

### MINING INDUSTRY

## **GEOWEB**®

**3D Soil Stabilization** 

# Design + Construction Resource Package













## **GEOWEB**<sub>®</sub> 3D Soil Stabilization

### Mining Resources

#### **What You Will Find**

**Key Mining Applications** 

How the GEOWEB® 3D

System Works

Access & Haul Roads

Access Ramps into Ponds

Compare 3D GEOWEB®

System to 2D Geogrids

**Tailings Protection** 

**Slope Reclamation** 

**Environmental Benefits** 

Slope Covers for Liners

Slope Protection Using

Waste Rock

Channels & Stormwater

Ponds/Containment

Free Project Evaluation

**Complete System** 

Accessories

Get an Estimate

**Contact Us** 





## Better Built Mine Infrastructure

## GEOWEB® 3D Soil Confinement

This resource package offers tools & resources to design high-performing, long-lasting mining infrastructure—haul & access roads, embankments, channels and ponds.



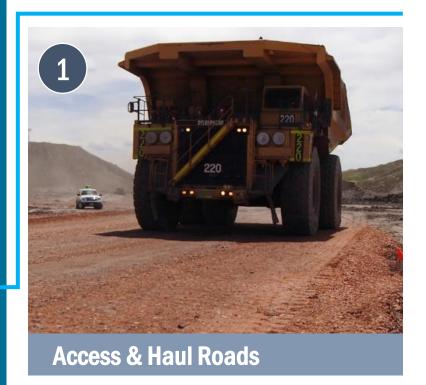


## **Key Mine Applications**

## GEOWEB® 3D Soil Confinement

#### Take the Tour.

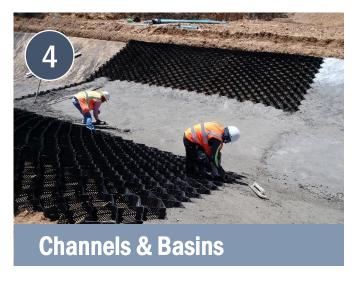
See how 3D soil confinement benefits the most challenging soil stability issues in mine applications.













## Resources for your project

## **Strengthens & Transforms Fill**

With the 3D GEOWEB® system, fill materials are confined and stable—even under the heaviest loading or steepest grades.

**The benefits?** Higher performance and lower maintenance of haul roads, reclaimed slopes, channels and containment ponds.

- View the Overview Brochure
- Visit our Photo Gallery
- See Project Case Studies





Delivered by the 3D GEOWEB® System



#### **Access & Haul Roads**

#### **Stable Driving Surface**

3D-stabilized fill offers notable cost savings benefits to your mining operations:

- Faster cycle times (2-3X)
- Virtually eliminates rutting & wash-boarding
- Lowers rolling resistance
  - reduces to 3% vs typical 8% rate
- Improves tire life, reduces tire damage & tire expense
- Higher fuel savings

See how GEOWEB® Haul Roads Work>>







Delivered by the 3D GEOWEB® System



#### **Access & Haul Roads**

**Bridges Soft Subgrades in Single Layer** 

 Supports heavy vehicles over soft ground with a single GEOWEB® layer vs. multiple layers of geogrid.

 Allows access over soft, wet areas in underground mines.

See GEOWEB®
Underground Mine Roads>>







## Access & Haul Roads BENEFITS

#### **Reduces Cross Section Thickness**

GEOWEB-confined base delivers structural benefits that reduce cross section thickness by up to 60%.

The improvement results in **significantly less** installation and rehabilitation costs.



Delivered by the 3D GEOWEB® System



#### **Access Over Liners**

#### **Driving Ramps into Ponds**

**PRESTO** 

- Creates stable ramp over liner system to access evaporation ponds.
- Protects the liner from damage caused by large loaders & dump trucks required to remove accumulated sediment from the ponds.

See a Western US
Evaporation Pond Project>>









**Delivered by the 3D GEOWEB® System** 



#### **Tailings Protection**

#### Mine Waste Containment & Storage

- GEOWEB® confinement performs as horizontal surcharge cover over saturated mine tailings.
- Allows applying vegetation over liner system on steep slopes.

