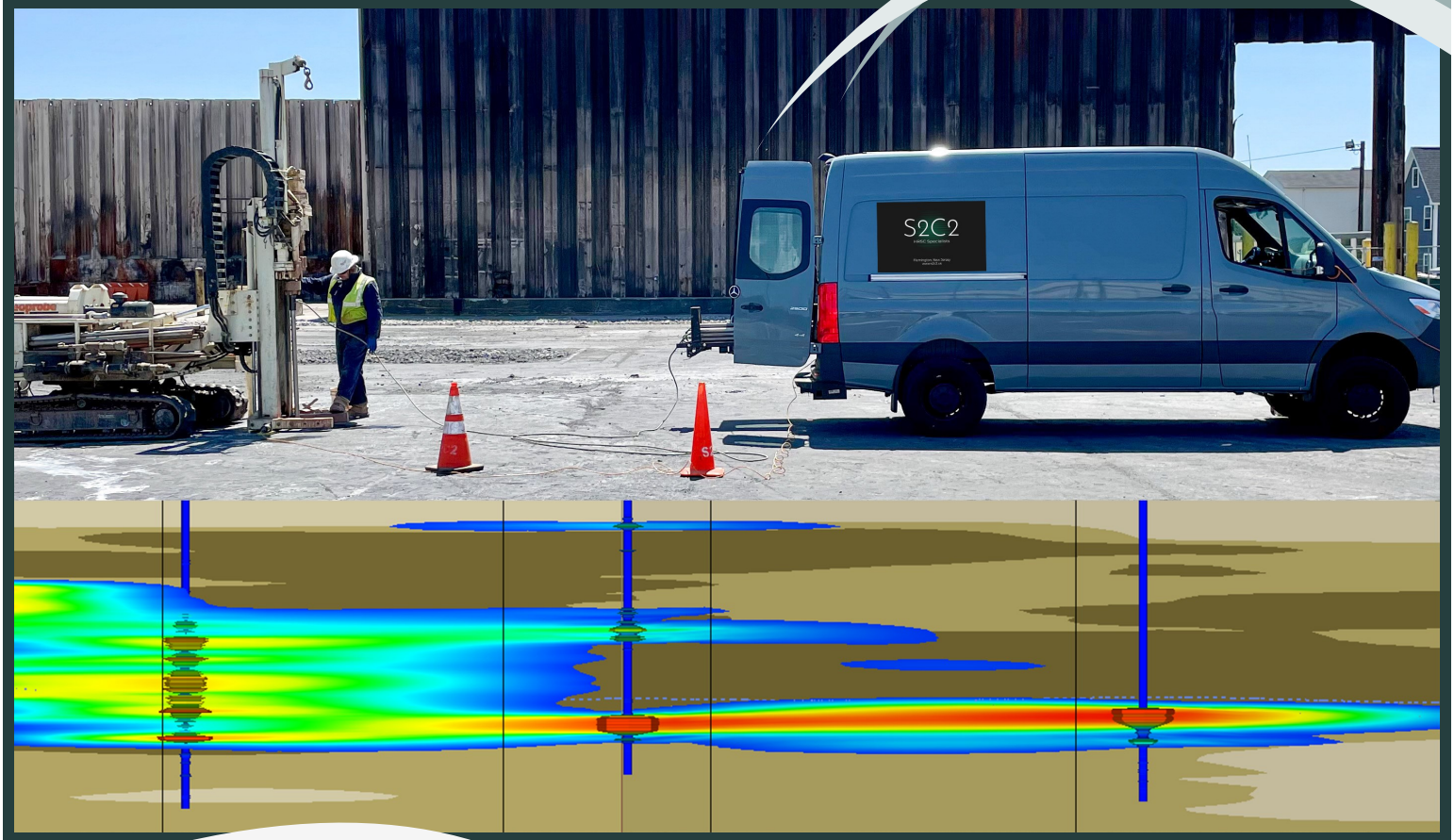
Optical Image Profiler



S2C2

HRSC Specialists

47 East Main Street
Building 1
Flemington, NJ 08822
908-270-0272

HRSC Specialists | Direct-Sensing • Direct-Push • 3D Visualization

Advantages of the OIP

- Detects free and residual NAPL only
- Operates in both saturated and unsaturated materials
- Provides real-time graphical representation of contaminant distribution and soil lithology
- Allows for rapid decision making in the field
- Accurately defined contaminant zones
- Provide water table elevation—and Estimated K

