



Site Overview

A locomotive diesel fuel release occurred at an active railroad switchyard. A subsequent site investigation revealed elevated levels of benzo(a)pyrene ranging from 2.38 mg/kg to 8.2 mg/kg to a depth of 4 feet. Because of the high rail traffic density at this location, it was not feasible to close the rail spur for remediation. The BIOX Process was chosen due to its ability to remediate the area without disrupting site activities.

Project Specifications

- **Contaminant:** benzo(a)pyrene
- **Contaminated Media:** Soil only
- **Treatment Area:** 2,700 square feet
Vertical Extent – 0’- 4’
Total volume - 400 yd³

Project Results

Pretreatment sampling results showed benzo(a)pyrene concentrations ranging from 2.38 mg/kg to 8.25 mg/kg. The site- specific cleanup objective was established as 0.008 mg/kg. A single BIOX[®] treatment event was conducted at the site without disrupting normal activities. Post treatment samples were collected 34 days after the treatment to evaluate the effectiveness of the remedial activities. The following table shows the pre and post treatment analytical results in mg/kg.

Benzo(a)pyrene (mg/kg)

| Location | Pretreatment | Post treatment | Reduction |
|----------|--------------|----------------|-----------|
| SP-1 | 4.46 | <0.008 | 100% |
| SP-2 | 2.38 | <0.008 | 100% |
| SP-3 | 8.25 | <0.008 | 100% |
| SP-4 | 6.42 | <0.008 | 100% |

**The Published Paper For This Site
Is Available Upon Request**