

# Statement of Qualifications



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# ***The Environmental Remediation Group***

## ***A Division of CES***

The Environmental Remediation Group (ERG) is a technology-driven environmental remediation firm specializing in the design, construction, and operation of advanced in situ remediation systems for complex contaminated sites. ERG combines proprietary remediation technologies with deep engineering and field expertise to deliver accelerated, reliable, and defensible site closures.

At ERG, we combine patented thermal technologies — including our HETR™ and ThermaCycle™ platforms — with a team that has delivered more than **112 successful thermal remediation projects worldwide**. Our work spans the full project lifecycle, from early-stage feasibility and pilot testing through full-scale implementation, operations, and regulatory closure.

### **OUR MISSION**

Our mission is simple: to provide clients with safe, innovative, and sustainable remediation solutions that restore even the most complex sites. We serve as a trusted technical partner, delivering transparent engineering, disciplined execution, and technologies that perform as designed under real-world conditions.

### **OUR GOAL**

Our goal is to develop and implement sustainable, cost-effective, and reliable approaches to contaminated site remediation, using both proven and cutting-edge technologies applied through creative, site-specific strategies. ERG's approach emphasizes performance, adaptability, and long-term value, ensuring remedial objectives are achieved efficiently while meeting regulatory and stakeholder expectations.





*"The Environmental Remediation Group have always proposed innovative and cost saving approaches to our environmental problems.*

*We think that ERG's use of innovative approaches to the assessment and remediation has saved us time and money. I would highly recommend ERG to anyone with environmental issues."*

- Roy Saunders  
Vice President -Jaco Hill

## Our Company

For more than seventeen (17) years, ERG has been at the forefront of remediation technology development and project implementation, with hundreds of remediation projects successfully executed using traditional, advanced, and combined remediation approaches. This experience provides practical insight into the real-world performance and applicability of remediation technologies.

ERG supports clients throughout the full remediation lifecycle, including technology selection, feasibility evaluations, pilot testing, system design, construction, operation and monitoring, regulatory reporting, and project closeout. In this role, ERG functions as a strategic extension of its clients' and partners' technical and operational capabilities, supported by experienced technical, engineering, and field implementation professionals.

ERG operates as a systems integrator, not a commodity contractor. Projects are approached through a structured process emphasizing early technical evaluation, site-specific conceptual site model development, and deliberate selection and sequencing of remediation mechanisms aligned with contaminant behavior, subsurface conditions, and cleanup objectives. This approach allows technologies to be deployed as standalone systems or as phased, combined remedies that adapt as site conditions and performance data evolve.

The foundation of ERG is its professional staff, including scientists, registered engineers, geologists, and technicians with focused expertise in environmental assessment, feasibility testing, remediation system design, construction, and turnkey implementation. ERG maintains a hands-on leadership and technical model, with senior staff directly involved in system design, implementation, and performance evaluation to ensure continuity, accountability, and clear communication from planning through construction, operations, and project closeout. This hands-on execution model enables ERG to consistently maximize return on remedial investment (RORI) while meeting long-term regulatory and stakeholder objectives.



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# Our Leadership



## Robert D'Anjou – President

As President of The Environmental Remediation Group (ERG), Rob D'Anjou leads the company's technical vision, strategic direction, and execution of complex remediation projects. He applies a facts-first, metrics-driven approach to deliver safe, defensible, and cost-effective solutions.

Rob is an internationally recognized remediation expert with 15+ years of experience specializing in thermal remediation, bioremediation, and combined in situ remedies, and is the lead inventor of ERG's HETR™ and ThermaCycle™ technologies. A hands-on leader, he remains directly involved in technical design and directs ERG's research and development efforts. Over his career, Rob has led more than 45 thermal and combined-remedy projects, developing hundreds of endpoint-specific remediation designs and removing over 5,500,000 pounds of VOCs and SVOCS.



## Allen Swift – Executive Vice President

Allen Swift joined The Environmental Remediation Group (ERG) in December 2022 as Executive Vice President, where he leads the company's domestic and international business initiatives. He oversees strategic planning, service development, sales and marketing, and global business development, and manages end-to-end client engagement from opportunity identification through contracting and execution.

