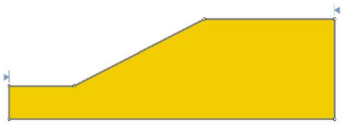
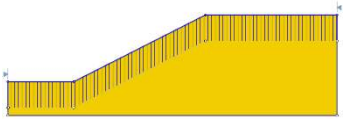
Slide Slope Stability Verification - Index by File

Verification #001



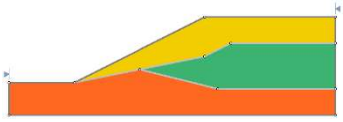
Slope, homogeneous, (c-phi material), strength (m-c), circular (grid search)

Verification #002



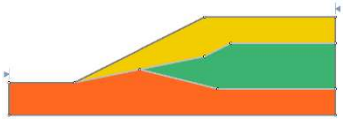
Slope, homogeneous slope (c-phi material), tension crack, strength (m-c), circular (grid search)

Verification #003



Slope, (3) materials, strength (m-c), circular (grid search)

Verification #004

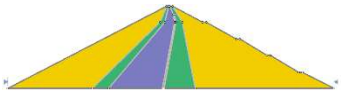


Slope, (3) material, seismic, strength (m-c), circular (grid search)

Verification #005

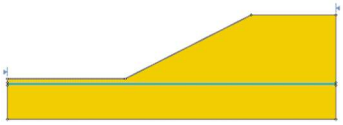
Dam, (4) material, end of construction, strength (m-c), circular (grid search)

Verification #006



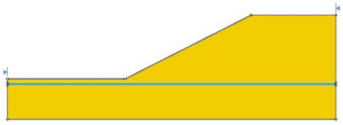
Dam, (4) material, end of construction, strength (m-c), predefined slip surface

Verification #007



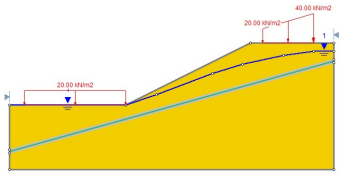
Slope, (2) material, weak layer, strength (m-c), non-circular (block search)

Verification #008



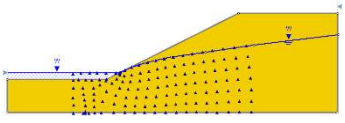
Slope, (2) material, weak layer, strength (m-c), predefined slip surface

Verification #009



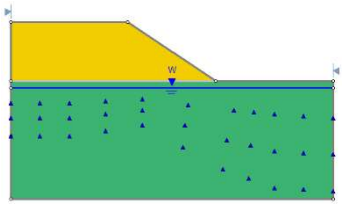
Slope, (2) material, weak layer, piezo line, distributed load, non-circular (block search, optimization)

Verification #010



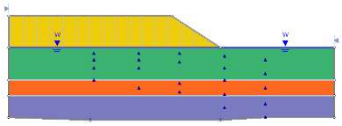
Slope, homogeneous, (c-phi material), strength (m-c), pore pressure grid, water table, ponded water, circular (grid search)

Verification #011



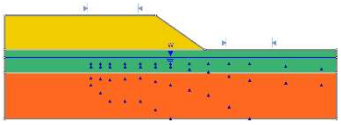
Embankment, multi (2) materials, embankment, strength (m-c), pore pressure grid, water table, circular (grid search)

Verification #012



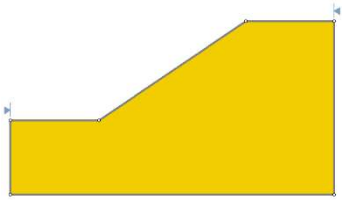
Embankment, (4) materials, strength (m-c), tension crack, pore pressure grid, water table, circular (grid search)

Verification #013



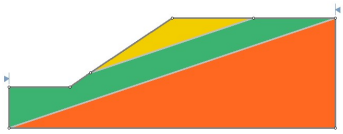
Embankment, (3) materials, strength (m-c), pore pressure grid, water table, circular (grid search)

Verification #014



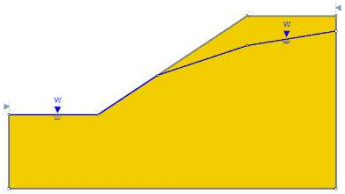
Slope, homogeneous (c-phi material), strength (m-c), circular (auto refine search), non-circular (path search + optimization)

