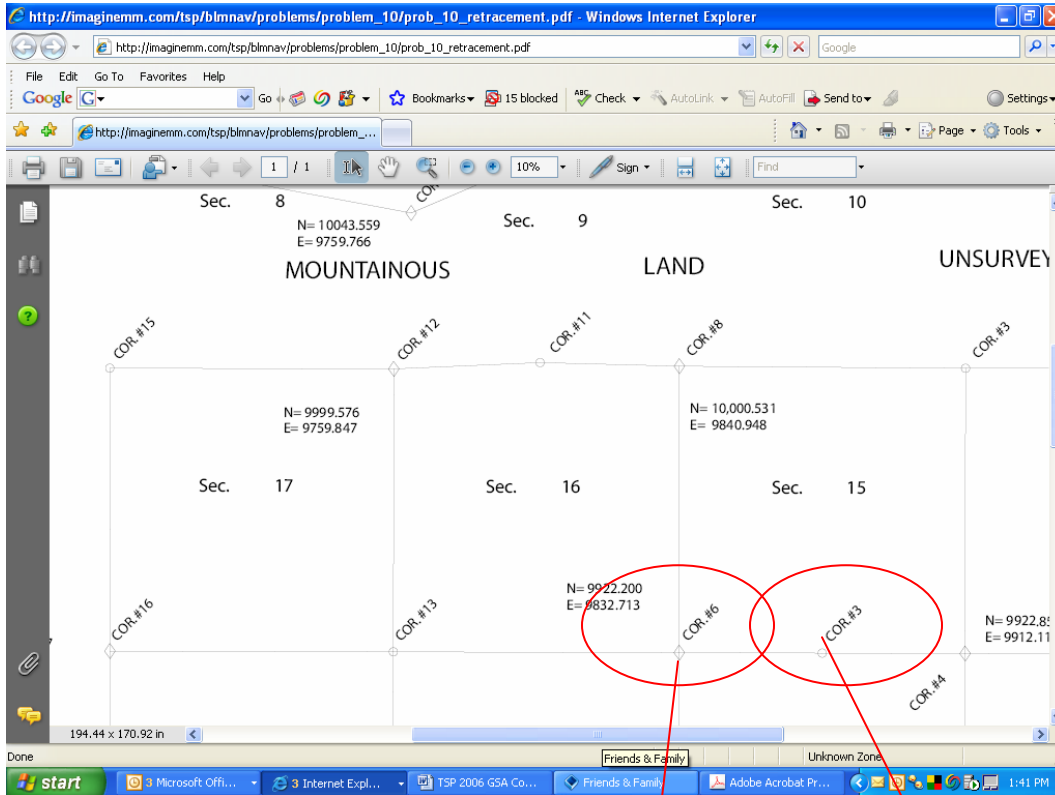


## Web Problem Fix

### Calculate Proportionate Positions of Corners & Adjust Meander Line

Diagram graphic



Should be  
**COR #9**

Should be  
**COR #6**

## 2<sup>nd</sup> INCORRECT FEEDBACK

That's still incorrect. The correct position is N. 10001.456, E. 9801.389. These coordinates were determined as follows:

The record information and retracement diagram indicate the following:

- Record latitude (northing) of the east 1/2 mile is N.  $-0.8893$ .
- Record latitude (northing) of the west 1/2 mile is N.  $1.9168$ .
- Record departure (easting) of the east 1/2 mile is E.  $39.1899$ .
- Record departure (easting) of the west 1/2 mile is E.  $41.1554$ .
- Retracement latitude (northing) between controlling corners is N.  $0.9550$ .
- Retracement departure (easting) between controlling corners is E.  $81.1010$ .
- Misclosure in latitude =  $0.0725$
- Misclosure in departure =  $0.7557$

The latitudinal position of the corner is determined using the method described in Section 5-36 of the Manual - "...is moved north or south an amount proportional to the total distance from the starting point". Applying this method results in the following:

For the east 1/2 mile

- $39.20$  (distance from starting point)  $\div$   $80.40$  (total distance between controlling corners) =  $0.487562$
- $0.487562 \times 0.0725$  (misclosure in latitude) =  $0.0353$
- $N. 0.8893$  (record latitude of east 1/2 mile) +  $0.0353$  (correction in latitude east 1/2 mile) =  $0.9246$  chains
- $N. 10000.531$  (N. coord. of cor. #8) +  $0.9246$  (corrected latitude of east 1/2 mile) =  $N. 10001.456$  (N. coord. of cor. #11)