With more than 25 years of experience across the environmental remediation industry, Allen has collaborated on the design, construction, and implementation of remedial systems worldwide. He is the co-inventor of ERG's HETR™ and ThermaCycle™ technologies, contributing to the development and commercialization of ERG's proprietary remediation platforms. Allen is recognized for disciplined, efficient, and relationship-driven business management that aligns technical capability with client needs and long-term project success.



James Keegan

*Chief Financial Officer*



Skye Green

*VP of Engineering*



Danny Baysa

*VP of Field Operations*



Michael Dodson

*Strategic Advisor*



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# ERG Remediation Platforms & Core Capabilities

ERG delivers remediation solutions through proprietary technology platforms supported by proven remediation methodologies. Our systems are engineered to function independently or as integrated, phased remedies tailored to site-specific conditions, contaminant profiles, and regulatory objectives. This platform-based approach allows ERG to apply the appropriate level of thermal energy, hydraulic control, and treatment intensity at each stage of remediation, maximizing performance while reducing lifecycle cost and implementation risk.

## Hybrid Energy Thermal Remediation (HETR™)

HETR™ is ERG's patented, next-generation Thermal Conduction Heating platform designed for high-temperature source zone remediation. The system delivers stable heater-formation interface temperatures exceeding ~500 °C, fluxing approximately 400–550 watts per linear foot of well to the subsurface and achieving target treatment temperatures of ~100 °C to 400 °C at typical spacings of 8 to 17 feet on center. Each HETR™ well generates 100–500 watts of electrical power via integrated thermoelectric energy harvesting, reducing grid demand and infrastructure requirements. HETR™ supports combustive, electric, or hybrid energy inputs and is protected under U.S. Patent No. 12,523,373.

## ThermaCycle™ Integrated Thermal Recirculation Platform

ThermaCycle™ is ERG's adaptive low- to mid-temperature in situ thermal remediation platform, engineered as a closed-loop, recirculating groundwater heating system. Operating intentionally below boiling thresholds, ThermaCycle™ maintains average subsurface temperatures of approximately 90–150 °F, with injection temperatures up to ~180 °F to activate multiple removal mechanisms including heat-enhanced biodegradation, accelerated hydrolysis of susceptible chlorinated VOCs, and thermally enhanced desorption and NAPL mobilization. Flow rate, temperature, and amendment delivery are dynamically adjustable within a single unified platform, allowing remedial mechanisms to evolve over time without system redesign.

## Supporting Remediation Capabilities

ERG's proprietary platforms are supported by a comprehensive suite of proven remediation technologies, including electrical resistance heating, conventional thermal conduction heating, steam-enhanced extraction, soil vapor extraction, multi-phase extraction, air sparging, in situ chemical oxidation, groundwater extraction and treatment, and engineered combined remedies.

ERG's strength lies in engineering adaptive, performance-driven remedial systems that evolve based on site data and operational feedback. This systems-based approach consistently delivers accelerated cleanup, reduced uncertainty, and durable regulatory closure.



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## *Hybrid Energy Thermal Remediation* High Temperature. Low Carbon. No Compromises.

US PATENT NUMBER: US 12,523,373

HETR™ is ERG's patented (U.S. Patent No. 12,523,373) next-generation Thermal Conduction Heating (TCH) technology that delivers industry-leading subsurface temperatures while reducing energy demand, infrastructure needs, and carbon intensity. It is field-proven, scalable, and deployment-ready for the most challenging DNAPL source zones.



### Why HETR™ Matters

- Higher thermal output than conventional TCH
- Built-in renewable energy recovery during operation
- Flexible energy inputs (combustive and/or electric)
- Lower lifecycle energy demand and infrastructure burden
- Precision heat delivery where and when it matters

### Performance at a Glance

- Target subsurface temperatures: 100°C to 400°C
- Heat flux: ~400–550 W per linear foot of well
- Typical well spacing:
  - 8 ft on center (high-temperature applications)
  - up to ~17 ft on center (moderate-temperature applications)

### Energy Smarter by Design

Each HETR™ well generates energy while heating:

- 100–500 watts per well, 24/7 via thermoelectric energy harvesting
- Reduces reliance on grid power and heavy electrical infrastructure
  - Can be combined with auxiliary solar - to go off grid!

