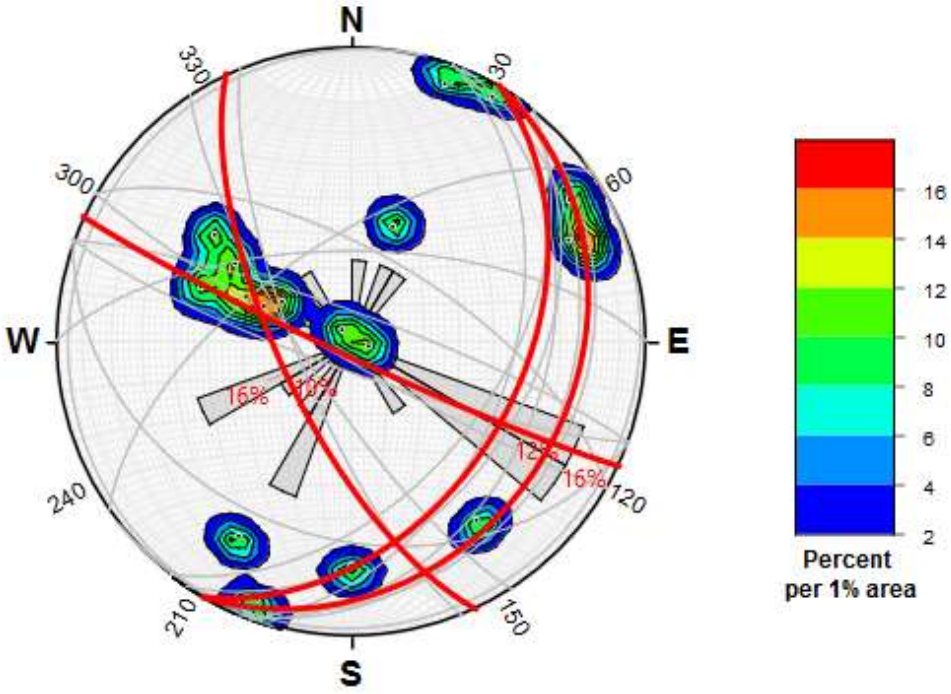
Limestone veins in the base of the Orange Mt. Basalt, Mine Brook Park, Flemington, NJ

Limestone Veins Stereonet Data.stnt

File Edit Data Calculations Plot View Window Help

Plot | 3D View | Details | Map



	Dataset Name	N	Type	Format
☑	Imported Planes	18	Planes	DR
☑	Poles to Imported Planes	18	Lines	TP
☑	Imported Planes	18	Planes	DR
☑	Imported Planes	4	Planes	DR

New Dataset | Delete

No.	Dip Az	Dip	Label
☑ 1	120.0	25.0	16%
☑ 2	245.0	70.0	16%
☑ 3	205.0	86.0	10%
☑ 4	120.0	42.0	12%

Add Datum | Delete

---------- Poles from Planes | 11/2/2021 at 6:08 PM ----------
calculated from 18 planes from Data set: 'Imported Planes'

----- Kamb Contouring | 11/2/2021 at 6:08 PM-----
Data set name = Poles to Imported Planes
Contour Int. = 1 sigma; Counting Area = 33.33% of net area
Expected Num. = 6 Signif. Level = 3 sigma

----- Rose diagram/Circular Histogram | 11/2/2021 at 6:09 PM-----
Planes data set (petals parallel dip direction): Imported Planes
Max value = 16.66667% between 111° and 120°
Mean Vec = 160.1° ± 42.9°; Average Length = 0.2202
Circular Variance = 0.7798; kappa = 0.4511
[vector mean; uncertainty is 1 standard error,

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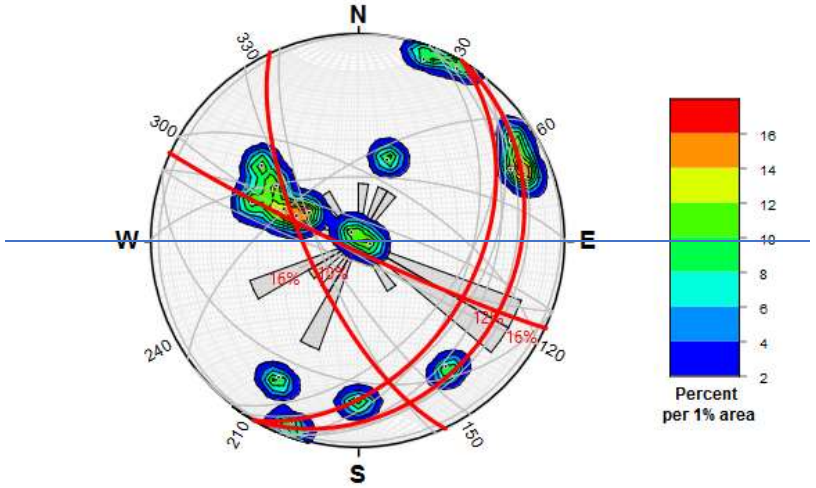
STEP 1: Determine the structural maximums

Structural maximums:

1. 16% pole 300/65 = Plane 120/25 (supplement strike and compliment dip)
2. 16% pole 065/14 = Plane 245/76
3. 12% pole 293/55 = Plane 113/35
4. 10% pole 025/4 = Plane 205/86

STEP 2: Use a E-W cross-section line to determine the apparent dips for the respective maximums.



