

## Diesel Fuel Bioremediation in Railroad Ballast

Location: South Georgia

Client: Major Railroad

Contract Cost: \$65,000

### PROBLEM

An at-grade crossing collision on a track siding with a train and fuel truck released over 1,000 gallons of diesel fuel over a track distance of 175 feet.

### SOLUTION

The fuel saturated asphalt road and sub-grade were removed and replaced. An initial application of HC-2000 and water were used to flush the mobile phase out of the ballast. Seven (7) applications of HC-2000 followed over an eight (8) month period. A total of 100 gallons of HC-2000 were employed on this project. Degradation monitoring continued for a total of 14 months.

An industrial water well was located less than 500 ft downgradient from the release. A monitoring well was installed immediately downgradient from the tracks to ensure that the water well was not impacted.

No contaminants were detected in the water well. Petroleum Aromatic Hydrocarbons (PAHs), BTEX, and DROs were degraded below detection limits in the monitoring well.

TPH DROs ballast/soil concentrations were reduced by an average of 90%.

### COST/BENEFITS

The track ballast was treated without taking the mainline track out of service and saved the railroad thousands of dollars in saved track time alone.



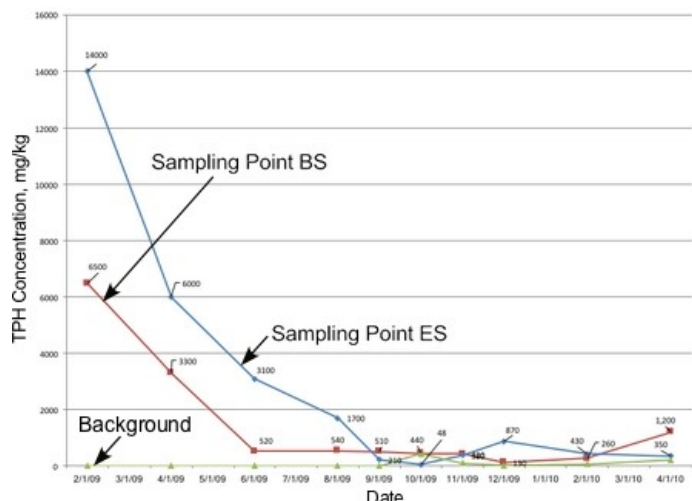
At-Grade Crossing Diesel Release



HC-2000 Application



Track After Treatment



Soil/Ballast Diesel Fuel DRO Degraded an Average of 90% over a 14 Month Period