### Field-Ready. Proven. Patented.

HETR™ is delivering full-scale thermal remediation in the field today—backed by U.S. Patent No. 12,523,373 and combining industry-leading thermal performance with smarter energy use to drive faster, deeper, and more sustainable cleanup of complex source zones.



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# ThermaCycle™



## Adaptive Low to Mid Temperature In-Situ Thermal Remediation

ThermaCycle™ is ERG's next-generation platform for low- to mid-temperature in situ thermal remediation. It is a closed-loop, recirculating groundwater heating system engineered to dynamically adapt to subsurface conditions and employ the full range of low- to mid-temperature remediation mechanisms (<70 °C) within a single unified equipment platform. ThermaCycle™ allows flow rate, temperature, and amendment delivery to evolve over time so that dominant contaminant removal pathways track the remedial trajectory without requiring system redesign.

## A Dynamic, Multi-Mechanism Approach

ThermaCycle™ operates intentionally below volatilization and boiling thresholds, maintaining average subsurface temperatures between 90 and 150 °F. Injection temperatures ranging from 100 to 180 °F allow operators to tune the system toward the most effective removal mechanisms:

- Heat-enhanced biodegradation
- Accelerated hydrolysis of susceptible VOCs
- Thermally enhanced desorption, mobilization, and extraction
- Thermal-enhanced NAPL mobilization
- Integration of ISCO, ISCR, Co-Solvents, Surfactants, Biological Amendments or Cultures

Because all heat and amendments are delivered through the same closed-loop architecture, these mechanisms can be prioritized, blended, or sequenced as remediation progresses — without redesigning the system.

## A Platform Built for Combined Remedy Strategies

ThermaCycle™ delivers predictable hydraulic control and efficient contaminant recovery across complex stratigraphy. Its closed-loop, amendment-ready architecture integrates seamlessly with chemical and biological injection technologies, allowing deployment as a standalone remedy or as the backbone of a combined approach.



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## Thermal Remediation Technologies

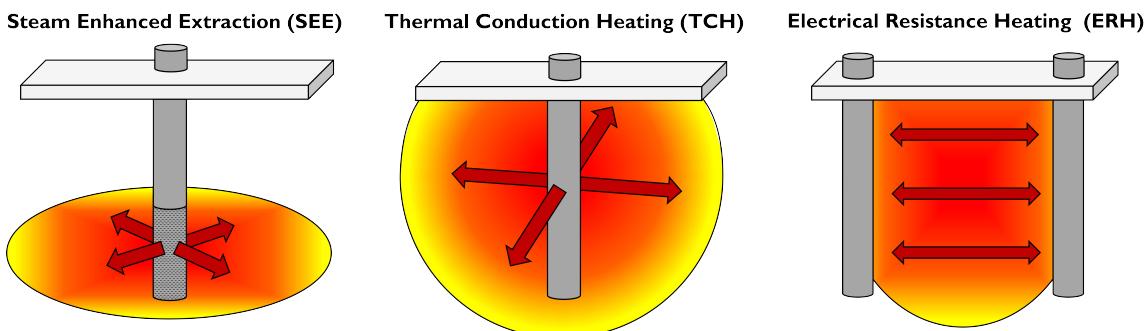
The Environmental Remediation Group (ERG) and its core team bring industry-leading expertise in the design, construction, and implementation of all three major in situ thermal remediation technologies. As a company, we have implemented—or are currently implementing—twenty-five (25) full-scale thermal remediation projects. Collectively, our team has designed, built, and operated more than 114 thermal systems worldwide.

From the earliest commercial thermal remediation systems of the 1990s to today's most advanced proprietary platforms—including ERG's patented Hybrid Energy Thermal Remediation (HETR™) and the ThermaCycle™ integrated low- to mid-temperature thermal recirculation platform—ERG's professionals have been at the center of the thermal remediation industry for nearly 30 years, delivering some of the most complex and technically demanding projects ever executed.

Our combined project experience includes:

- Seventy-nine (79) Electrical Resistance Heating (ERH) projects (1995–2019)
- Twenty-four (24) Thermal Conduction Heating (TCH) projects using electric, fuel-fired, and ERG's patented Hybrid Energy TCH systems (2016–2024)
- Ten (10) Steam Enhanced Extraction (SEE) projects (2000–2020)

At ERG, thermal remediation is not just a service—it's our legacy, our expertise, and our ongoing commitment to delivering high-temperature, low-carbon solutions without compromise.