Apparent dips:

1. 16% Plane 120/25 = 21 E
2. 16% Plane 245/76 = 72 W
3. 12% Plane 113/35 = 33 E
4. 10% Plane 205/86 = 81 W

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Apparent Dip Calculator

Example Input

Take from an Excel spreadsheet and calculate apparent dip given cross section azimuth, true dip, and plane dip azimuth.
Cut & Paste from a MS Excel Worksheet using the format found in the example input above.
Do not include the headers.

You can also enter the values for the input field (true dip, cross section, plane dip azimuth) in comma seperated form.

True Dip Cross Section Azimuth Plane Dip Azimuth	Apparent Dip(Degrees)
25,90,120	21.990544888487314
76,90,245	74.61826166238981
35,90,113	32.80357908962638
4,90,270	4
86,90,205	80.6049072291583

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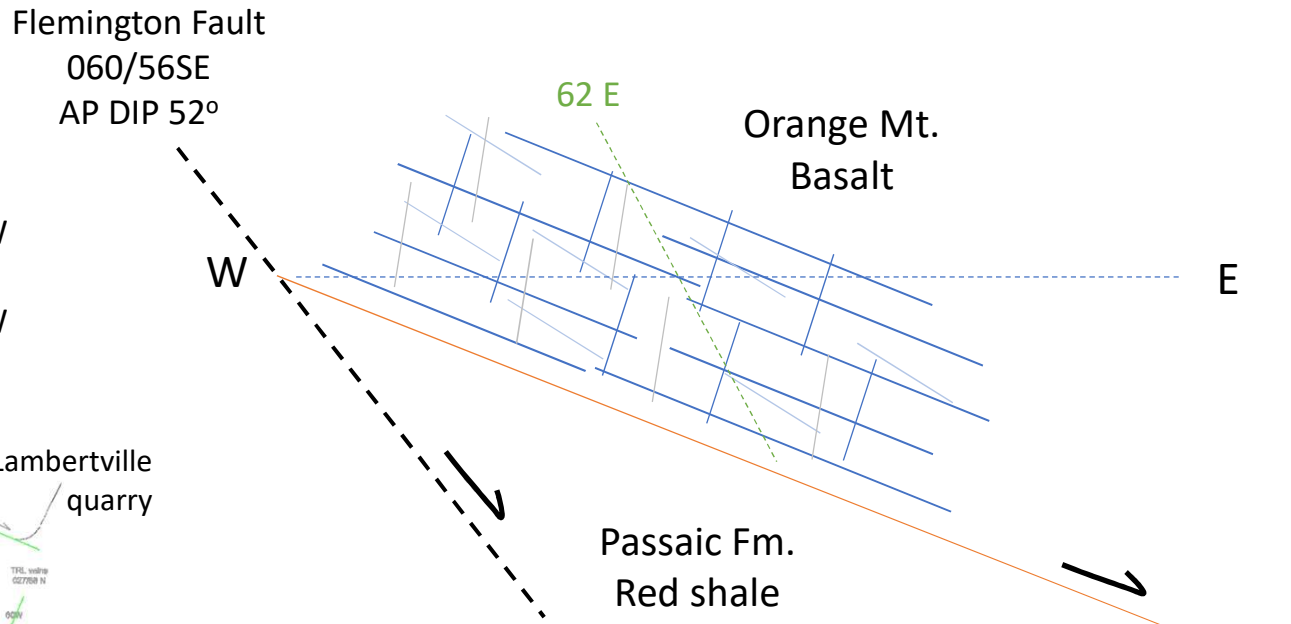
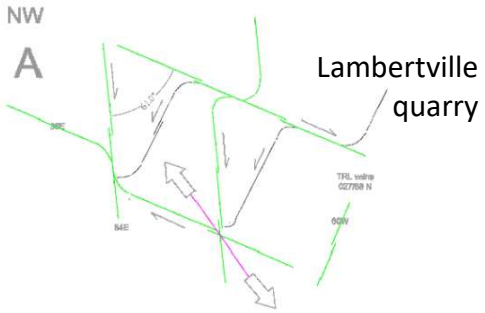
STEP 3: Structural Profiling along a W-E cross section

