

CASE HISTORY: Jennings , LA -(Hydrocarbon Contamination)

August 2001:

Lineage Solutions, LLC. (LS)* was contacted by Laguna Construction, Inc. and invited to come to Jennings, LA to test out Lineage Solutions' chemical, LS-1000**, on a pit closure sanctioned by the EPA Region 6.

Lineage Solutions mobilized a treatment trailer and shipped 32 drums of LS-1000 to the site. Upon arrival, LS* was met by the representatives from EPA, Bureau of Reclamation, Army Corps of Engineers, Louisiana DEQ, and U.S. Coast Guard. Lineage Solutions gave a short interpretive presentation, utilizing videos, to describe what was going to take place on-site. After a question and answer discussion period, Lineage Solutions began the remediation process.

On-site grid sampling was performed by Lineage Solutions to establish a background TPH (Total Petroleum Hydrocarbons) level. Subsequent samplings would be taken 24 and 48 hours after completion of the remediation process.

Utilizing the extended reach excavator on-site, the operator was instructed to begin stirring the contaminated media. In a 60-barrel water truck, Lineage Solutions mixed 1 part LS-1000 with 10 parts water to form a solution. A suction hose was then used to connect the truck containing the solution to a 2-inch water transfer pump setup, which would use Lineage Solutions' spray apparatus to apply the chemical.

Once the contaminated media was thoroughly mixed, application of LS-1000 began.

As the chemical was sprayed over the media, the excavator mixed the soil and chemical together, turning it into a slurry.

Upon agitation of contaminated media, it became apparent that the volume of contaminated media that Lineage Solutions had been told existed was under-calculated by over 30%. Lineage Solutions was faced with a challenge to treat approximately 1,700 cubic yards with a chemical calculated for 1,200 cubic yards. Lineage Solutions applied additional water to wet the contaminated media and worked with the excavator to further break up the soil and agitate the hydrocarbons. The remaining LS-1000 was applied and the media was mixed for approximately 5 to 6 hours using the excavator. The pit was then leveled, and the remediation process was completed.

A sample was taken immediately upon completion of the pit processing to determine the decrease in contamination levels. The analysis indicated a 50% immediate reduction of TPH levels as well as a drastic improvement in the media color and hydrocarbon odor that had been present prior to application.

Conclusion:

Immediately upon completion of the remediation process, a 50% reduction in the background TPH level of 56,000 ppm occurred, along with along with drastic color and odor improvement. At the 24 hour time interval, soil sampling indicated that an over 93% reduction of TPH levels had occurred. At the 48 hour time interval, soil samples displayed a contamination level of less than 1%. The goal of 1% TPH contamination (10,000 ppm per Railroad Commission requirement) was achieved within less than 48 hours of application of LS-1000.

* Formerly known as Texas EnviroChem, Inc.

** Formerly known as TxChem HE-1000