

# Measurement tools

Updated on 04 Sep 2024 · 5 Minutes to read · Contributors 

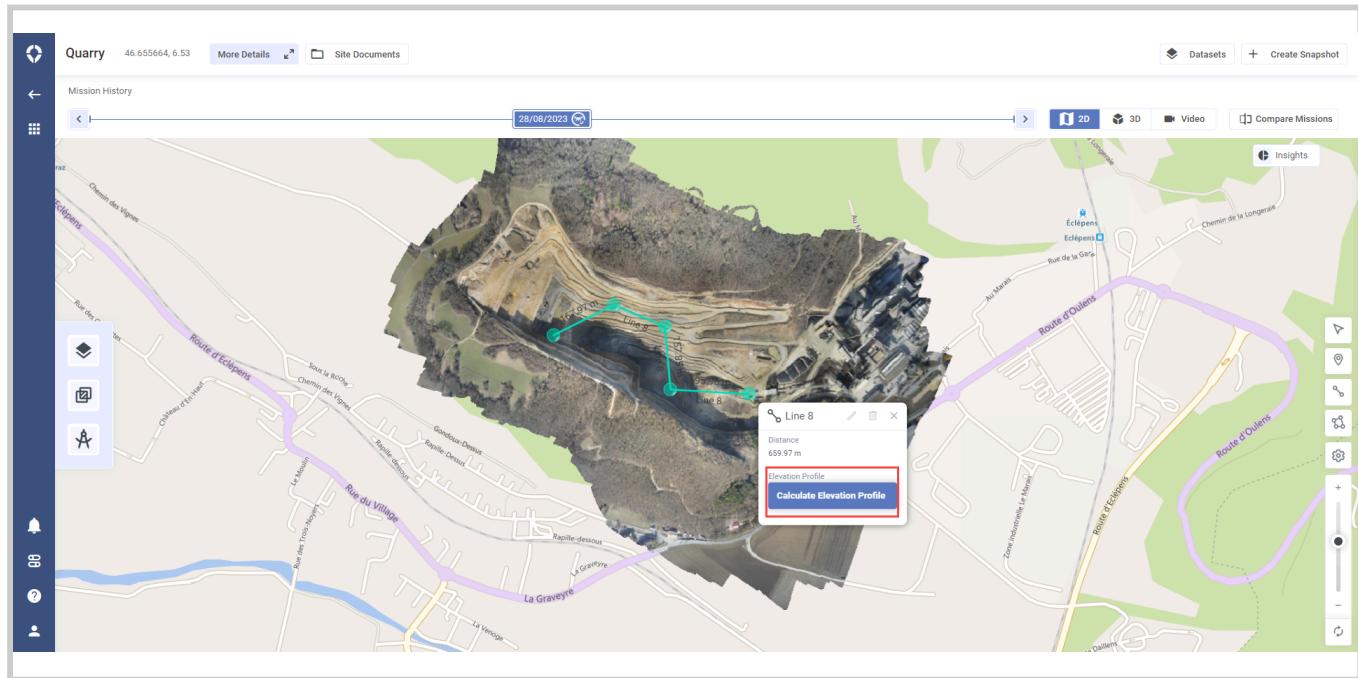
In this section, you will look at calculating:

- [Elevation Profile of Line Annotation](#)
- [Surface Area of Polygon Annotation](#)
- [Volume of Polygon Annotation](#)

