# "Meander Usually Means Trouble"

For the most part, "Meander" really does means trouble, because typically, the term was used in legal descriptions as a "generally accepted public line", but then nobody knows where it really is located.

Consider the following "poorly written" description. ***ALL of the NW ¼, Section 24, T.2 N., R.24 E., Salt Lake PM, located North of the mean high water line of the Green River in said section. Said parcel contains 90 acres more or less.***

In this case the "mean high water line" is a meandering of the river or river bank. At some point, someone decided that there was a line along the bank, that the high water did not usually exceed. (Typically that historical high water line comes from "spring runoff" caused by the snow melting.)

For orientation, let's look at a digital topo map of part of that section. The graphic shown here is from the All Topo Maps software.   Part of the menu bar (which is there because of the PLS tool was added to this All Topo Maps installation) is showing and is indicating that the "drag hand" cursor is located in the NE¼ NW¼ of Section 24, T.2 N., R.24 E., Salt Lake PM.
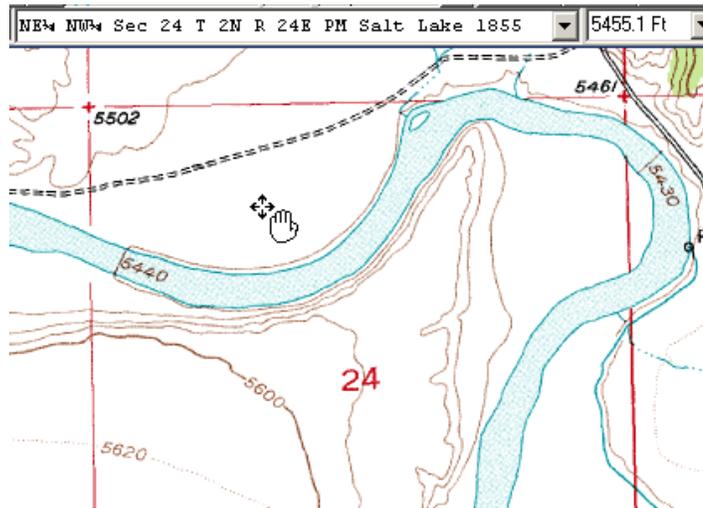
There is no software, including the Deed Plotter that has any idea where that "mean high water line" is located, but from this map, we can see where the USGS thought the river was located as of the printing of the map.

So, the logical place to start would be to define the NW ¼. Again, because the PLS tool was "add-on" to this set of maps, I have to ability to use the tool and search for this Aliquot part.

When I clicked on the Bino-Loc button, this window opens and I inputted the Sec, T,R & PM and selected the NW¼. Then the program gave me all of the details relating to the center of that Aliquot part, seen in the bottom of the graphic. Now

click "Add Annotation at Coordinate."

The keystroke above would have produced this graphic, and I can see the NW 1/4 Section.

The graphic appears, because the program is using the underlying GCDB or Geographic Coordinate Data Base. (This is the file that is maintained by some government agency, as a composite file for all of the known surveyed monuments OR where they should be. In some cases where the GCDB is still incomplete, the programmer of the All Topo Maps has used standard survey subdivision of aliquots techniques to project where they should be.)
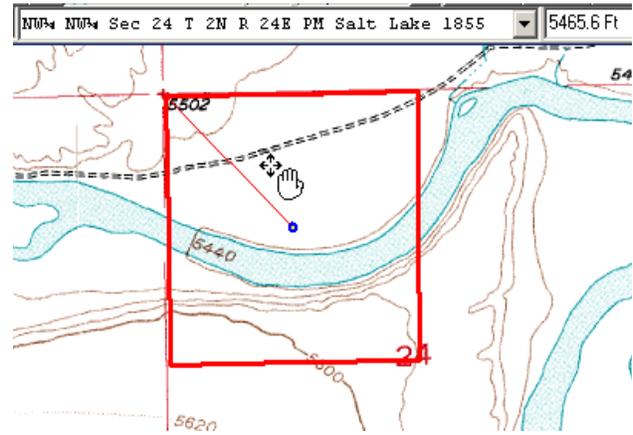
I would now change cursor icon to be the "Point to Point" cursor (P2P), which is a snap tool that can use or NOT GCDB corner information, depending IF the GCDB magnet tool is ON or OFF (if the PLS tool is added to this set).
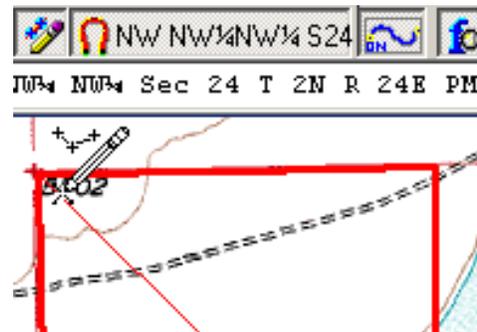
Here you can see that the P2P cursor is located next to the GCDB magnet. Also note that the GCDB magnet is indicating that even though the P2P cursor is NOT directly over the NW corner of the section, it is still sensing that NW corner as being the nearest GCDB corner to that location, as shown in the magnet window as NW (corner) NW¼NW¼ S24.

