



Petroleum Products Surveys



Crude Oil Quality Group

October 3, 2002

Houston

Pres. By

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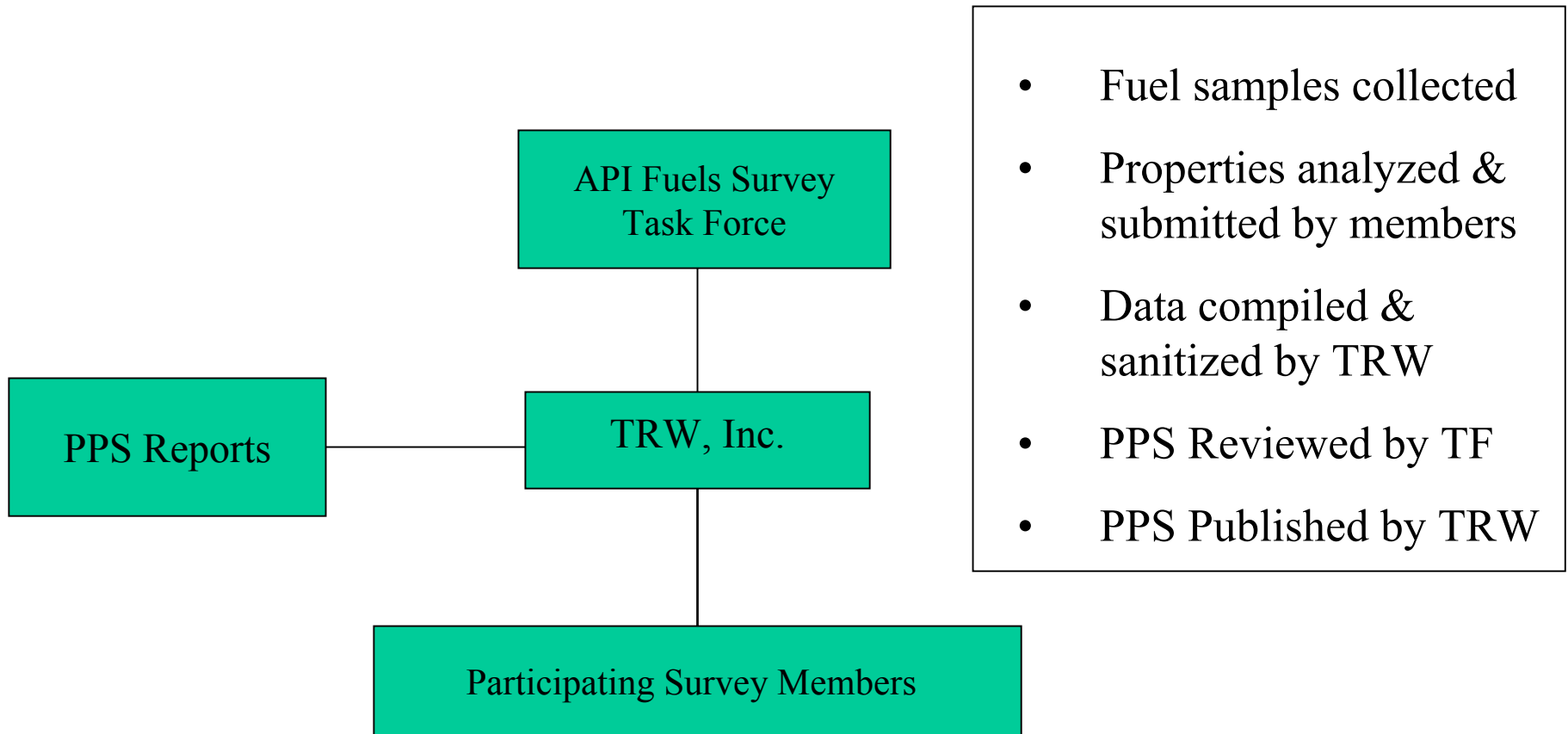
TRW, Inc.

Bartlesville, OK

What are Petroleum Products Surveys (PPS)?

- PPS are low-cost reports containing compilations of physical properties of fuels marketed in the U.S.
- Examples (published annually):
 - Motor Gasolines (summer, winter)
 - Aviation Turbine Fuels
 - Heating Oils
 - Diesel Fuel Oils

How are PPS Generated?



