

# TRUCKING &



# HEAVY EQUIPMENT





*--- The first things to get lost in an accident are objectivity and perspective. At S-E-A, we've been revealing the cause of accidents and product failures since 1970.*

*Our accumulation of experience, expertise and advances in technology since then have made our staff and facilities among the most sophisticated in the world.*

S-E-A has a long history as an acknowledged leader in investigative engineering and forensic science. Since 1970, S-E-A has been a multidisciplinary, full-service and professional organization providing thorough research, analysis and testing. S-E-A offers complete investigative services, including mechanical engineering, electrical engineering, civil engineering, chemical engineering, fire investigation, industrial hygiene and visualization services. In addition, S-E-A has a fully equipped chemical testing laboratory. S-E-A's full-time staff of investigators, engineers and chemists consists of licensed/registered professionals who are court-qualified experts within their respective fields.

### **Evaluation of Highway & Environmental Factors**

- Road and bridge design – construction compliance with plans and specifications
- Guardrail protection
- Traffic signing/pavement markings/warnings
- Line of sight and contrast analysis
- Snow removal practice and policy
- Construction zones
- Hazardous spills
- Structural evaluation after vehicular impact

### **Accident Reconstruction & Causal Analysis**

- Biomechanical analysis examining injury consistency with accidents
- Computer-aided simulation of accidents
- Simulation of occupant kinematics and dynamics
- Full-scale crash and handling tests
- Determination of headlamp usage
- Visibility testing/conspicuity
- Time/speed/distance analysis
- Low speed accident analysis

## Utilization of Electronic Data From Vehicle Systems

- Obtain, preserve and analyze electronic data
- Antilock braking systems
- Supplemental inflatable restraint modules
- Engine control modules
- Dedicated event data recorders

## Documentation & Reconstruction of Accident Sites

- Vehicle accident reconstruction
- Employ use of the 3-D laser scanner to survey roadway dimensions and witness marks and accurately document the crush profile of vehicles
- Computer graphics, modeling and animation
- Visualization support of accident scenes
- Electronic surveys and video analysis
- 3-D scaled models

## Truck & Heavy Equipment Fire Analysis

- Identification of origin, cause and ignition sources
- Causal effects of electrical, mechanical, or fuel-supplied systems
- Fire analysis supporting other investigations, multi-vehicle accidents or industrial fires

## Detailed Inspection of Vehicle Systems

- Tractor & trailer braking components
- Traction control systems
- Steering, suspension, tires
- Air, hydraulic/cable service and parking brakes
- Occupant restraints, seat belts and air bags

## Commercial Vehicle Accidents

- Trailer swing out
- Jack-knife
- Underride/rear impact protection
- Rollovers
- Trailer off-tracking

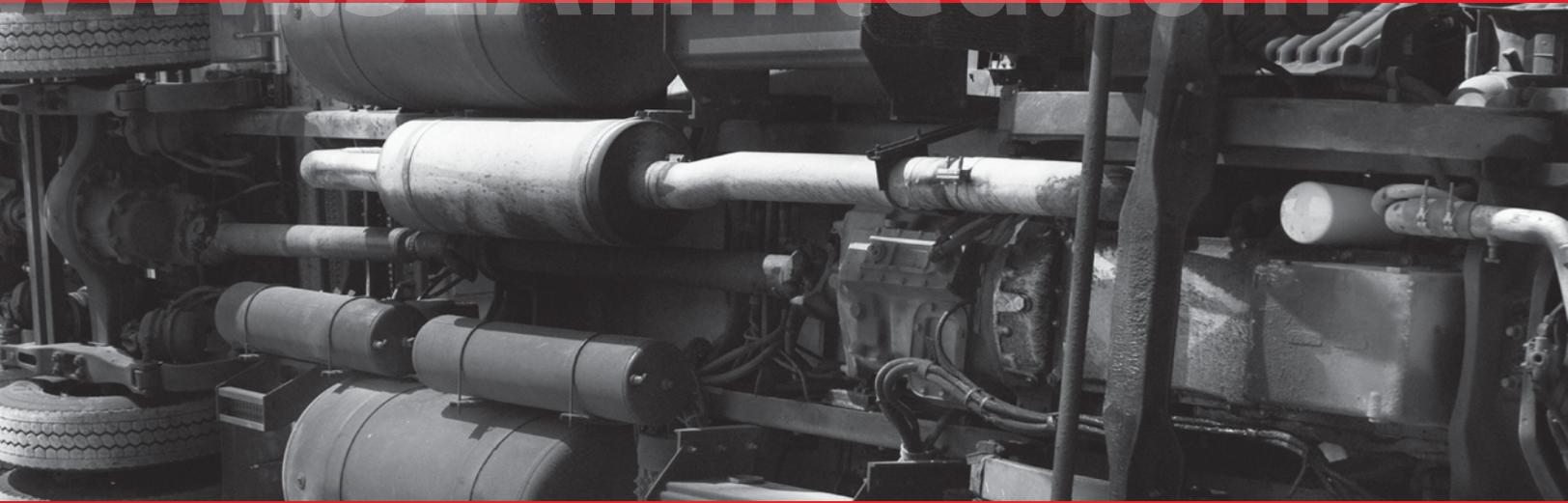


### --- Representative S-E-A Trucking Clientele

- Freight Carriers
- Law Firms
- Manufacturers
- Insurance Companies
- Buses/Passenger Carriers
- Truck Centers/Fuel Stations
- Civil Litigants



[www.SEAlimited.com](http://www.SEAlimited.com)



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**Our Logo** In geology, there is an ideogram used to represent twisted rock formations. The Nsibidi people in Ghana use the same structure to indicate a situation where two witnesses contradict each other but only one is telling the truth (the straight line).

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