TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Why are we doing what we do? Does it really add value?

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Challenges- Which is easier to solve?

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A. Healthcare Reform

B. Tax Reform

C. World Peace

D. Method Consolidation

TPH Methods

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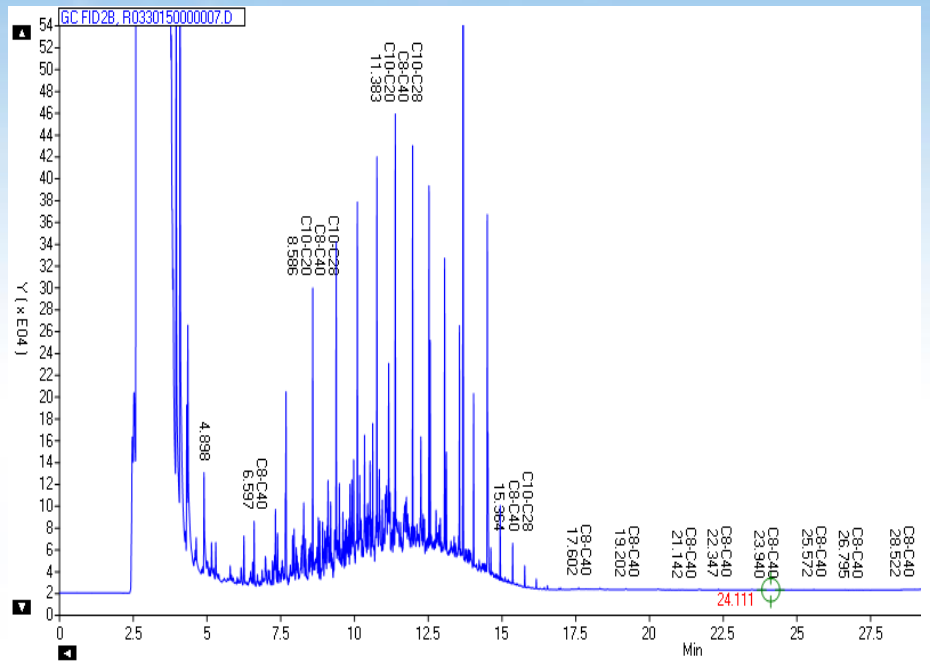
- More than 20 different methods to identify and quantify Petroleum Hydrocarbons.
- 8015 GRO, DRO
- AK 101,102,103
- OA-1, OA-2
- NJ EPH, QAM-025
- MA EPH, VPH
- TX 1005, 1006
- NW-Gx, NW-Dx
- FLPro
- CT ETPH
- KS LRH, MRH, HRH



TPH-Can't we all get along?

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- Ability to compare data across States
- Laboratory Complexity
  - SOPs
  - MDLs
  - Calibrations
  - IDOCs
  - Instrument configurations
  - Control Limits
  - Batching
  - Proficiency Testing

Method Consolidations

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How much Benzo(a)pyrene is in my water sample?

- Method 8270D
- Method 625
- Method 525
- SOMO 2.4
- SIM

Does the complexity of maintaining all the varieties of methods and evaluating the data add to better data?

What is the difference between these data?

Water Sample

Benzo(a) Pyrene

Method 8270

Result reported = 0.5 J ug/L

Water sample

Benzo(a)Pyrene

Method 625

Result reported = 0.5 ug/L

What is the difference between these data?