Who Uses PPS Reports?

- Refiners
- Engine Manufacturers (auto, truck, bus, marine, aviation, rail, industrial)
- Fuel marketers and brokers
- Home heating equipment design
- Industrial heaters and utilities
- Consultants
- Military
- Statistical trends (forecasting, litigation, etc.)
- Regulatory reporting (i.e., emission inventories)

Interest to COQG?

- General Interest
 - Someone in your company may be looking for this information
- Survey Model
 - Would Petroleum Surveys for Crude Oils be of interest to COQG?

Available Data: Type

- Motor Gasolines
 - gravity, saturates, olefins, aromatics, benzene, sulfur, solvent washed gum, octane numbers, vapor pressure, distillation, ethers, alcohols
- Heating Oils
 - gravity, flash point, viscosity, cloud point, pour point, sulfur, aniline point, carbon residue, corrosion, ash, water & sediment, water by distillation, sediment by extraction, distillation

Data Table Slide

Available Data: Historical

- Motor Gasolines, 1918 – present
- Aviation Fuels, 1947 – present
- Diesel Fuels, 1950 – present
- Heating Oils, 1955 – present

Reports in hard copy, data by district

Data in electronic format, data by city & month, as available

Available Data: How Much?

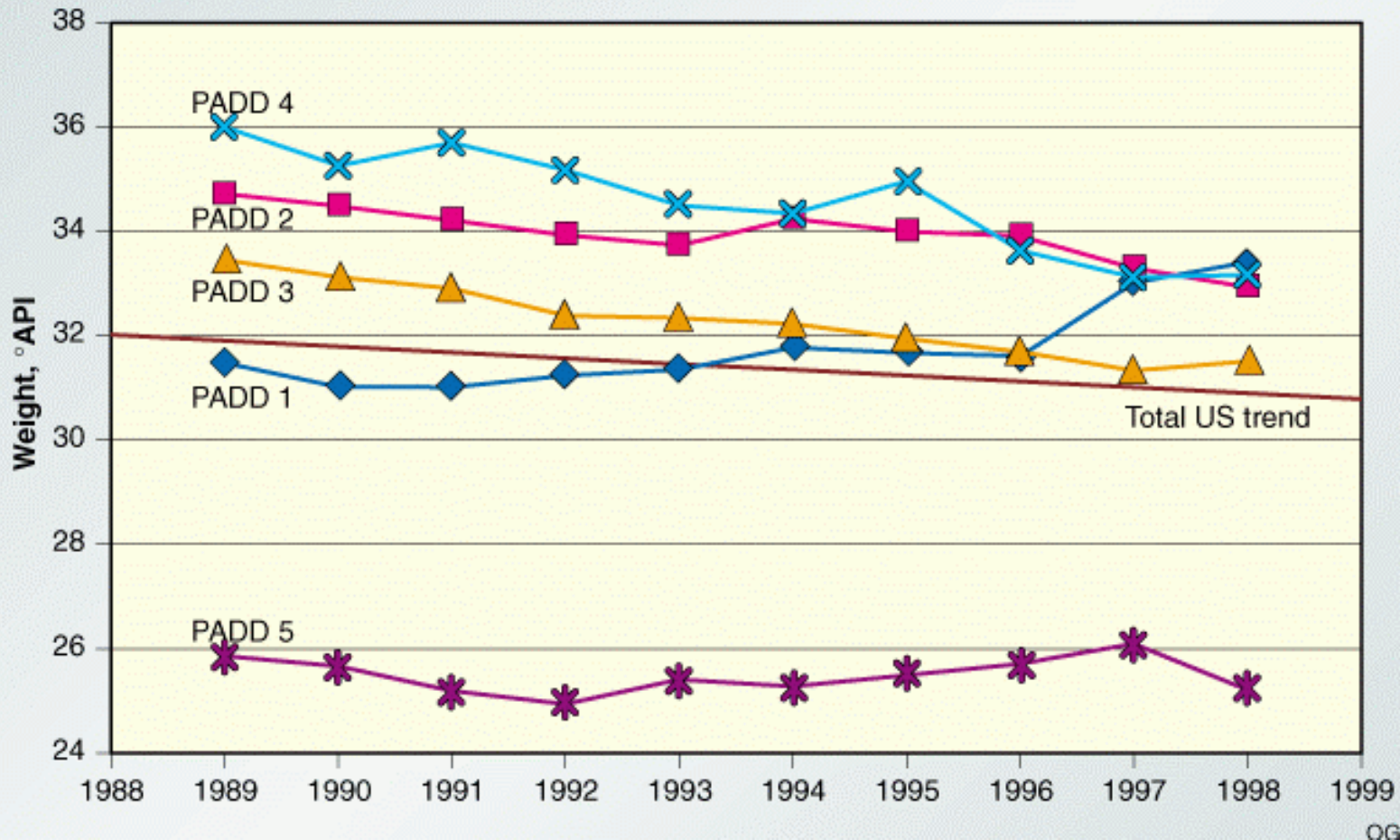
Numbers of Fuel Samples

- Motor Gasoline (summer 2001): 786
- Motor Gasoline (winter 2001-2002): 732
- Aviation Fuels (2001): 40
- Diesel Fuels (2001): 60
- Heating Oils (2001): 71

