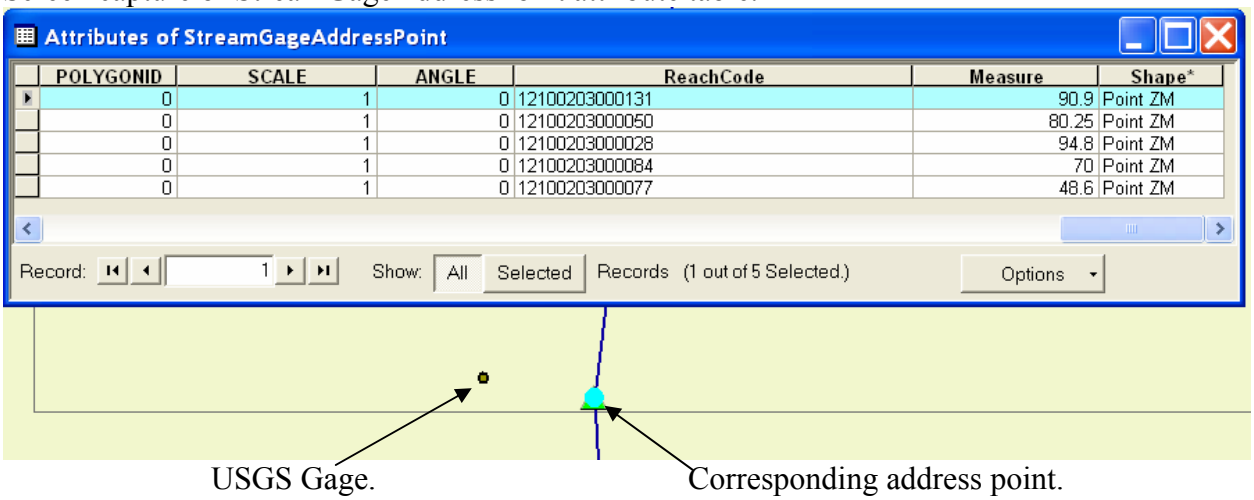
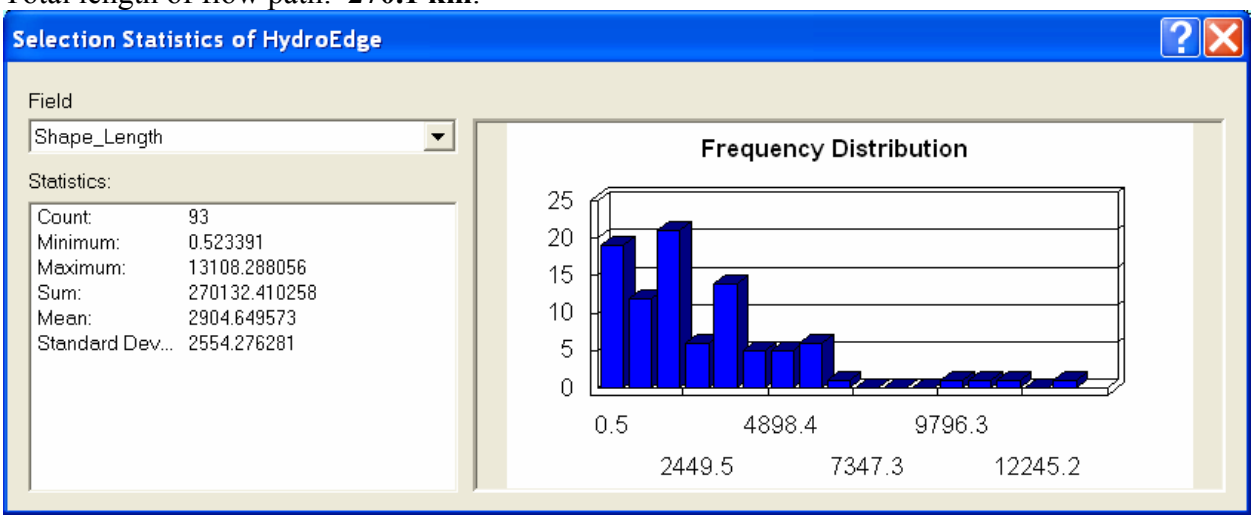
Exercise 5 Solution

