



SUSTECO SUPEROXIDATION REMEDIATION TECHNOLOGY

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About Us

At SusTeco we are revolutionising the soil remediation sector by utilising our patented SusTeco Superoxidation Remediation Technology to set the benchmark for environmentally sustainable practices within the Oil, Gas, Mining, Agriculture and Urban Sectors and in the process, consigning conventional cleaning and remediation technologies to the history books.

SusTeco have developed a number of field proven, sustainable technologies capable of dealing with large scale industrial hydrocarbon and mineral waste pollution, providing an environmentally sustainable, cost-effective soil remediation solution that utilises a patented oxidation process – efficiently decomposing hydrocarbons in an environmentally neutral manner.

Our Services:

SusTeco provides a comprehensive suite of contaminated soil remediation services leveraging our industry leading technology:

- Site Assessment and Characterization: Collaborating with environmental consultants to thoroughly understand the extent and nature of contamination.
- Technology Deployment and Operation: Implementing and operating the proprietary SusTeco technology tailored to specific client site conditions and regulations.
- Project Management: Overseeing all aspects of the remediation project, ensuring efficient execution and adherence to local and regional environmental standards.
- Post-Remediation Monitoring and Reporting: Verifying the effectiveness of the treatment.
- Consultation and Technical Support: Providing expert guidance and support to our clients throughout the remediation process, highlighting the unique benefits of the SusTeco technology.
- **Compliance:** Adherence with all regulatory requirements.

SusTeco Superoxidation Remediation Technology (SSRT)

SSRT is a patented system that uses oxidisation technology to remediate soil, sand, and various types of mineral waste contaminated with hydrocarbons. The cleaned substrates can in many cases serve multiple purposes such as road construction base layers, backfilling, or as building materials.

Our approach focuses on preserving soil structure and organic content, minimising energy consumption, and reducing the overall carbon footprint of the treatment process.

In comparison to traditional thermal methods SSRT substantially reduces atmospheric pollutants by seamlessly integrating with biological soil restoration methods that produce an end-product that is highly biodegradable.

Why Use SSRT?

Our technology provides a cost-effective answer to a critical global issue – the incineration of petroleumcontaminated waste. By using SSRT we eliminate this highly polluting process and replace it with an extremely efficient environmentally sustainable system that does not pollute the air, soil and water.

When comparing SSRT to conventional methods, our solutions have consistently shown a 75% reduction in CO_2 emissions and other greenhouse gases.

Extraction Process for Oil Spill Response

When dealing with oil spills, the removal of petroleum hydrocarbons from the contaminated material is paramount. With SusTeco's extraction process we can efficiently separate the oil from the contaminated substrate.

Our method involves using a low concentration of liquid SSRT which effectively separates contaminants away from base mineral particles.

The recovered oil can then be removed and reused for refining purposes. This process is especially effective for soils that are highly contaminated with oil and have a significant mineral (sandy) content and low organic content.





Treatment of Oil Based Muds and Oil Sludge

Oil Based Muds (OBM) and cuttings – commonly produced during the drilling process, and oil sludges – a mixture of oil and oil byproducts, organic and inorganic substances, mineral particles and water, are both extremely challenging to clean due to their complex chemical composition and as a result, each type of waste requires a custom tailored solution.

>> Our unique SSRT system offers that solution.

SusTeco's bespoke remediation process means we are not limited to a specific chemical composition and can adjust the components of our preparations to deal with and remediate complex hydrocarbon pollution. This allows us to be flexible in customising the composition of our SSRT to meet the specific requirements of the cleaning process for each substrate.

Why SSRT is Unique

- Cost SSRT is far more cost effective in treating hydrocarbon polluted soil, than traditional thermal and chemical remediation solutions.
- Efficiency our technology is extremely efficient with a single SSRT unit being able to remediate up to 5 metric tons of contaminated substrate in under 60 minutes.
- Sustainability our biological soil restoration treatment is environmentally sustainable producing an end-product that is highly biodegradable.
- Our treatment can be applied on-site thereby substantially reducing contamination levels of the soil.
- Extremely low carbon emissions achieves 3.6 to 6-fold cut in direct carbon dioxide emissions.

SusTeco's Mobile Treatment Unit

Our Mobile Treatment Units (MTU rigs) enable us to deploy our technology on our client's sites out in the field wherever and whenever needed. Contaminated substrates are then processed, mixed and cleaned using our 2-component product within the onsite facility.

Our MTU are modular and are specifically designed to be manufactured and assembled in country thereby enabling us to deploy them anywhere in the world at short notice.

Every SusTeco MTU arrives on site as a 'turnkey' unit with all the ancillary equipment included, operationally the units can run 24/7 with minimum staffing thereby making them extremely cost effective and efficient to operate and maintain.

The Remediation Process

SusTeco's remediation process for contaminated material is carried out through a batch processing operation which utilises our mobile mixing SSRT 3.5 Treatment Unit. The contaminated material is loaded into the hopper and taken over screw conveyors, equipped with a weighing system to a mixer. Specified amounts of our SSRT reagents and water are loaded into the mixer unit and the agitation of the slurry results in a super oxidation reaction which continues intensively for approximately 30 minutes.

The treated material (slurry) is then fed through the mixers lower hatch via a conveyor belt system and subsequently into a skid which is then emptied at a designated storage area.

This operation can run 24/7 – maximising the total volume of contaminated material treated on site.



SSRT 3.5 Remediation Equipment

The SSRT 3.5 Treatment Unit is a secondgeneration mobile mixing plant. The heart of the mixing unit is twin-shaft batch mixer which ensures the contaminated slurry is treated and processed with maximum efficiency.

The SSRT unit is designed to fit in a standard 40 ft shipping container which in turn ensures the unit is easy to transport to client's sites.

A single SSRT unit comes with ancillary support units which includes mobile power generation, water storage, mobile office and lab, wheel loader, skip loader, storage skips and storage containers, the entire operation is self-contained and highly mobile which in turn enables it to be moved across country to multiple sites.



Our Markets

SusTeco strategically operates in the key Oil, Gas, Mining, Agriculture and Urban Soil remediations sectors where our cost-effective and environmentally friendly technology offers a significant advantage to:

- Leaking Underground Storage Tank (LUST) Sites: Addressing the widespread need for affordable and efficient petroleum hydrocarbon remediation at gas/petrol stations and other facilities.
- Brownfield Redevelopment Projects: Enabling the economically viable reuse of contaminated land in urban and industrial areas, where cost is a significant factor in project feasibility.
- Industrial Facilities: Targeting companies seeking cost-effective and sustainable solutions for soil contamination from manufacturing, chemical processing, and other industrial activities.
- Government Contracts: Pursuing opportunities with federal, state, and local agencies for the cleanup of contaminated sites, emphasizing the potential for significant cost savings with our technology.



Supporting In Country Value

SusTeco is fully committed to providing 'In Country Value' to our customers thereby supporting both the people and the economy in the countries where we operate. This commitment entails employing and training local/regional staff and then transferring technology, skills and know how to them – this fosters long-term partnerships with our employees and local partners, in addition we manufacture all our products in country including our MTU rigs and the patented SSRT.

SusTeco has developed one of the most cost effective environmentally sustainable soil remediation technologies currently available on the market today

To learn more and discuss your soil remediation requirements please contact us:





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