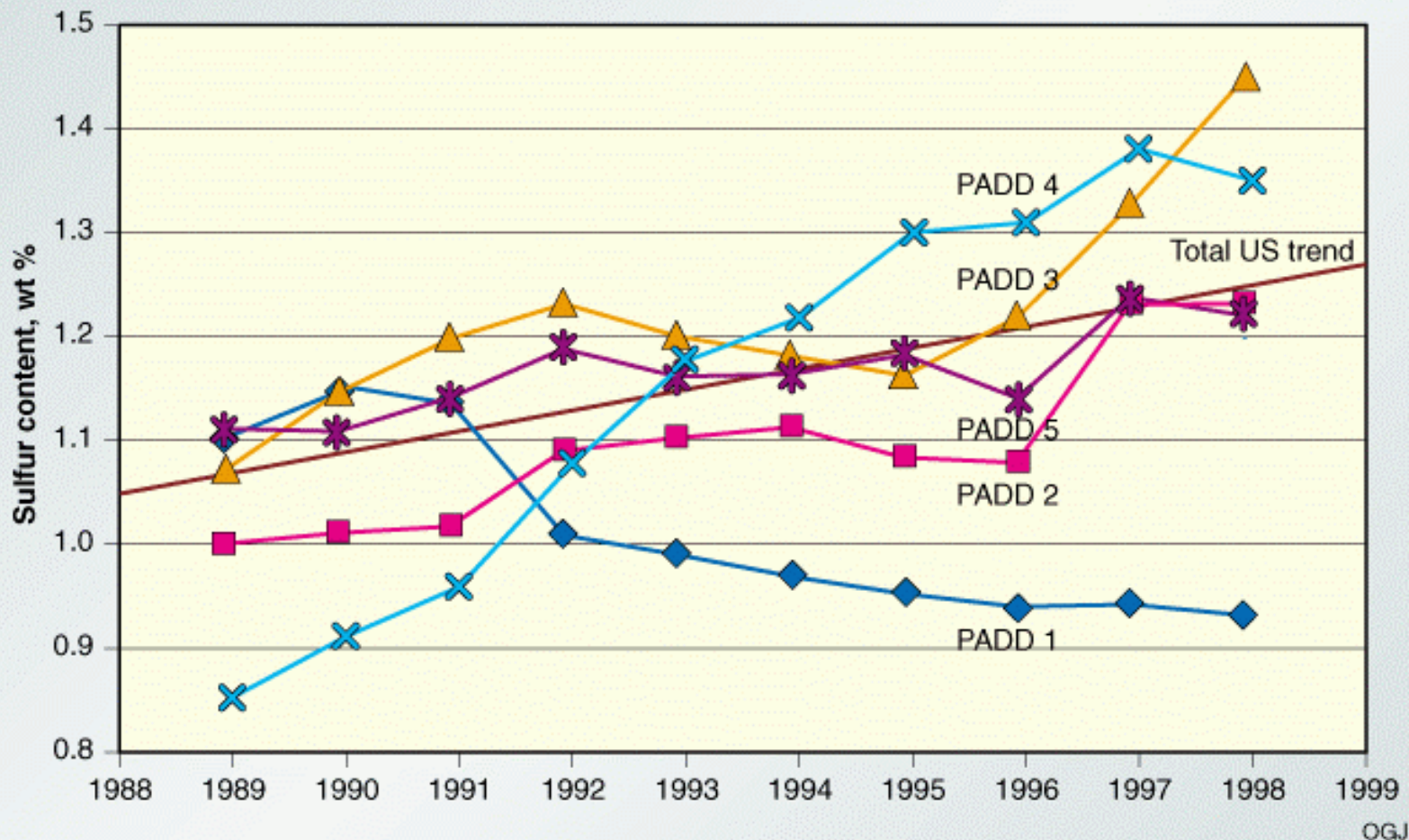
Example – Emissions Inventory

- Texas Commission on Environmental Quality
 - Uses sulfur, RVP, oxygenates (also sometimes cetane index, aromatics) to calculate sulfur emissions for the state of Texas. Results reported to EPA, maintained in Emissions Inventory; calculated for gasoline, aviation, and diesel fuels.

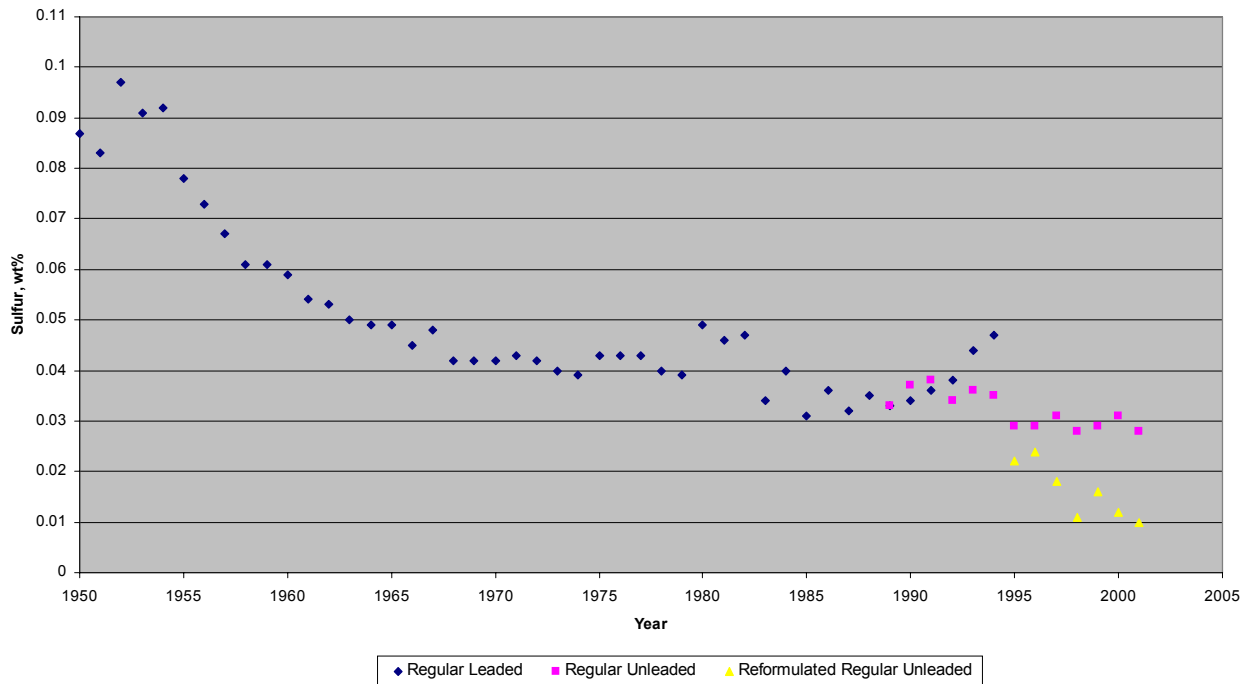
US REFINERY CRUDE GRAVITY SLIGHTLY DECLINING



US REFINERY CRUDE SULFUR CONTENT INCREASING



Average Sulfur in Gasoline



How to Obtain PPS Reports

- TRW, Inc.
P.O. Box 2543
Bartlesville, OK 74005
Attn: Cheryl Dickson
(918-338-4419; Cheryl.Dickson@trw.com)
- American Petroleum Institute (API) Publications
Refining: Petroleum Products & Petroleum Product
Surveys
- Petroleum Products Survey Participating Member
(one copy per member)