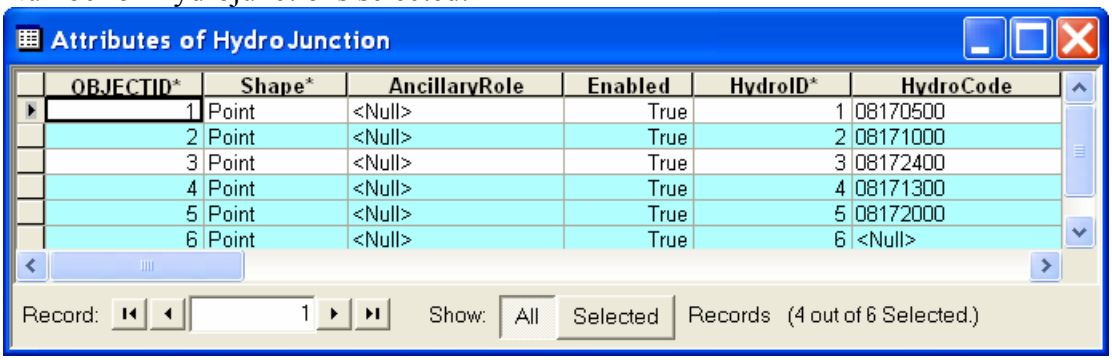
Screen capture of StreamGageAddressPoint attribute table.



From Trace from upstream to the outlet I get.
Total length of flow path: **270.1 km**.