Verification #015



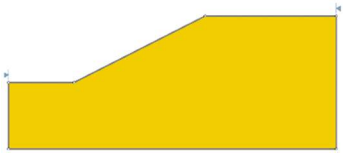
Slope, (3) materials, weak layer, strength (m-c), circular (auto refine search), non-circular (path search + optimization)

Verification #016



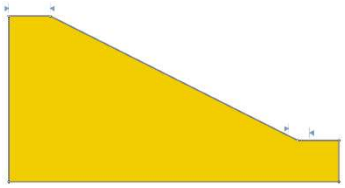
Slope, homogeneous (c-phi material), strength (m-c), water table, circular (auto refine search), non-circular (path search + optimization)

Verification #017



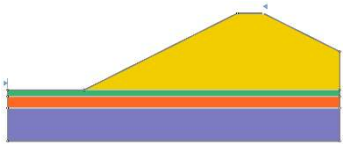
Slope, homogeneous (c-phi material), strength (m-c), circular (auto refine search), non-circular (path search + optimization)

Verification #018



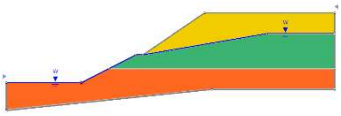
Slope, homogeneous (c-phi material), strength (m-c), ru pore pressure, non-circular (path search + optimization)

Verification #019



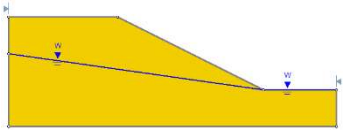
Slope, (4) materials, strength (m-c), non-circular (path search + optimization)

Verification #020



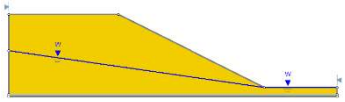
Slope, (4) materials, weak layer, strength (m-c), water table, circular (grid search), non-circular (block search + optimization)

Verification #021



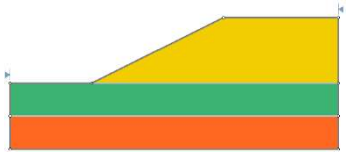
Slope, homogeneous (c-phi material), strength (m-c), groundwater (dry, ru, water table), circular surface, imperial units

Verification #022



Slope, (2) materials, weak layer, groundwater (dry, ru, water table), circular (1 surface, composite surface), imperial units

Verification #023

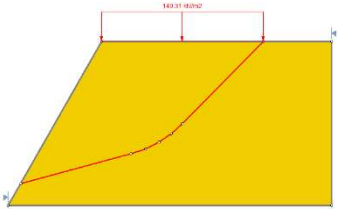


Slope, (3) materials, strength (undrained, constant cohesion), strength (undrained, cohesion function of depth), circular (auto refine search)

Verification #024

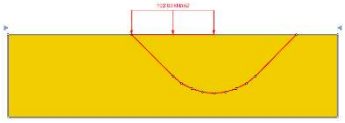
Slope, (3) materials, strength (undrained, constant cohesion), circular (auto refine search)

Verification #025



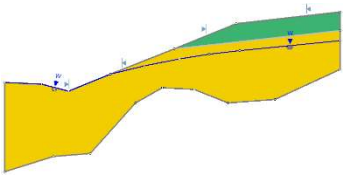
Bearing capacity test slope, homogeneous (phi=0), weightless, strength (m-c), distributed load, predefined slip surface

Verification #026



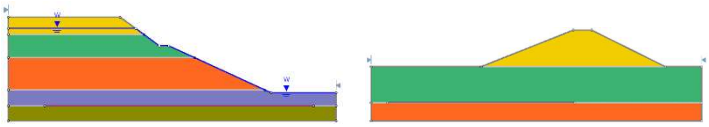
Bearing capacity test, homogeneous (phi=0), weightless, strength (m-c), distributed load, predefined slip surface

Verification #027



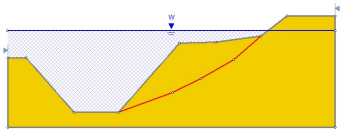
Slope, (2) materials, strength (m-c), tension crack, water table (auto Hu), unsaturated unit weight, imperial units, bedrock, circular (1 surface, auto refine search)

Verification #028



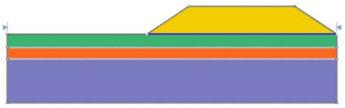
Excavated slope and embankment, (5) materials and (3) materials, probabilistic analysis, strength (undrained, constant cohesion), circular (grid search)

