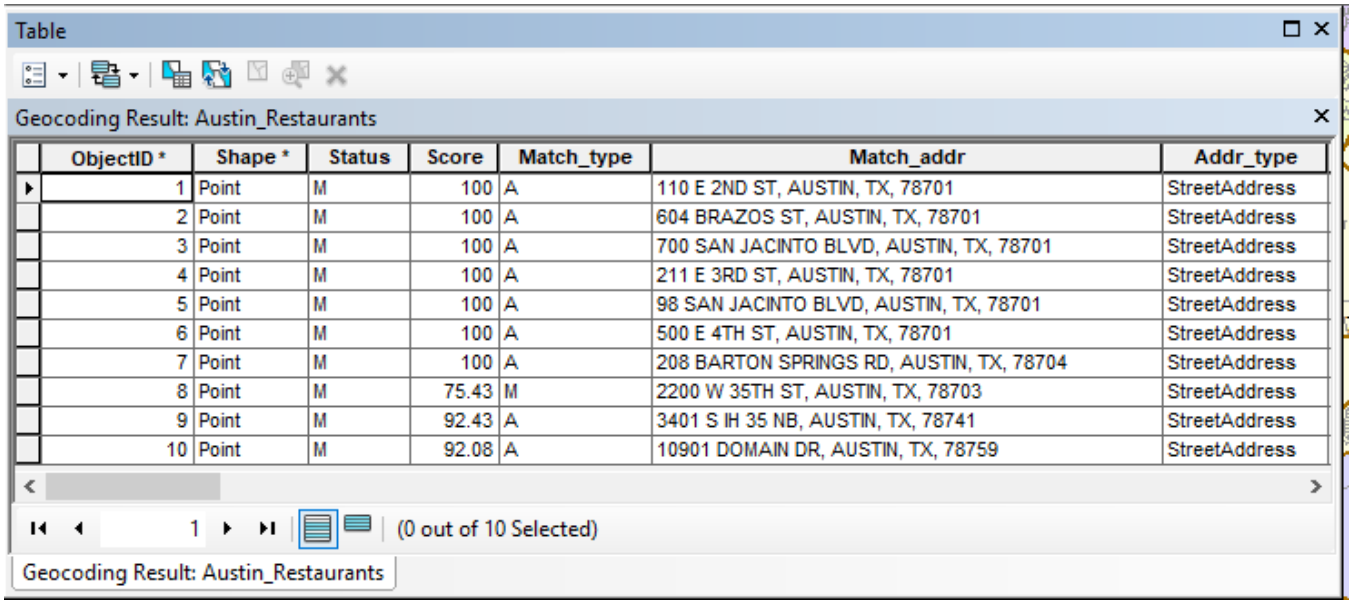
Name: Abraham Redie Project _2 GIS and Spatial Analysis

1. I have selcted 10 hotels in Austin, Texas. The lists are as follows

I. **JW Marriott Austin :** 110 E 2nd St, Austin, TX 78701
II. **Hyatt Regency Austin:** 208 Barton Springs Rd, Austin, TX 78704
III. **The Driskill Hotel Austin:** 604 Brazos St, Austin, TX 78701
IV. **Omni Hotel Austin:** 700 San Jacinto Blvd, Austin, TX 78701
V. **Hyatt Place Austin:** 211 E 3rd St, Austin, TX 78701
VI. **Four Seasons Hotel Austin:** 98 San Jacinto Blvd, Austin, TX 78701
VII. **Lone Star Court:** 10901 Domain Dr, Austin, TX 78758
VIII. **Hampton Inn & Suites:** 1701 Lavaca St, Austin, TX 78701
IX. **Hilton Austin:** 500 E 4th St, Austin, TX 78701
X. **Best Western Plus Hotel Austin:** 2200 S Interstate 35, Austin, TX 78704
XI. **Wyndham Garden Austin:** 3401 S Ih-35, Austin, TX 78741

This is when I put them in Arcgis and did the goecoding. As it can be seen out of the 10, seven have matched perfectly, while the remaining 3 are between 75.43 – 92.08 %. Overall score is 95.99 %. So I think it was a good matching.



