



RCRA/VRP REMEDIATION SITE

Opelika, AL

Contaminants in Soil:

Paint Solvents/
VOCs (toluene,
naphthalene)

Treatment:

Soil Blending-
CHP/Persulfate

Site Status:

NFA Pending

□ The site covers 4.4 acres and contains a 950,000sf warehouse building constructed in 1958. Soil contamination from a former paint solvent bulk storage farm (SWMU #32) was identified on the NE corner of the site. Contamination included LNAPL and VOCs (namely toluene, naphthalene, ethylbenzene, xylenes, and trimethylbenzenes) resulting from solvent releases via distribution piping at the former tank farm.

□ Subsurface investigation indicated the presence of weathered saprolite (sandy-silt to silty-sand) overlying metamorphic gneiss schist bedrock at 60-80 ft-bgs. The groundwater table was measured at 6-20 ft-bgs.

□ Total contaminant concentrations were in excess of 2,000 mg/kg. Due to the small quantity of impacted soils exceeding target treatment goals, soil excavation and off-site disposal at a Subtitle D landfill was originally recommended. ADEM subsequently classified the soils as “hazardous,” thus requiring disposal at a Subtitle C landfill at a cost of >\$250 per ton.

□ Eden professionals performed treatability testing indicating a 15% solution of catalyzed hydrogen peroxide combined with sodium persulfate could effectively treat soils in-place and could be performed at a considerable cost savings, as compared to off-site Subtitle C landfilling.



□ In-situ soil blending of approximately 350 tons of soil was performed over a 2-week period using a specialized soil blending apparatus that attached to a conventional-sized excavator.

□ Field test kits were utilized during blending to track progress. Confirmatory soil samples indicated total VOC concentrations were below risk based target treatment goals (see graph). A NFA is pending.