Verification #029



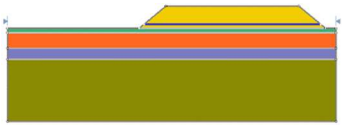
Submerged slope, homogeneous, probabilistic analysis, water table, ponded water, strength (undrained, cohesion function of depth), non-circular (1 surface)

Verification #030



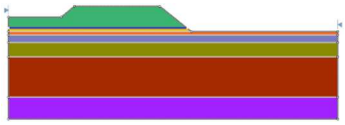
Reinforced embankment, (4) materials, geosynthetic, strength (undrained, cohesion constant), strength (undrained, cohesion function of depth), strength (m-c), tension crack, circular (2 surfaces)

Verification #031



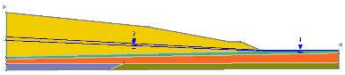
Reinforced embankment, (5) materials, geosynthetic, strength (undrained, cohesion constant), strength (undrained, cohesion function of depth), strength (m-c), circular (2 surfaces)

Verification #032



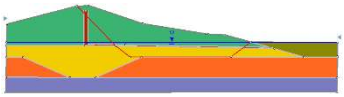
Reinforced embankment, (7) materials, geosynthetic, strength (undrained, cohesion constant), strength (m-c), circular (3 circles)

Verification #033



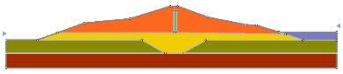
Dyke, (5) materials, strength (m-c), probabilistic analysis (overall slope method), piezo lines, circular (2 surfaces, composite), water table

Verification #034



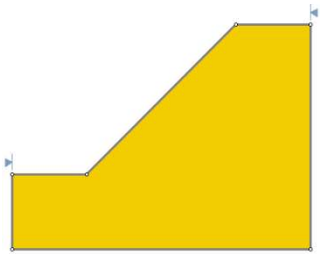
Dam, (6) materials, strength (m-c), probabilistic analysis, water table, non-circular (1 surface)

Verification #035



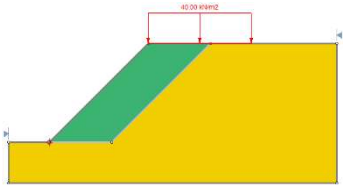
Dam, (5) materials, strength (m-c), probabilistic analysis, reliability index, circular (several surfaces)

Verification #036



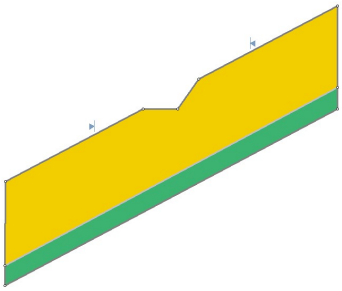
Slope, homogeneous (c-phi material), strength (m-c), probabilistic analysis (overall slope), ru pore pressure, reliability index, circular (grid search)

Verification #037



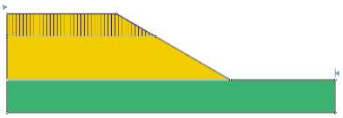
Slope, homogeneous (c=0), strength (m-c), support (back analysis of required support force and length), distributed load, circular (grid search)

Verification #038



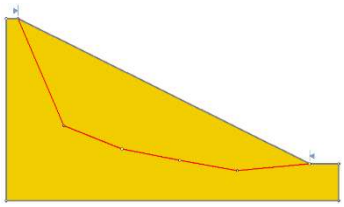
Excavated slope, homogeneous (c-phi material), strength (m-c), finite element groundwater seepage analysis, matric suction/unsaturated shear strength, circular (auto refine search)

Verification #039



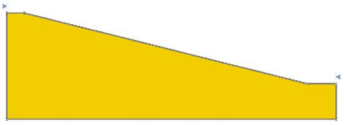
Reinforced embankment, (2) materials, tension crack, geosynthetic, strength (m-c), strength (undrained, constant cohesion), support (required capacity), circular (1 surface, auto refine search), non-circular (1 surface, path search + optimization)

Verification #040



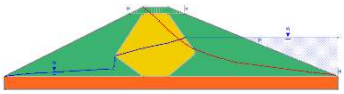
Slope, homogeneous, strength (power curve), sensitivity analysis, non-circular (1 surface)

Verification #041



Slope, homogeneous, strength (power curve), ru pore pressure, non-circular (path search + optimization)