Table

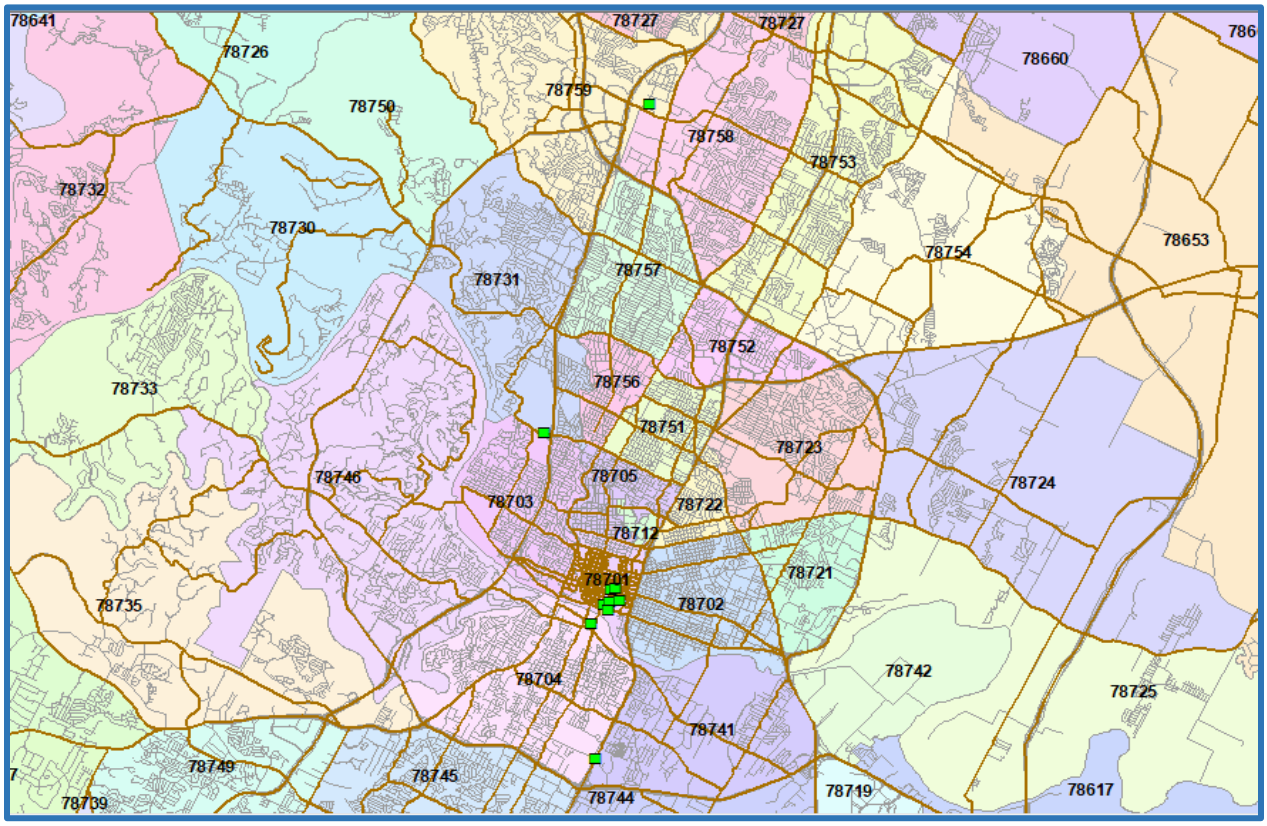
Geocoding Result: Austin_Restaurants

ObjectID *	Shape *	Status	Score	Match_type	Match_addr	Addr_type
1	Point	M	100	A	110 E 2ND ST, AUSTIN, TX, 78701	StreetAddress
2	Point	M	100	A	604 BRAZOS ST, AUSTIN, TX, 78701	StreetAddress
3	Point	M	100	A	700 SAN JACINTO BLVD, AUSTIN, TX, 78701	StreetAddress
4	Point	M	100	A	211 E 3RD ST, AUSTIN, TX, 78701	StreetAddress
5	Point	M	100	A	98 SAN JACINTO BLVD, AUSTIN, TX, 78701	StreetAddress
6	Point	M	100	A	500 E 4TH ST, AUSTIN, TX, 78701	StreetAddress
