General Land Office • Original Field Notes

Book Number

758

The images in this file are photographs of the notes of the original surveys of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The original surveys in Nebraska began in the mid 1850's and were completed in the mid 1880's. The Nebraska office of the Surveyor General was closed June 30, 1886.

(4—679.)

a

5

FIELD NOTES

OF THE SURVEY OF

Subdivisional lines in Township 34 North Range 16 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. , dated May 26th 1890.

Survey commenced October 3rd, 1890.

Survey completed October 8th, 1890.

(8780—2,000.) 6—151

T.34, R.16

T.35, R.16

b

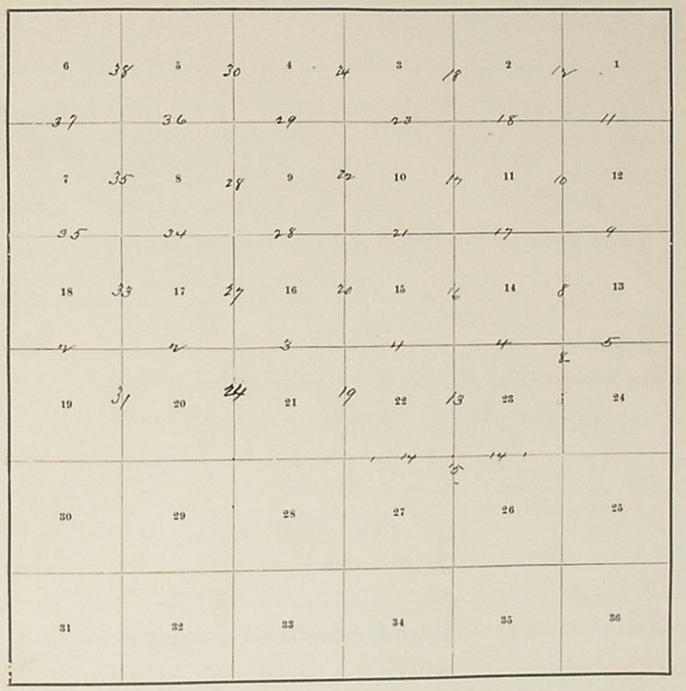
Names and Duties of Assistants.

Benjamin A Davidson	Chainman
Charles A Paul	Chainman
Henry A Burrell	Axeman
Samuel Lyle	Axeman
Jonathan L Peden	Flagman

c

INDEX DIAGRAM.

Township 34 N, Range 16 W



Meanders Page 38 to 44

d

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., *Axeman.*

....., *Axeman.*

.....

.....

6—151

Compared

1

Subdivision T 34 N R 16 W.

Survey commenced October 3rd 1890 With a Burts improved Solar Compass Made by Wm J. Young of Philadelphia Penn and numbered 4432 in perfect adjustment This Township being fractional on the E and W. boundaries bet secs 19 and 24 I proceed to run and establish a Provisional Base Line three miles South of the Township Line.

At 7.00 O'Clock AM. I go to the cor to secs 13.18 19 and 24 on the E boundary of the Tp. which is a stone firmly set and properly marked and witnessed as heretofore described in the notes of survey of Exterior Boundaries of T34 N R 15 W.

I set my compass over the center of the above cor and adjust it to a true Meridian by the Solar Apparatus

The Magnetic bearing of the True Meridian so determined I find to be N 12° 39' W which corrected by table on page 55 of the Manual of instructions gives for Local Mean Declination 12° 36' E.

From the above named cor I run the Provisional Base Line

West on a random line the variation of my compass being Va 12° 39' E

I set temporary half mile and mile corners at every 40.00 and 80.00 chains, and find the Base Line to be 5 miles 79 chains and 7 links long and the falling to be 72 links North of the cor to secs 13.18.19 and 24 on the W boundary of the Township. The correction for the true line will therefore be 12 links South per mile and its course will be N 89° 55' E.

At 10.30 AM. I set my compass over the center of the cor to secs 13.18.19 and 24 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of Survey of Exterior boundaries of T34 N R 16 W. and adjust it to a true Meridian by the Solar Apparatus.

