



HRVOC Flare Survey Results

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Background

- Typically, the TCEQ uses ozone-season average emissions and composition to model non-EGU point source emissions, which includes flares.
- EIQ reporting guidelines allow 98 or 99% flare destruction and removal efficiency (DRE), depending on fuel molecular weight.
- The 2010 TCEQ Flare Study (John Zink) showed that DRE depends on fuel composition and assist type/rate.



Background, Continued

- In 2011, TCEQ requested hourly emissions rates and operating details from HGB HRVOC flare operators
 - to estimate flare destruction rate efficiency (DRE)
 - and to account for variable emission rates/composition changes.



Status

- May 29 through July 2, 2006 and August 15 through October 11, 2006 survey responses are processed and model ready.
- The TCEQ continues to evaluate data quality and completeness.
- Survey HRVOC emissions are higher and more variable than the values reported in the Emissions Inventory Questionnaire (EIQ).



Survey Results

- There are 162 point sources in the 2006 survey.
- Many survey responses had
 - incomplete emissions data,
 - missing or incomplete operating data, and/or
 - missing or incorrect location and stack parameters.
- Some emissions and assist rates have to be estimated using other survey results and/or EIQ data.

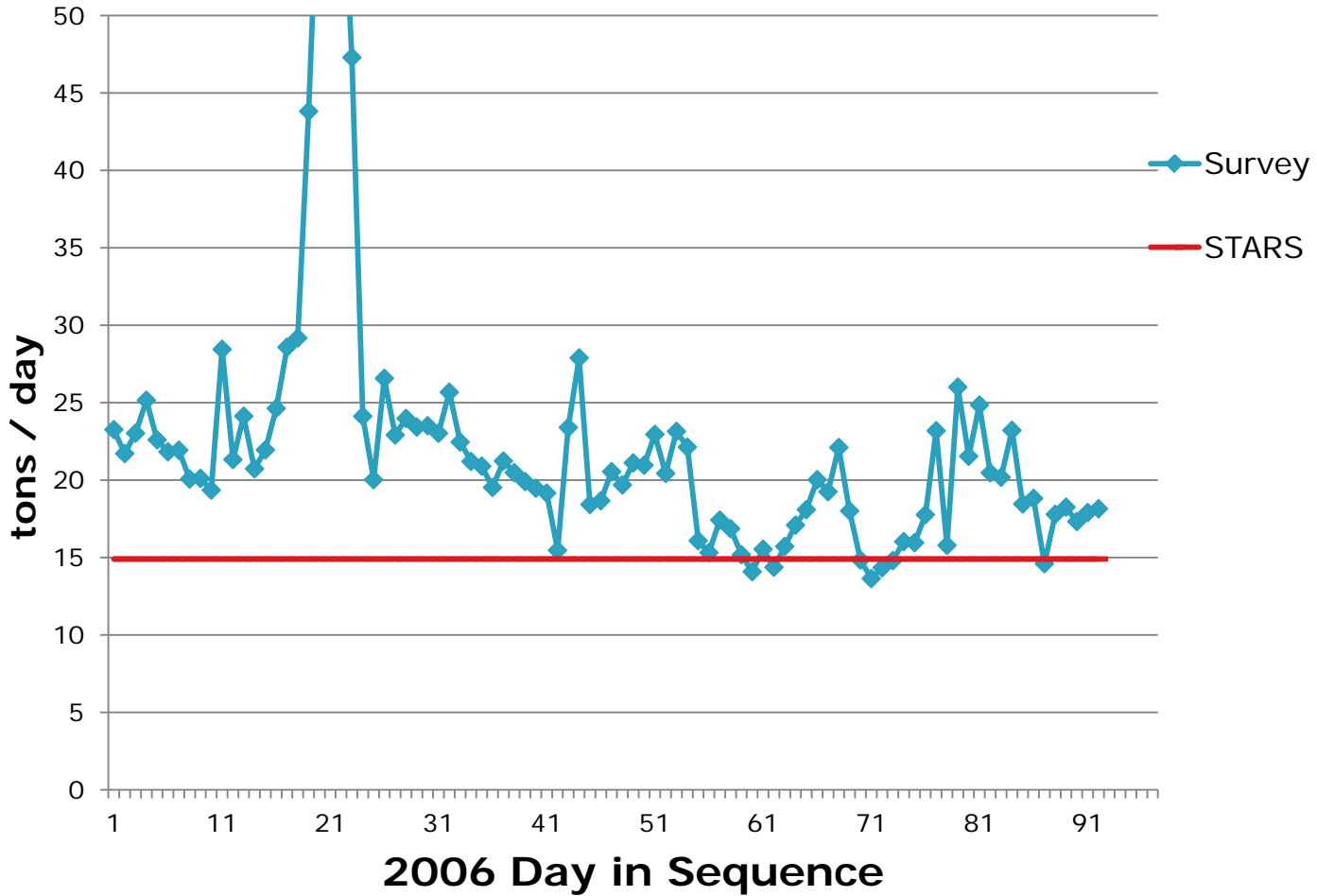


Survey Results, Continued

- Hourly DRE values are based on the 2010 TCEQ Flare Study results.
- In the modeling data set, each flare point source has a composition, flow rate, and calculated DRE for every hour of every day in the episode.

