

# Sediment Core Documentation with Image J

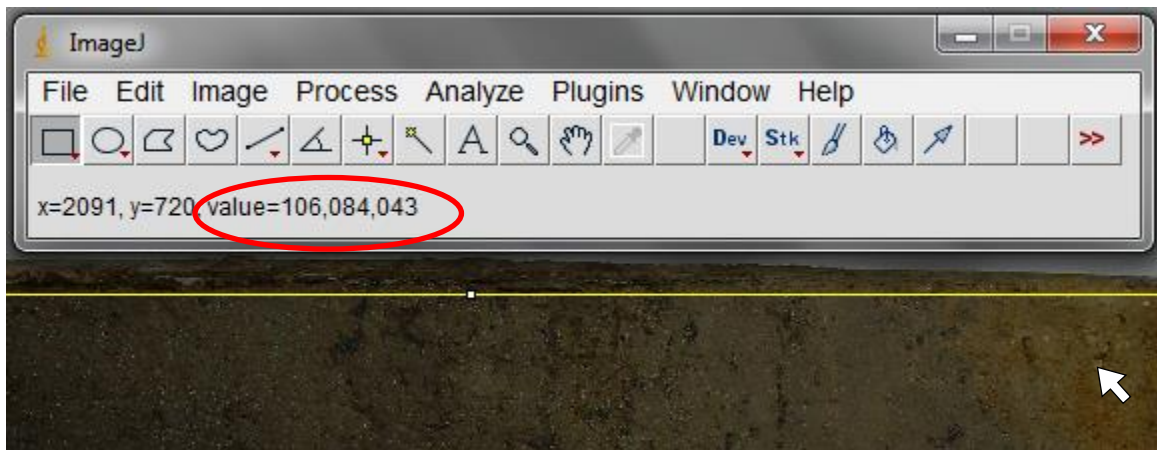
Image J is free image analysis software that is available from the National Institute of Health.

<http://imagej.nih.gov/ij/>

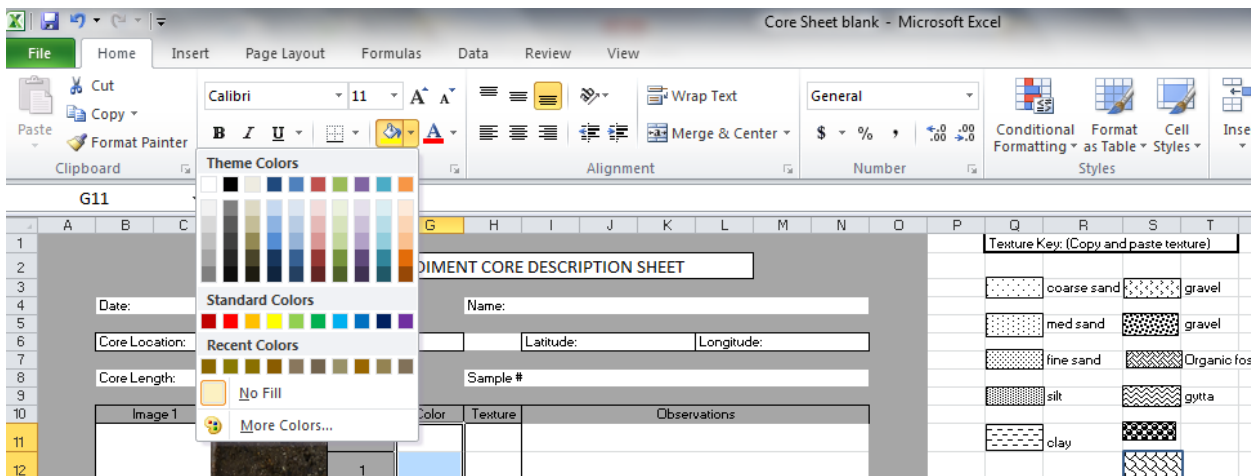
Photograph the split core under bright light (sunlight is best) save the image file on your computer.

