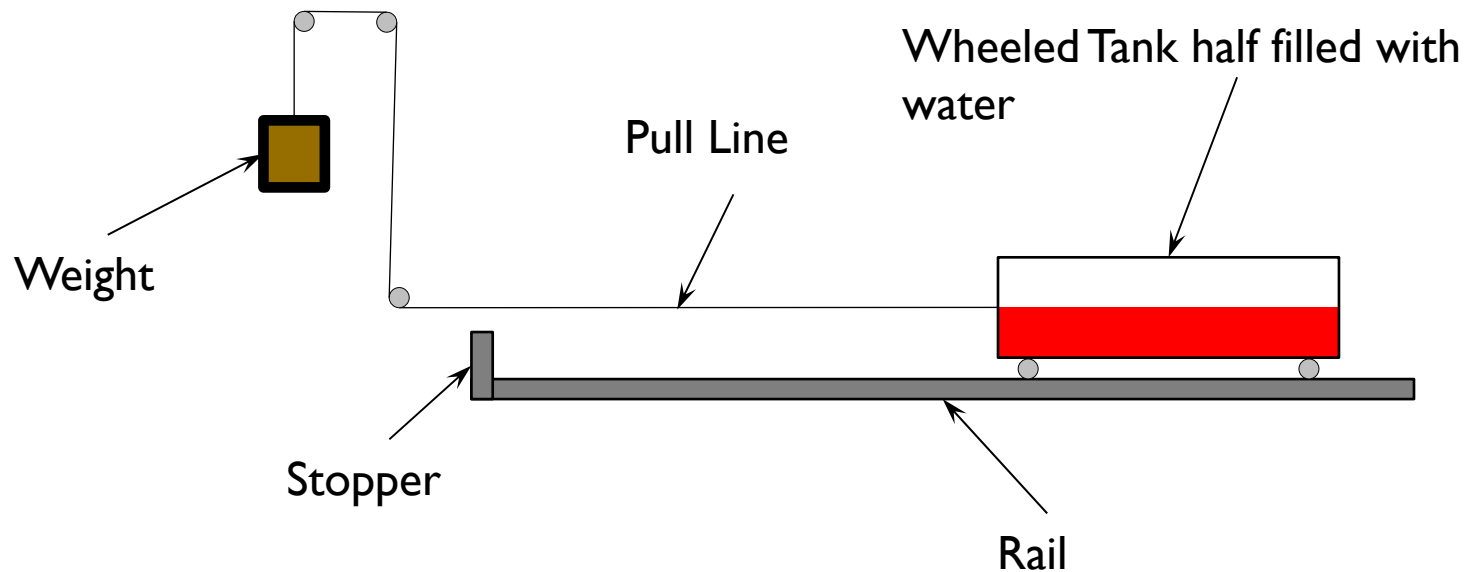


# GOTHIC VALIDATION FOR POOL DYNAMICS

- Accelerating and decelerating tank of water
- A weight accelerated the tank down a railing which was then abruptly stopped



# GOTHIC VALIDATION FOR POOL DYNAMICS



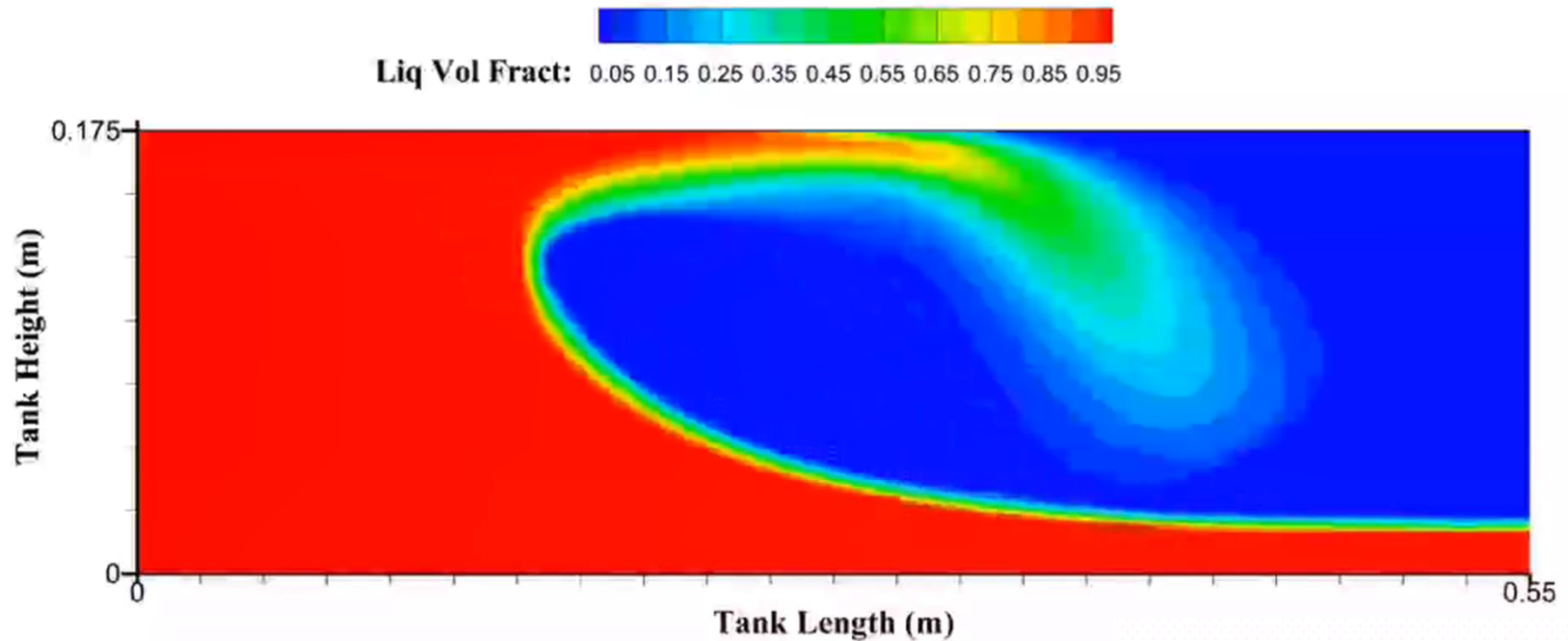
## Impact Experiment

- Tank is accelerated along a track and impacts backstop
- High speed cameras used to capture fluid response
- Sensors record acceleration of tank

*Khezzar, L., Seibi, A., Goharzadeh, A., "Water Sloshing in Rectangular Tanks-An Experimental Investigation & Numerical Simulation", International Journal of Engineering (IJE), Volume (3) Issue 2*

# GOTHIC VALIDATION FOR POOL DYNAMICS (CONT.)

## GOTHIC Partially Filled Tank Impact Analysis



Time = 2.69 sec

# GOTHIC VALIDATION FOR POOL DYNAMICS (CONT.)

- GOTHIC simulation is in good agreement with test.
- Elasticity of the stop not modeled.

