Case Study

The information in this case study is reprinted from the American Cyanamid AM-9 technical manual. AM-9 was American Cyanamid’s acrylamide grout product. Avanti’s AV-100 Chemical Grout matches the chemical formulation, usage and performance of AM-9.

**Title:** Stabilizing Running Sand During Pipe-Jacking

**Location:** Highway between Chibu and Tokyo, Japan  
**Owner:** City of Tokyo Water Bureau  
**Contractor:** Kajima Construction Company

---

**PROBLEM:**

A city water supply pipeline, 126 cm. in diameter, has to be placed under the Keiyo Highway in close proximity to an irrigation channel. The water supply pipe had to be placed without disturbing highway traffic.

**SOLUTION:**

A combination of well pointing and chemical grouting was used to control the running sands.

**APPLICATION:**

Well points were driven on both sides of the highway to depress the water table in the area where the pipe would be placed. When jacking of the pipe started, seepage entered the open face through the crushed rock base of a transfer drain pipe. AM-9 Chemical Grout injections from the surface into the crushed rock stopped the inflow of water. Grout injections from the face of the tunnel stabilized this area and prevented caving of the highway support.

**RESULTS:**

A combination of chemical grouting and well pointing permitted the safe and rapid completion of this job.