Subdivision T 34 N R 16 W Continued

Chains

The Magnetic bearing of the true Meridian so determined I find to be N 12° 42' W. It is also the Mean Declination

Thence I run

N 89° 55 E on a true line bet secs 18 & 19.

Va 12° 42' E.

Over ascending ground.

11.50 Top of gravel hill

Descend steep hill

19.50 Ravine 50 ft lower than hill course S.E.

37.60 Ravine course S.

39.07 Set a hard sandstone 18×10×4 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

Ascend

61.00 Top of gravelly hill

Descend gently.

79.07 Set a hard sandstone 14×12×7" 9" in the ground for to cor to secs 17. 18. 19. & 20. Marked 3 notches on S edge and 5 on E face dug pits 18×18×12 ins 5½ ft dist in each sec, and raised a mound of earth 2 ft high 4½ ft base alongside

Land rolling

Soil clay gravelly on top of ridges 3rd rate

No timber

Note - The cor stands on East slope of ridge 20 ft below top.

At 2.00 P.M. Diurnal change has decreased Va 3'

Local attraction has decreased Va 2'

N 89° 55' E on a true line bet secs 17 & 20

Va 12° 37' E.

Descend steep hill

2.80 Ravine 40 ft lower than cor course S.E.

Ascend

18.60 Enter level table land bears N & S.

27.00 Leave level table land bears N & S.

Descend

Subdivisions T 34 N R 16 W. Continued

Chains

40.00 Set a hard sandstone 14×10×5" 9" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

Descending

49.00 Drycreek Water in holes course S.

Ascend.

73.75 Road course N.E. & S.W.

78.50 Top of hill

Descend.

80.00 Set a hard sandstone 16×8×6" 11 ins in the ground for cor to secs 16. 17. 20 & 21. Marked 3 notchs on S edge and 4 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land level and rolling

Soil on table land dark clay loam 1st rate balance 3rd rate

No timber

N 89° 55' E on a true line bet secs 16 & 21

Va 12° 37' E

Descending ground

29.70 A Spring creek 2 links wide runs S.W. Water clear and cold

Ascend.

40.00 Set a hard sandstone 14×10×4" 9" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

42.50 Top of hill

Descend

56.00 Ravine course S. 50 ft deep

62.00 Enter smooth level table land bears N & S.

80.00 Set a hard sandstone 15×10×7 ins 10 ins in the ground for cor to secs 15. 16. 21. & 22. Marked. 3 notches on S. edge and E face dug pits 18×18×12

Chains

in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Level land, rolling and broken

Soil Table land dark clay loam 1st rate balance 3rd rate

Timber. Scattering willow and oak along the crest.

There is no valley along crest here

N 89° 58' E on a true line bet secs 15 & 22.
Va 17° 37' E.

Over level table land.

11.00 Ravine 20 ft deep course S E.

33.00 Leave table land and descend bears N & S

40.00 Set a hard sandstone 17x10x7 8" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

45.00 Enter crest valley bears N & S.

49.85 Morris crest 2 lines wide runs S W.

55.00 Leave valley bears N & S

70.00 Top of hill bears N & S

Descend.

76.00 Ravine course S E.

B 80.00 Set a hard sandstone 18x11x4 17" in the ground for cor to secs 14. 15. 22. & 23 Marked with 3 notches on S edge and 2 on E face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land level and rolling

Soil of Table land and crest valley clay loam 1st rate. balance broken.

Timber Small scattering brush along crest.

Out

At 3.30 PM. Local attraction has decreased Va 3'.

N 89° 55' E on a true line bet secs 14 & 23.
Va 17° 32' E.

Chains

Over rolling land.

Gentle Descent.

.10 Centre of small ravine (flat) course S E.

Ascend

7.50 Top of sharp round hill on N edge

Descend.

23.00 Ravine course S E.

40.00 Set a hard sandstone 15x9x4 ins 10" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

41.70 Small Drain course S.

64.30 Ravine course S E

Ascend

80.00 On a gentle N W slope.

Set a hard sandstone 16x12x5 ins 11 ins in the ground for cor to secs 13 14. 23 & 24 Marked with 3 notches on S. edge and 1 on East face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land rolling

Soil clay 3rd rate farm land.