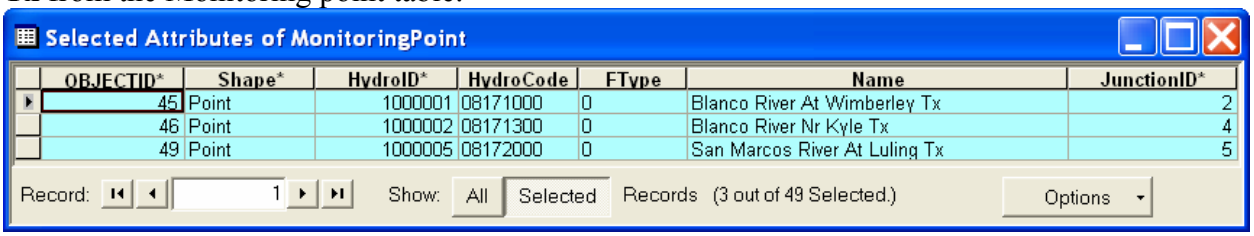


Number of Hydrojunctions selected: **4**

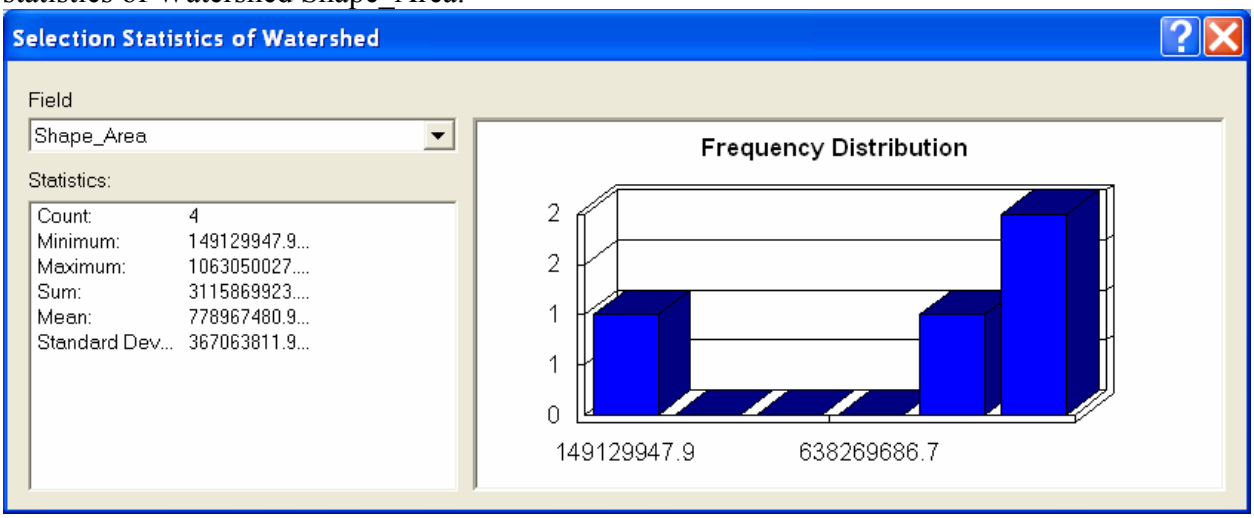


The stream gages that measure flow along this reach are:

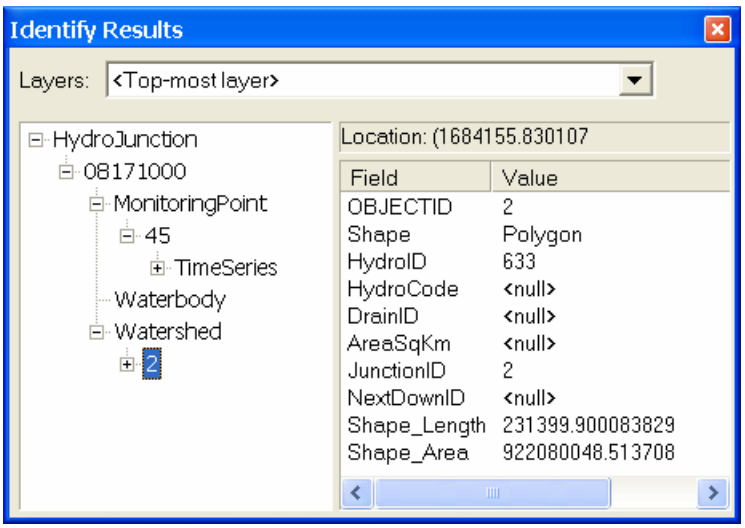
08171000, 08171300 and 08172000 from the HydroCode of the selected HydroJunctions. These correspond to:
Blanco River At Wemberley TX, Blanco River Nr Kyle Tx and **San Marcos River at Luling Tx** from the Monitoring point table.



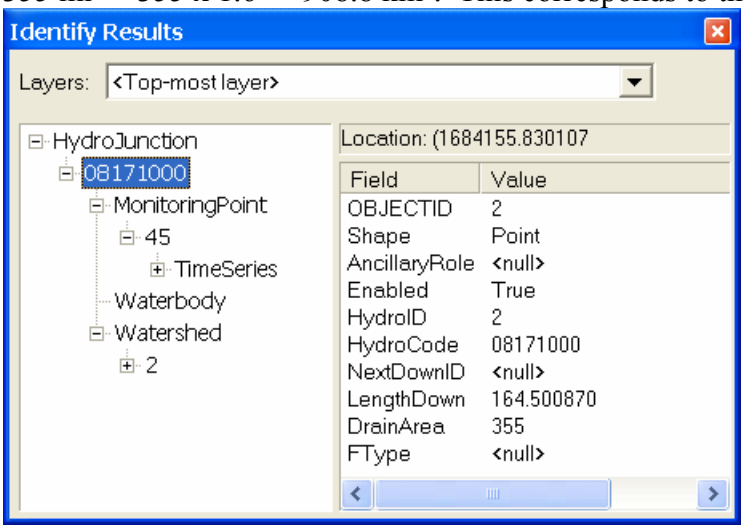
The total area of the watersheds that this flow path traverses is: **3115 km^2** from sum of selected statistics of Watershed Shape_Area.