## Calculating Elevation Profile of Line Annotation

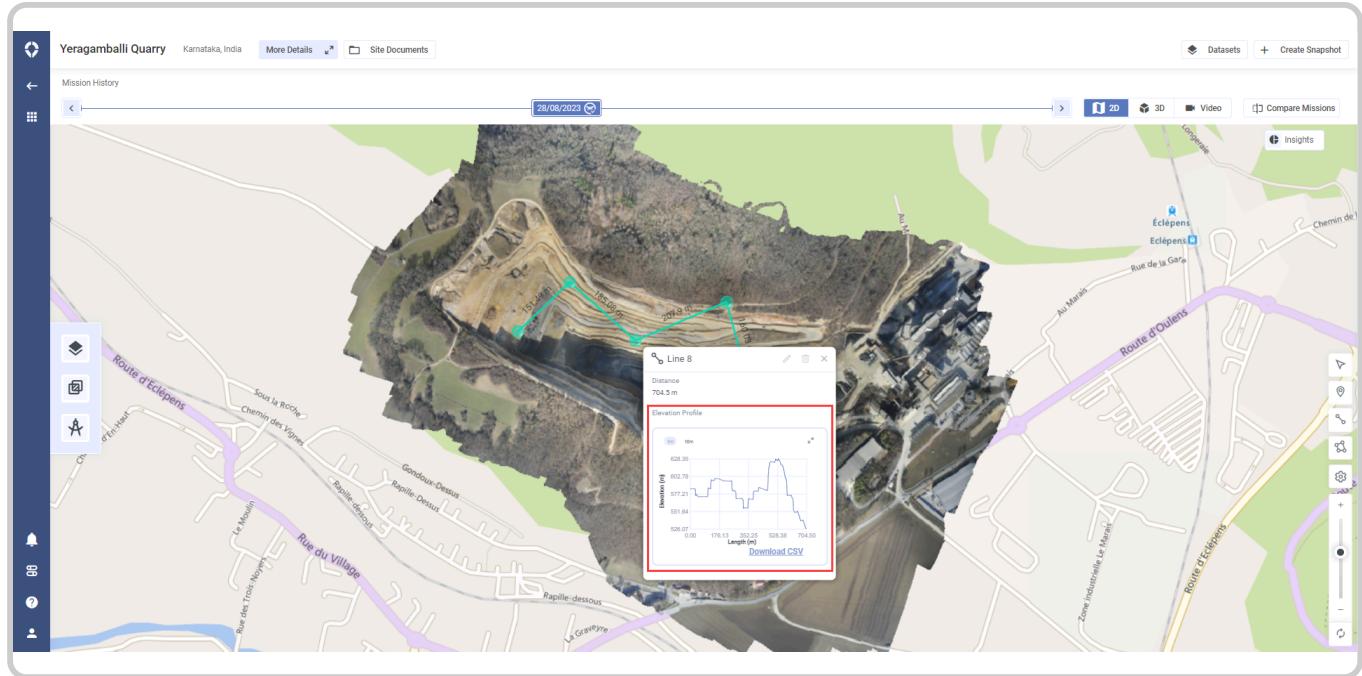
An elevation profile is a graphical representation that portrays a cross-sectional view of a terrain in a two-dimensional format, showing the changes in height along a line that connects selected points on a map.

1. Select the Line Annotation for which you want to calculate the elevation profile.
2. In the pop-up that is displayed, click **Calculate Elevation Profile**.