Verification #042



Dam, (3) materials, water table, ponded water, tension crack, circular (grid search), non-circular (path search + optimization)

Verification #043

Slope, homogeneous (c-phi material), dry, planar failure, RocPlane comparison, non-circular (block search), circular (grid search)

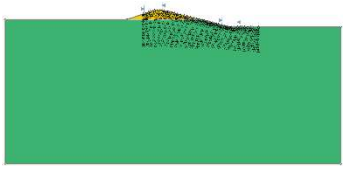
Verification #044

Slope, homogeneous, dry, strength(m-c), strength (power curve), circular (grid search)

Verification #045

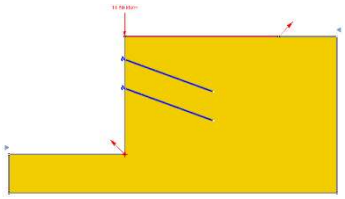
Slope, homogeneous, dry, strength(m-c), strength (power curve), circular (grid search)

Verification #046



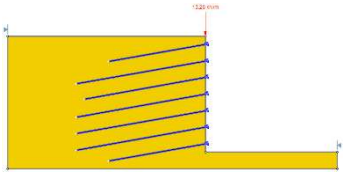
Dam, (2) materials, end of construction (empty), steady state (full), rapid drawdown, finite element groundwater seepage, ponded water, strength (m-c), strength (discrete strength function), non-circular (path search + optimization)

Verification #047



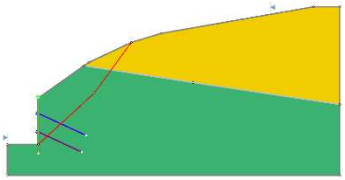
Retaining wall, homogeneous, strength (undrained, constant cohesion), support (soil nails), planar failure, non-circular (block search), shotcrete, line load, reinforced wall

Verification #048



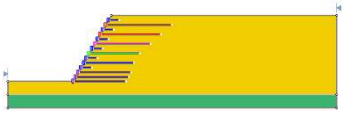
Retaining wall, homogeneous (c-phi material), strength (m-c), support (soil nails), planar failure, non-circular (6 surfaces), shotcrete, line load, reinforced wall

Verification #049



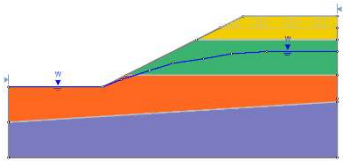
Retaining wall, (2) materials, strength (m-c), grouted tiebacks, soldier piles, non-circular (1 surface), imperial units

Verification #050



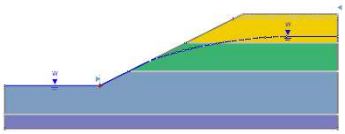
Reinforced slope, (2) materials, strength (m-c), geosynthetic, non-circular (2 surfaces), imperial units

Verification #051



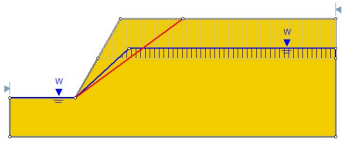
Slope, (4) materials, strength (m-c), water table, tension crack, seismic, circular (1 surface)

Verification #052



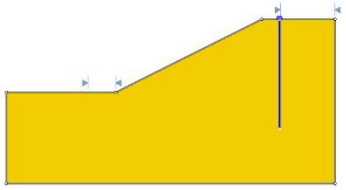
Slope, (4) materials, strength (m-c), water table, tension crack, circular (grid search), non-circular (block search, path search)

Verification #053



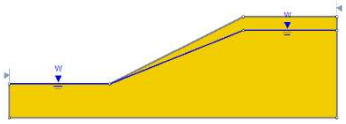
Slope, homogeneous (c-phi material), strength (m-c), piezo line, water table, tension crack, planar failure, non-circular (1 surface), RocPlane comparison, sensitivity analysis

Verification #054



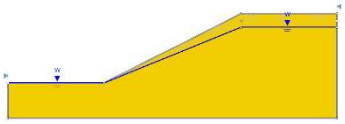
Slope, homogeneous (c-phi material), strength (m-c), micro pile, circular (grid search)

Verification #055



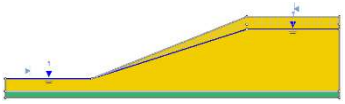
Slope, homogeneous (c-phi material), strength (m-c), water table, circular (grid search), imperial units

