

HeliFALCON® AGG

Location: Creston, British Colombia, Canada | CASE STUDY

Solution for HIGH TERRAIN



The map on the right shows the vertical gravity gradient GDD from a **HeliFALCON® AGG** survey near Creston B.C. flown for Terralogic Exploration Services in 2011. The survey targeted Lead-Zinc-sedex mineralization in very rugged terrain.

The map on the right shows the terrain in the survey, which varied between about 650m and 2150m ASL, and required climb and descent rates more than 50%. Fixed-wing surveys are impractical in this type of terrain- the normal climb rate is about 5%, resulting in excessively high altitudes and loss of resolution. All **FALCON®** surveys include an on-board laser scanner system to create high resolution terrain maps for optimal data quality.

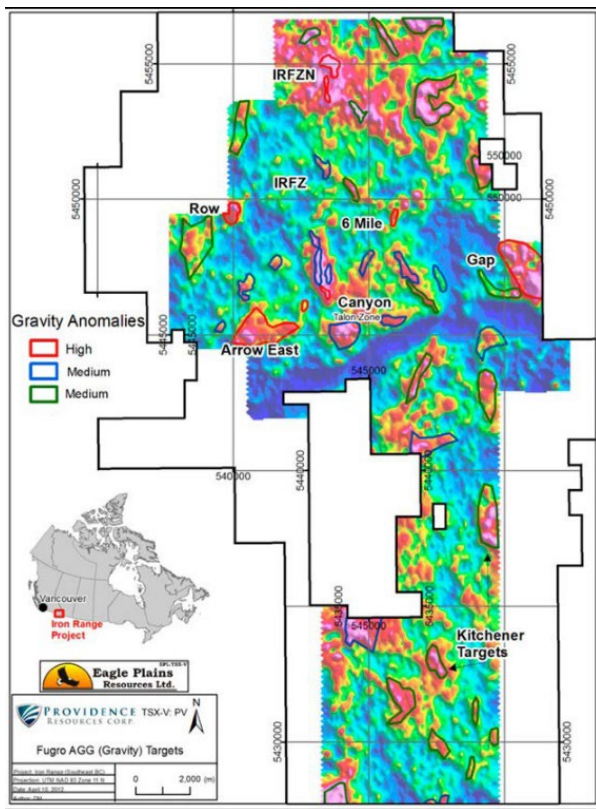


Figure 1. Vertical Gravity Gradient

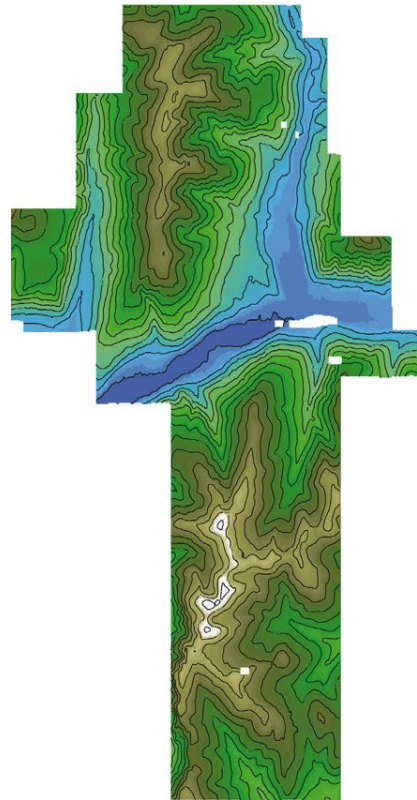


Figure 2. Topography, contour interval

Terrain corrections from high quality topographic data will remove all the effects of terrain from the vertical gravity gradient (GDD), revealing the geology hidden within, as shown below. The high-resolution terrain map created from the on-board laser scanner of a **HeliFALCON® AGG** gives the best quality terrain map for the most geological sensitivity. However, valleys often show as gravity gradient lows due to the relatively low-density sediment fill, and hill tops may be defined by specific hard layers. For areas of variable density re-calculation of the terrain correction at the new densities is simple and quick. The **FALCON® AGG** airborne gravity gradiometer (AGG) is the only AGG system that can be cost-effectively flown in a helicopter. This provides for close following of almost any terrain. The low altitude and slow airspeed of a helicopter give **HeliFALCON® AGG** gravity gradient data the highest resolution commercially available, and the best detail and sensitivity for the mineral exploration.

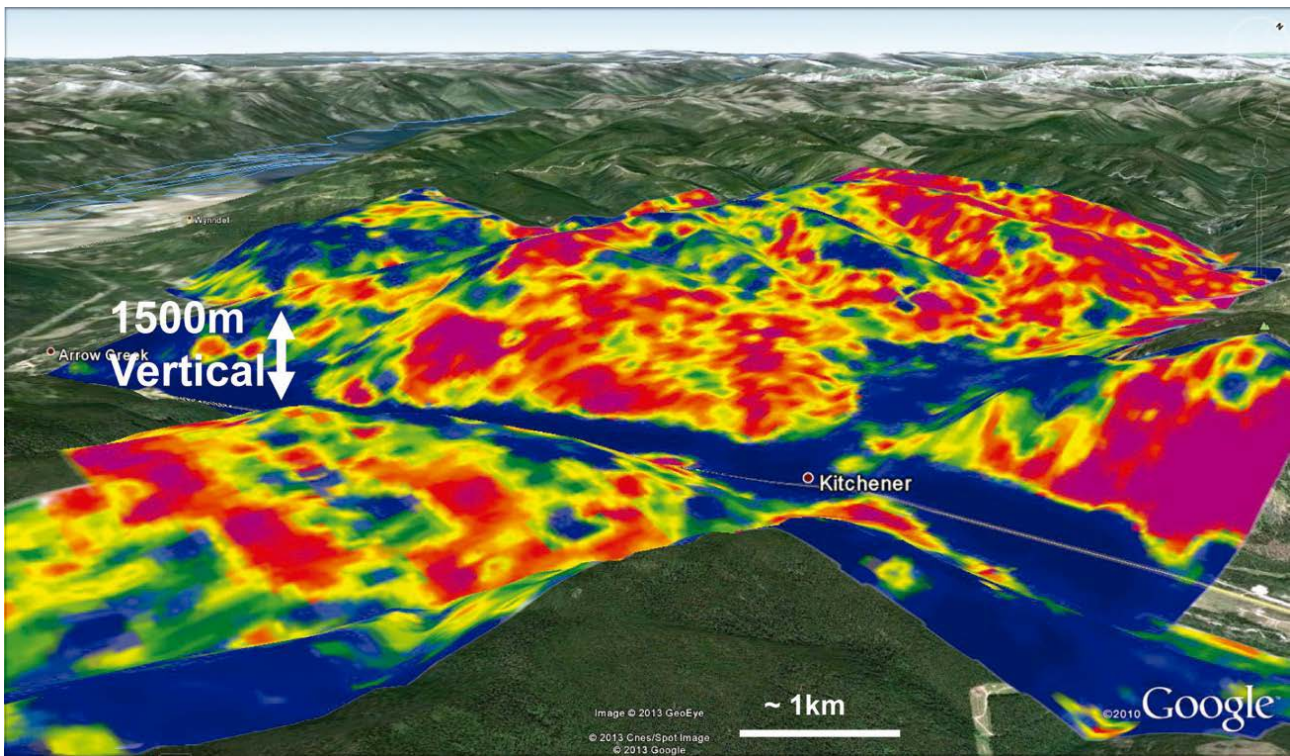


Figure 3. Vertical Gravity Gradient (GDD) draped on google earth topography.