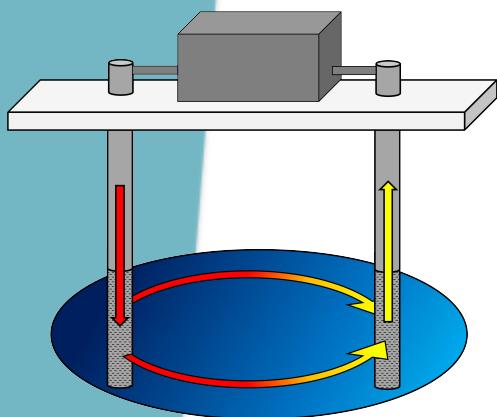


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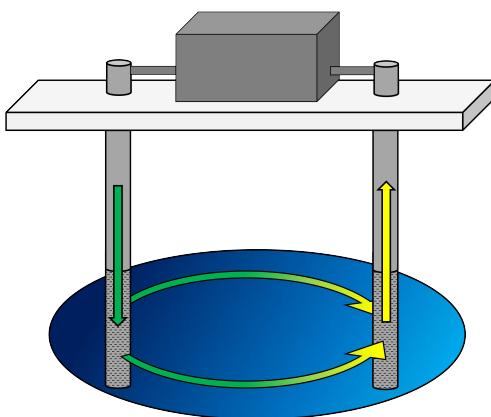
# ERG Supporting Suite of Remediation Technologies

## BIOREMEDIATION

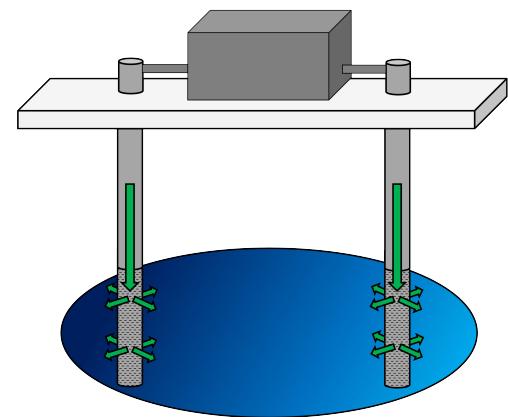
Heat Enhanced Recirculation Systems



Groundwater Recirculation Systems

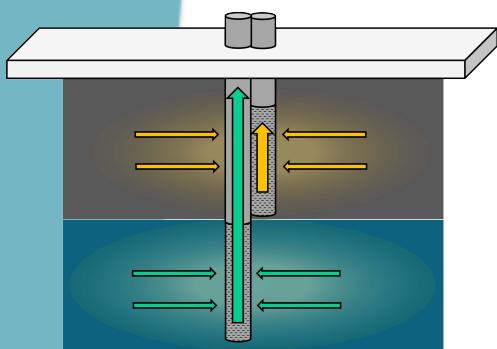


Amendment & Augmentation Injection

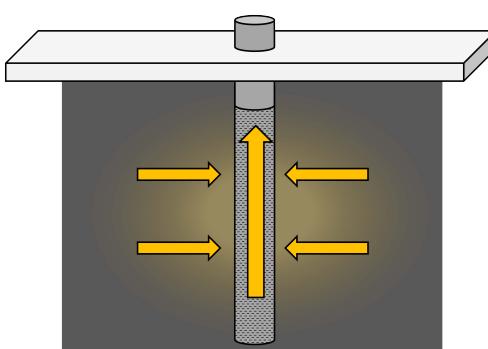


## AIR MOVEMENT TECHNOLOGIES

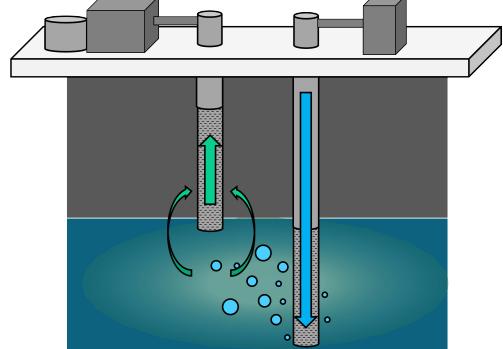
Multi-Phase Extraction (MPE)



