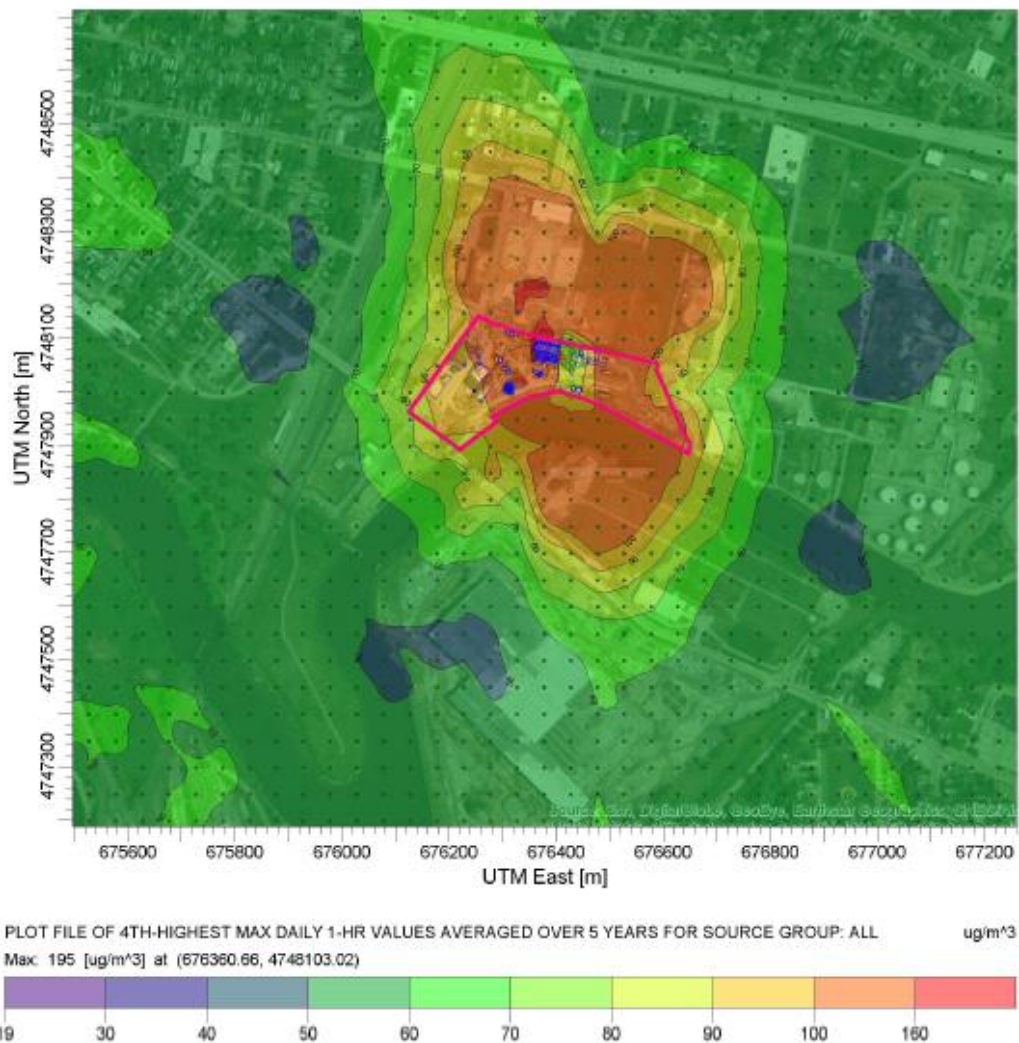
Main Stack is 75' and emissions are 107 Deg F



# Permit Modeling

The permit modeling showed impacts in a very small area just below the NAAQS but emissions did not include fugitives

Process upsets are not uncommon



# Zoomed in Picture

Red: Main stack

Yellow: Seasonal SO<sub>2</sub>  
monitoring sites

Site 1: next to Goal  
Max Hr 1000 ppb

Site 2: next to building  
Max Hr 70 ppb

EPA Honeywell SPM Flex

Fenceline monitors set at  
OSHA levels





# Discussion

We never received a complaint from the previous property owner

Impact is over a small area and moves depending on WD & WS

Set up an automated email warning system in case there was an upset while the field was in use (10-min and 1-hr alarms)

Levels were lower in 2022

# Thank You

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