

Newmont 3D Drilling Down Hole Survey Visualization

Proposal for Colorado School of Mines, 2022

Client:

Morgan Davison
Senior GeoSpatial Analyst
morgan.davison@newmont.com

Michael Barker
Director GeoSpatial Technology
michael.barker@newmont.com

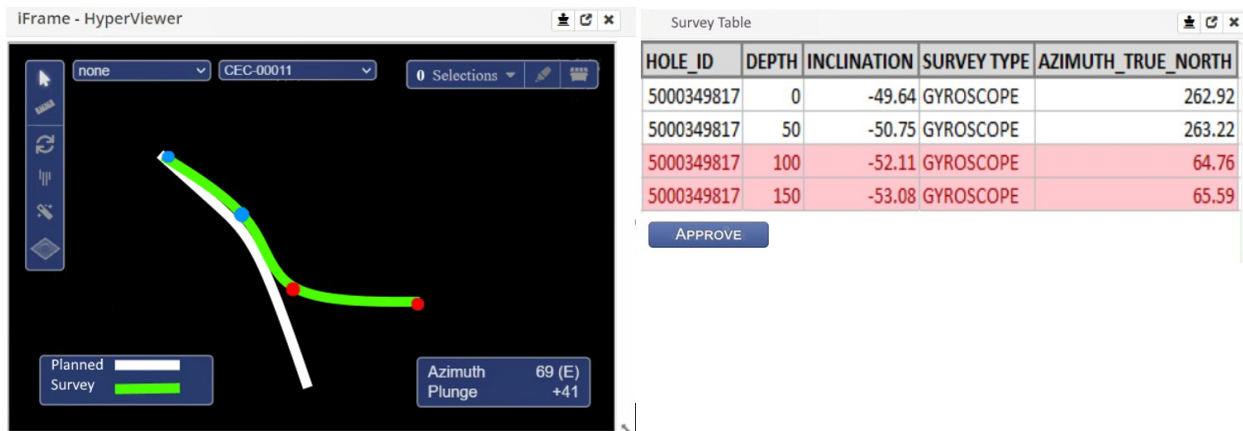
Introduction

Newmont as a leading exploration and gold mining company would like to develop a web based tool to visually check and approve the quality of drill hole down hole survey measurements. The accuracy of down hole surveys is of vital importance from exploration to our mine sites, as it relates to resource and geological modeling. If incorrect or not checked it can have a big impact on future drilling programs as well as incorrect model projections.

This visualization tool will extend our existing web 3D drill hole application, where the tool will read and display a 3D surface, alongside an interactive graphical and tabular version of the surveyed and proposed drill hole, via a published web service.

Objectives

- Import 3D surface (DEM, DTM).
- Use **JavaScript** and the **three.js library** to plot the surveyed and proposed drill hole.
- Display interactive downhole survey table for the drill hole.
- Identify survey issues. E.G. intersections, dog legs or self overlaps.
- Interaction between the survey table and the plotted drillholes.
- Approval process if drill hole passes criteria.



Work Environment

The team can manage and work on the project from anywhere, but anticipate a number of face-to-face meetings and frequent electronic communication.