

Lang Tool Co. Project/Client List

Dredge Sediment Treatment New York/New Jersey Harbor:

Year- 1997-1998

Project Volume: 1.3 million cy contaminated dredge sediment

Prime Contractor (Engineer)/Owner SK Services (Key Environmental) /USACOE

Project Contact: Ron Korbini 409-729-7144

Two large Lang in-situ blenders mounted on Cat 375's were used to treat dredge sediment in Port Newark, New Jersey. Sediment from various reaches in the New York/New Jersey Harbor was vigorously mixed with cement slurry injected through the mixer head. The process, which was done in the barges, converted the contaminated dredge sediment into a structural fill, which was beneficially used as a cap in the remediation of several brownfield properties. From December 1997 to October 1998 approximately 1.3 million cubic yards of dredge sediment was treated.

Refinery Clean Up-Buenos Aires Argentina

Year- 1997

Volume: 65,000 cy

Prime Contractor/Owner: Dow Radian/ Argentina Govt.

Contact: Bill Meyers 505-834-2404

A Lang in-situ blender was used to both treat and stabilize acidic refinery waste in several holding ponds(50,000 cy) and to use a very mild cement slurry to treat contaminated soils (15,000 cy). In both applications a homogeneous product was produced with minimal additive usage. This was due to the vigorous and consistently mixing achieved using the Lang in-situ blender

Contaminated Soils Boonton, New Jersey

Year- 1998

Volume: 40,000 CY

Prime Contractor (Engineer)/Owner Dow Radian (Kellogg)/ USACOE

Contact Bill Meyers 505-834-2404

The site was a former dump in Boonton New Jersey where chemical wastes were disposed. The first solution was to cover the waste material and build a park. This failed as contaminated water and fumes emanated. The final solution was to remove about 3 feet of the topsoil which formed a depression. This depression was filled with cement slurry and the LTC in-situ blender was used to mix the slurry with the buried waste solidifying and stabilizing the material. The Site was then capped. Much of the success of this project was due to having a rugged high torque machine that could provide the power to effectively mix and stabilize a covered waste that was full of heavy debris. Buried trees, stumps, demolition debris, and large pieces of concrete were encountered.

Soils Treatment Port Reading, New Jersey:

Year- 2000

Project Volume: 20,000 cy creosote contaminated soils

Prime Contractor (Engineer)/Owner SK Services (Key Environmental/Beazer

Project contact: Dale Foster 412-279-3363

A Lang in-situ blender was used to treat soils contaminated with creosote and coal tar liquids at a former wood treating and coke production site in Northern New Jersey. The soil treatment remedy was approved by the New Jersey Department of Environmental Protection as part of an overall remedy to stabilize the contaminated soils and allow natural attenuation to proceed after the source had been controlled. Prior to approving the in-situ treatment of soils, the agency was requiring excavation and off site disposal at 3 times the cost. Approximately 20,000 cy of contaminated soils were treated. The success of the project required complete mixing of soils and additive to form a homogeneous mixture. The mixing depth was from surface to 8 ft. depth. This project was conducted January and February 2000. Test pits were excavated to verify the effectiveness of the remedy. All test pits showed the coal tar and creosote materials were stabilized and became part of the soil cement monolith.

API Separator Sludge Stabilization- Texas City Texas

Year- 2000

Volume: 3,000 cy API Separator Sludge from the former Malone Services Site

Prime Contractor/Owner: EQM/EPA

Contact Bill Creacy: 800-500-0575

A Lang in-situ blender was rented by EQM to stabilize contaminated API separator sludge and solidify this material for off site disposal. Malone Services is a Superfund Site.

