Gravity Groundwater Dewatering for Landfill Expansion

57th Annual Meeting
Association of Environmental & Engineering Geologists – Scottsdale, Arizona

Wednesday, September 24, 2014

Presenter:
Madeline German, P.G.
What you will hear in the next 20 minutes:

- LOCATION, LOCATION, LOCATION!
- THE GGI!
- PILOT TEST!
- FULL STEAM AHEAD!

`who? what? when?`

`where? why? how?`
The Site:
The Black Creek:
Challenges:
Starting Out

Final Construction
Model
Design:

- Geotextile Type CT-5
- Compacted Clay Liner Subgrade
- 12" CPP (Type SP) Pipe @ 1% Min. Slope
- Gravity Ground Water Intercept Trench
  - Not to Scale
  - Detail 63

Images show a trench with water and a construction site in a rural setting.
Small Scale: Pilot Test
Cell 6: June 2004 – February 2005
Groundwater Elevations Cell 8
GGI Demonstration

Groundwater Elevation (ft)

Date

Precipitation (in)

PZ-8A
PZ-8C
PZ-8E
PZ-8F
PZ-8H
PZ-8G
OWB-31
PZ-8A Target
PZ-8C Target
PZ-8E Target
PZ-8F Target
PZ-8H Target
PZ-8G Target
OWB-31 Target
Precipitation
Cell 9: May 2014 – August 2014

Cell 9 Piezometer Water Levels and Target Elevations for GGI System

Note: Target Elevations are 4 ft. below proposed subgrade.
Directional Drilling
Take Aways
QUESTIONS??????????????

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