### Calculating Elevation Profile

1. In the **Token Quotation** pop-up, click **ACCEPT**. The elevation profile is calculated and displayed as a graph.



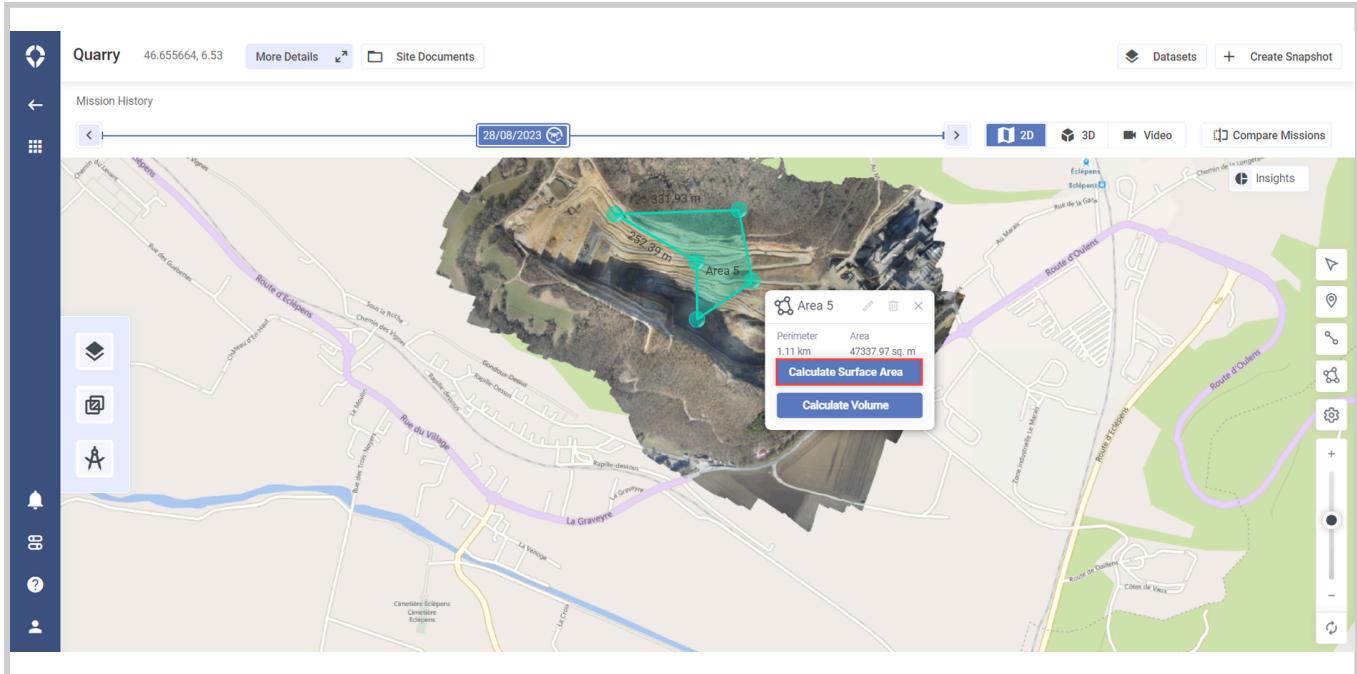
### Elevation Profile Graph

1. To download the elevation profile, click **Download CSV**.

## Calculating Surface Area of Polygon Annotation

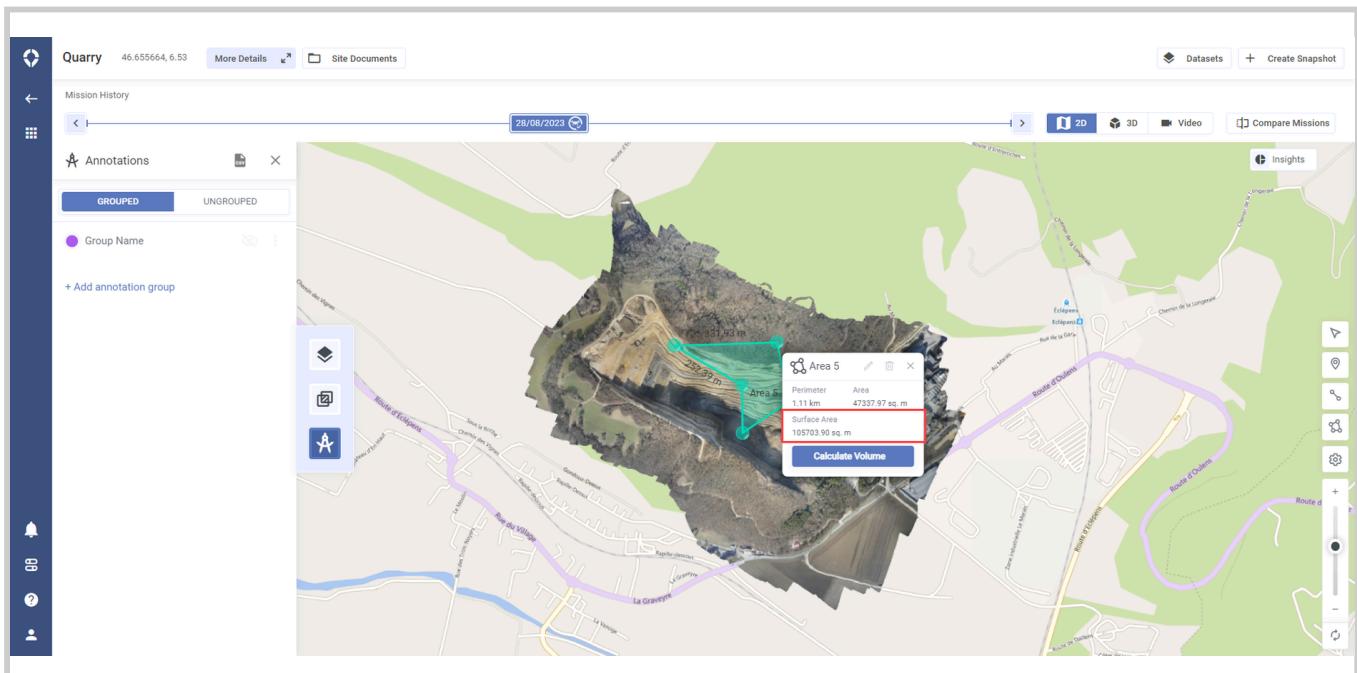
Calculating surface area is an important aspect of landscape pattern analysis, as it accounts for the non-uniform topography of a landscape.