Stabilizes aggregate with smaller, lower cost
 D<sub>50</sub> stone.

See Moon Creek
Tailings Project >>







## See GEOWEB® 3D Product in Action

Visit our Video Gallery

See Mining Case Studies

See Project Photos

Watch the WEBCAST Unpaved Roads >>



Steep Slope Rehabilitation & Erosion Control



Remediation of Cut + Fill Slopes

Protect and stabilize vulnerable open pit cut slopes and roadway embankments with the GEOWEB® 3D system.

- Allows steeper slopes to be constructed (>45°).
- Solves soil erosion and slope-surface stability problems not possible with 2D planar systems.







Delivered by the 3D GEOWEB® System



#### **Slope Reclamation**

#### **Lower Environmental Impact**

With permeable topsoil/vegetation or aggregate fill, GEOWEB® slopes infiltrate water at the point of contact.

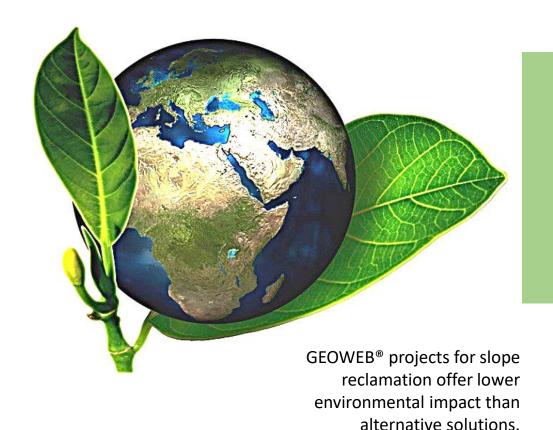
Low environmental impact by limiting stormwater runoff, soil loss, and impacts to downstream waterways.

See Open-Pit Mine Slope Reclamation Project >>









#### **Slope Reclamation**

# Environmental Benefits

Download the Green Sheet >>









Delivered by the 3D GEOWEB® System

#### **Slope Covers**

#### **Protection to Impervious Liners**

- Protect pond & tailings liners from damage and environmental degradation with GEOWEB® 3D covers.
- Tendoned anchoring system secures 3D cover system without penetrating anchors.
- Supports all infill types—vegetation, aggregate & concrete.

See Soil Cover
Failure & Slope
Repair Project >>





Delivered by the 3D GEOWEB® System



#### **Deep Erosion Protection**

#### **Use of Waste Rock**

- Use on-site waste rock for no-cost, nomaintenance, 3D deep slope erosion protection.
- GEOWEB® sections are efficient to deploy—and fast to install by local laborers.

See Use of On-Site Rock at Mine Slope Cover Project >>















## Resources for your project

## Drainage Channels BENEFITS

## **Stormwater & Wastewater Control**

#### **Drainage & Conveyance Channels**

Construct GEOWEB® drainage and diversion channels to convey stormwater across tailings on mine sites.

- Use no-cost, on-site waste aggregate
- Concrete for hard-armored protection of higher velocity, continuous flows

See Mine Channel Project Using On-Site Rock>>







## Containment Basins BENEFITS







#### **Process Ponds**

Mine Tailings Ponds & Storage

Protect critical liners in solution/ evaporation ponds, and stormwater/ tailings storage containment basins with a hard-armored system.

Prevent puncture & environmental degradation with the tendoned GEOWEB® 3D liner cover.

See Process Pond Slope Cover Project>>









#### **Let Us Evaluate Your Project**

Your site has problems.

Soft ground. Poor drainage. Heavy loading. Limited road building resources. Vulnerable slopes. Environmental regulations & concerns.

