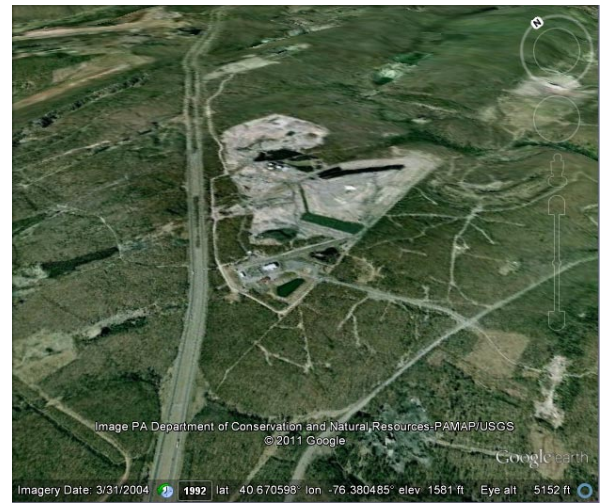
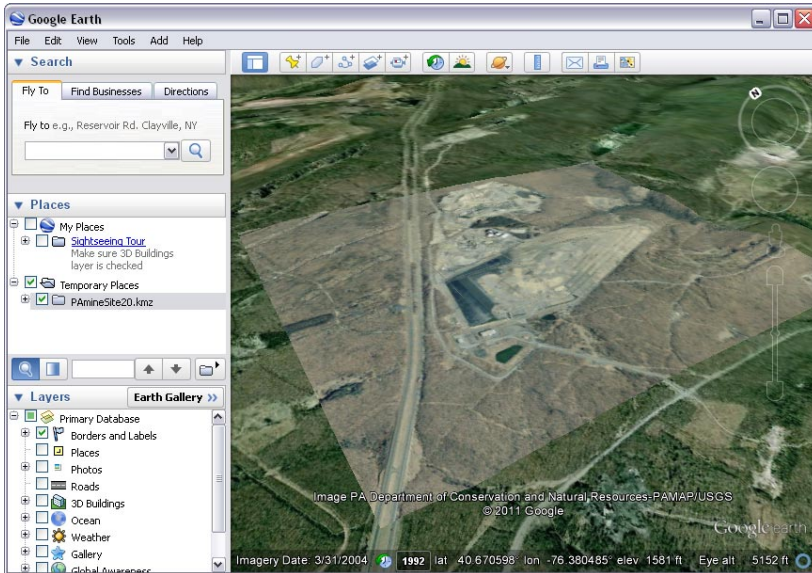


Use Custom Terrains for Projects

Large-scale mining and construction projects can significantly alter the local shape of the terrain. If you have updated imagery and elevation data (e.g., a Lidar DEM) for a project site, you can use the Export Collada Tileset process in TNTmips (Tileset / Export Collada) to prepare the data for 3D viewing of the reshaped surface in Google Earth. The process produces a KMZ file containing a tiled set of Collada models that incorporate your imagery and terrain data (see

the Technical Guide entitled *Tilesets — Google Earth: Overlay Geodata Using a Custom Terrain* for details). When you open the KMZ file in Google Earth, Google Earth loads the Collada models for the current viewing area and view scale, allowing you to view your imagery draped over your custom terrain surface. (When you create the tileset, you can set an elevation offset to raise the models to avoid intersecting with Google Earth's terrain.) An example of a mine site in Pennsylvania is shown below.



Overview in Google Earth of a strip mine site in Pennsylvania. The illustration on the left shows a custom Collada tileset covering the site, and the illustration on the right shows the Google Earth data. This tileset in the left illustration was created in the Export Collada Tileset process in TNTmips using a Lidar DEM with 1-meter cell size and natural color (leaf-off) orthoimagery with 0.3-meter cell size, both acquired in 2008. The 2008 imagery and DEM show a more advanced stage of development at the mine than the Google Earth terrain and imagery.



Close-up Google Earth views of the northwest edge of the mine site showing the detailed Collada tileset (left) and Google Earth's imagery and terrain (right). The Collada tileset was created with a 20-meter offset above its true elevation to avoid intersecting with the Google Earth terrain and with no vertical exaggeration. The 2008 imagery and DEM used in the Collada tileset are more recent and more detailed than the comparable data in Google Earth. The Collada tileset shows the edge of the expanded mine workings, and its detailed terrain captures the steep edges of two terrace surfaces in the mine.