S2C2 HRSC Specialists

S2C2 is an environmental services firm that focuses on providing High Resolution Site Characterization (HRSC) support. At S2C2, we stand committed to excellence in environmental services, setting a benchmark that elevates us above our competition. Our team comprises top environmental specialists and experts who possess a deep understanding of the industry's latest advancements and best practices, enabling us to provide innovative, customized solutions that outpace traditional approaches. S2C2 has been providing direct-sensing services throughout the United States since 2005 and has been a Geoprobe® Certified Direct-Image Contractor since 2008. S2C2 is a full service High Resolution Site Characterization (HRSC) company with Geoprobe® direct-push units and custom direct-sensing systems. S2C2 has the experience and personnel to handle even the most complex site characterization programs.

Gain invaluable insights into complex subsurface conditions, enabling smarter decision-making and more effective remediation strategies

Optical Image Profiler

S2C2 has been providing direct-sensing ultraviolet (UV) Detection of petroleum NAPL since 2004. S2C2 is now utilizing Geoprobe's® Optical Image Profiler system. The OIP is capable of detecting and logging UV induced hydrocarbon florescence and is deployable as either standard OIP, OIP-UVR or as OIP-G. The OIP probe consists of a downhole complementary metal oxide semiconductor (CMOS) camera focused on a sapphire window that acts as a rugged interface between the probe cavity and subsurface matrix. A light-emitting diode (LED) positioned above the camera directs UV and visible light through the sapphire window and at the subsurface, causing PAH components of the NAPL to fluoresce. Images are captured by the CMOS camera at a rate of 30 frames per second (fps) and analyzed for fluorescent color indicative of fluorescence. The reported value is a percent area of the captured image that displays fluorescence with a resolution of 0.05 feet.

OiHPT - OIP with HPT

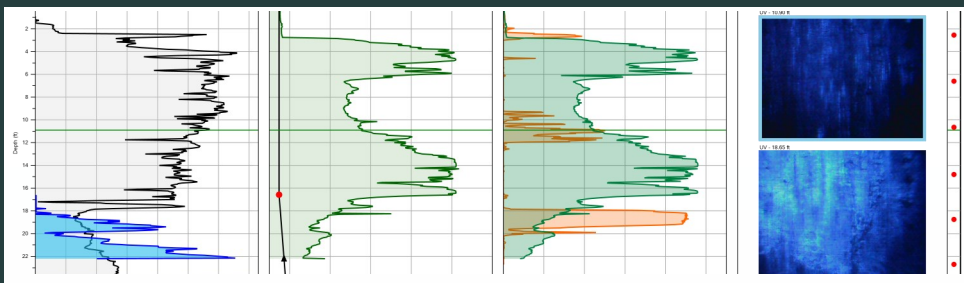
The OiHPT probe is the industry standard OIP configuration which combines Geoprobe's Hydraulic Profiling Tool (HPT) with OIP and is used to log NAPL fluorescence, soil conductivity (EC) and permeability (HPT) with depth. The standard OIP system utilizes a 275nm LED which is configured for common fuels and oils such as gasoline, diesel, jet fuel, motor, hydraulic and cutting oil.

OiHPT-G

The OiHPT-G probe replaces the standard 275 nm LED with a 520nm LED and infrared LED configured to detect fluorescence from heavier fuels and oils such as creosote, coal tars, crude oil and heavy bunker fuels.

OiHPT-UVR

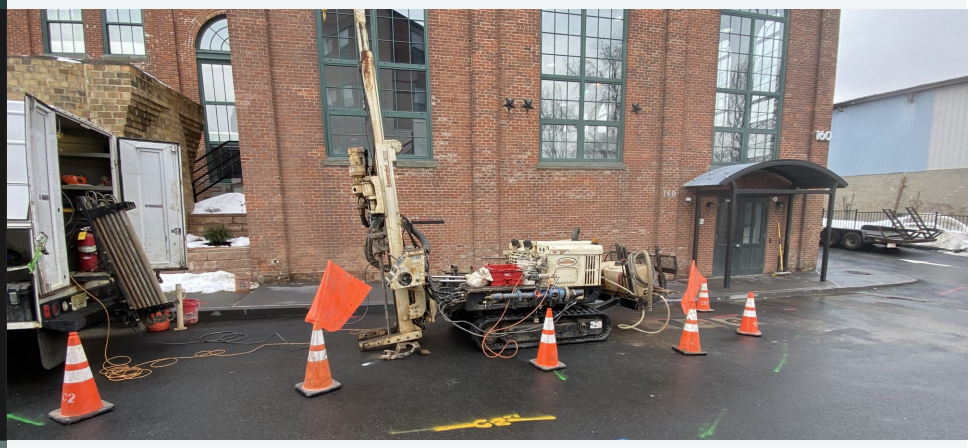
A photodetector has been added to the traditional OiHPT-UV probe to detect fluorescence occurring in the UV range (<400nm) which the CMOS camera is unable to detect including better resolution of jet fuel and kerosene fuel types.



