



PROJECT PROFILE

OIL & GAS PRODUCTION WATER IMPOUNDMENT

OWNER	Oil & Gas Exploration Company
SIZE	5 acres
LOCATION	Pennsylvania
DESIGN	3:1 Slopes Conductive HDPE geomembrane Brine-resistant GCL Geocomposite leak detection layer Conductive HDPE geomembrane Cushion non-woven geotextile Geomembrane leak detection testing



CONSTRAINTS

National/Local EPA Oversight

Leak-Free Design

Stringent Safety Concerns

Community Concerns Accelerated

Construction Schedule

BACKGROUND

The oil & gas water impoundments located in several counties in PA were deemed insufficient by the EPA and local DEP Agencies following several investigations into groundwater impacts. The previously constructed water impoundments were not performing as designed, and potential water contamination was a concern. In order to continue operation of these impoundments, they were under strict supervision by state and local officials to upgrade several to new and safer standards. The Pennsylvania Environmental Council pushed the legislature and owners for thicker double lined systems in all holding ponds.

SOLUTION

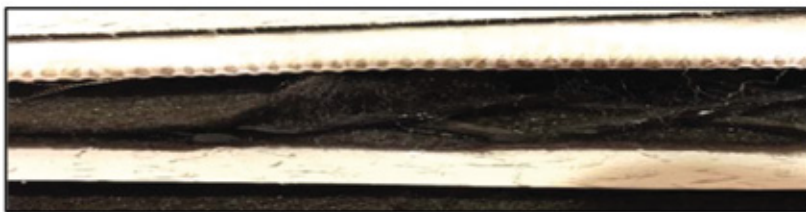
Hallaton Environmental Linings was contracted to provide design and material input to implement a new best practice geosynthetic impoundment design. It was recommended that owners install a multi-layer geosynthetic liner system consisting of 4 layers: a primary HDPE geomembrane liner, a geocomposite leak detection layer, a secondary HDPE geomembrane liner, and a bottom geocomposite drainage layer. In addition to the double lined system, Hallaton provided geomembrane leak detection testing post liner installation per ASTM D 6365.

For more information visit the Hallaton Environmental Linings website at www.hallaton.com.



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- ← 60 mil White Conductive HDPE Geomembrane
- ← Brine Resistant Geosynthetic Clay Liner
- ← 200 mil Geocomposite
- ← 60 mil White Conductive HDPE Geomembrane
- ← 8 oz/yd² Cushion Geotextile



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