7	Point	M	100	A	208 BARTON SPRINGS RD, AUSTIN, TX, 78704	StreetAddress
8	Point	M	75.43	M	2200 W 35TH ST, AUSTIN, TX, 78703	StreetAddress
9	Point	M	92.43	A	3401 S IH 35 NB, AUSTIN, TX, 78741	StreetAddress
10	Point	M	92.08	A	10901 DOMAIN DR, AUSTIN, TX, 78759	StreetAddress

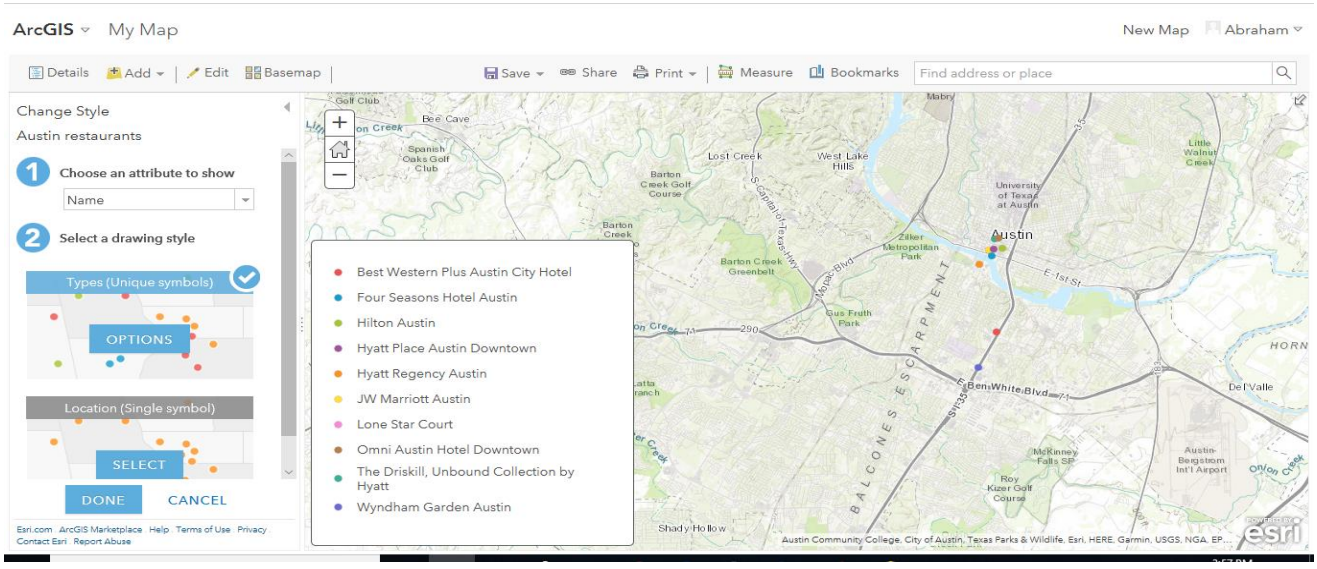
1 (0 out of 10 Selected)

Geocoding Result: Austin_Restaurants

When I displayed on the map, most of them are concentrated on the down town. While three of the hotels are widely dispersed to the north and south of Austin.