Contaminated Soils- Port Newark, New Jersey

Year- 2001

Volume: 30,000-40,000 cy arsenic and heavy metal contaminated soils

Prime Contractor (Engineer)/Owner Jay Cashman Inc (Key Environmental)/ Beazer

Contact: Jim D'Angelo 617- 306-8178

Soil at a former wood treating site where copper chromate arsenate and creosote were used was stabilized as part of a Port Brownfield redevelopment program. The Lang in-situ blender was used to treat and stabilize the arsenic contamination in the soil. Also, since air emissions were an issue, cement slurry was used as an additive. Lang also supplied a mobile cement slurry mixing system to effectively mix the cement slurry and feed the Lang in-situ blender.

Biological Remediation- Bay City, Michigan

Year- 2001

Volume: 11,000 cy of contaminated soils in an old Amoco Terminal in Bay City, Michigan

Prime Consultant- Delta Environmental

Contact- Jogesh Panda 248-489-4387

Contractor- Lang Tool Co. (Doyle & Lang)

Bill Lang- 989-435-9864

Lang Tool Company and D&L were contracted to provide equipment and manpower to mix biological agents, nutrients, and accelerator water into petroleum contaminated soil to a depth of 8 ft. The Lang Companies designed and manufactured equipment to mix the

biological agents, nutrients, and water onsite. The additive mixture was pumped to pre-established grid areas and vigorously mixed with the petroleum contaminated soil. Vigorous mixing provided contact between the biological agents and the contaminants and also provided oxygen, which promotes rapid growth in the microbe population. The project was completed in 5.5 days with no accidents or incidents. The site met commercial clean up requirements 9 months after treatment.

Drilling Mud Solidification-Amchitka Aleutian Is.

Year- 2001

Volume: 131,000 cy of drilling mud

Prime Eng Contractor-IT Corp and DOE

Contact- Dave Stahl IT Corp (Smith Environmental) 702-295-2501

Construction Contractor- Brice Inc

Sam Robert Rice 907-452-2512

The Lang in situ blender was used to stabilize 131,000 cy of drilling mud that remained from 1970's Atomic Energy projects. Brice Inc removed standing water from the mud pits and treated the water to less than 5 NTU's with carbon filters and flocculation prior to discharging to the tundra. The Lang blender mixed drilling mud with local borrow material to a consistency that could withstand the ground pressure of heavy equipment. The stabilized pits were covered with clean borrow material and geomembrane fabric. Additional cover was added, landscaped, and seeded with natural vegetation.

Bioremediation Sandy Soils- Buckeye Oilfield Site Michigan

Year- 2002

Volume: 900 cy

Primary Eng. Contractor- Harding ESE/Mactec

Contact Rick Dunkin 517-381-5943

Construction Contractor- Lang Tool Co. (Doyle & Lang)

Contact Bill Lang- 989-435-9864

Lang Tool Co. and D&L were contracted to provide equipment and manpower to mix biological agents and accelerator water with petroleum contaminated soil at an abandoned oilfield site near Beaverton MI. The treatment depth was approximately 8' bgs. This was a performance pilot project under the auspices of the Michigan Department of Environmental Quality. 900 cy of soil were treated in 1 day. Residential clean up standards were achieved in 9 months.

Bioremediation of Contaminated Soils- Watervliet Arsenal –Albany, NY

Year- 2003 & 2004

Volume: 60,000 cy, to date

Primary Consultant- Malcolm Pirnie- Daria Navon -914-641-2863

Contact- ECC

Contact- Dan Shore-508-229-2270

A Lang Tool Co. in-situ blender was used to treat hydrocarbon contaminated soils at the site. Nutrients were added and soil was mixed and aerated to promote the required bioremediation process. Remediation is being conducted as a yearly budgeted process and as weather is conducive to the bioremediation process.

Chlorinated Solvent Contaminated Soil Treatment- Ft. Riley, KS

Year- 2004

Volume: 2500 cy.

Primary Contractor/ Burns-McDonnel/Envorox- Owner US Army

Contact- Matt Dingens 201-327-2166

Equipment Operations- Lang Tool Co (Doyle & Lang)

Contact Joe Doyle- 231-832-5586

Lang Tool Co. was contracted to mix potassium permanganate solution into solvent contaminated clay soils in Ft. Riley KS Army Base. Lang Tool Co provided equipment and operation/support personnel. Significant reductions in TCE concentrations occurred even though mixing was difficult due to subsurface obstructions.