Soil Vapor Extraction (SVE)

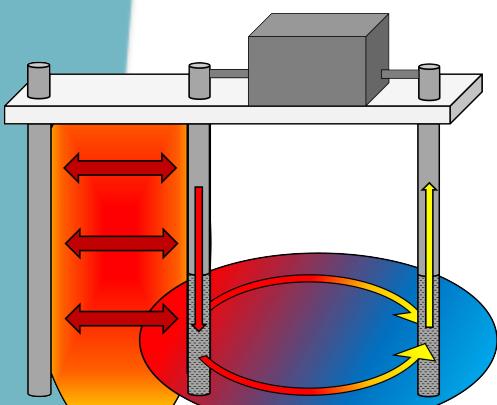


Air Sparging (AS)

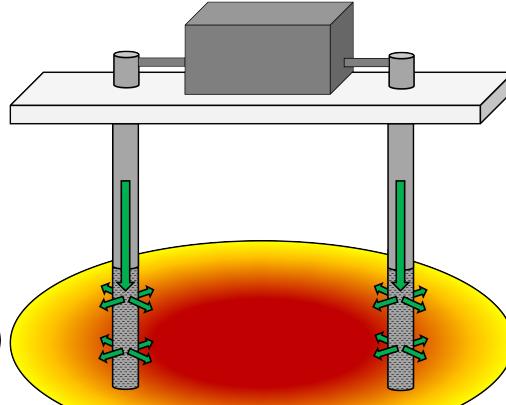


## COMBINED REMEDIATION SYSTEMS

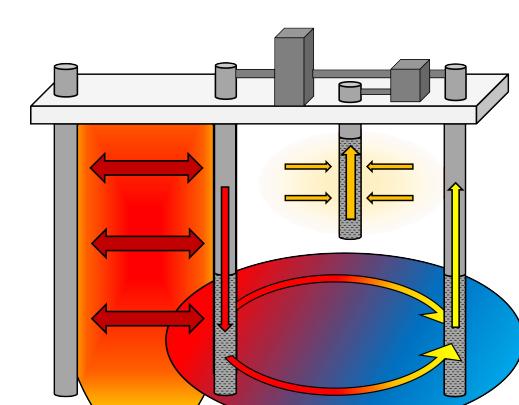
ISTR Source Zone With HERS



Post ISTR Bio-Polishing



Custom Combined Remediation Strategies



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# Project Case Studies

Remediation Projects Using a Range of Technologies, Approaches, and Implementation Strategies



# THERMAL



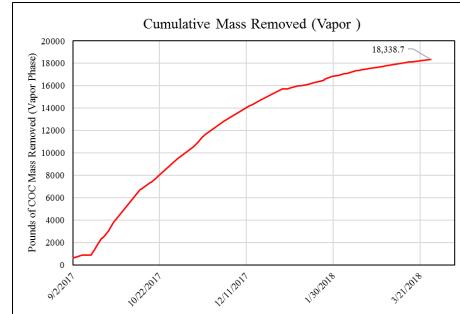
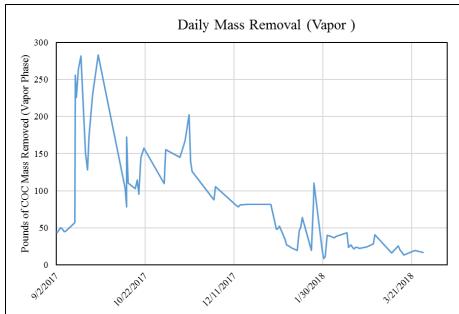
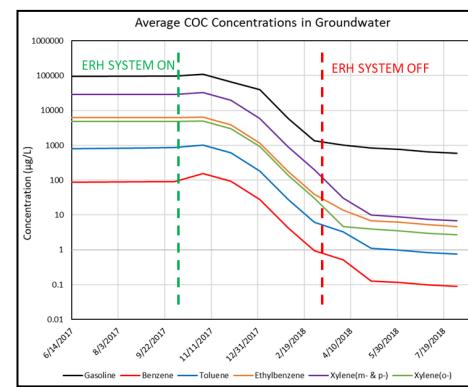
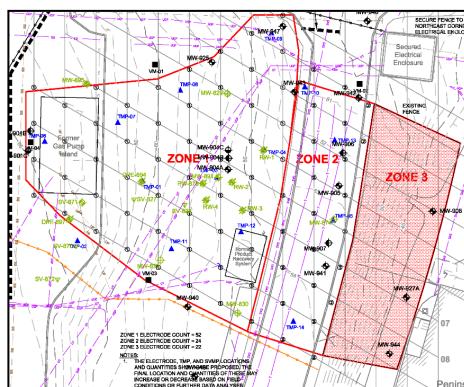
## JACKSON PARK NEX GAS STATION SOURCE AREA REMEDIATION