Verification #056



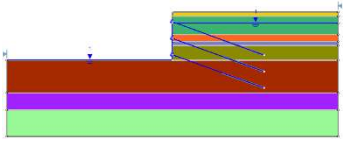
Slope, homogeneous (c-phi material), strength (m-c), water table, tension crack, circular (grid search), imperial units

Verification #057



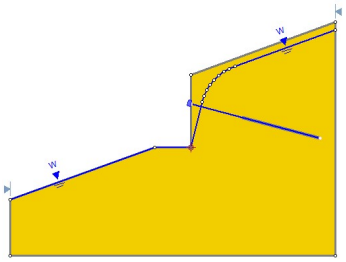
Slope, (2) materials, strength (m-c), piezo line, tension crack, circular (grid search), composite surfaces, imperial units, water table

Verification #058



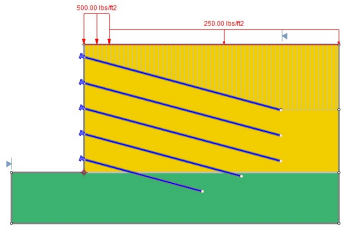
Retaining wall, (8) materials, strength (m-c), grouted tieback, piezo line, circular (grid search), imperial units, water table

Verification #059



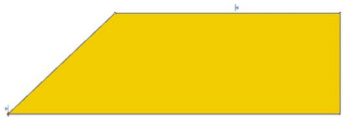
Retaining wall, homogeneous (c=0 material), strength (m-c), grouted tieback, water table, circular (grid search), imperial units

Verification #060



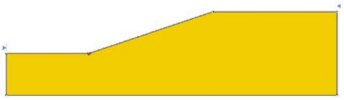
Retaining wall, (2) materials (phi=0 material), strength (m-c), support (soil nails), tension crack, distributed load, circular (grid search), reinforced wall, imperial units

Verification #061



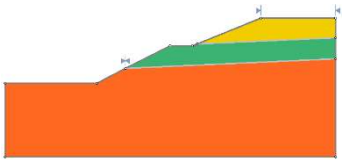
Slope, homogeneous, strength (m-c, power curve), circular (grid search), composite surfaces

Verification #062



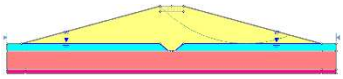
Slope, homogeneous (c-phi material), strength (m-c), dry, ru pore pressure, seismic, circular (grid search), non-circular (path search + optimization)

Verification #063



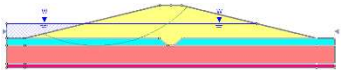
Slope, (3) material, strength (m-c), dry, seismic, non-circular (path search + optimization)

Verification #064



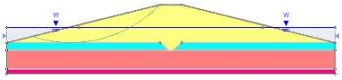
Embankment dam, (4) materials, strength (m-c), water table, tension crack, unsaturated/saturated unit weight, circular (1 surface), imperial units

Verification #065



Embankment dam, (4) materials, strength (m-c), water table, ponded water, unsaturated/saturated unit weight, circular (1 surface), imperial units

Verification #066

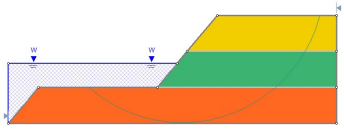


Embankment dam, (4) materials, strength (m-c), water table, ponded water, circular (1 surface), imperial units

Verification #067

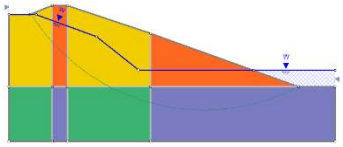
Embankment dam, (2) materials, strength (m-c), circular (1 surface), imperial units

Verification #068



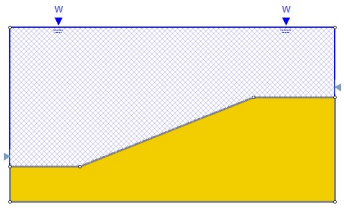
Embankment, (3) materials, strength (undrained, constant cohesion), ponded water, circular (1 surface), imperial units

Verification #069



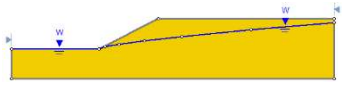
Embankment dam, (2) materials, strength (m-c), water table, ponded water, circular (1 surface), imperial units

Verification #070



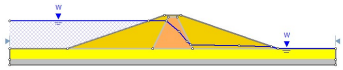
Submerged slope, homogeneous, strength (m-c), water table, ponded water, circular (auto refine), imperial units

