

RockWorks Project Dimensions, Diagram Aesthetics, & Resolution

6/28/22

Project Dimensions

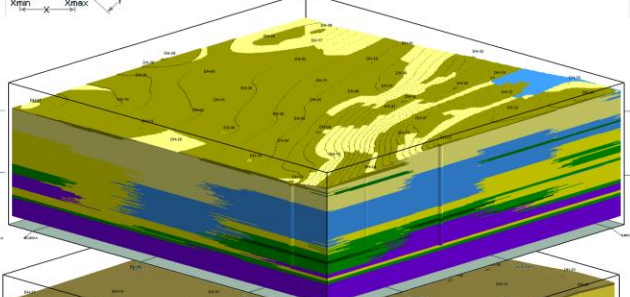
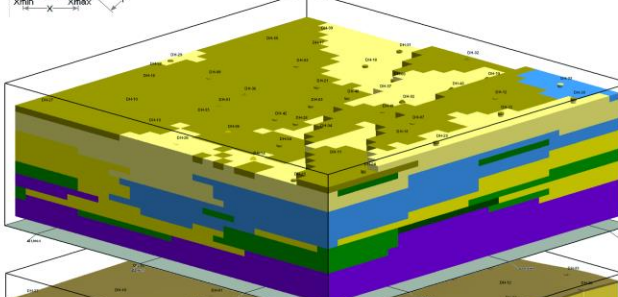
Grid & Block Model Dimensions

	Minimum	Maximum	Spacing	Nodes	Range	Units
X:	481,880	482,170	10	30	290	} Meters
Y:	4,399,730	4,400,010	10	29	280	
Z:	1,662	1,769	5	22	107	

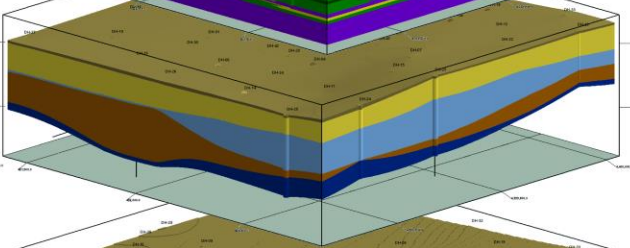
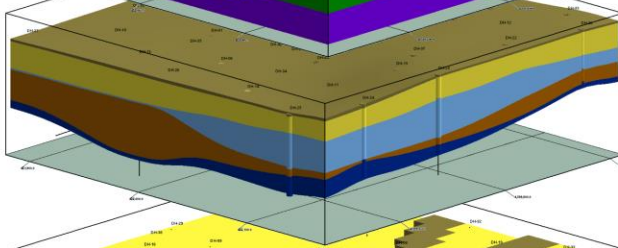
Grid & Block Model Dimensions

	Minimum	Maximum	Spacing	Nodes	Range	Units
X:	481,880	482,170	1	291	290	} Meters
Y:	4,399,730	4,400,010	1	281	280	
Z:	1,662	1,769	0.5	215	107	

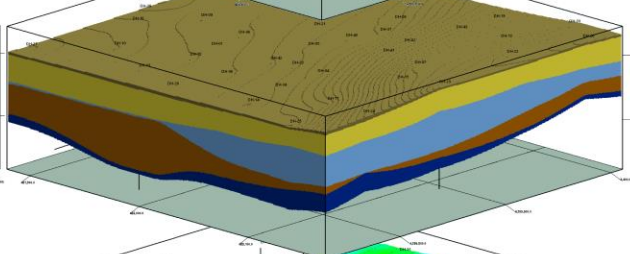
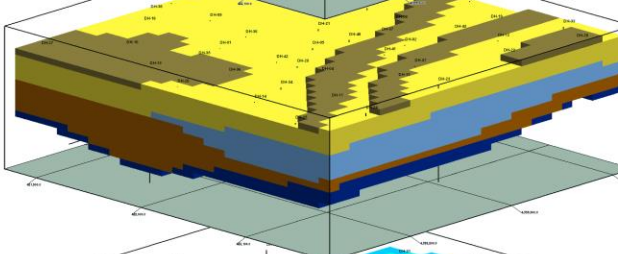
Lithologic Block Model



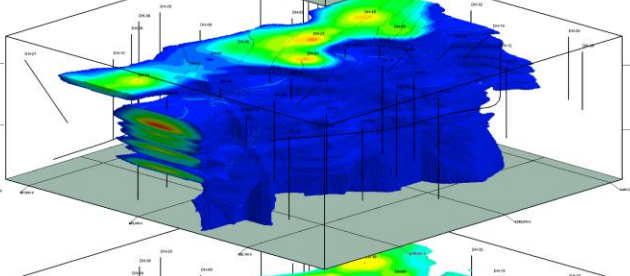
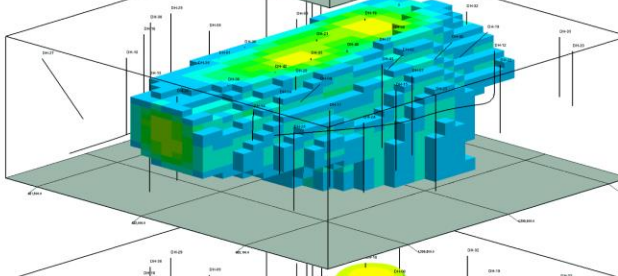
Layered Stratigraphy Model



