



**U.S. Department Of Energy  
Office of River Protection**

**Hanford Advisory Board  
Tank Waste Committee**

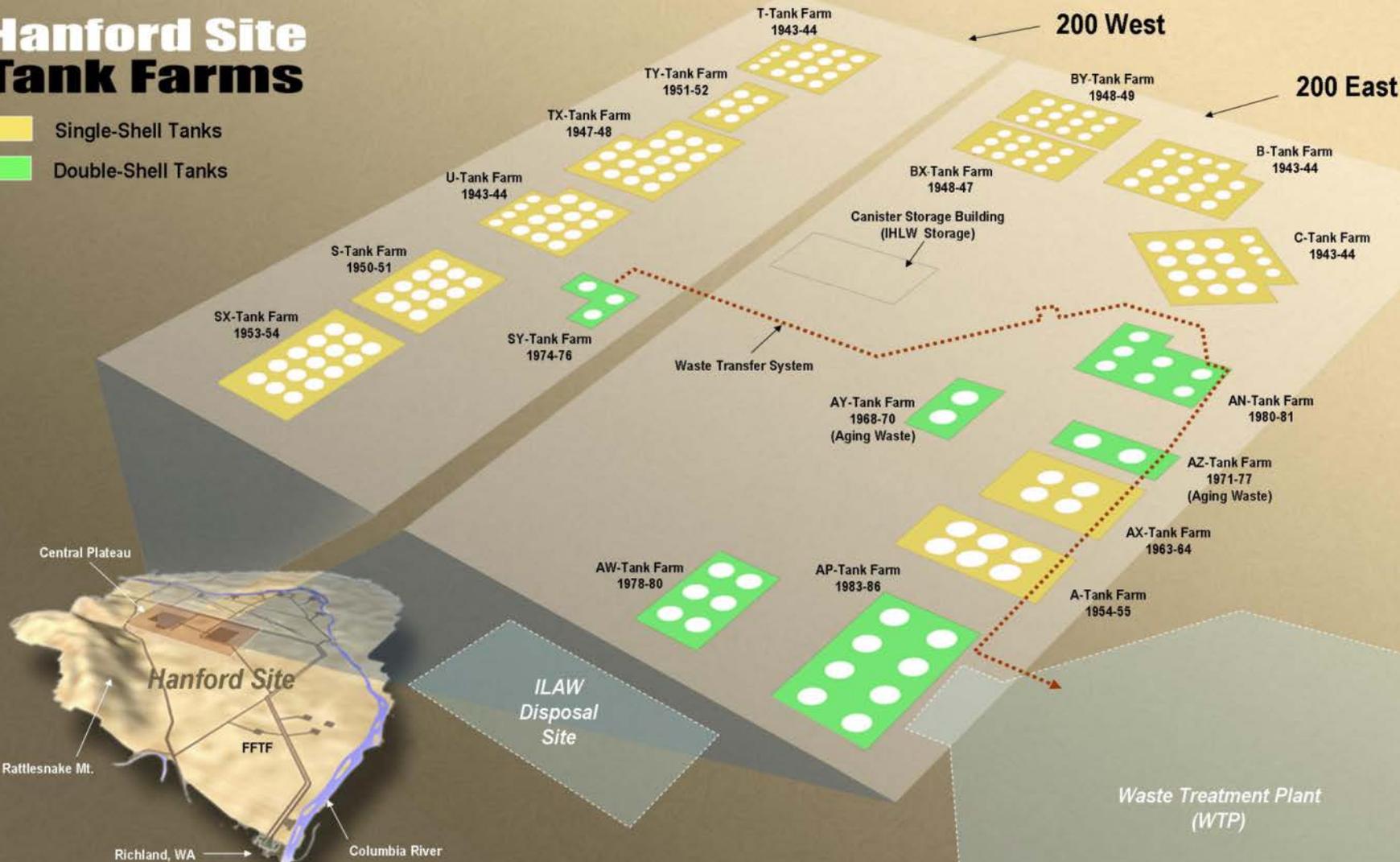
**Jeremy Johnson  
Update on Double Shell Tank AY-102**