## Point Color Analysis:

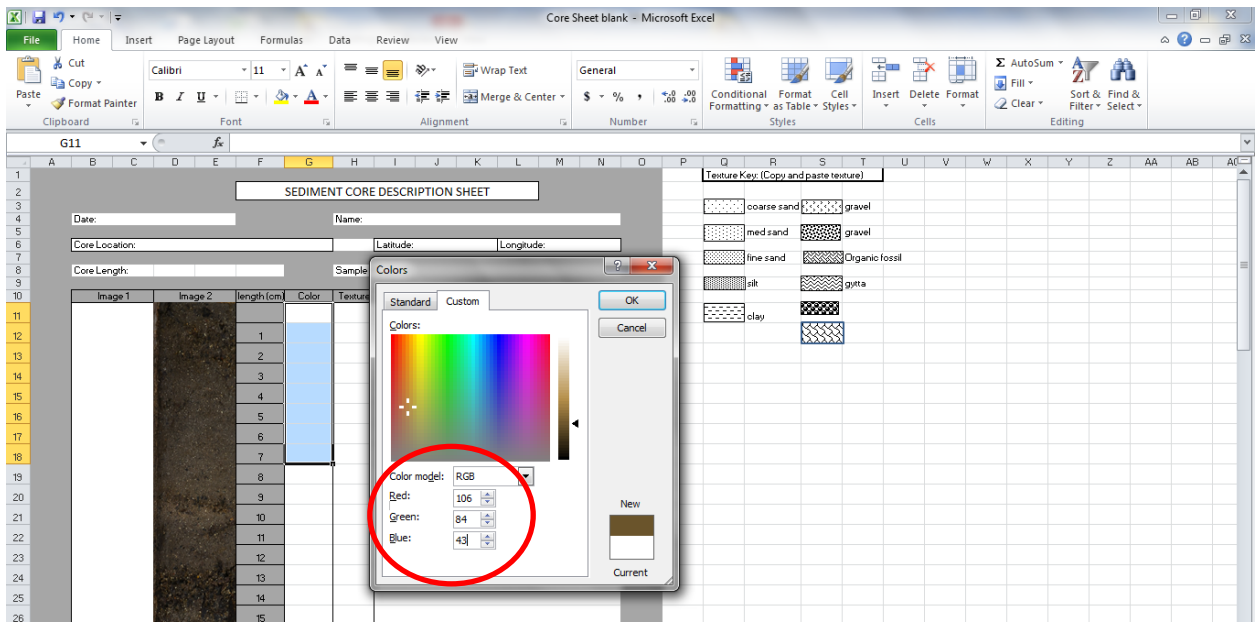
Open Image J software. To open image, select file open and browse to appropriate location where image is saved. Mouse-over image. The numbers displayed on the bottom of the Image J tool bar indicate the X,Y coordinates of the mouse pointer. The numbers after “value” are the RED, GREEN, BLUE (RGB) color values for the location of the mouse pointer.



This color may be replicated on the excel core documentation sheet. Select the home ribbon, in the column labeled color, select the appropriate number of cells (centimeters), select the cell fill tool (paint bucket), choose “more colors” option



Select custom color and enter the numeric values for the RGB component color values.