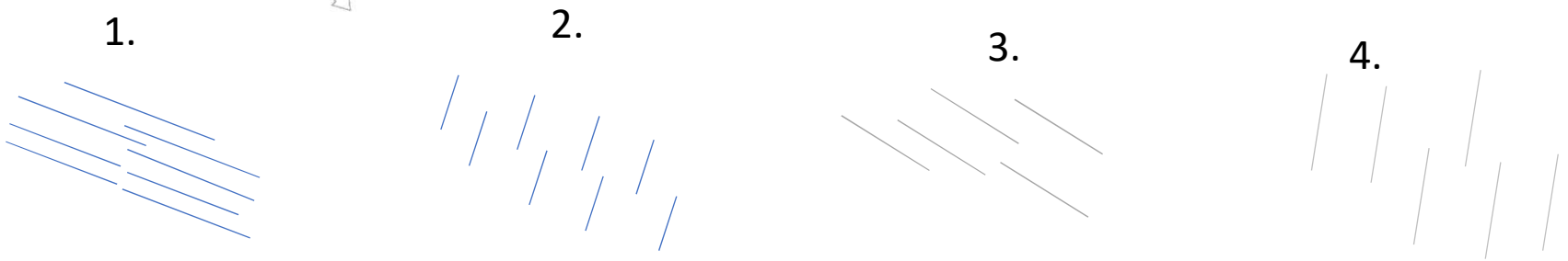
Apparent dips:

1. 16% Plane 120/25 = 21 E
2. 16% Plane 245/76 = 72 W
3. 12% Plane 113/35 = 33 E
4. 10% Plane 205/86 = 81 W

W-E cross-section showing apparent dips and spacings for the respective maximums.

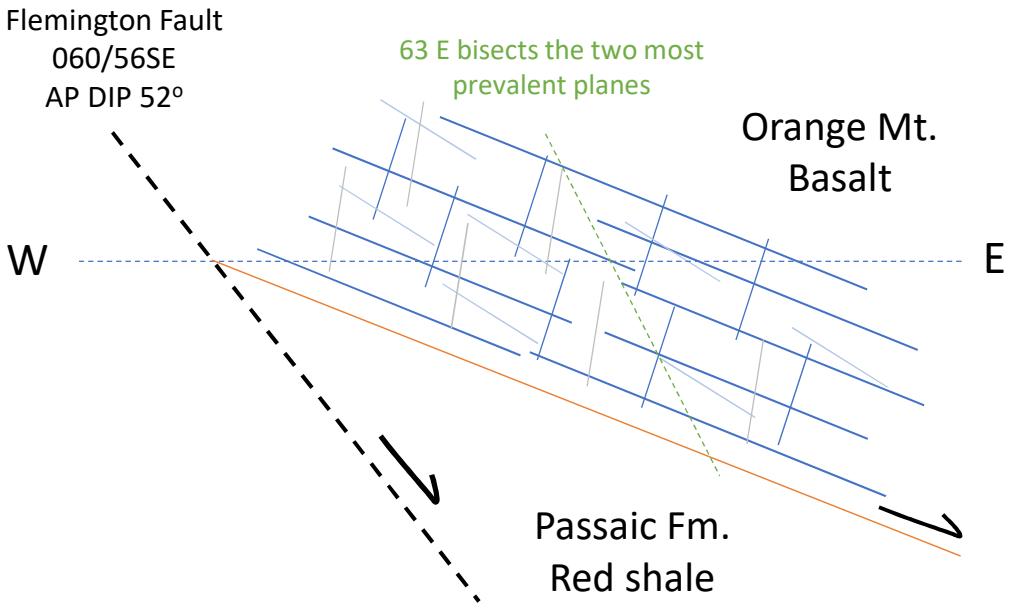




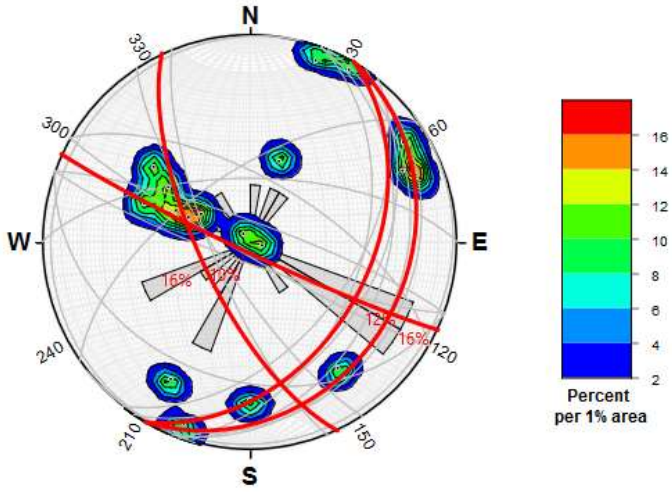


A structural analysis of limestone veins in the base of the Orange Mt. Basalt, Mine Brook Park, Flemington, NJ

W-E cross-section showing apparent dips of limestone veins



Lower hemisphere, equal-area projection



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