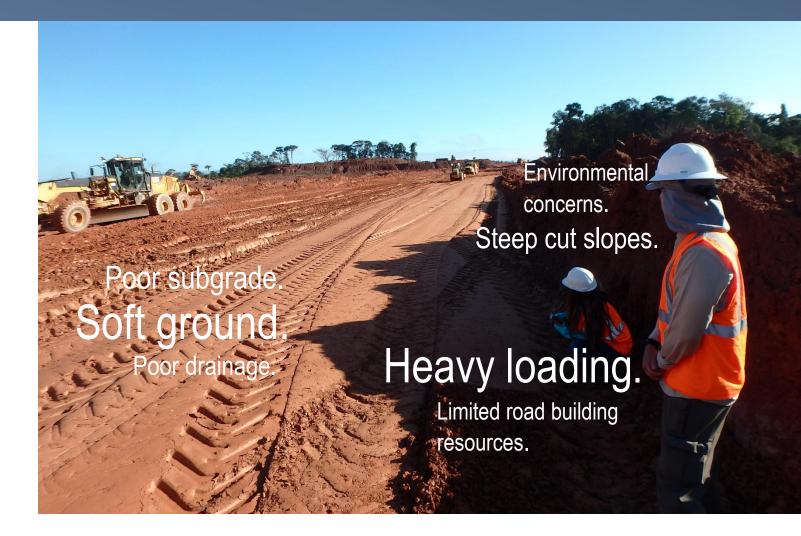
#### How can we help?

Arrange a meeting with our engineers to evaluate the feasibility of our solutions to meet your site's unique challenges.

Email <u>info@prestogeo.com</u> to request a project evaluation.

Request Free Project Evaluation>>







#### **Installation Training**

Our experienced technical staff supports rail owners with pre-construction training and construction oversite.

#### Waste no time on site.

Let our experienced staff train your crews—keeping your operations moving efficiently and your costs down.

Email <u>info@prestogeo.com</u> to request construction training & site support.

Request Technical Meeting & Presentation>>











### Is Installation Weather Dependent?



#### **All Weather Material**

GEOWEB® projects are installed in extreme temperatures and weather--from the coldest to the hottest regions of the world.

Rain or snow—keep your crews working through any weather condition.