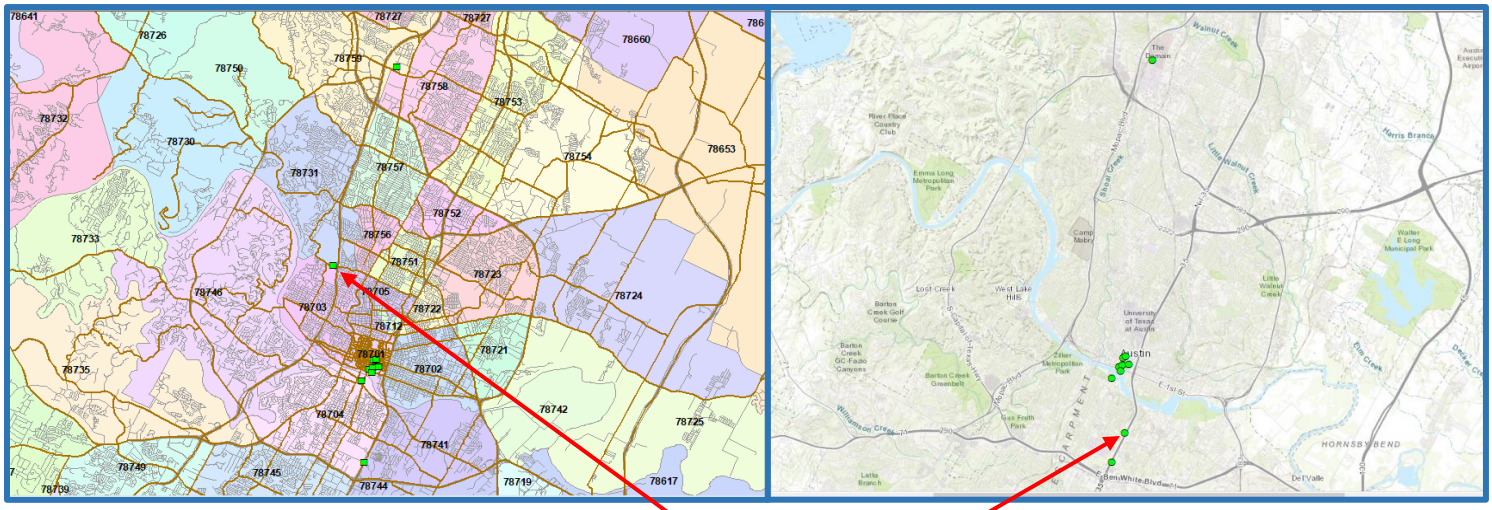


2. I mapped the same data using online geocoding and the result is more or less the same. With the exception of two hotels that do not follow the pattern of the above map, almost all of them are in the same location. Thus, overall, the result was almost the same.



Comparison between the ArcGIS desk top based Geocoding and the online based Geocoding:

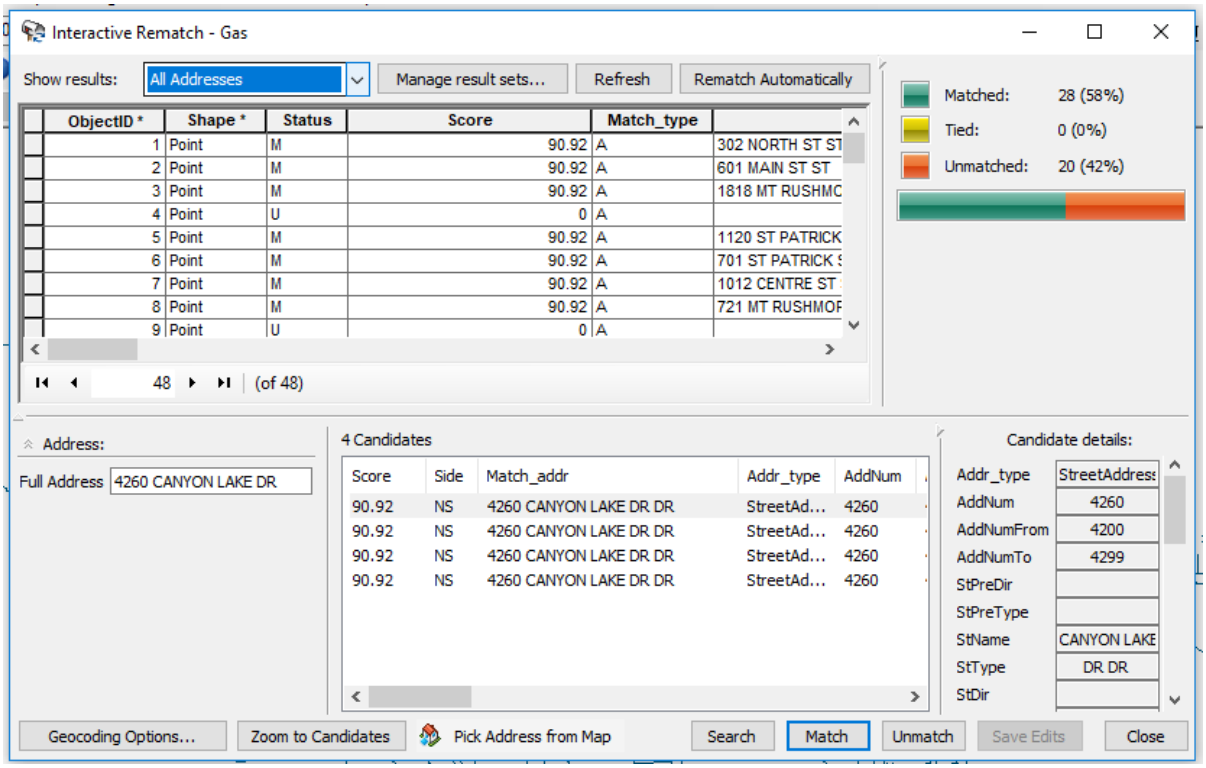
ArcGIS desktop based Geocoding Online based Geocoding



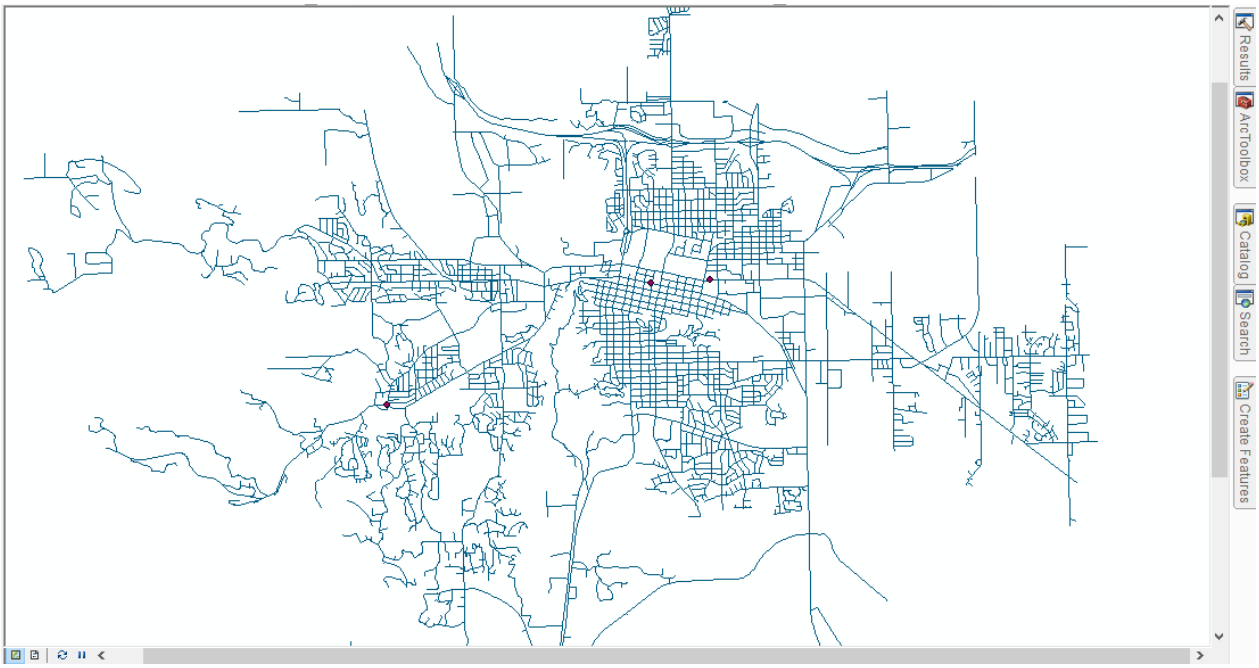
These two points do not match, when we compare both maps. Otherwise, the rest are following the same pattern. Thus, both the online and desktop Geocoding gave me pretty much the same result.