#### For the west 1/2 mile

- $80.40$  (distance from the starting point)  $\div$   $80.40$  (total distance between controlling corners) =  $1.0000$
- $\times 0.0725$  (misclosure in latitude) =  $0.0725$
- $N. - 1.0275$  (record latitude of total mile)  $+ 0.0725$  (correction in latitude total mile) =  $0.9550$
- $N. 10000.531$  (N. coord. of cor. #8)  $- 0.9550$  (corrected latitude total mile) =  $N. 9999.576$  (N. coord. of cor. #12)

The position in departure is determined using the method described in Section 5-36 of the Manual - "On latitudinal lines (E-W lines) ... the departure of the closing distance is distributed among the courses in proportion to the departure of each course". Applying this method results in the following:

#### For the east 1/2 mile

- $39.1889$  (record departure of the E. 1/2 mile)  $\div$   $80.3453$  (record departure of the mile) =  $0.487756$
- $0.487756 \times 0.7557$  (misclosure in departure) =  $0.3686$  (correction in departure for the E. 1/2 mile)
- $39.1889$  (record departure for the W. 1/2 mile)  $+ 0.3686$  (correction in departure for the E. 1/2 mile) =  $39.5575$  chains

#### For the west 1/2 mile

- $41.1554$  (departure of the W. 1/2 mile)  $\div$   $80.3453$  (record departure of the mile) =  $0.512232$
- $0.512232 \times 0.7557$  (misclosure in departure) =  $0.3871$  (correction in departure for the W. 1/2 mile)
- $41.1554$  (record departure for the W. 1/2 mile)  $+ 0.3871$  (correction in departure for the W. 1/2 mile) =  $41.5425$  chains

$E. 9840.946$  (E. coord. of cor. #8)  $- 39.5575$  (corrected departure of the E. 1/2 mile) =  $E. 9801.389$  (E. coord. of cor. # 11)

$E. 9801.389$  (E. coord. of cor. #11)  $- 41.5425$  (corrected departure for the W. 1/2 mile) =  $E. 9759.847$  (E. coord. of cor. #12)

You must calculate the adjusted record meanders through section 22 which correspond to **point #7** on the retracement diagram. The relevant control corners on the retracement diagram that you should reference are:

- Corner #10 - meander corner of sections 21 and 22
- Corner #5 - meander corner of sections 22 and 23

Click on the radio button that corresponds to the bearings and distances of the adjusted record meanders through section 22. Then click on the SUBMIT button.

## FEEDBACK FOR PAGE 10 OF 11

That's still incorrect. The correct adjusted record meanders are:

Westerly course: **N. 87° 24' 33" E.**, 41.585 chains

Easterly course: **S. 88° 39' 39" E.**, 39.569 chains

The record information and retracement diagram indicate the following:

- Record latitude (northing) between controlling corner = N. 1.0275
- Record departure (easting) between controlling corner = E. 80.3453
- Retracement latitude (northing) between controlling corner = N. 0.9550
- Retracement departure (easting) between controlling corner = E. 81.1010
- Length of all the course = 80.40

Adjustment of **westerly course**:

- Record latitude of westerly course: N. 1.9168
- Record departure of westerly course: E. 41.1554
- $41.20$  (record length of the westerly course)  $\div$   $80.40$  (total record length) =  $0.512438$
- $0.512438 \times 0.0725$  (total misclosure in latitude) =  $0.0372$  (latitudinal adjustment)
- $0.512438 \times 0.7557$  (total misclosure in departure) =  $0.3872$  (departure adjustment)
- $N. 1.9168$  (latitude of westerly course) -  $0.0372$  (latitudinal adjustment) =  $N. 1.8796$
- $E. 41.1554$  (departure of the westerly course) +  $0.3872$  (departure adjustment) =  $41.5426$
- Adjusted bearing and distance of the westerly course: **N. 87° 24' 33" E.**, 41.585 chains

Adjustment of **easterly course**:

- Record latitude of easterly course: N. -0.8893
- Record departure of the easterly course: E. 39.1899
- $39.20$  (record length of the easterly course)  $\div$   $80.40$  (total record length) =  $0.487562$
- $0.487562 \times 0.0725$  (total misclosure in latitude) =  $0.0353$  (latitudinal adjustment)
- $0.487562 \times 0.7557$  (total misclosure in departure) =  $0.3685$  (departure adjustment)
- $N. -0.8893$  (latitude of easterly course) -  $0.0353$  (latitudinal adjustment) =  $N. -0.9246$

- E. 39.1899 (departure of the easterly course) + 0.3685 (departure adjustment) = E. 39.5584
- Adjusted bearing and distance of the easterly course: S. 88° 39' 39" E., 39.569 chains