Coleman-Evans Whitehouse Superfund Site- Jacksonville Fl.

Year- 2004

Volume: 50,000 cy.

Primary Contractor Entact

Contact – Greg Tunstall- 281-996-9892

A Lang Tool Co. in-situ blender was used mix cement slurry with lead contaminated soils as part of the overall site remediation project. Lang Tool Co. also provided all the additive mixing and pumping equipment.

Platy Kill Pond Closure- Bayonne New Jersey

Year- 2004

Volume: 30,000 cy.

Primary Contractor- D.A. Collins Environmental

Contact- Mike Dunne-518-792-5864

Lang Tool Co. mixer/blender was used to mix cement and organophyllic clay to stabilize, solidify and absorb oil as part of a 30,000 cy pond closure project. The pond was treated to a depth of 28' bgs.

Bioremediation Projects- Roscommon County/ & Gladwin MI

Year- 2004

Volume: 2400 cy.

Primary Consultant- Delta Environmental

Contact -Greg Hilty-614-856-4331

Construction Contractor- Lang Tool Co. (Doyle & Lang)

Contact Bill Lang- 989-435-9864

Lang Tool Co. equipment, technology and personnel were used to apply microbes, nutrients and biocatalyst water to remediate hydrocarbon contaminated soil at two abandoned bulk terminal sites. The total volume was approximately 2,400 cy. and mixing was applied from the soil surface to approximately 8 ft. deep.

Bioremediation Project- State B-1 Site –Meredith, MI

Year- 2004

Volume: 2,000 cy

Primary Consultant- Weston Environmental Solutions

Contact – Rick Dunkin- 517-381-5943

Construction Contractor- Lang Tool Co. (Doyle & Lang)

Contact- Bill Lang- 989-435-9864

Lang Tool Co. equipment, technology and personnel were used to apply microbes, nutrients, and biocatalyst water to remediate hydrocarbon contaminated soil at an abandoned oil production site. The total volume was approximately 2,000 cy and mixing was applied from the soil surface to approximately 15 ft. deep. Due to the depth of some of the contaminated soils, the mixing was conducted in lifts to ensure vigorous and complete mixing to depth.

Bioremediation Project- Abandoned Oil Production Site- Bayou Boulion, Breaux Bridge, LA

Year- 2004

Volume: 30,000 cy

Primary Contractor- Shaw Environmental, Scott LA

Contact- Butch Kurz- 337-236-8977

A Lang Tool Co. blender was used to mix nutrients into 30,000 cy of soil at a remote abandoned oil production site in LA. The equipment was barged to the site. Nutrients that promote biological remediation were mixed vigorously into the soil to a depth of 8 ft.

Baltimore Asphalt Plant Pond Closure, Baltimore MD

Year 2005

Volume- 10,000 cy

Primary Contractor- Entact

Contact- Greg Tunstall- - 281-996-9892

Entact used Lang Tool Co. additive mixing and delivery equipment along with an LTC in-situ mixing head mounted to a 290-LTC tool carrier to close an abandoned pond at a former Chevron/Texaco Asphalt Plant. Cement slurry was produced and by the additive delivery system and mixed with bentonite to meet performance specifications for unified compressive strength and metals leachability.

VOC Mixing/Oxidation Project- Hoboken, NJ

Year- 2005

Volume- 2,900 cy

Primary Contractor- Redox

Soil Mixing Subcontractor- Doyle & Lang, LLC

Contact- John Haselow- 919-460-0330

Lang Tool Co. and D & L personnel and equipment was used to mix sodium persulfate and lime into soil to affect an oxidation of VOC. The site contained a large amount of miscellaneous buried debris. The site was mixed in two 5 ft. lifts. The site was divided into 34 approximately 230 sq. ft. plots and sodium persulfate was mixed along with lime for pH control.