

## **CASE HISTORY: New Mexico - Production site tank failure (Crude Oil and Distillate)**

### **October 2004:**

In October of 2004, Texas EnviroChem was called by its New Mexico and Colorado distributor to come to New Mexico immediately with its premier chemical, TxChem H-1000. After getting all of the information and working out a strategy, Texas EnviroChem left Houston, TX with the chemical and drove 17 straight hours to remedy the hydrocarbon problem.

Upon arriving on site, Texas EnviroChem determined that the spill was quite extensive, and knew that they could not afford to waste any time! Texas EnviroChem had brought with them 16 drums of TxChem HE-1000 concentrate, and it was determined that all 16 would be needed. One major problem that was encountered but not anticipated was that the ambient temperature was 14 degrees po.

This presented a new set of problems because TxChem HE-1000 was designed to eradicate any hydrocarbons by breaking down the hydrocarbon chain immediately and then creating a food source for indigenous microbes. At the same time, it is supposed to provide nutrients to stimulate the microbes upon contact. Unfortunately, at 14 degrees po, microbes are dormant. Even with the temperature working against them, Texas EnviroChem and the client noticed that the hydrocarbon was breaking down dramatically, and as the temperature rose into the 50 to 60 degree (F) range, the microbes became voracious and consumed the hydrocarbons.

A quick and comprehensive solution to the spill was necessary because of the production site's proximity to a wetlands marsh. The marsh, which flows into a small lake, empties into an ecologically-sensitive, pristine river that flows from the Rocky Mountain Range. Regulatory entities at the local, state, and national levels felt extremely comfortable using HE-1000 because it has passed all regulatory criteria as well as additional criteria which protects animals and humans alike.

### **Conclusion:**

Texas EnviroChem was called out for an emergency situation 17 hours away from Houston, TX. It met the challenge to remediate the hydrocarbon-contamination in a highly sensitive ecosystem using TxChem HE-1000. Even in the extreme, harsh conditions of 14 degrees po, the water-based chemical continued to remediate the site. After the temperature increased, the indigenous microbes became active.

The initial background TPH (Total Petroleum Hydrocarbons) level at the site was 42,345 ppm. Within 24 hours after treatment, the TPH levels dropped to 8,500 ppm. Seven days after treatment, TPH dropped to less than 1,220 ppm, even with the cold weather.