No timber

E

At 4.00 PM. Diurnal change has increased Va 2'

N 89° 55' E on a true line bet secs 13 & 24.
Va 17° 36' E

Over rolling ground.

Gentle Ascent

2.00 Top of hill

Descend

7.40 Ravine A deep gulch 10 ft deep washed out in bottom of the ravine. Head of gulch 10 ft W of line Alkali spring in bottom runs S

35.00 Enter valley bears N & S.

37.70 Ravine course S W.

40.00 Set a hard sandstone 15x12x3 ins 10" in the ground for 1/4 sec cor Marked 1/4 on N face

Subdivisions T34. N. R16 W. Continued

Chains

dug pits 18×18×12 E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

43.00 Leave valley bears N and S.

Ascend.

49.40 Top of hill

Over rolling foot hills

78.00 Top of hill

Descend gently to

80.00 The cor to secs 13.18.19 and 24 on the East boundary of the Township

Land rolling

Soil clay 2nd and 3rd rate farm land.

No timber

Oct 3rd 1890.

Preliminary to commencing the subdivision of this Township North and South of the Base Line.

I observe Polaris at the cor to secs 13.18.19 and 24 on the East boundary at 7h 20m local Mean time by my watch which agrees with my Solar Compass Latitude 42° 54' N Longitude 99° 15' W.

The Magnetic bearing of the Star is N 10° 54' W.

Local Astronomical Mean time of observation is October 3rd 1890.

	7h	20m
Tabular local M.t.U.C of Polaris Oct 1st	12	35.7
Reduction for 1 Day		39
Local M.t.U.C of Polaris Oct 2nd	12	31.8
Which taken from time of obs. leaves the hour Angle of Polaris	18.	48.
Subtract from	23.	56.
Argument	5	08.
Azimuth for Lat 43°	1°	42' E.
North end of Needle	10°	54' E
The sum is the Variation	12°	36' E.

I lay off the Azimuth 1° 42' to the West and

Subdivision T34 N R16 W Continued

Chains

Drive a picket 3 chains North to mark the True Meridian

Oct 3rd 1890

At 6.00 AM Oct 4th I place my compass on the line established last night and find its Magnetic bearing to be N 12° 37' W and by table on page 55 of the Manual the Mean Declination is 12° 36' E.

From the cor to secs 13.18.19 and 24 on the East boundary of the Township

I run

North along the East boundary of sec 13.

Va 12° 37' E.

At 39.99 find the ¼ sec cor and at 80.01 find the cor to secs 7.12.13 and 18. on line.

The bearing of the Range line is therefore North

I now return to the S.E cor of sec 13 and again taste the Magnetic bearing of the Range line which I find N 12° 39' W. (At 7.00 AM)

Thence I run

S 89° 55' W bet secs 13 and 24

Va 12° 39' E.

At 39.99 find the ¼ sec cor and at 79.97 find the to secs 13.14.23 and 24 on line

The true course of the line bet secs 13 and 24 is as above stated

With the above named true bearings the subdivision lines of the Eastern tier of sections corrected by table × for Meridional sec lines will be run as required by printed and special instructions and my chaining practically agreeing with the original survey

Note - Last night in my camp, my measuring chain was compared with the standard chain and found to be correct.

B

From the cor to secs 13.14.23 and 24 on the Provisional base line

Subdivision T 34 N R 16 W. Continued

Chains

I run
S 0° 1' E bet secs 23 & 24
Va 17° 39' E
Over ascending ground
2.00 Top of hill 6 ft higher than sec cor.
Descend steep bluff
5.00 Foot of bluff 70 ft high and enter valley bears E & W.
Descend to
6.35 Intersect Left Bank of Keya Paha River, bank 3 ft high and sandy. River about 1.75 chs wide.
Set a hard sandstone 16x10x8 ins 11" in the ground for Meander cor to fractional secs 23 & 24
Marked M.C on S face dug a pit 36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 4½ ft base alongside
No bearing trees within limits
Sand rolling
Soil clay and sandy 3rd rate
Timber. Willow and plum along River Bank

The Meander cor bet secs 23 & 24 on the Right bank of the River being about 70. chs South I make no examination, to correct the corners.