Verification #071



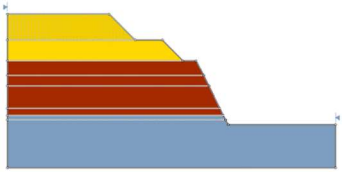
Slope, homogeneous, (c-phi material), strength (m-c), circular (auto refine), finite element seepage analysis, water table, imperial units

Verification #072



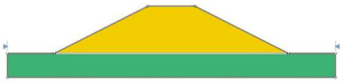
Embankment dam, (4) materials, strength (m-c), finite element seepage analysis, water table, ponded water, circular (slope search, tangent line object), non-circular (block search + optimization), imperial units

Verification #073



Excavated slope, (4) materials, multi strength (m-c, undrained (f-depth)), circular (auto-refine), tension crack, clay, imperial units

Verification #074



Embankment, (2) material, strength (m-c (c=0), undrained (constant cohesion)), circular (auto-refine), sand, clay, imperial units

Example 75

Dyke, (4) materials, strength (m-c (c=0), undrained (constant cohesion), circular (auto-refine), non-circular (block search + optimization), clay

Example 76

Embankment dam, homogeneous (c-phi), strength (m-c), finite element seepage analysis, water table, ponded water, circular (auto-refine)

Example 77

Dam, (2) materials, strength (m-c, c=0), finite element seepage analysis, water table, ponded water, circular (slope search)

Example 78

Slope, homogeneous (phi = 0), strength (undrained, constant cohesion), circular (slope search, point focus, tangent line)

Example 79

Slope, (2) materials, strength (m-c, undrained (constant cohesion)), circular (slope search, tangent line), non-circular (block search + optimization, path search + optimization), infinite slope failure, imperial units

Example 80

Embankment, (6) materials, strength (m-c), strength (undrained, constant cohesion), circular (2 surfaces)

Example 81

Embankment, (2) materials, strength (m-c), strength (undrained, constant cohesion), strength (infinite), circular (slope search, tangent line), non-circular (block search + optimization), non-circular (path search + optimization), infinite slope failure

Example 82

Embankment, (2) materials, strength (m-c), water table, circular (auto refine), non-circular (path search + optimization)

Example 83

Embankment, (2) materials, strength (m-c), strength (undrained, constant cohesion), strength (undrained, function of depth), circular (auto refine), circular (slope search), non-circular (block search + optimization), non-circular (path search + optimization)

Example 84

Embankment, (2) materials, strength (m-c), strength (undrained, function of depth), circular (auto refine)

Example 85

Reinforced slope, homogeneous (phi = 0), strength (m-c), support (active/passive), circular (auto refine), grouted tieback

Example 86

Reinforced slope, homogeneous (c=0), strength (m-c), circular (slope search), imperial units, grouted tieback

Example 87

Retaining wall, (3) materials, geotextile

Example 88

Retaining wall, (3) materials, geotextile

Example 89

Retaining wall, (3) materials, geotextile

Example 90

Retaining wall, (3) materials, geotextile

Example 91

Retaining wall, (3) materials, geotextile

Example 92

Retaining wall, (3) materials, geotextile

Example 93

Retaining wall, (3) materials, distributed load, geotextile

Example 94

Retaining wall, (3) materials, geotextile

Example 95

Embankment dam, homogeneous, rapid drawdown, water table

Example 96

Embankment dam, homogeneous, rapid drawdown, water table

Example 97

Embankment dam, homogeneous, rapid drawdown, water table

Example 98

Embankment dam, (5) materials, rapid drawdown, water table

Example 99

Embankment dam, (3) materials, rapid drawdown, water table

Example 100

Embankment dam, homogeneous, rapid drawdown, water table

Example 101

Embankment dam, homogeneous, rapid drawdown, water table

Example 102

Embankment dam, homogeneous, rapid drawdown

Example 103

Undrained slope, multi-modal optimization (MMO)

Example 104

Newmark analysis, seismic analysis, multi-modal optimization (MMO)

Example 105

Anisotropic surface, multi-modal optimization (MMO)

Example 106

Support, Ito & Matsui pile

Example 107

Retaining walls, gabion walls, support

Example 108

Retaining walls, gabion walls, support

Example 109

Retaining walls, gabion walls, weak layer

Example 110

Retaining walls, equivalent fluid pressure

Example 111

Helical anchors