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GEOWEB® Geocells & GEOTERRA® Construction Mats

SMART EARTH SOLUTIONS FOR THE OIL AND GAS INDUSTRY

Powered by Geosystems technology.



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STRONG on Performance. EASY on the Environment.

GEOWEB® Geocells

SOIL STABILIZATION SYSTEM

Increases efficiency. Reduces cost. Minimizes environmental impact.

As competition in the energy sector accelerates, oil and gas producers are challenged to operate with the highest efficiency and lowest cost even as they face ever more challenging site conditions. Challenges to their operations include stabilizing access roads, drilling pads and platforms over soft subgrades in order to reduce the downtime associated with fixing a degraded road or drilling pad.

From the oil sands tundra of North America to the jungles of South America, Presto Geosystems provides innovative solutions to these challenges with easy-to-deploy systems that increase stability and reduce overall operational costs.

Strengthens Infill Economically

The GEOWEB system delivers value in areas where available fill is unsuitable as either a temporary or long-term solution. Its network of interconnected cells confines, stabilizes, and strengthens infill including local sands and gravels that would otherwise be prone to shifting, rutting or raveling. This strengthening delivers considerable benefits for load support applications supporting vehicles to oil field sites.

Minimal Environmental Impact

The GEOWEB system also reduces the environmental impact to a site by reducing site disturbance, even in environmentally-sensitive areas. On-site waste fill is often acceptable at conserving local aggregate supplies and reducing a site's overall carbon footprint. Sections are manufactured from HDPE, an inert material that does not contaminate or contribute to groundwater issues, and are shipped to a site in compact form, lowering transportation costs.

GEOWEB SYSTEM APPLICATIONS

- Oil Field Site Access Roads
- Drilling Pads
- Transfer Facilities
- Metering Stations
- Laydown Yards







GEOWEB System Advantages for Access Roads & Drilling Pads

The GEOWEB system with confined infill:

- Reduces overall excavation and cross-section of stone, conserves aggregate resources in areas of limited supply, reduces stone costs 50% or more.
- Provides a stable driving surface; substantially lowers rolling resistance, increases cycle times, reduces operational costs.
- Reduces road and pad maintenance and equipment wear; reduces fuel and maintenance costs.

GEOWEB APPLICATION

Access Roads and Drilling Pads over Muskeg and Saturated Clay

A Canadian oil producer employed the GEOWEB system on its access roads and drilling pads to reduce expensive aggregate and operational maintenance requirements.

Design and construction challenges included supporting heavy loads exceeding 125,000 lbs. (15,000 lbs. wheel loads) over very soft subgrades of muskeg and saturated clay. The solution also needed to be constructible in sub-zero temperatures and hold up to heavy rig and truck traffic even during the spring thaw, which completely degrades what little strength these subgrades have.

Numerous roadways and drilling pads have been built utilizing the Presto GEOWEB system. All are performing to expectations and the GEOWEB system reduced typical cross-section from 5 ft. (1.5 m) to less than 12 in. (300 mm), saving the customer significant costs and conserving local resources.

GEOTERRA® Mats

PORTABLE GROUND PROTECTION

Durable, portable, & reusable. Quickly deployed. No infill required.

GEOTERRA mats are an economical solution as a ground-surface reinforcement layer over soft subgrades, supporting loads for access roads, platforms, helipads and equipment, and personnel areas. They offer more design and construction flexibility than other construction mats and can be utilized for either temporary or permanent applications. They can be disassembled, removed, and reused as needed. GEOTERRA mats are especially beneficial when aggregate is not available or too costly to import.

Strength, Flexibility, & Safety

GEOTERRA mats are safer to handle and place as they do not require any heavy equipment. They can be easily constructed to fit any project layout on-site or preassembled off-site. Units are joined together to form an interconnected structural mat that supports typical vehicle and equipment loads.

A high crush strength enables these mats to support even the heaviest wheeled and tracked vehicle loads. Strong, lightweight units reduce transportation costs, especially when deploying to difficult-to-access locations.

Two styles are available to meet your site's cost and strength demands.

- GEOTERRA with PADLOC[®] locking system
- GEOTERRAGTO with bolt tight system

GEOTERRA SYSTEM APPLICATIONS

- Oil Field Site Access Roads
- Equipment Storage
- Oil-Drilling Platforms
- Construction Site Access
- Personnel Traffic Zones
- Helipads





GEOTERRA System Advantages

- Design Flexibility: Compatible with other filter or drain products.
- Construction Flexibility: Can customize mat layout to site needs.
- High-Structural Strength: Supports heaviest loads over soft subgrades.
- Portability & Reusability: Reduces handling, transportation and life cycle costs.
- Extremely Cost-Effective: More economical than other mat systems.
- Light & Safe to Deploy: Reduces on-site injury potential.
- Low Environmental Impact: Convenient reusability, low carbon footprint.

GEOTERRA APPLICATION

Access Roads and Oil Drilling Platforms in the Jungle

Wet, remote, and sensitive jungle locations challenge oil producers to maintain continuous and strong access to their oil well sites. The producers have turned to Presto's GEOTERRA Construction Mats to build access roads and oil drilling platforms over the soft soils.

GEOTERRA mats provide a sturdy working platform for heavy-duty drilling operations; when the torrential rains saturate the sensitive subgrade, the permeable and strong GEOTERRA sections "pick up the slack" and allow drilling operations to continue uninterrupted.

When the site is no longer active, the mats are disassembled and moved to another site, allowing reclamation with minimal environmental impact. Regulators embrace this low carbon, low impact solution.





DESIGN SUPPORT

Regardless of the system that fits your needs, Presto Geosystems engineering support before, during and after construction is second to none. From complimentary project evaluations, to on-site training and installation guidance, we are committed to helping you get it right the first time. Our trained network of distributors and representatives can offer valuable support from a project's concept through construction.

CONSTRUCTION ADVANTAGES

THE GEOWEB® SYSTEM

The total solution that benefits contractors. We understand the demands and challenges contractors face during construction on oil and gas exploration sites. That's why the GEOWEB system is equipped with the valuable ATRA® Key connection device designed to save time and cost during installation.

ATRA KEYS

Three times stronger & faster than stapling, saves time/cost on site. Unique GEOWEB cell wall slots are designed for connecting sections with ATRA Keys.

• Only one worker is required with ATRA Keys vs. two required for stapling operations.

GEOTERRA CONSTRUCTION MATS

Durable, portable, reusable, eco-friendly, safe. GEOTERRA mats deliver advantages over most traditional construction mats as they are strong, yet lightweight, and can be assembled to meet any site layout.

GEOTERRA mats are safer than traditional heavier mats as they do not require special handling equipment.

GEOTERRA® MATS VS TRADITIONAL MATS





CUT TIMBER MATS

Environmental Impact: Negative Installation: Costly, Slow **Design Flexibility: Moderate** Reusability: Low-Medium

GEOTERRA MATS

Environmental Impact: Low-None Installation: Economical, Quick Design Flexibility: High Reusability: High

GEOTERRA sections are lightweight, easy to handle, and require less labor for a given area.



Connecting GEOWEB sections with ATRA Keys.

Made from high strength, high density polyethylene, the permeable wearing surface allows rainwater to be captured, directed and managed below surface.

PRESTO GEOSYSTEMS COMMITMENT — To provide the highest quality products and solutions.

Presto Geosystems is committed to helping you apply the best solutions for your site requirements. Our solutions-focused approach to solving problems adds value to every project. Rely on the leaders in the industry when you need a solution that is right for your application. Contact Presto Geosystems or our worldwide network of knowledgeable distributors/representatives for assistance.



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