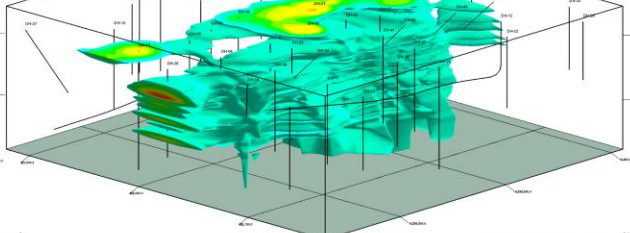
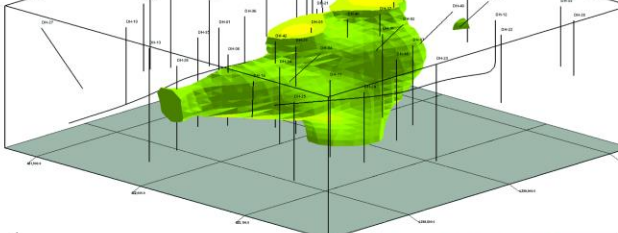
Stratigraphic Block Model



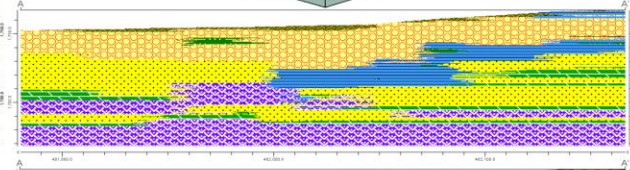
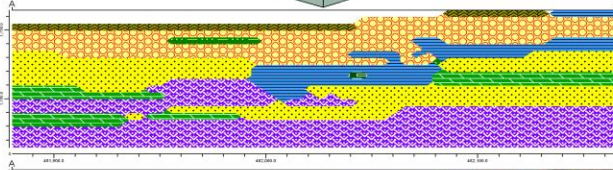
Geochemical Block Model



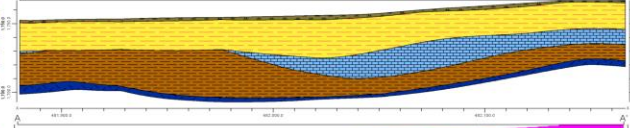
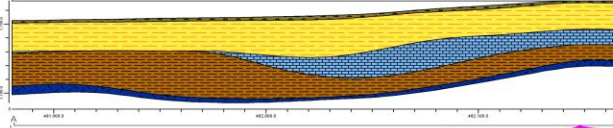
Geochemical Isosurface



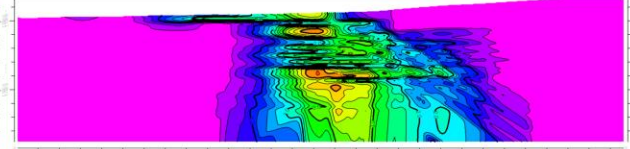
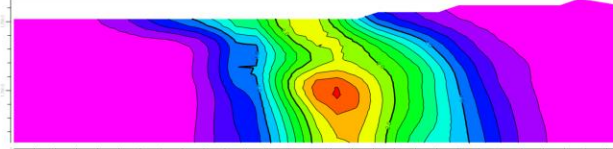
Lithologic Section



Stratigraphic Section



Geochemical Section



The diagram shown above illustrates the relationships between Project Dimensions, diagram aesthetics, and resolution. The diagrams within the left-hand column were generated at a low-resolution (large voxel dimensions). The diagrams within the right-hand column were generated at a high-resolution (small voxel dimensions).

“Aesthetics” refers to the pixelated / blocky appearance of the diagrams. Isosurfaces such as the layered stratigraphy models and stratigraphic sections (based on grids) are acceptable. Conversely, 3D block model diagrams and lithologic sections based on low-resolution models look horrible.

“Resolution” refers to the smallest features that can be discriminated. Grid-based diagrams such as the 3D layered stratigraphy model diagrams and sections are acceptable whereas everything else look bad at lower resolutions.

Sometimes, however, it is useful to recognize the blocky voxels within a diagram because they implicitly show the resolution of the model from which the diagram is generated.

Conclusion: Be aware of these relationships when modeling and creating diagrams based on grid and solid models if you’re trying to create diagrams that don’t look like Minecraft screenshots.