1. Select the Polygon Annotation for which you want to calculate the surface area.
2. In the pop-up that is displayed click **Calculate Surface Area**.



## Calculating the Surface Area

1. In the Token Quotation pop-up, click **Accept**. The Surface Area is calculated and displayed.



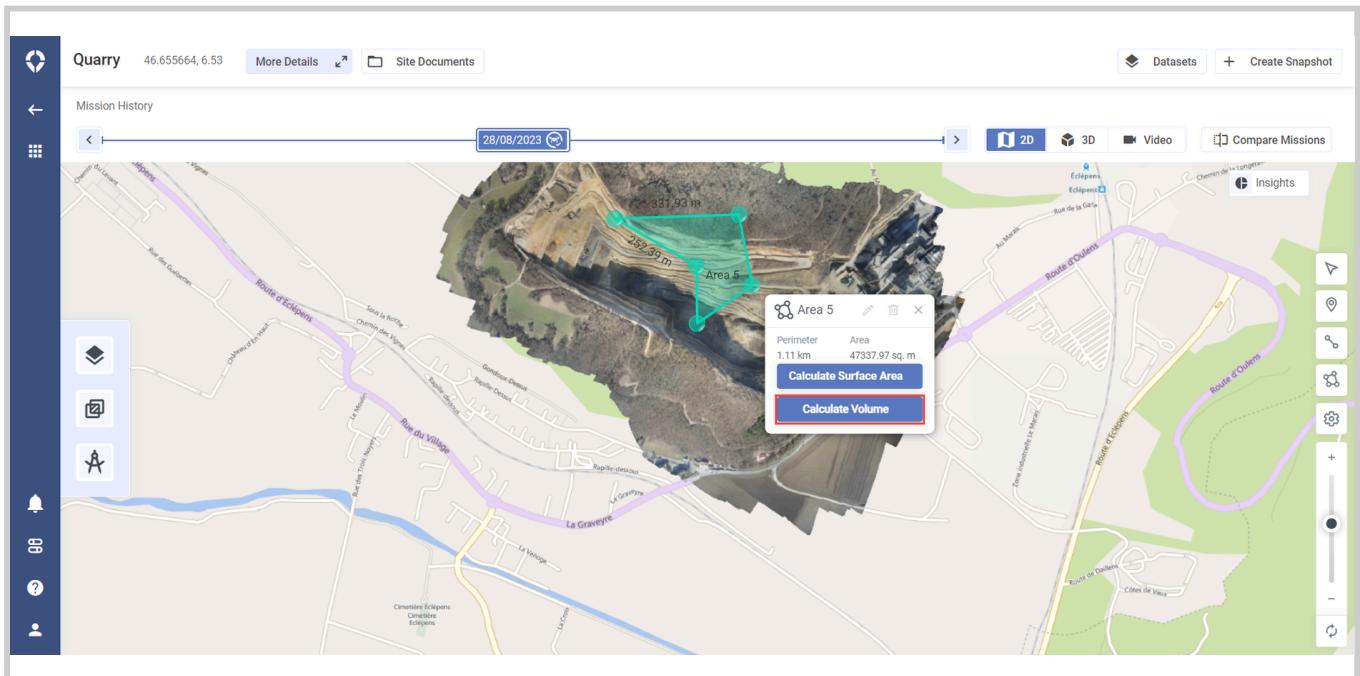
## Surface Area Calculated

## Calculating Volume of Polygon Annotation

The volume of the polygon is calculated in terms of **Cut Volume** and **Fill Volume** along with respective error margins. The Cut volume is the