E

I now return to the cor to secs 13. 14. 23 & 24 at 10.30 AM and set my compass over the center of the cor and take a backsight to the Eastward to a flag I have set on South boundary of sec 13 - 2 chs E of sec cor.
I lay off an angle to the North of 89° 55' which gives the direction of the True Meridian and which I find has a Magnetic bearing of N 17° 36' W. The Va is 17° 36' E.
N 0° 1' W bet secs 13 & 14.
Va 17° 36' E.
Over gently descending ground.
3.00 Begin general ascent.
13.00 Top of ridge bears W & E.

Subdivisions T 34 N R 16 W. Continued

Chains

Descend.
17.40 Ravine bears S E. 10 ft deep.
Ascend
29.50 Top of hill or ridge bears N W & S E.
Descend
38.50 Small ravine course N W.
40.00 Set a hard sandstone 15x10x6" 10 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5½ ft east and raised a mound of earth 1½ ft high 3½ ft base alongside
51.00 A Dry Creek course S E
Ascend
73.00 Enter table land 100 ft higher than River
80.00 Set a hard sandstone 16x10x8 ins 11" in the ground for cor to secs 11 17. 13 & 14 Marked 4 notches on S edge and 1 on E face dug pits 18x18x12 ins N & S of stone 5½ ft east and raised a mound of earth 2 ft high 4½ ft base alongside
Land level and rolling
Soil of Table land Dark clay loam 1st rate balance 3rd rate
Timber a few small oak trees along ravine at 17.40 chains

N 89° 55' E on a random line bet secs 17 & 13.
Va 17° 36' E.
40.00 Set temporary 1/4 sec cor
80.02 Intersect the E boundary of the Tp 3 links N of the cor to secs 7. 17. 13 & 18 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 15 W.
Thence I run
S 89° 56' W on a true line bet secs 17 & 18.
With same Va

Over descending ground.
3.32 Ravine course S E
Ascend

Chains

5.75 Top of ridge bears N and S.
Descend.
11.50 Ravine course S E.
Ascend.
18.00 Enter table land
23.50 Leave table land
Descend.
40.01 Set a hard sandstone 15x12x3 ins 10" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
Enter valley bears N and S
44.80 A Dry creek course S W. channel 2 ft deep
48.00 Leave valley and ascend bluffs bears N and S.
54.00 Top of gravelly hill
Descend.
58.00 Drain course S. heads about 3 chs N of line
77.50 Enter level table land.
80.02 The cor to secs 11. 12. 13 and 14
Land level rolling and broken.
Soil table land dark clay loam 1st rate
balance 4th rate farm land.
No timber

N 0° 1' W bet secs 11 and 12
Va 17° 36' E.
Over smooth level table land
18.75 Leave smooth land and descend gently along edge of broken land
40.00 Set a hard sandstone 17x8x6" 8 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
46.00 Enter the smooth level table land
80.00 Set a hard sandstone 16x9x5 ins 11 ins in the ground for cor to secs 1. 2. 11 and 12. Marked with 5 notches on the S edge and 1 on E face dug pits 18x18x12 in each sec 5 1/2 ft dist

Chains

and raised a mound of earth 2 ft high 4 1/2 ft base alongside
Land level and a little broken N and S of 1/4 sec cor.
Soil dark clay loam 1st rate
No timber

N 89° 55' E on a random line bet secs 1 & 12
Va 17° 36' E.
40.00 Set temporary 1/4 sec cor.
79.98 Intersect the E boundary of the Tp 2 lines S of the cor to secs 1. 6. 7. and 12 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 15 W.
Thence Run
S 89° 54' W on a true line bet secs 1 and 12.
With same Va
Over undulating table land.
13.20 Ravine course S.
38.00 Leave table land and descend to
39.99 Set a hard sandstone 16x7x6 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 in E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
44.80 Small ravine course S W.
57.50 Ravine or Dry creek course S.
Ascend
55.50 Top of ridge bears N and S.
Descend
65.00 Enter valley bears N and S.
67.00 A Dry creek course S.
71.20 Ravine course S.
Ascend
78.50 East edge of table land.
79.98 The cor to secs 1. 2. 11. and 12.
Land undulating rolling and broken
Soil Ex Dark clay loam 2nd rate
balance 4th rate

Chains

Stone South of the 1/4 sec cor about 15.00 chs dist is a stony butte. Stone is hard sandstone

No timber

At 7.30 P.M. Diurnal change has decreased Va 3'.

