

CASE HISTORY: Placedo, Texas - Tank Cleanout and Demolition (Hydrocarbon Contamination)

May 2000:

Synergistic Technologies, Inc. was called in to perform a tank cleaning/tank demolition and site remediation at Coastal States Crude Gathering Systems site located in Placedo, Texas. The tank was an old 80,000 bbls crude and diesel storage tank that had been slated for tear down. It contained approximately 2,500 bbls of tank bottoms that proved to be volatile (LEL reading of 22ppm). SynTech decided that there was a recoverable amount of product available; therefore, EnviroChem ACL was introduced in a ration of 4% by volume. Within 24 hours, the asphaltic crude bottoms had been liquefied and the process of pumping out the now sellable product had begun.

Upon completion of the pumping phase, the process of de-gassing began. TxChem HE-1000 was introduced by way of a water pumper truck and a 1" stinger rod. The whole inside of the tank was sprayed, including the sides and bottom, to lower the flammable vapors that were present. Thirty gallons of TxChem HE-1000 and 300 gallons of water were used to achieve the level of neutralization that was necessary to begin the demolition phase of the project. The de-gassing was begun at approximately 3pm, and the tank was tested at 8am the following morning. Upon the LEL (Lower Explosive Limit) testing, it was determined that windows (6 ft by 15 ft) could be cut in the tank for the final clean-out.

The next portion of the project was to cut the tank down by way of cutting torches and to remove all metal so that the final stage of site remediation could begin. TxChem HE-1000 was used to remediate the soil beneath the tank and leave the site in the required state of less than 10,000ppm within one year, as dictated by the Texas Railroad Commission.

Conclusion:

With only one application of EnviroChem ACL, Synergistic Technologies was able to capture approximately 2,100 bbls of sellable product (burner fuel), and with only one application of TxChem HE-1000, the 80,000 bbls storage tank was not only de-gassed but also cleaned to the point of demolition-readiness. In addition, the tank site was remediated to less than 10,000 ppm (beginning TPH level was 51,000 ppm; post-treatment TPH level was 2,100 ppm) in just 48 hours, not the required one-time frame.

Coastal was very pleased with the performance of the chemicals but was even more excited about the final analysis and the cost compared to excavation and disposal of the soil beneath the tank because this could prove to be extremely beneficial in future projects!