

Offshore Oil and Gas Development

Rapid Seafloor Reconnaissance and Assessment Through Innovative Optical Coring Technology



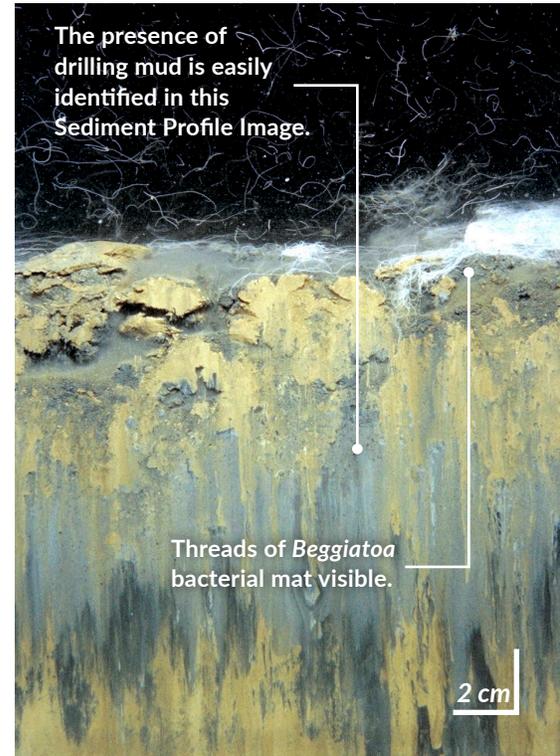
Oil and Gas Exploration, Production, and Decommissioning activities impact seafloor habitats. The scale, intensity, and recovery from such impacts are more clearly understood with the engagement of INSPIRE technology and expertise.

Using **Sediment Profile Imaging**, we collect high-resolution photographs and provide integrated seafloor maps that support EBS permit requirements, inform pre-exploration planning, and document environmental effects related to produced waters, drilling muds, and cuttings discharges surrounding working platforms and for post-drilling closeout assessments. INSPIRE used SPI technology to document the true extent of, and recovery process from, seafloor impacts surrounding the wellhead of the Deepwater Horizon site in the Gulf of Mexico.

INSPIRE's efficient turnaround of field data, **expert interpretation**, and integration of geophysical and optical data provides intuitive visualizations that facilitate communication of complex information to broad audiences.

SPI technology is **recognized by API and BOEM** as an effective tool for providing benthic impact assessments as part of pre- and post-production activities as well as monitoring natural habitat recovery progress for sediment remediation projects.

INSPIRE scientists invented SPI technology and offer the most experienced interpretation and integration of seafloor information available.



Sediment Profile and Plan View Camera



Plan View image of bacterial mat which may indicate strongly reduced organic- or hydrocarbon-rich sediments.



INSPIRE Environmental

513 Broadway, Suite 314, Newport, RI, 02840

401.849.9236

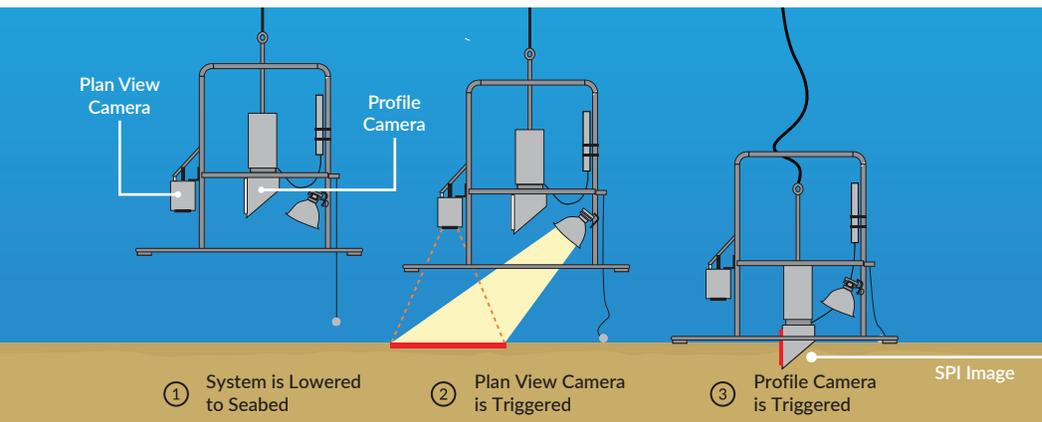
info@INSPIREenvironmental.com

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What Is Sediment Profile Imaging (SPI)?

