SECONDARY OIL CONTAINMENT

EsterWeb™

Secondary Oil Containment System

ENVIRONMENTALLY SOUND FOR NATURAL ESTER-BASED FLUIDS & FR3

EsterWeb™ allows water to pass through its smart layers without accumulating, eliminating the need for pumps or oil detection systems.

KEY BENEFITS

NEARLY ZERO MAINTENANCE

No pumps required. Albarrie's smart fabric traps oil, not water.

ENVIRONMENTALLY COMPLIANT

Meets EPA Secondary Containment requirements for SPCC 40 CFR 112.7 and IEEE Std. 980.

BUDGET-FRIENDLY

Reduce installation and maintenance costs compared to other transformer oil containment systems.

FLEXIBLE DESIGN

Designed and installed in greenfield or brownfield applications for all soil types within any geometric configuration.

HOW IT WORKS

Albarrie's EsterWeb™ Transformer Secondary Oil Containment System uses a unique proprietary blend of dense oil-immobilizing polymers, between two geotextiles. When **natural ester-oil** contacts the polymers, they undergo a chemical change. This chemical change congeals and seals the oil turning it into an impassable membrane, keeping oil inside the containment area. Due to its chemistry, the solidification time of ester oil is not as quick as mineral oil. As a result, **EsterWeb™** includes a distinct microporous flow control layer that traps and holds a thin layer of water on its surface. This process slows oil penetration while allowing water pass through the system.

OPTIONS

- Above Ground Design
- Below Ground Design
- Concrete Perimeter Wall
- Composite Perimeter Walls
- Turn-Key or Supply & Support Installation
- Wick Drain (if required)

FEATURES

- **No more** standing water
- **No more** mechanical moving parts
- **No more** pumping and testing
- **No more** concrete cracks to repair
- Vehicle accessible with full access to the transformer
- Reduced installation costs
- Optimized remediation costs
- Fire-quenching capabilities
- Extended service life
- Significantly decreased risk associated with fire and contamination
- Quick Installation

#FABRICSCHANGING INDUSTRY

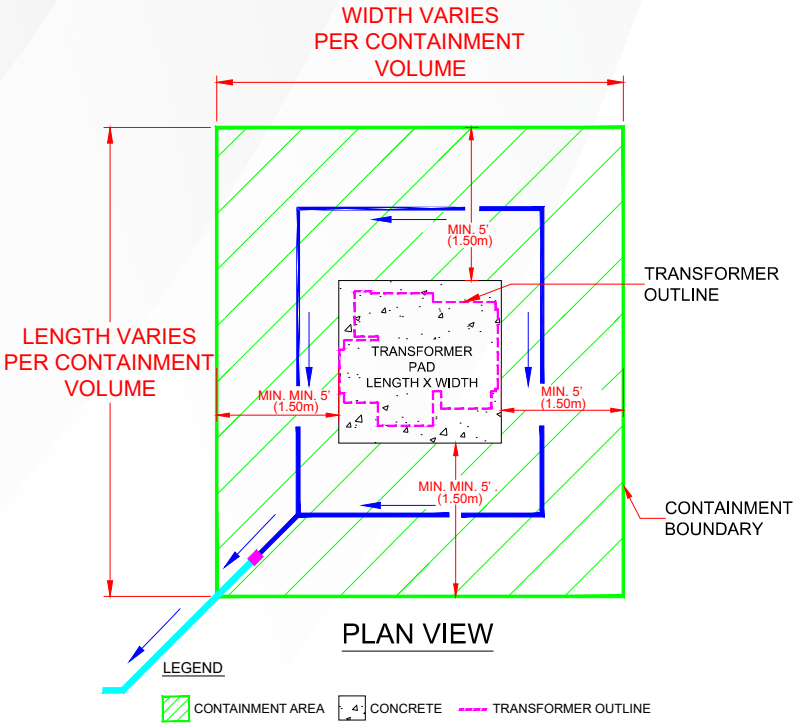
SECONDARY OIL CONTAINMENT

APPLICATIONS

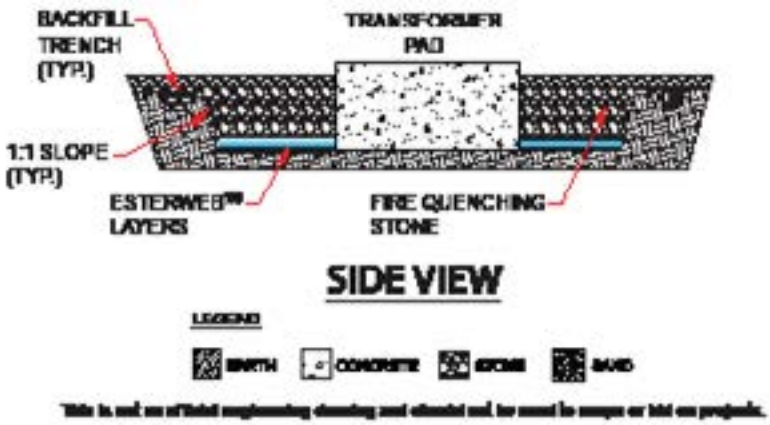
- Large-Sized Permanent Substation Transformers
- Environmentally-Sensitive Areas
- Solar & Wind Farms
- Multiple Above-Ground Transformers
- Suitable for Natural Ester-Based Oil, FR3 or Biotemp.

SPECIFICATIONS

TYPE	EsterWeb™
Fire quench stone gradation requirements	1 ½" to 3" (38 to 75mm) ASHTO #1,2,3,24 ASTM D448-03 Well graded crushed stone with 100% passing the 3" (75mm) sieve and 0% passing the 1 ½" (38mm) sieve. **Note:** The fire quench stone must meet resistivity and porosity requirements.
Fire quench stone resistivity	≥3000 Ω-m
Fire quench stone porosity (min.)	40%
Fire quench stone type	Basalt, granite limestone or a compatible stone type. Should **not** accept soft stones such as sandstone.
Minimum containment depth	18" (0.45m) from top of fire quench stone containment level to top of oilmat.
Maximum containment depth	48" (1.2m) from top of fire quench stone containment level to top of oilmat.
Separation distance from transformer to containment perimeter	**For all projects unless specified otherwise by the client:** 5 ft (1.5m) or ½ the transformer height whichever is greater.
Containment system oil storage volume requirements (%)	As per client requirements. If no requirements recommend 110% of the volume of the largest oil containing unit plus a 25 year 24 hour storm. Ensure that each storm volume will drain through system within 4 hours as per US EPA.
Sand Gradation requirements and compaction	All sand layers to be plate tamped in the field with caution being taken when working over the wick drains.



This is not an official engineering drawing and should not be used to scope or bid on projects.



To Learn More Scan Here!