

TerraStryke® Remediation Products LLC P.O. Box 254 Andover, NH 03216

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ERDENHANCED™ CVOC BIOSTIMULATION

safe, sustainable, effective

- Faster Destruction
- Expedited Solubilization
- Increased Bioavailability
 - Greater Longevity
- Complete Biotransformation



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TerraStryke® ERDENHANCED™

Deep Aquifer cVOC Groundwater Destruction via Biostimulation Strategy Alone NASA, Stennis Space Center, Mississippi, Area E

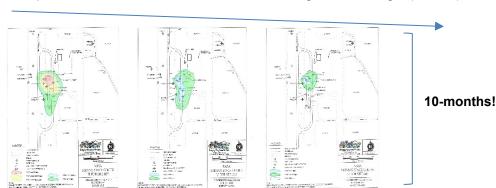
Site: Area E is location of past chlorinated solvent (cVOC) bulk transfer operations. Past use adversely impacted deep soils and groundwater bearing unit. Parent cVOC is Trichloroethylene (TCE) with baseline concentrations in source zone groundwater (MW-20) was recorded at 219,000 ug/L in April 2021 with minimal daughters present. Area of impacts with ≥1,000 ug/L total cVOCs exceeds 400,000 cubic feet.

Strategy: Biostimulation chosen singular remedial strategy based on successful 2011 Area C proof-of-concept study. Additive utilized was **ERD**ENHANCED™ due to proven ability to restore and support the subsurface ecosystem and the growth, communication, and performance of indigenous microbial populations.

Blended with water, the additive-slurry was deployed under low pressure via a network of ENrx subsurface horizontal galleries. The viscosity of the slurry is like 2%-milk. 16,632 lbs additive with ≈17,000-gallons water deployed over impacted treatment zone. Roughly 1,000-gallons slurry deployed per gallery.

Monitoring: Extensive array of monitoring wells evaluated routine by NASA. GC/MS analyses performed on bulk water and 'slime' samples bi-annually. The slime is believed to be biofilm established by the additive enhanced microbes in their restored ecosystem.

Results: Within 10-months after the mid-June deployment of **ERDENHANCED™** into the adversely impacted groundwater bearing unit at Area E, the volume of area with impacts ≥1,000 ug/L total cVOCs *decreased* by 90% to ≈40,000 c.f. Furthermore, concentrations of the parent TCE decreased 98.0% from 210,000 ug/L to 4,100 ug/L (MW-20).



- >98% dissolved-phase [TCE].
- >100% REDUCTION total area of impacts >5,000 ug/L
- <10% with [cVOCs] between >1,000 ug/L.

What does this mean for you?

Expedited site compliance without site encumbrances to redevelopment including, equipment, field activities, and costs. *TerraStryke*® biostimulation additives are proven to cost-effectively maximize the performance of *your* remediation dollar.