With all of the above in place, I now would right click the mouse and select Begin New Line. Now a small "default" symbol appears at the corner.
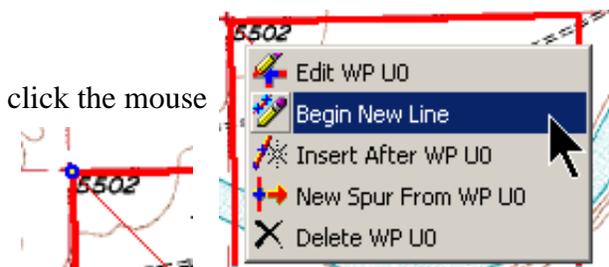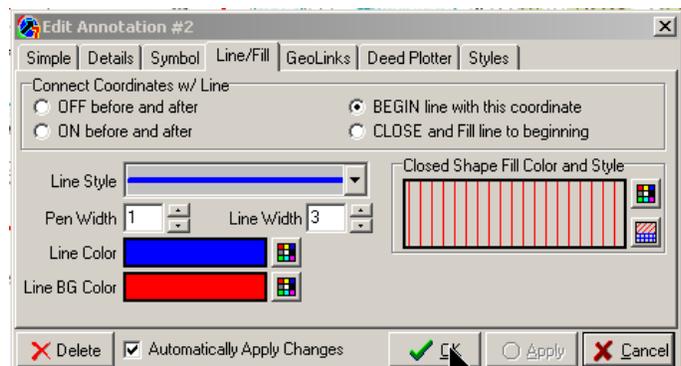
(You can make this symbol be any size and color combination you want.)

I would now right click the mouse again over the new symbol and select Edit.
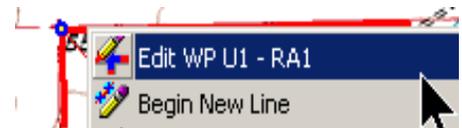
The Edit Annotation window would open, where I selected the "Line/Fill" tab, then clicked on the color palette and selected BLUE for my line color, 3 for the Line Width and selected a solid Line Style.

Now when I return to the map, I'm ready to start to "snap" around this parcel being described.   Again, because the GCDB magnet is active and using the P2P cursor, when I move the cursor near the NE corner of the 1/4 section and click, a line will be "snapped" between the two GCDB corner that define the top of this parcel as seen below.
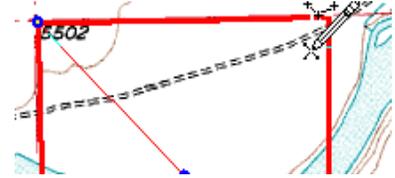
(Don't be concerned about the stair step looking line. It will print straight and clean, this is a screen capture graphic pixel thing going on at this zoom level).

Since I now need to snap to a point along the 1/4 section line that is NOT a GCDB corner, I need to turn the Magnet tool OFF, by simply clicking on it on the menu bar and the red slash appear showing OFF.

So, with the Magnet tool OFF, I will snap down the east line and along the north bank of the river. As I do so, the new BLUE line will follow. You can't see the BLUE line as a snapped along the river because the symbols are very close together.   I also zoomed in, to better see and select the river line.
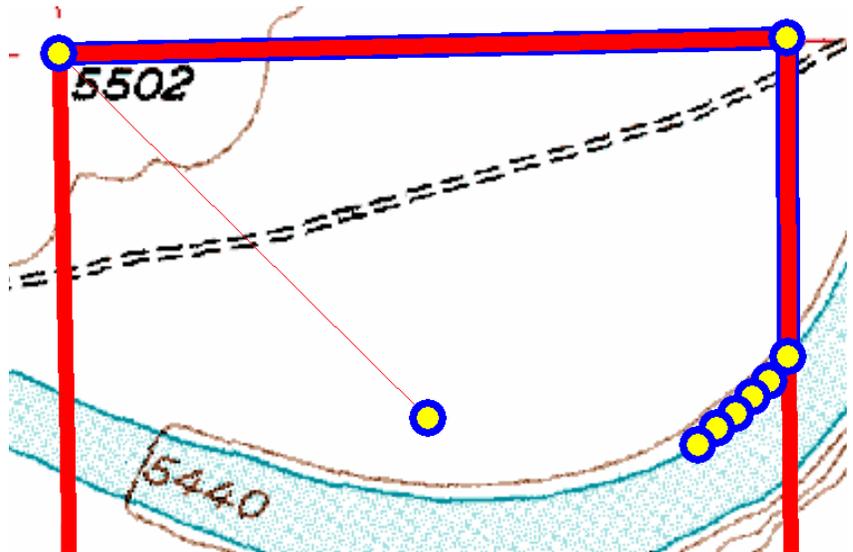
When I finish "snapping" to the west section line, I would again turn the Magnet tool back on, so the program can sense and select the NW (GCDB) corner of the parcel.