volume of structures (such as a stockpile) above the base elevation level and the Fill volume is the volume below the base elevation level.

1. Select the Polygon Annotation for which you want to calculate the volume.

2. In the pop-up that is displayed, click **Calculate Volume**.

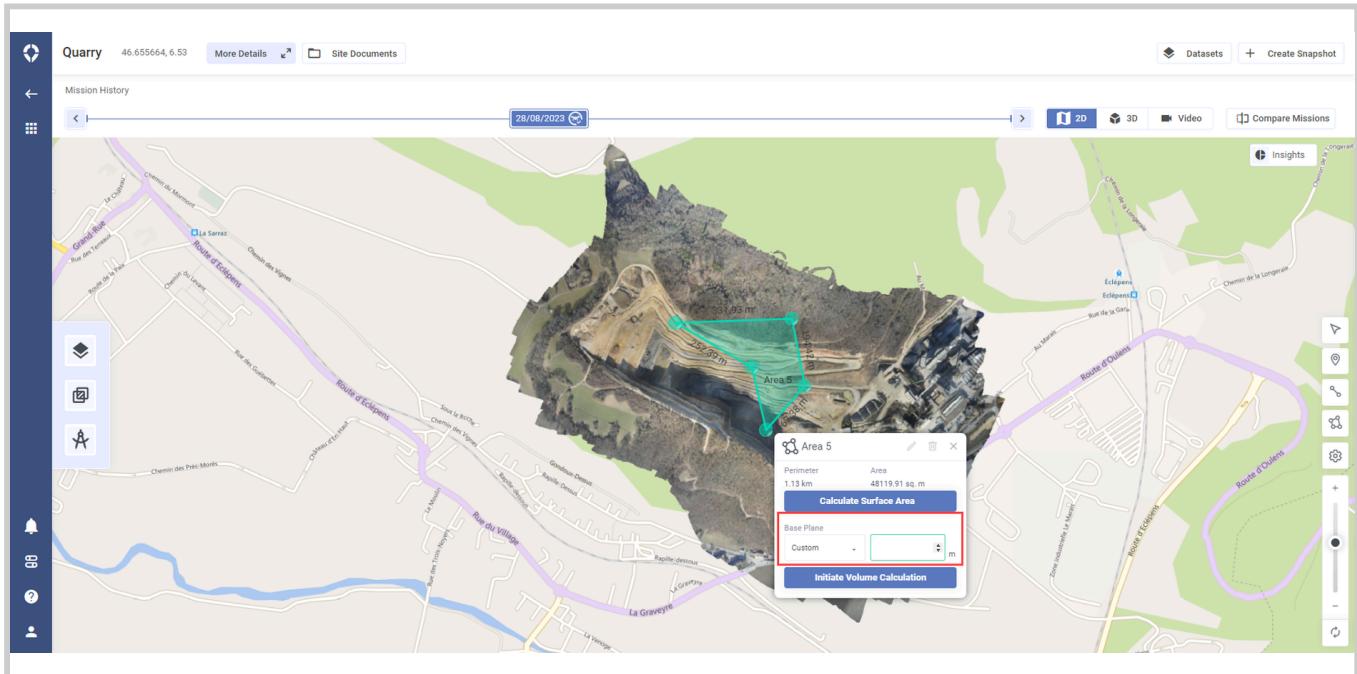


### Calculating Volume

1. In the **Token Quotation** pop-up, click **Accept**.
2. Select the **Base Plane** as **Default** or **Custom**. The cut and fill volumes will be calculated according to the base level selected.