3. Here, I used the One Range Locator format, however, when I was creating an address locator, one of the requirements “side of segment” was not there either in the reference layer or the alias table. So, I am not sure if this can affect the overall accuracy or not. In this case, I first tried to geocode them without using the alias table, but the matching was only 3. Then I did it again by adding the alias table, this time the matching was 58 %. Comparatively speaking this has the lowest score from all the Geocoding I have done for this lab. Out of 48 Gas Stations, only 28 have been displayed or matched perfectly. I did some modification to the address of those unmatched one, however only the 28 were displayed.

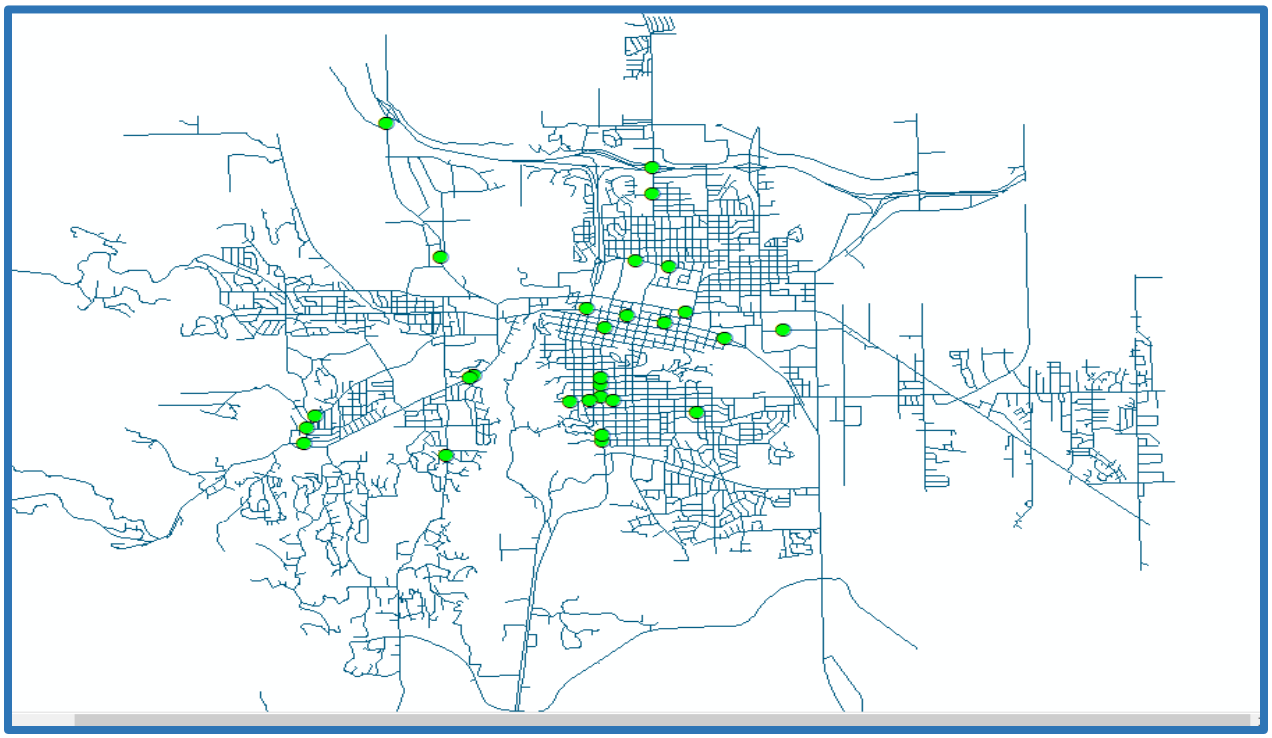
The following table shows the statistics of the matching