This graphic shows where after I came back of the corner, then I right clicked the mouse and selected Close Current Line. Then, the next page graphic appears with the property having a fill pattern and the calculated acreage.
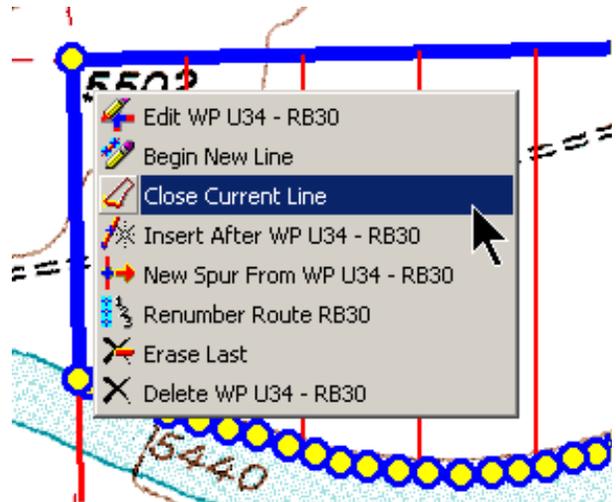
Also, you can see that I edited the lines and changed the RED 1/4 section line to be narrower and then the change the BLUE parcel line to be wider and to show over the top of the red.

So with those edits, this is what the result would be.

Using this process with the program calculating ±89 acres, I would have a quite high confidence level that this was really the 90 acres mentioned in the "less than acceptable" legal description given.

If more and better survey and description is required, it is time to recommend that the client hire a surveyor.
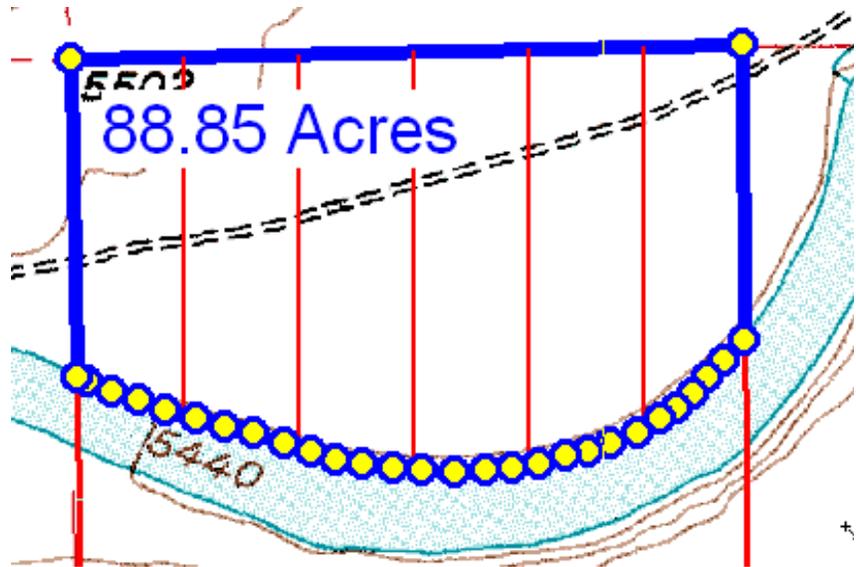
Now with just a few more edits to:

1). hide the individual symbol points
(change the size from 2 to -1);

2). also hide the original 1/4 section GCDB lines (add a semi-colon at the beginning of the line in the Annotation Source file that is remembering all that I've done), and

3). add some commands so the PLS language and what ever else text want shows, you would end up with the last map shown here..

(If you did not want the fill pattern, it is easily turned off.)