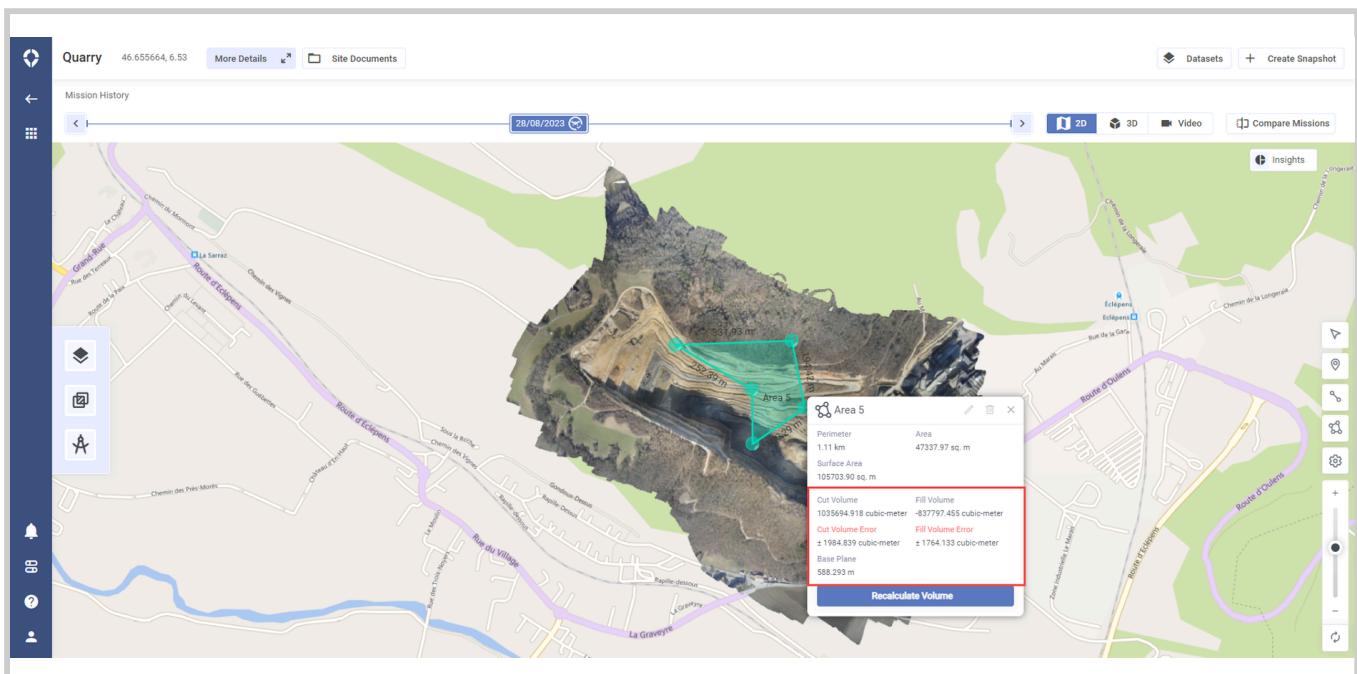
### Selecting the Base Plane

1. If you select the base plane as **custom**, enter or select the elevation in meters. The value entered here will be considered as the base and the cut and fill volumes will be calculated according to this base elevation level.



### Select Elevation for Custom Base Plane

1. Click **Initiate Volume Calculation**. The calculated volume is displayed in terms of **Cut Volume** and **Fill Volume** along with respective error margins.



Volume Calculated



Previous  
2D Annotations



Next  
Geo-referenced Image Viewer (2D)

