

Tom Schruben EPA Office of Underground Storage Tanks



- Establish ranges of costs for various cleanup phases and technologies used in LUST cleanups.
- Identify additional cost drivers by analyzing project durations, assessment versus total costs.

### Methods

- Solicit and leverage project cleanup cost data from states.
- "Normalize" data to the extent possible between states to find ranges of comparable project phase and technology costs, and total durations.

### Data Sources

STATE	NO. OF SITES PROVIDED	NO. OF SITES USED IN ANALYSIS	PROJECT START YEARS INCLUDED IN DATA
Kansas	53	53	2010-2021
South Carolina	357	217	1973-2021
Virginia	15,116	260	2011-2021

2

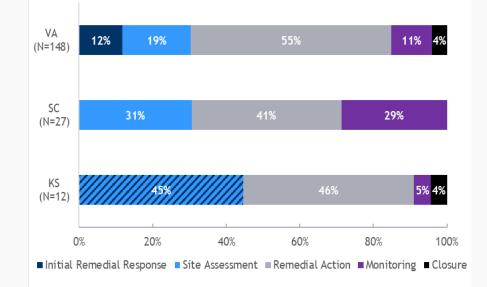




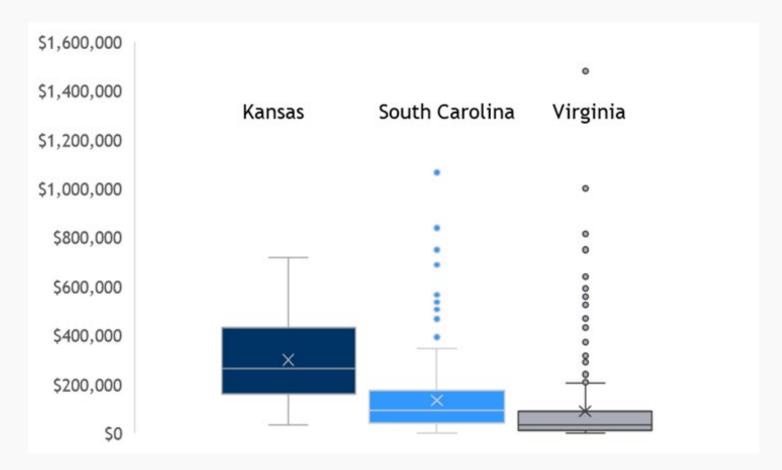
#### Data supported general conclusions on cost

ULTIMATE CORRECTIVE ACTION PHASE	AVERAGE COST	AVERAGE COST/DAY
Assessment Only (VA)	,	
Monitored Natural Attenuation Only (SC)	\$113,875	\$95
Active Remedial Action (KS, SC, VA)	\$255,491	\$165

### Remedial action was a similar percentage of total costs for closed sites.

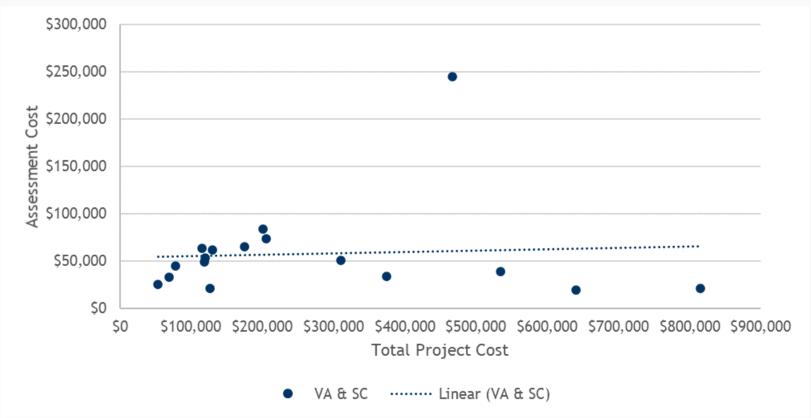


# A relatively small number of high-cost sites are major drivers of costs in each state: **median < average**





Assessment costs tend to be similar across projects regardless of size. Regression analysis suggests that greater spending during the assessment phase may lower spending in other phases.





# **Controlling Costs**

- 1. Look first at outliers.
- 2. Reduce the duration.
- 3. Conduct more site assessment?

### **Lessons Learned**

- 1. Databases need to associate costs with phases and technologies.
- 2. Claims need to specify costs by phase and by technology.
- 3. Format data for easy analysis.

# THE STATES TO BE TO BE

## More Information

- Come to the NTC Poster Session!
- Read the report: <u>Leaking Underground Storage Tank (LUST)</u> <u>Cleanup Costs Study</u>, Prepared for: U.S. EPA, OLEM by Industrial Economics, Incorporated (IEc)

https://www.epa.gov/system/files/documents/2022-08/Leaking%20Underground%20Storage%20Tank%20Cleanup%20Cost%20 Study.pdf

• Tom Schruben, US EPA OUST, <u>schruben.thomas@epa.gov</u>