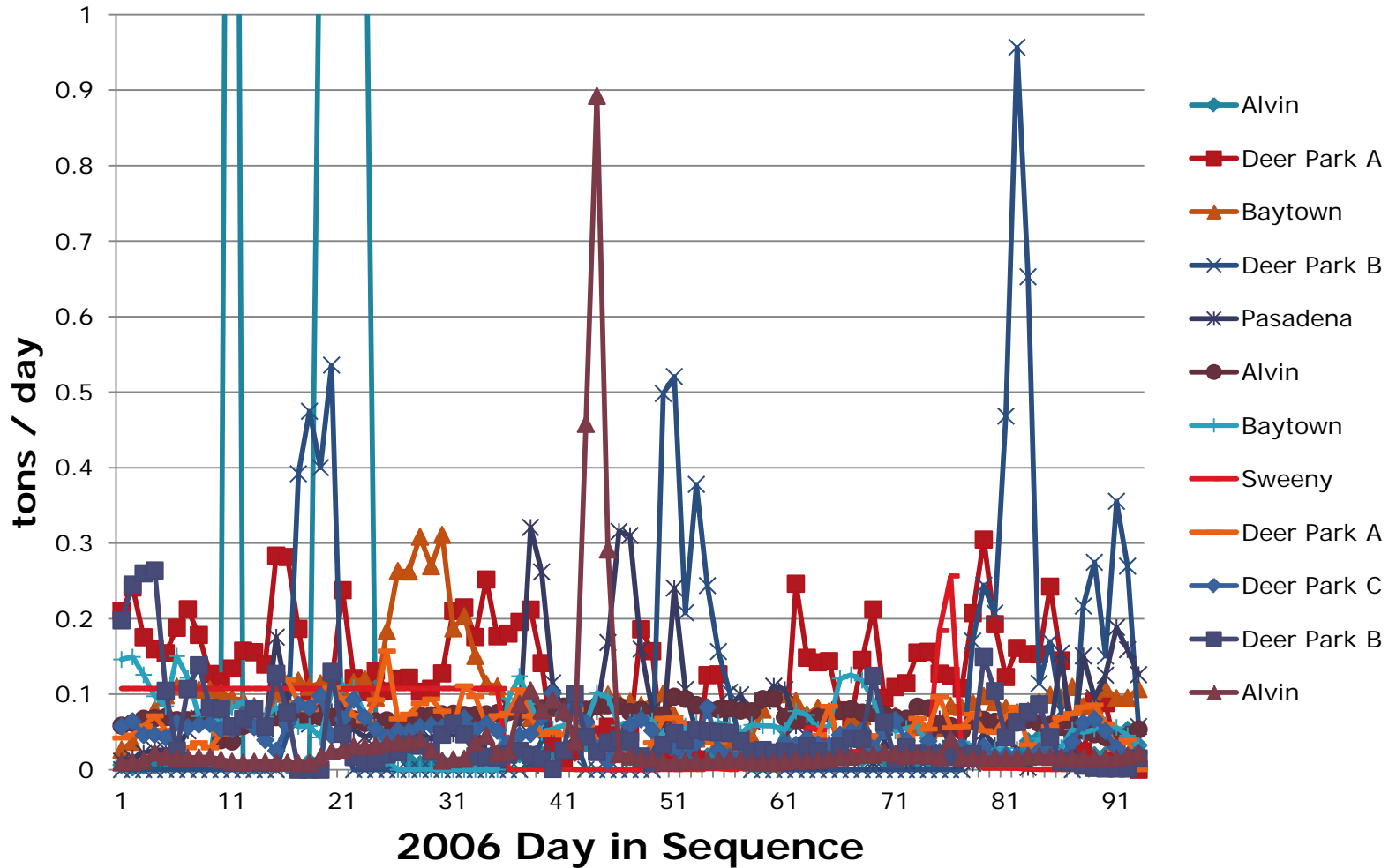


HRVOC Emissions



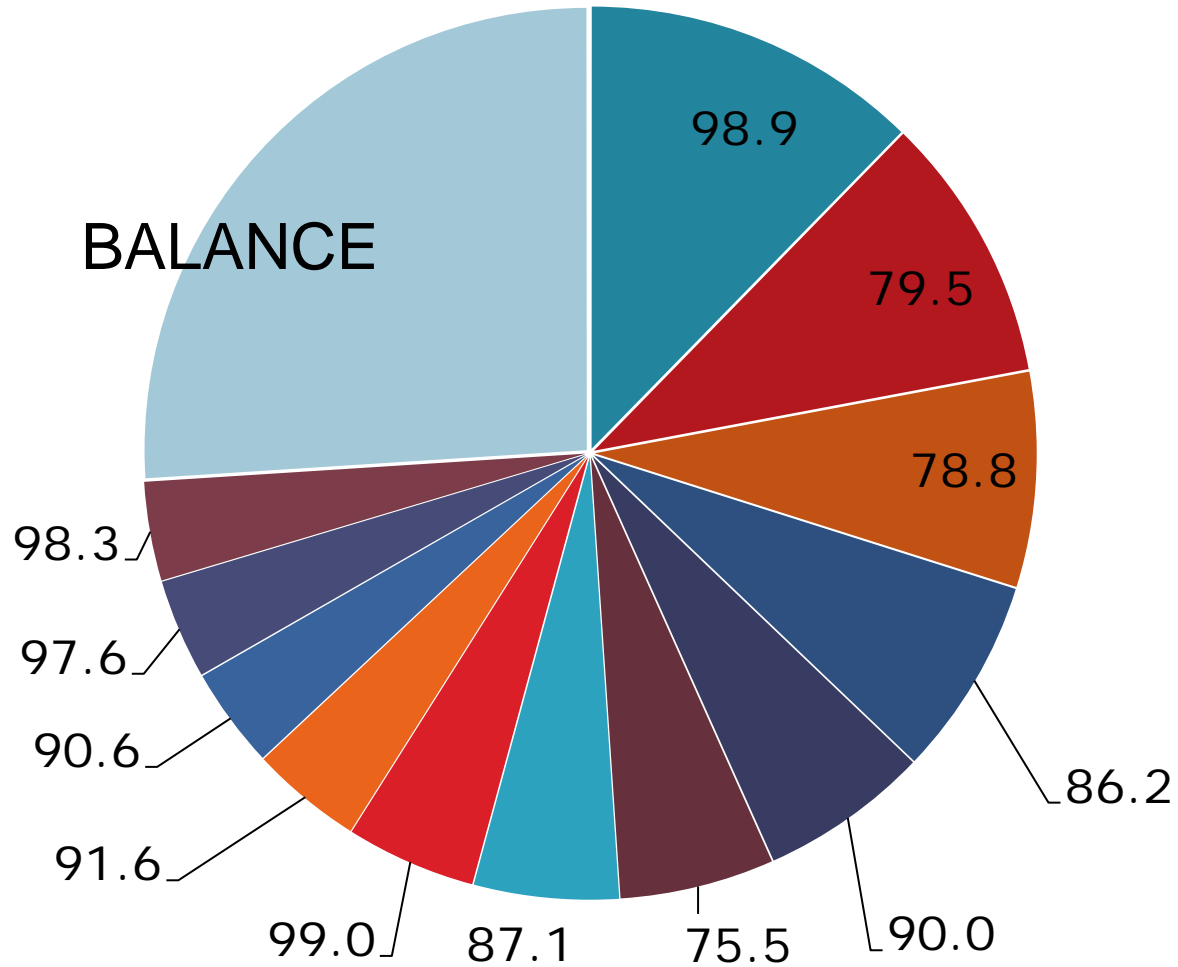


Daily HRVOC Emissions





HRVOC Distribution and DRE Percent





Path Forward

- Survey respondents will have an opportunity to review the processed data sets.
- The TCEQ plans to use flare survey responses in the photochemical model.



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