NAVFAC CONTRACT NO. - N62470-13-D-4808

BREMERTON, WA

**Summary** – Under a contract from Tetra Tech EC, Inc. (TtEC), with KEE Solutions (as an SDVOSB Prime), ERG was engaged to remediate the site using continuous electrical resistance heating (ERH) and periodic dual-phase extraction (DPE). ERG partnered with a thermal remediation technology vendor, Global Remediation Solutions (GRS), to construct and operate the in situ thermal remediation (ISTR) system. While GRS was led at the time by Michael Dodson, Robert D'Anjou, and Allen Swift, those same individuals have since joined ERG, now forming our core Thermal Remediation leadership team. This integration of talent demonstrates how ERG has consolidated the expertise needed to deliver comprehensive, industry-leading thermal remediation solutions..

The Jackson Park Navy Exchange (NEX) Gas Station Leak Area is located within the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site near the city of Bremerton, Washington. The selected treatment remedy for the source area was electrical resistive heating (ERH) with dual phase extraction (DPE). This in situ treatment technology was performed in the upper 55 feet of the subsurface, throughout the region of Vashon Till soil and perched groundwater that exceeded cleanup levels and in the upper portion of the aquifer with the highest dissolved concentrations. A total of 76 electrodes were constructed and installed at 15-ft on-center to treat a volume of 21,900 cubic yards to depths up to 52-ft bgs. The contaminants of concern (COCs) at the Jackson Park Site are gasoline range total petroleum hydrocarbons (TPH-G) with an appreciable quantity of BTEX compounds. 19,000 lbs of COCs were removed in the vapor phase and dissolved phase concentration of TPH-G and BTEX were reduced by 99%.



### Technology:

Electrical Resistance Heating

### Electrode Pattern:

76 electrodes - Three Phase Array

### Treatment Area:

16,300 square feet

### Treatment Interval:

Variable (55-ft bgs max)

### Treatment Volume:

21,900 cubic yards

### Extraction System:

MPE and SVE

### Liquid Phase Treatment:

OWS separation, LPGAC treatment

### Vapor Phase Treatment:

Thermal Oxidizer

### Regulatory Driver:

Navy, Washington State Dept. of Ecology, EPA





# COMBINED THERMAL REMEDY

## CARSON PLAZA

### COMBINED N-SITU REMEDIATION OF AN OPERATING DRY-CLEANING BUSINESS USING THERMAL REMEDIATION

CARSON, CA

**Summary** - The soil and groundwater beneath an operating dry-cleaning business and strip mall in Carson, California was impacted with tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE), and vinyl chloride to a depth of 30 feet below ground surface (bgs). Initial soil concentrations at a depth of 16 feet bgs have maximum values of 860 µg/kg PCE and 1,700 µg/kg TCE. Initial groundwater concentrations in the hot spot area were 4,600 µg/L PCE and 18,000 µg/L TCE.

ERG employed a phased approach as part of a combined remedy solution to address legacy CVOC impacts at the Site, integrating vapor extraction, dual-phase extraction, and limited groundwater extraction in the initial stages. Subsequent steps included targeted electrical resistance heating (ERH) to accelerate contaminant removal, followed by chemical oxidant injections and continued vapor extraction. In the final phase, a focused wellfield consisting of eight wells, utilizing ERG's Patent Pending Hybrid Energy Thermal Remediation (HETR) approach to Thermal Conduction Heating (TCH) alongside Soil Vapor Extraction (SVE), was used to address residual source zone contamination. Verification sampling from 2024 confirmed that the Site met the required cleanup objectives in soil, groundwater, and soil vapor. The guaranteed remediation contract was based upon reducing existing concentrations to MCL's and obtain a no further action letter from the Los Angeles Regional Water Quality Control Board (LARWQCB). Overall concentrations were reduced by approximately 99% in soil, groundwater, and soil vapor, and the Site was submitted for regulatory Closure in 2024.