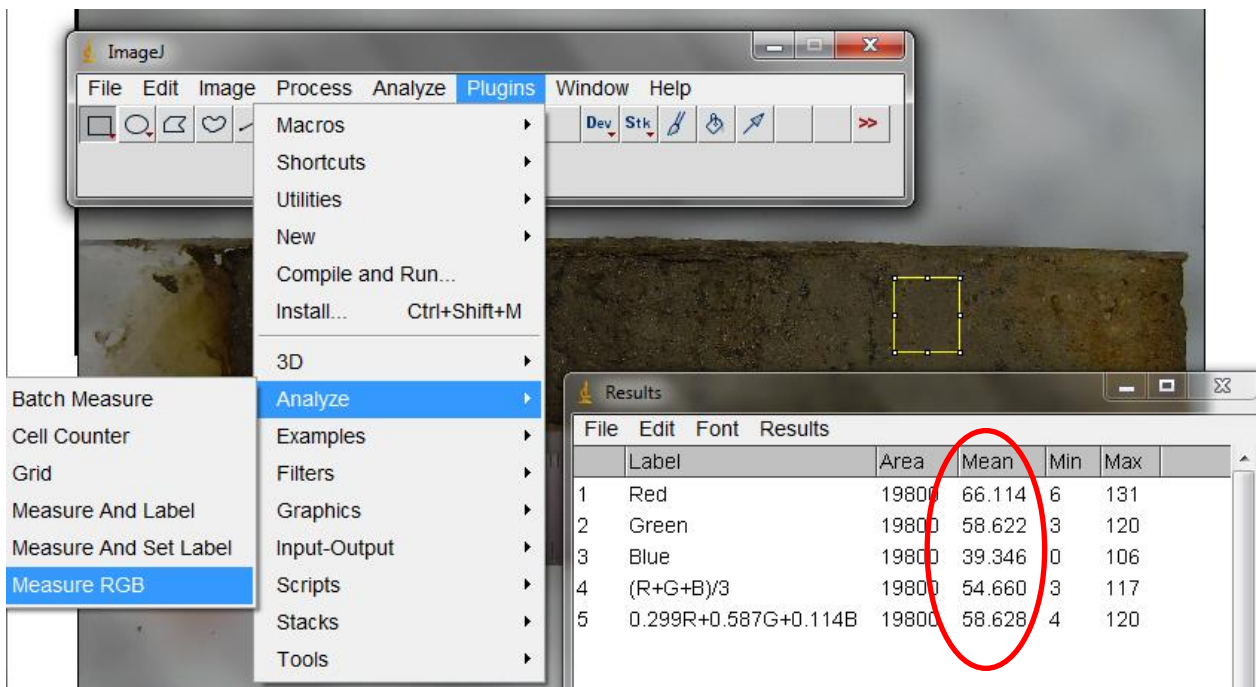


Repeat process for each distinct color change in the sediment.

While this method replicates a point source of color analysis, it is also possible to integrate the color over a larger region.

## Larger area color integration

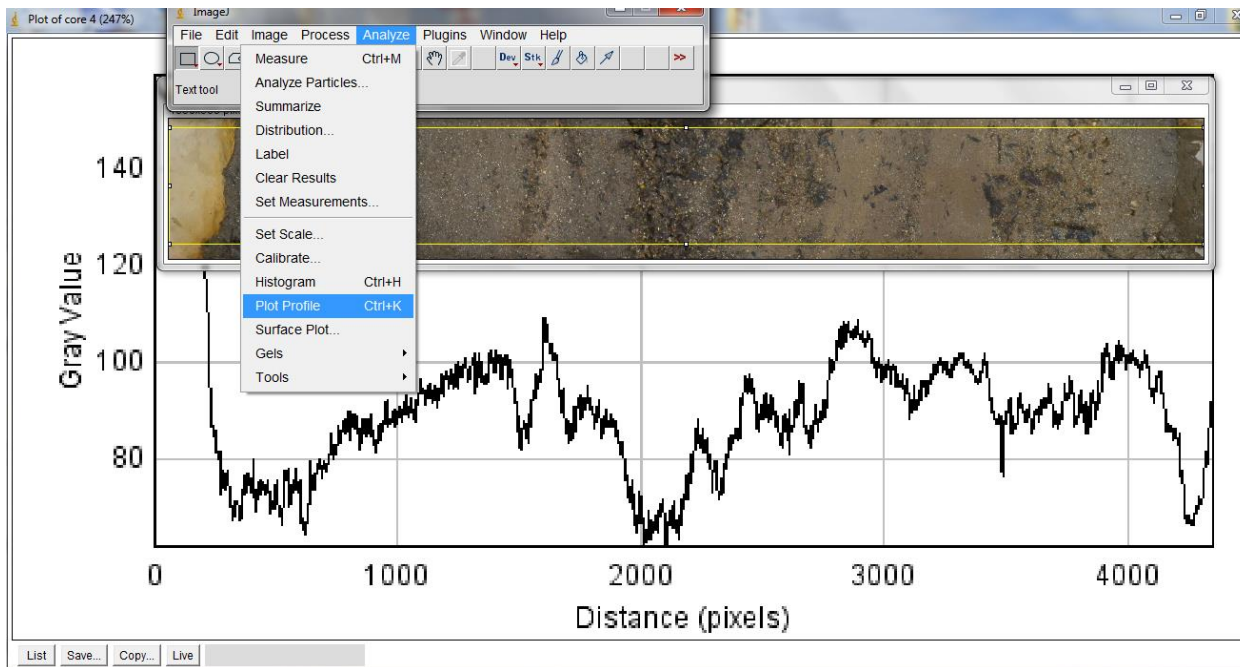
Use the rectangle select tool on the Image J tool bar and highlight the representative area to be analyzed. Choose "Plugins" >> Analyze >> Measure RGB. The results table will summarize the maximum, minimum and mean RGB values for the selected region of the image. These colors may be recorded on the excel core documentation sheet.



## Further Analysis

A grey scale intensity analysis may also be measured for the image of the sediment core. This analysis may facilitate observing changes in the lithology of the sediment.

Open the core image in Image J software. Using the rectangle tool, select the main body of the sediment core, cropping out any core liner or background. From the Image J tool bar, choose Analyze >> Plot Profile (or Ctrl+K). This will graphically plot the grey value of the selected region allowing a more analytical (less subjective) analysis of color changes and changes in sediment type/color.



By using the snipping tool or taking a screen shot, this Grey value intensity plot may be added to the excel core documentation sheet.