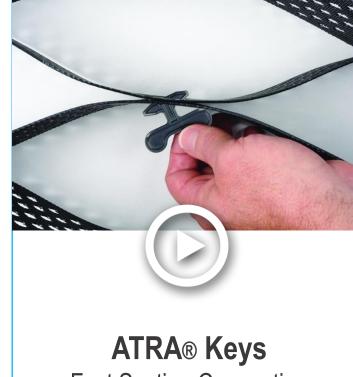






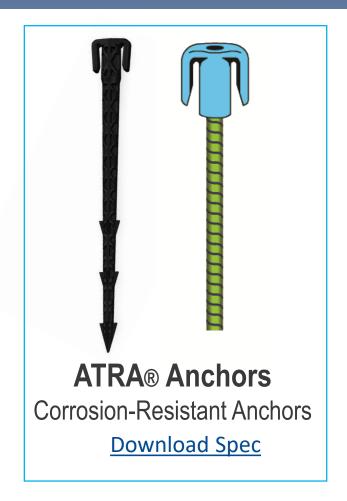


### Difference Makers. Fast Install Accessories & Tools.



Fast Section Connection

<u>Download Spec</u>



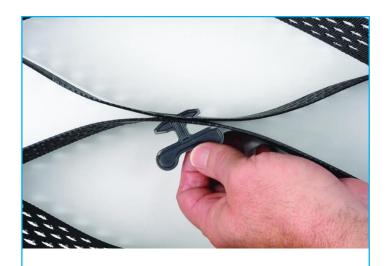


ATRA® Drivers
Fast Anchor Driving Tool

<u>Download Spec</u>



## **Fastest Way to Connect GEOWEB® Sections**



**ATRA® Keys**Fast & Efficient Connection

Faster than Stapling & Non-Corrosive Side to side and end to end connections



## ATRA® Keys







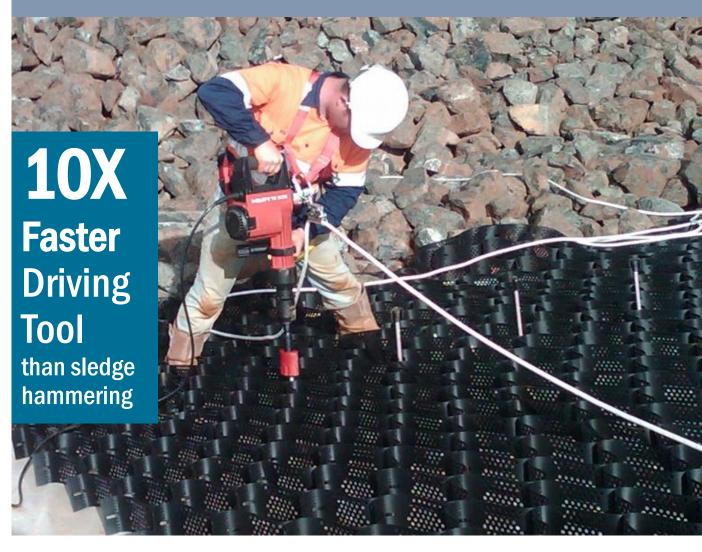


LEARN MORE

wall connection.

### **ATRA®** Anchors & Drivers







#### Let Our Knowledge Work for You



#### **40+ Years Experience**

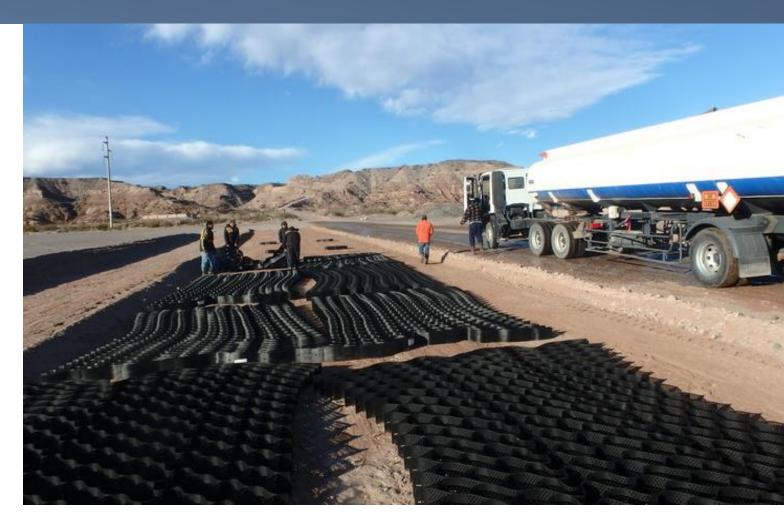
## **Put our Experience to Work on Your Project**

The GEOWEB® system is the original—and most advanced geocell on the market.

We continue advancing the technology through research and development to make better solutions that benefit for your project.

Let our knowledge & experience help you solve your mine site problems.







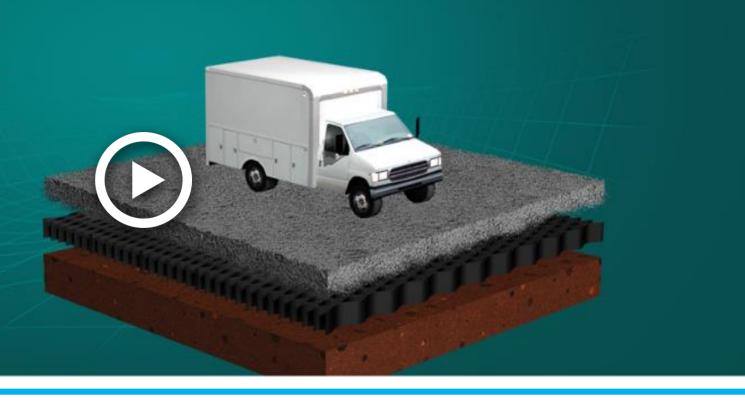
#### Your Project is Important. See How We Can Help.



#### THE PRESTO ADVANTAGE

See how our advanced, adaptable geocells, porous pavers and mats put your project on track for success, and keeps your projects on time and on budget.

WATCH THE VIDEO



# What is the Price? Get an Estimate

Contact our engineers who will work with you to provide a price estimate.

## Complete our Online Form Get a Quote







**GEOWEB**®

3D Soil Stabilization

## **Build with Certainty.**

Get answers to your questions and help before, during and after construction.

Rely on our experience, tools & resources to help you get in and out of sites faster—and to build safely!