N 0° 1' W on a random line bet secs 1 & 2

Va 17° 33' E.

40.00 Set temporary 1/4 sec cor.

80.10 Intersect the N boundary of the Tp. 4 lines E of the cor to secs 1. 2. 35. & 36 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 16 W.

Thence I run

S 0° 3' E on a true line bet secs 1 & 2.

With same Va

Over gently rolling table land.

17.90 Drain 8 ft deep course S E

40.10 Set a hard sandstone 16 x 7 x 6 ins 11" in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18 x 18 x 12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

56.10 Edge of table land

Descend

65.70 Ravine course S E.

Ascend.

77.10 Edge of smooth table land bears N W. & S E.

80.10 The cor to secs 12. 11. & 14.

Land gently rolling and broken

Soil dark clay loam 1st and 3rd rate

No timber

B

At 4.00 P.M. I go to the cor to secs 14. 15. 22. & 23. on the Provisional base line. I set my compass over the center of the cor and take

Chains

a backsight to a flag on the North boundary of sec 23.

I lay off an angle of 90° 05' to the S which gives the direction of the true Meridian which I find has a magnetic bearing of S 17° 35' E and the Va is 17° 35' E.

Thence I run

S 0° 2' E bet secs 22. & 23.

Va 17° 35' E.

Over rolling ground.

3.50 Ravine course E

Ascend

8.50 Top of hill or ridge bears E & W.

11.00 Leave ridge and Descend

40.00 Set a hard sandstone 18 x 10 x 5 ins 12" in the ground for 1/4 sec cor Marked 1/4 on W. face dug pits 18 x 18 x 12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

45.00 Enter valley bears N W & S E

45.70 Morris creek 3 links wide runs runs E

48.00 Leave valley bears N W. & S E.

Ascend.

59.00 Top of hill

Descend.

79.00 Foot of bluffs and enter valley bears E & W.

80.00 Set a hard sandstone 18 x 12 x 4 ins 12" in the ground for cor to secs 22. 23. 26 & 27. Marked with 2 notches on S edge and 2 on E face dug pits 18 x 18 x 12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside

Land rolling and broken

Soil clay loam and gravel 3rd rate

No timber

Knowing that the line bet secs 23 & 26 will strike the Kiya Paha River at less than 80.00 chs

I run

Chains

N 89° 55' E on a true line bet secs 23 & 26.
Va 17° 35' E.

Over bottom land.

40.00 Set a hard sandstone 16 x 7 x 6 ins 11" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18 x 18 x 12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

44.00 Enter scattering willow and cottonwood brush

Over sandy land.

53.15 Intersect the Left Bank of Keya Paha River Bank sandy 5 ft higher than River bears N 8° W.

Set a hard sandstone 15 x 10 x 4 ins 10" in the ground for Meander cor to fractional secs 23 & 26. Marked M.C. on E face dug a pit 36 ins square 1 ft deep 10 links West of stone and raised a mound of earth 2 ft high 4 1/2 ft base alongside

No trees within limits

Land level

Soil W 40 chs clay and sandy loam 2nd rate
balance sandy 4th rate

Timber-Willow and cottonwood brush at 9.15 chs

E

Knowing that I will strike the Keya Paha River on the line bet secs 22 & 27 at less than 80.00 chains

I run

S 89° 55' W on a true line bet secs 22 & 27.
Va 17° 35' E.

3.00 Top of low ridge 6 ft high projecting into the valley at foot of bluffs

40.00 Set a hard flinty sandstone 16 x 10 x 4 ins 9" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18 x 18 x 12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

53.15 Intersect the left Bank of Keya Paha River bank 6 ft high and sandy

Chains

Set a stone (Petrified wood) 13 x 13 x 3 1/2 ins 11" in the ground for Meander Corner to fractional secs 22 & 27 Marked M.C. on W face dug a pit 36 ins square 1 ft deep 8 links E of stone and raised a mound of earth 2 ft high 4 1/2 ft base alongside

Land nearly level

Soil Medium sandy loam 2nd rate

No timber except small scattering Oak bushes 2 ft high on W rocks.