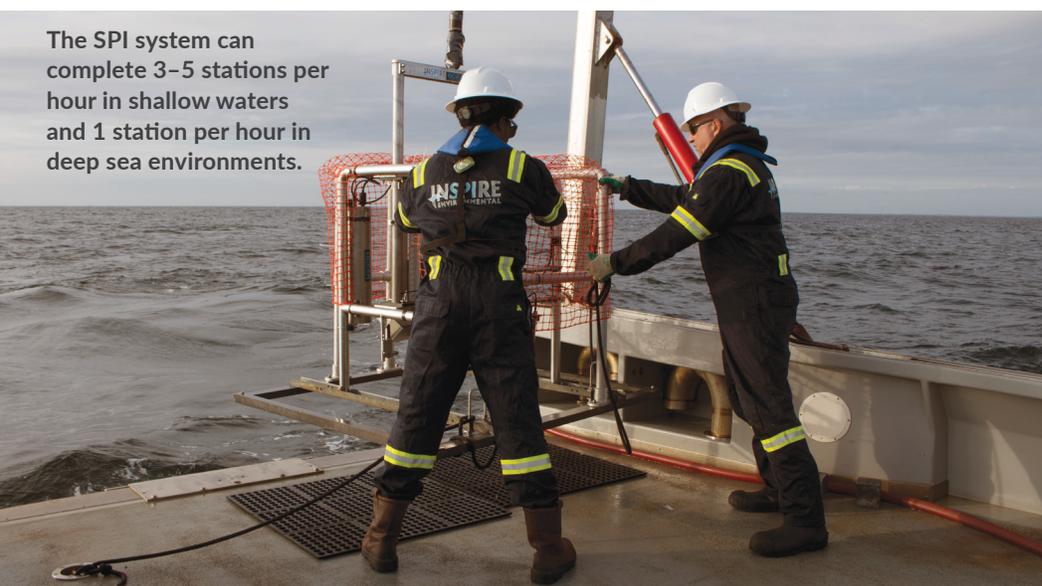
Developed by INSPIRE scientists four decades ago, SPI is an optical coring device that works like an upside-down periscope, taking cross-sectional images of the upper 20 cm of the seafloor. Our system combines a plan view and a profile camera to produce data that our scientists use to analyze and interpret physical, chemical, and biological parameters in oceans, lakes, and rivers. SPI is a proven alternative to traditional benthic sampling methods.



Sediment Profile Imaging/Analysis Allows You To:

- › Produce results that are easily understandable by non-scientific audiences.
- › Characterize baseline ecological conditions and seafloor habitats before and after installation of sub-surface infrastructure, wells, pipelines, and anchors.
- › Efficiently monitor impacts from installation, operation or decommissioning of subsea infrastructure to water depths of 4000 meters.
- › Provide a rapid response for natural resource assessment studies.
- › Gather cost-effective ground truth/supplemental information for geological, geochemical, geophysical, site characterization, and shallow hazard surveys.

The SPI system can complete 3-5 stations per hour in shallow waters and 1 station per hour in deep sea environments.



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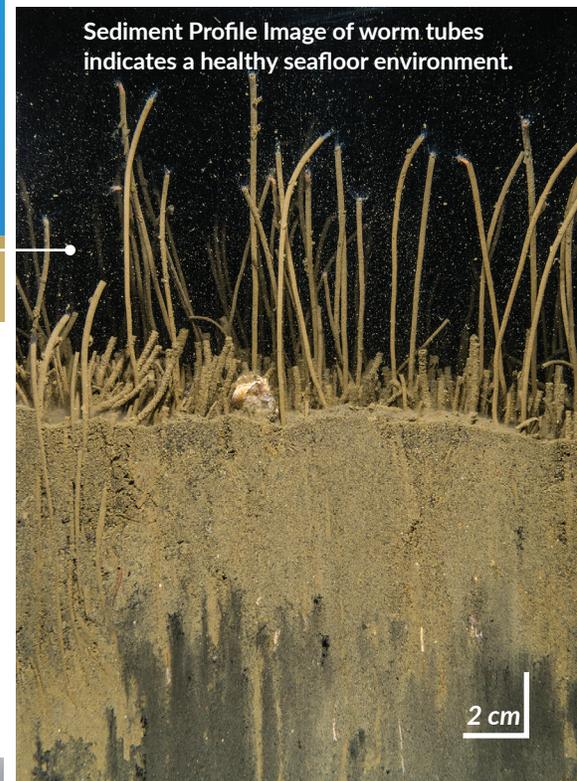
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Suite of Services for the Oil and Gas Industry

- › Sediment Profile and Plan View Imaging
- › Environmental Baseline Surveys
- › Post Drill and Decommissioning Surveys
- › Construction Impacts Monitoring
- › Ecosystem Services Assessments
- › Site Selection and Feasibility Studies
- › Environmental Impact Assessments



Our Clients Include:

- › British Petroleum
- › Shell
- › ExxonMobil
- › Petrobras
- › Chevron-Texaco
- › PEMEX
- › Imperial Oil Ltd.
- › Tullow Ghana Ltd.
- › Suez LNG North America
- › Pacific Gas & Electric
- › El Paso Energy
- › Fugro
- › Eni Syndial