Method 8270

Water Sample

Benzo(a) Pyrene

Result reported = 0.5 J ug/L

Reporting Limit = 1.0 ug/L

MDL 0.01 ug/L

Low Level standard can extend range to 0.2 ug/L

ICAL

- < 15% RSD 8270 C
- < 20% RSD 8270 D

Method 625

Water sample

Benzo(a)Pyrene

Result reported = 0.5 ug/L

Reported to the MDL without qualification

MDL 0.01 ug/L

ICAL

- < 35% RSD

Method Control Limits

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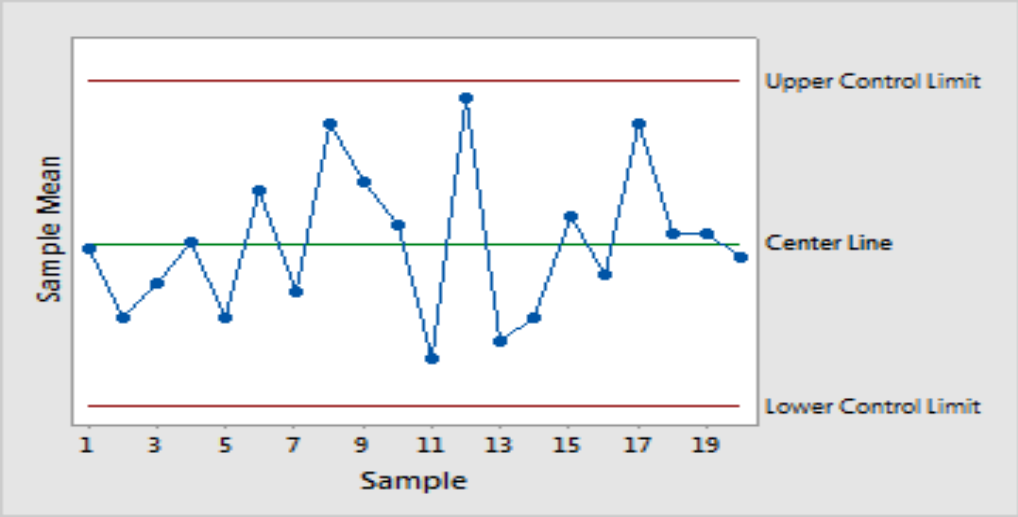
- Inter-laboratory vs. In House Generated?
- Lab A re-extracts at 70% but Lab B doesn't until 65%
- Program defined limits- DOD example
- Better comparability and consistency?



The Holy Grail

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True National Laboratory Accreditation Program

- Develop and Adopt Consensus Standards
- Non-NELAP States
- Governmental Programs (DOD, DOE)
  - Focus on specifics such as radiochemistry or explosives but adopt the QA Systems review from NELAC

Holding Times

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- Studies on these effects?
- 2005 EPA study on PAHs 100 days < 20%
- 1999 DOE Study recommended 28 days for VOC
- Is data being qualified unnecessarily? More useful data actually available?
- Resampling efforts and costs wasted?
- Arbitrarily assigned?
- Revisit based upon formal study?

Temperatures

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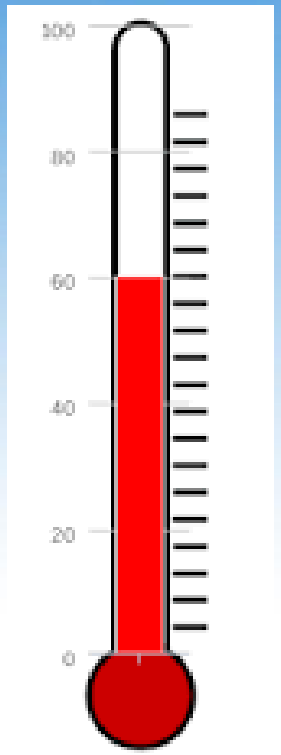
Differences between States and Programs

- 4 Deg C +/- 2 Deg
- < 6 Deg C



- So if samples are received maintained at 1 Deg C is it invalid? Qualified? Narrated?
- Temp changes during login or processing- Studies to support these?
- Temp Blanks vs. measuring each container

Batch QC-Matrix Spikes

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- 5% Minimum or 1/20
- Project design not lab batch
- If not on your matrix/sample no value

The Challenge

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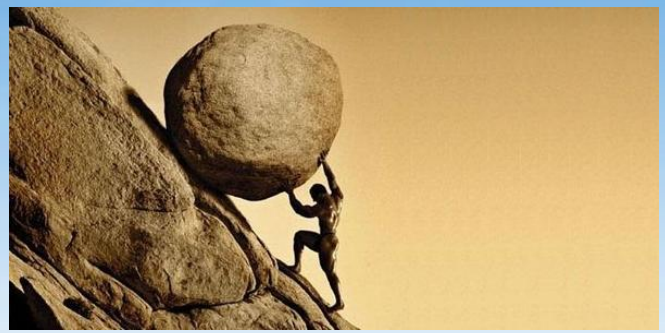
- Non-NELAC States adopt and incorporate NELAC consensus Standards into their programs
- TNI establish a consensus standard for TPH Method Quantification and Characterization
- Inter-laboratory data pull for control limits to establish consistent performance criteria
- Designed studies to better evaluate effects of stability and temperature on samples



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Questions?

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