OIP provides unparalleled NAPL and geologic data for rapidly advancing conceptual site models

For sites that have residual or free phase NAPL, Geoprobe's OIP is the go to tool set for evaluating almost any fuel/oil types. Unlike MIP, UV technology does not respond to dissolved phase contaminants so the data is highly specific to only residual and free NAPL distribution. The OIP can be advanced with standard direct-push rigs and has production rates that exceed 200 ft/day making it a highly cost effective option even when compared to traditional soil sampling programs which can never achieve the data density provided by direct-sensing tool sets.

OIP data seamlessly integrates into our 3D visualization packages - Providing a comprehensive HRSC solution.



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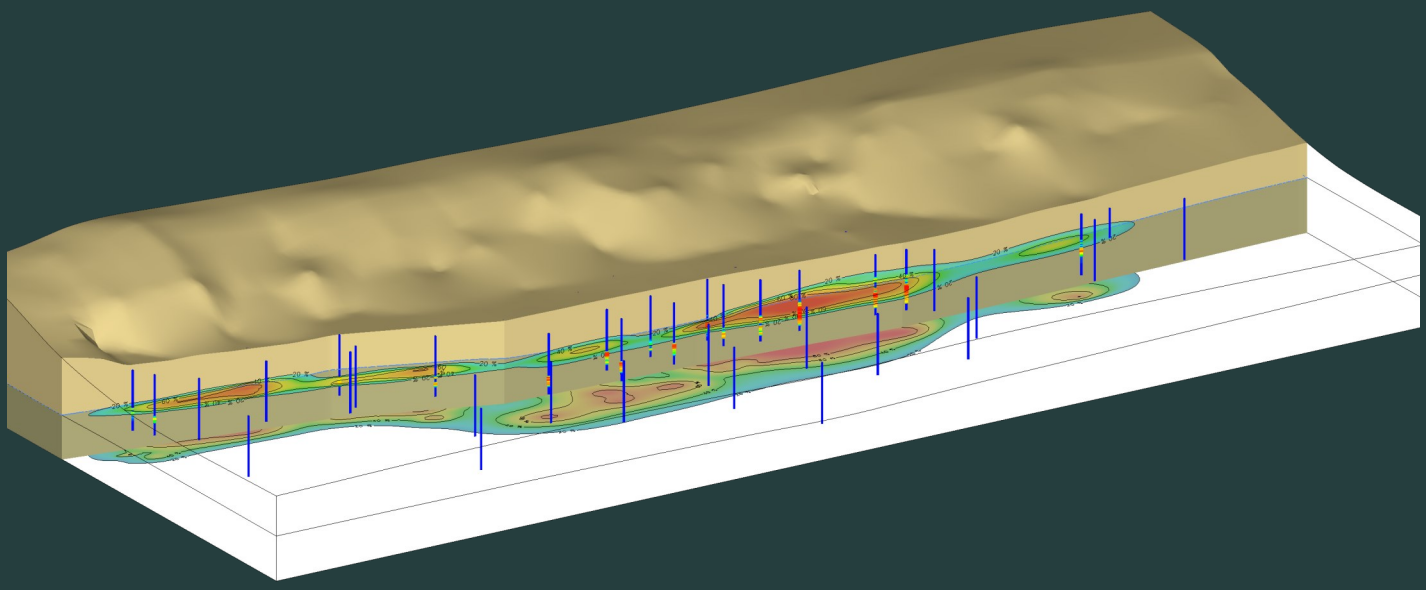

S2C2 is committed to working with our clients through all project phases—from initial proposal, through field implementation to project completion. Contact us to discuss how our services can help you solve complex environmental problems.

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