**April 10, 2013**

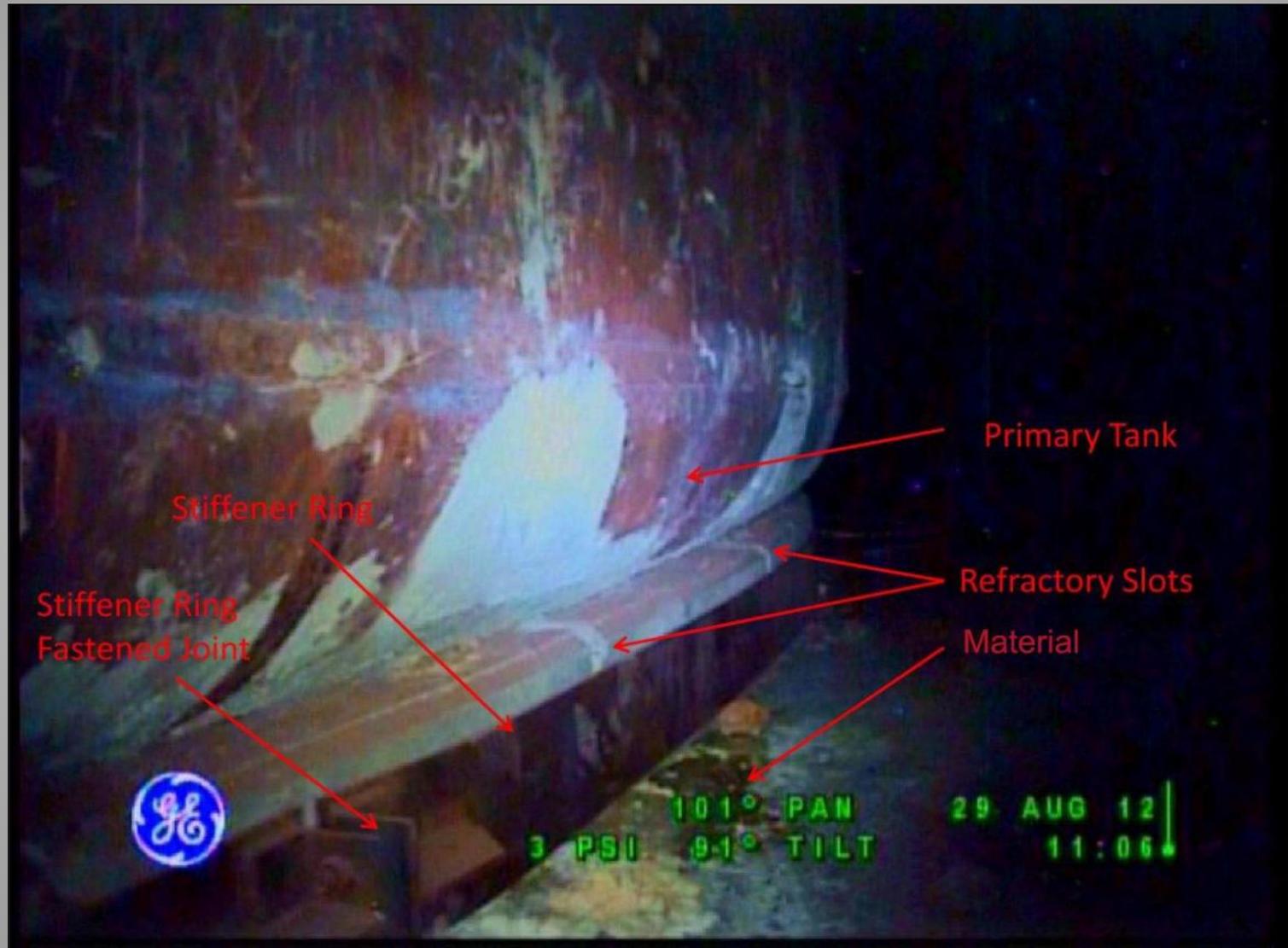
# Hanford Tank Farms

## Hanford Site Tank Farms

- Single-Shell Tanks
- Double-Shell Tanks



# View of Double-Shell Tank AY-102 Leak



# AY-102 Leak Assessment

Corroborating Evidence of Leakage	Yes	No
Liquid Level Changes		X
Chemistry	X	
In-Tank Corrosion Probe		X
Primary Tank Ultrasonic Wall Inspections		X
Waste Temperature		X
Tank Dome Deflection and Tank Settlement		X
Fill Cycle Fatigue		X
Tank Construction	X	

# Readiness and Monitoring Activities

- **Primary and Annulus Liquid Removal Capabilities in Place**
  
- **Monitoring**
  - Liquid level
  - Continuous Air Monitor
  - Record Sampler
  - Leak Detection Pit
  - Weekly Visual Inspections of Annulus

# AY-102 Weekly Video Inspections



# Recommendations from AY-102 Integrated Project Team

- Retrieve the tank
- Maximize the tank space
- Consider additional tank space

# Extent of Condition Review

- No anomalies found inside annulus of six additional Double-Shell Tanks (AY, AZ, SY) during inspections (detailed engineering review and report in progress)
- Construction Analysis Review (AY, AZ, SY)

