

GeoVision

A GSE NEWSLETTER



August 2008

www.gseworld.com

Company News

Products Available

With the high price of oil affecting just about everything that is made, sold, transported, and inventoried, many geosynthetic manufacturers are cutting back on their production to keep up with increasing raw material costs, delaying product orders to even longer days.

The advantage to doing business with the leading geosynthetic manufacturer, GSE, means having access to a wide selection of HDPE or LLDPE, smooth or textured, white or black geomembrane, geosynthetic clay liner, geonet, and geocomposite products available. We are here to help make your project a success. For additional benefits, we also offer a full range of installation services that support your projects' needs.



GSE North American Regional Sales Managers

Mountain West & Western Canada
Dale Geary
281.230.2595
dgeary@gseworld.com

West
Walt Steinbeck
951.245.0791
wsteinbeck@gseworld.com

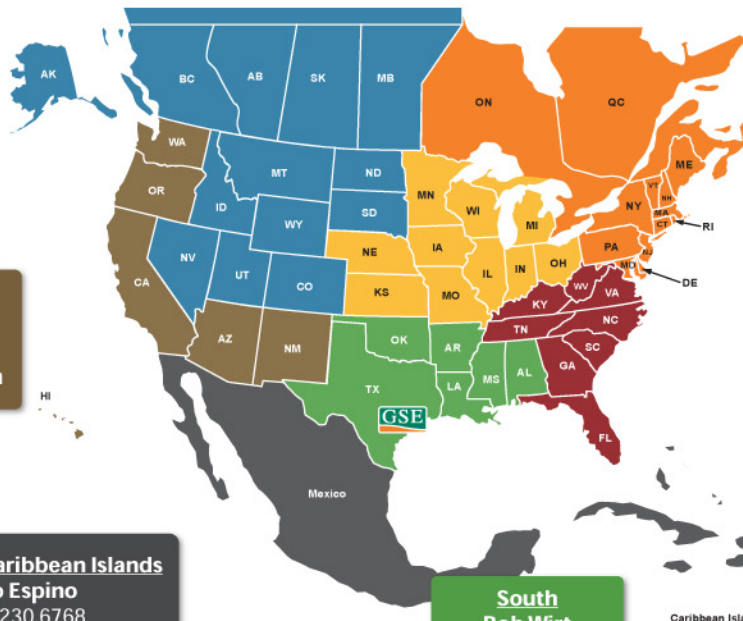
Mexico & Caribbean Islands
Leo Espino
281.230.6768
lespino@gseworld.com

South
Bob Wirt
985.845.9566
bwirt@gseworld.com

Northeast & Eastern Canada
Richard Mason
908.526.1324
rmason@gseworld.com

Midwest
Larry Lydick
630.262.1235
llydick@gseworld.com

East
Edgar Rodriguez
813.571.7252
erodriguez@gseworld.com



The GSE North American sales team is now headed by Steve Eckhart, VP of Sales & Marketing who joined GSE in April. For the latest products, prices and project recommendations, please contact your regional sales manager; they will serve you with the best solutions for your projects.

Product Highlight

A Biplanar Product Providing Triaxial High-Flow Performance

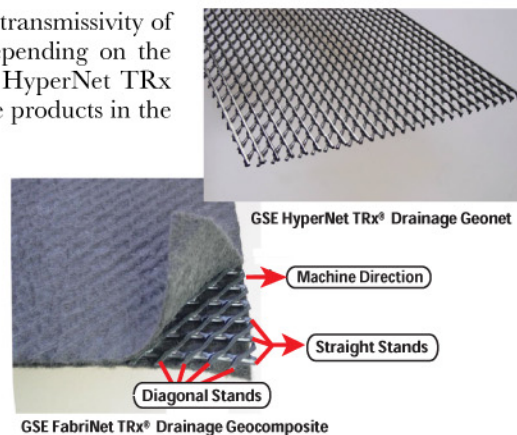
Due to growing demands, GSE HyperNet TRx® geonet is being produced as a premium product to take full advantage of the flow capacity of a biplanar geonet. This new design has a higher transmissivity performance rating due to its unique biplanar structure. The geocomposite version is GSE FabriNet TRx® and consists of a GSE HyperNet TRx geonet core that is heat-laminated on one or both sides to a nonwoven needlepunched geotextile.

As a result of this new strand orientation (as shown in photos to the right), the transmissivity of GSE FabriNet TRx in machine direction has been improved by 50%-150%, depending on the various boundary conditions to be applied. Thus, the flow performance of GSE HyperNet TRx and GSE FabriNet TRx can equal or exceed that of any biaxial or triaxial drainage products in the market.

The conventional biplanar drainage geonets consist of two layers of strands crossing diagonally to form a planar structure for transmitting fluid. However, recent research showed that the best flow direction of this biplanar structure is not in its machine direction (Minch and Li, 2008). Under many typical application conditions, the flow direction parallel to its diagonal strand has far better hydraulic transmissivity data than its machine direction.

In contrast to the conventional biplanar structure, GSE HyperNet TRx has one set of strands ("straight-strand") oriented to be parallel to the machine direction so as to maximize the cross-sectional opening area along the flow channels, and transport liquid and gas more efficiently. The other set of strands ("diagonal-strand") is still positioned in a diagonal direction to provide cross-machine tensile strength and maintain the geonet structure integrity. The diagonal strand set works in combination with the filter geotextile as a resistant roof to prevent vertical direction soil or geotextile intrusion.

If you have technical questions or need performance data for project design, please contact Dr. Mengjia Li, Drainage Product Manager at 800-435-2008 or mli@gseworld.com.



Project Reflection

Rising Gold Prices Spark Construction of New Leach Pads



Hycroft Mine

Heap leach pad lining projects were diminishing in the late 90's when gold prices were low and stagnant. A decade later, these same projects are challenged to get completed as soon as possible. Gold prices are at an all time high, so mining companies are reviewing old plans and resuming construction. Chuck Van Houten, GSE Installation Project Manager for mining applications, sees rising gold prices renew interest in leach pad construction projects that will involve GSE's installation capabilities and lining products.

This year, GSE Installation was awarded a contract to supply and install its 80 mil HDPE geomembrane in a 1.2 million square foot leach pad expansion at the Hycroft Mine in Humboldt

County, Nevada owned by Allied Nevada. This new leach pad expansion will allow Allied Nevada to meet its expanding goals for gold and silver production as it restarts the mine after years of dormancy. Allied Nevada selected GSE as a one-stop source to provide both products and quality installation to complete their leach pad construction on schedule. GSE immediately responded from the start when material was ordered by getting the crew on site to begin the installation for a quick turnaround.

GSE's highly experienced installation team, equipment and expertise are key for every successful project. By establishing productive working relationships with other site contractors, the Hycroft Mine project was executed successfully ahead of schedule and as budgeted. Allied Nevada was extremely satisfied with their GSE experience from start to finish.

For more information about this project, please contact Chuck Van Houten, Project Manager at 800.435.2008 or cvanhouten@gseworld.com.



Did You Know...

Fusion wedge welding is the primary method for joining two adjacent, overlapped geomembranes. The wedge welder creates a fusion weld by heating the facing overlapped surfaces and then pressing them together while in a molten state. The result is a permanent bond.

For more information on this welding method or other methods, please contact Ron Zunker, VP of Installation at 800.435.2008 or rzunker@gseworld.com