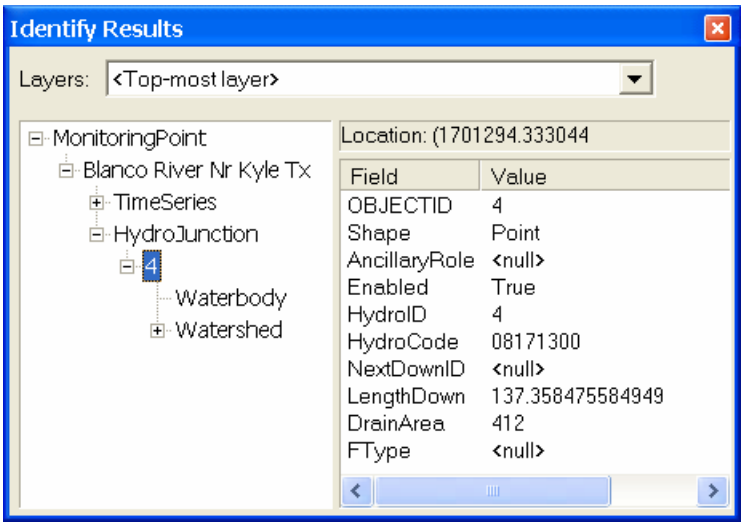
Drainage area of DEM watershed draining to Blanco River at Wemberley gage is **922 km^2** from the shape area attribute associated with the related watershed – see below.

