Prediction of mining subsidence in North America

Job description:
For regulatory approval of a new coal mine in North America extensive investigations on feasibility and environmental impact of the multi-seam longwall operations are required. The cumulative mined coal thickness of 22 m in some areas of the mine requires a comprehensive forecast of expected ground movements and subsidence impact.

Services:
- Forecast of expected ground movements (subsidence, slope, displacements, curvatures and strains) using DMT’s 4D Subsidence software
- Analysis of information on mining and geology covering more than 80 longwall operations and 5 coal seams
- Extensive visualization of the calculated effects at surface for more than 200,000 points (40 km² DEM)
- Technical and scientific consultation to reduce negative impacts as part of the feasibility and environmental study

3D - representation of the planned underground workings (seam depth colored), the surface model (gray) and the predicted subsidence impact on a river

Visualization of cumulative surface subsidence

Surface displacement prediction based on mining influence and surface topography