#### Technology(s)

Phase 1: SVE, DPE

Phase 2: ISTR - ERH, MPE

Phase 2: ISCO, SVE

Phase 3: TCH & SVE

#### Treatment Area:

13,270 square feet

#### Treatment Interval:

0 to 30-ft bgs

#### Treatment Volume:

12,300 cubic yards

#### Extraction System:

MPE and SVE

#### Liquid Phase Treatment:

LGAC treatment

#### Vapor Phase Treatment:

VGAC treatment

#### Regulatory Driver:

Los Angeles Regional Water Quality Control Board (LARWQCB).

#### Project Costs:

Confidential

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Hybrid Energy Thermal Remediation (HETR) - Performance and Specifications						
Model	Energy Output Range	Energy Flux (to formation)	Thermoelectric Renewable Energy Generation	Electrical Requirement	Max Operating Length	Max depth of displaced upper heating interval
	Kilowatts	Kilowatts	Watts	VAC	ft	ft
FDG-HETR-150X	8.8 to 44	4.5 to 23	100-500	None (offgrid) to 115V/10 AC	55.0	15
FDG-HETR-250X	8.8 to 74	4.5 to 36	100-500	None (offgrid) to 115V/10 AC	85.0	20



# COMBINED IN SITU REMEDY

## SHANNON'S MARKET COMBINED IN SITU REMEDIATION USING ISCO AND MPE

MERCED, CA

**Summary** -The relevant work performed includes preparation of environmental documents, Work Plan for Bench Scale testing of ISCO, Assessment Work Plan, Health and Safety Plan, O&M Plan, QA/QC Plans, Corrective Action Plan (CAP), Implementation of CAP, Perform construction, operation, maintenance, O&M related sampling, and monitoring of remediation system in accordance with local regulations and CERCLA. ERG also developed technical memorandum/reporting to regulatory agencies and client including inspection findings, modeling, sampling, testing, and reviews. Conducted evaluation of sampling strategy and operations to maximize program performance. Evaluated system design and optimized performance by implementing innovative technology enhancements. Provided technical and administrative support for public involvement activities. Conducted verification activities such as soil and groundwater sampling, soil gas sampling and reporting. Managed and disposed of wastes generated during performance of the project.

Sites contaminants include chrome, arsenic, MTBE, BTEX, PCE, Vinyl Chloride, free product. The site consisted of a dissolved phase benzene and MTBE plume extending down gradient 480 feet beneath residences and businesses. Free product was also trapped in the saturated zone beneath a low permeability layer. ERG conducted a review of an existing Air Sparging and SVE system to optimize performance and evaluate system design. Initial system optimization resulted in three orders of magnitude increase in mass removal and improved quality of operation. ERG's value engineering and performance review indicated that technology upgrades would optimize system performance, enhance efficiency, improve quality, and reduce life cycle costs. ERG Implemented the technology enhancements by conducting bench tests for ISCO, performed pump and treat pilot test, and then designing, constructing, operating, sampling, and monitoring a soil and groundwater remediation system. Initial technology enhancements reduced in-situ groundwater concentrations by an average of 90% within 3 months. ERG also conducted groundwater sampling of 24 groundwater monitoring wells. The technical approach used a phased implementation of a combined remedy of MPE and ISCO. Free product recovery was completed near the source area. Remediation system included 750 scfm Thermal with 200 gpm GAC water treatment system. ERG maintained all interface with the regulatory agency including providing technical and administrative support for public meetings, and reporting.



### Treatment Technologies:

Air Sparging,  
Multi-Phase Extraction,  
In Situ Chemical Oxidation

### Contaminants:

MTBE  
BTEX  
PCE  
Vinyl Chloride  
(Comingled As NAPL)

### Extraction System:

750-SCFM MPE System

### Liquid Phase Treatment:

OWS separation, LPGAC treatment

### Vapor Phase Treatment:

Thermal Oxidizer with VGAC

### Project Costs:

\$805,000





## Do You Have a Contaminated Site, and Need Remediation Expertise?

Contact us today for a free estimate.



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**The Environmental  
Remediation Group**  
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