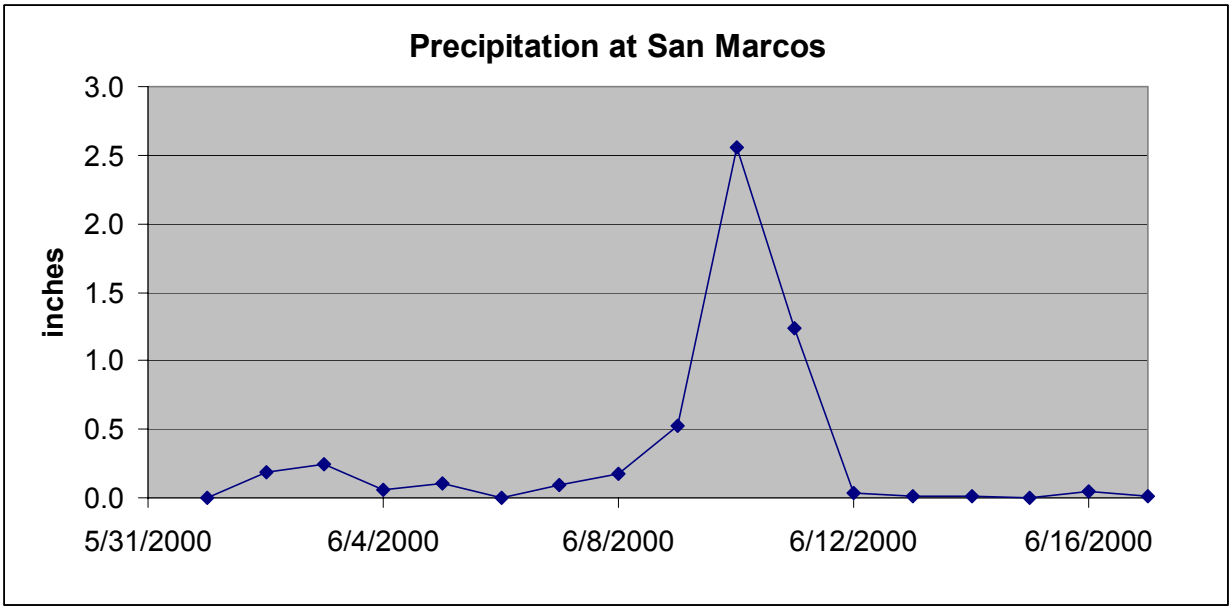


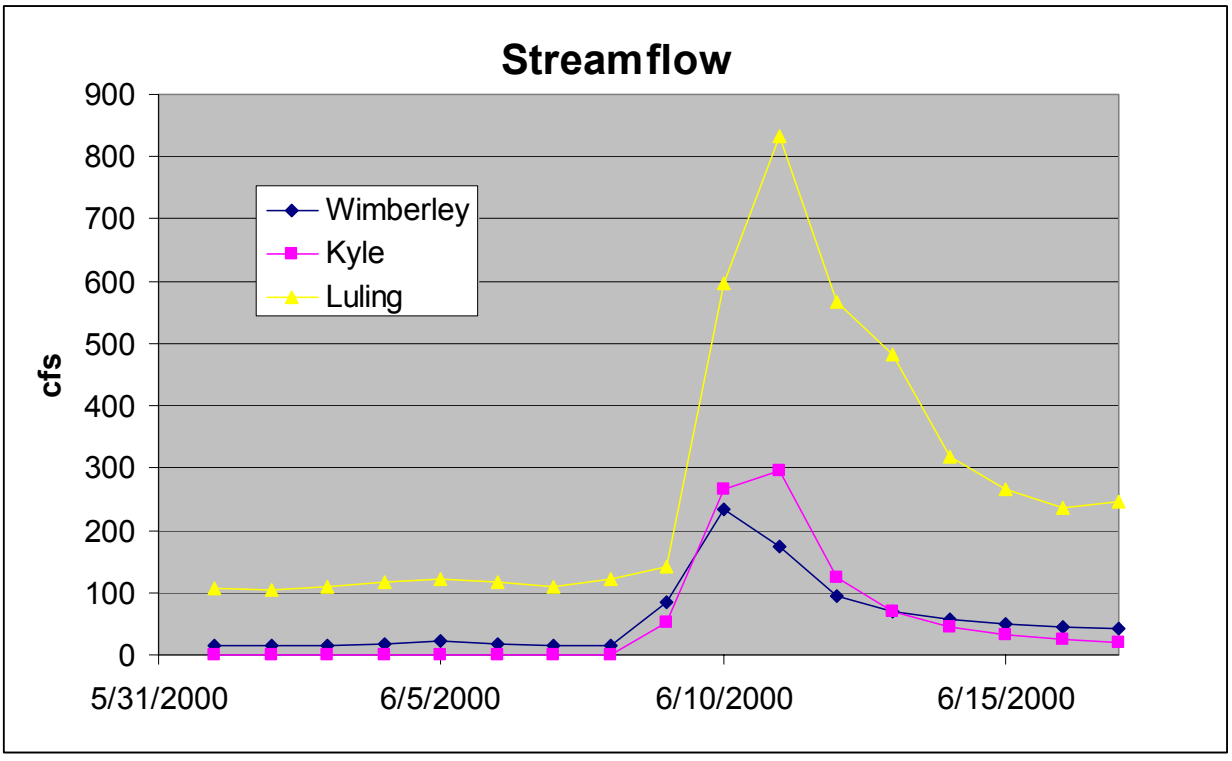
The USGS drainage area in square miles is **355 mi^2**. This is obtained from the DrainArea attribute of the HydroJunction feature class – see below. This DrainArea was assigned on page 18 from the StreamGageAddressPoint feature class during the loading of Hydrojunction data. 355 mi^2 = 355 x 1.6^2 = 908.8 km^2. This corresponds to the 922 km^2 from the DEM.



The LengthDown at Wemberley is 164.5 km. The LengthDown at Kyle is 137.4 km, so the flow length between the two gages is **27.1 km**.




Precipitation at San Marcos
inches
3.0
2.5
2.0
1.5
1.0
0.5
0.0
5/31/2000
6/4/2000
6/8/2000
6/12/2000
6/16/2000


Streamflow
cfs
900
800
700
600
500
400
300
200
100
0
Wimberley
Kyle
Luling
5/31/2000
6/5/2000
6/10/2000
6/15/2000

Map of Rainfall and Streamflow on 6/10/2000