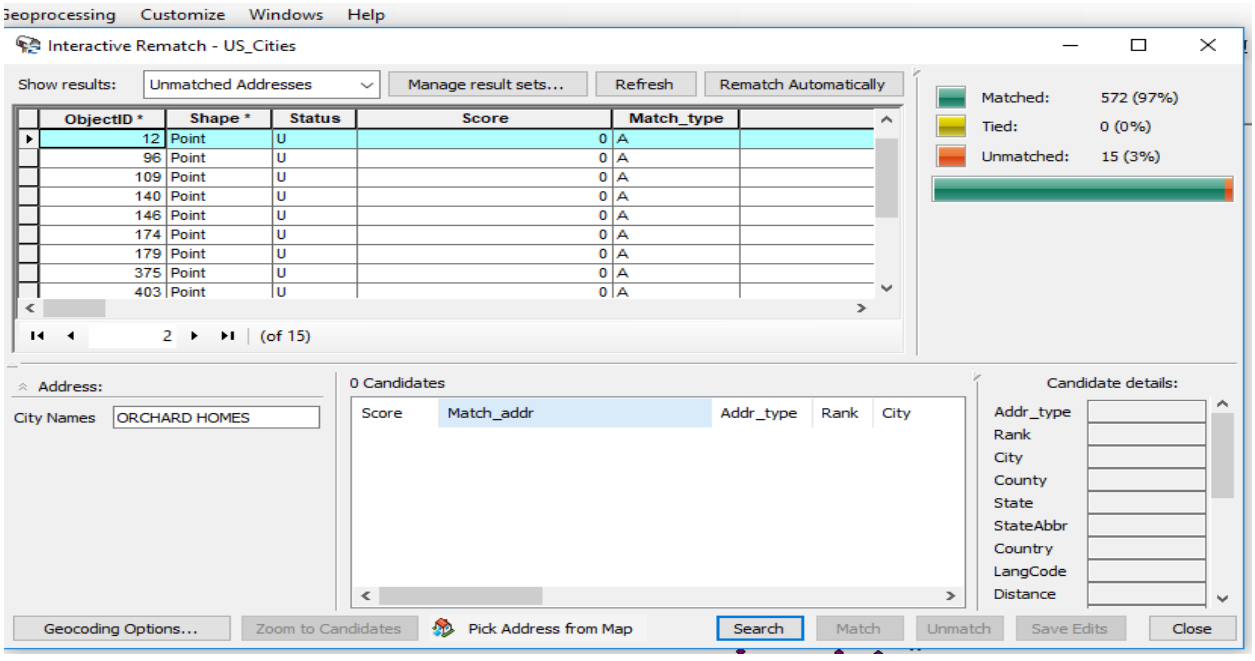
I. The following map shows the result of the location of Gas Stations without the use of the Alias table. Only three Gas Station were displayed or matched.



II. This map shows the result of the location of Gas Station when I used the Alias table. This table helps in identifying the location of an object by providing a place name. As a result, the result was improved and the matching increased from 3 to 28.



4. Geocoding of US cities: here I used the citie feature class in the USA folder as a reference layer. In this case out of 587, only 15 were unmatched. So, overall 97% of the data was perfectly matched. The table below shows the statistics.



The map of US cities looks as follows: