



Case Study

application | Site Stabilization - Well Pad
location | Medina, OH
product | Mirafi® HP570

contractor
date of installation

Kwest Group
January 2012

TenCate develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

THE CHALLENGE

The recent “oil boom” in Ohio has pressed contractors into building well pads on very soft, almost pond-sediment-type, soils. These well pads are the foundation for the well rig and all of the supporting equipment. Hosting large, repetitive loads on relatively small areas of weak soils creates a work site which is difficult to maneuver. This specific well pad was to be built in a saturated area on 20 feet of old fill soil. If that wasn’t challenging enough, the site would also host 30-plus loaded semi-trucks per day coming in, unloading, and moving out. With that traffic volume, a stable, long-term solution was required.

THE DESIGN

The engineer, with assistance from TenCate Geosynthetics, designed a cross section using high-strength woven geotextiles to bridge the weak soils. These soils were categorized as a high moisture content glacial till with a high plasticity. Mirafi® HP570 woven geotextile was placed directly on the fill after the proper grade was achieved.



The project site had saturated soils with very poor bearing capacity.



Preparing the grade.



Mirafi® HP570 is placed and aggregate is being pushed out and compacted.

THE CONSTRUCTION

After placing Mirafi® HP570, a 12" lift of 3-4" diameter crushed aggregate was placed with a small dozer. The aggregate was then "choked off" with a 3" lift of 1" minus stone to create a driving surface for the trucks.

THE PERFORMANCE

The cross-section performed very well. There was no lost time and no vehicles were delayed due to a poor driving surface. The alternative would have been a significantly thicker section and, most likely, on-going maintenance. By creating a solid platform from the start, the owner can focus on drilling, rather than road/drive area maintenance.



Mirafi® HP570 kept the project on schedule - regardless of weather.



Finished drive area. No rutting under the loaded semi trucks.

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