Oct 4th 1890.

At 6.00 AM. Oct 5th the line bet secs 22 & 23 has a Magnetic bearing of N 17° 39' W and the Va is 17° 37' E.

S 0° 2' E bet secs 26 & 27
Va 17° 37' E

Over undulating prairie

19.70 Intersect the Left Bank of Keya Paha River bank sandy 8 ft high

Set a hard sandstone 17 x 10 x 5 ins 8" in the ground for Meander Corner to fractional secs 26 & 27 Marked M.C. on S face dug a pit 36 ins square 1 ft deep 8 links North of stone and raised a mound of earth 2 ft high 4 1/2 ft base alongside from which

A cottonwood 8 ins diam bears S 47° E 45 links dist Marked T 31 N R 16 W S 26 M.C.B.T.

Land undulating

Soil clay and sandy loam 2nd rate

No timber

To correct the above Meander Cor with that of previous surveys on the Right Bank I examine the line bet secs 26 & 27. I am unable to find the Meander Cor or either of the bearing trees described in the notes of this line furnished by the General Land Office

From the appearance of the bank I am of the opinion that the corner with the Bearing trees have been destroyed by

Chains

the heavy wash which it has sustained
I made no further examination

At 7.30 PM. I return to the cor to secs 14 15 22 and 23 I set my compass over the center of the cor and take a backsight to a flag on hill bet secs 22 & 23. The Magnetic bearing of the line I find to be S 17° 36' E. and by table on page 55 of the Manual, the Mean Declination is 17° 30' E.
Thence I run
N 0° 7' W bet secs 14 & 15
Va 17° 34' E.
Over rolling and ascending ground
80 Center of Drain course S E.
4.70 Same Drain course S W.
8.00 Top of low hill
Thence along ascending slope
10.70 Same Drain course S E.
16.25 Top of gravelly ridge bears N W & S E
Descend
37.40 Deep ravine or Dry Creek course S E
Ascend
40.00 Set a hard sandstone 18x6x5 ins 12" in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S 2 stones 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
77.00 Top of hill
80.00 Set a hard sandstone 16x6x6 ins 12" in the ground for cor to secs 10. 11. 14. & 15. Marked with 4 notches on S edge and 2 on east face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 3 1/2 ft base along side
Land rolling and broken
Soil light clay 4th rate
No timber

Chains

N 89° 55' E on a random line bet secs 11 & 14
Va 17° 34' E.
40.00 Set temporary 1/4 sec cor
79.98 I intersect the N & S line at the cor to secs 11. 12. 13 & 14.
Thence I run
S 89° 55' W on a true line bet secs 11 & 14.
With same Va
Over rolling ground and broken
1.00 Leave level table land. and
Descend.
17.50 Ravine course S.
24.40 Ravine course S E.
Ascend.
30.00 Top of hill
Descend gentle slope
39.99 Set a hard sandstone 16x11x4 ins 11" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
40.55 Ravine course S E heads about 2 chs N W.
63.00 Enter smooth table land bears N & S.
79.45 Leave table and Descend gently to
79.98 The cor to secs 10. 11. 14. & 15.
Land level and broken
Soil E^r clay 3rd rate
W^r gravel 2nd rate
No timber

N 0° 7' W bet secs 10 & 11.
Va 17° 34' E.
Ascend gently
50 Enter level tableland
40.00 Set a hard sandstone 18x10x5 ins 12" in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins E & W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
80.00 Set a hard sandstone 18x10x5 ins 12 ins in the ground for cor to secs 2. 3. 10 & 11. Marked with 5 notches on S and 2 on E face dug pits 18x18x12

Chains

in each sec 5½ ft dist and raised a mound of earth 1½ ft high 4½ ft base alongside
Sand hill
Soil dark clay loam 1st rate
No timber

N 89° 55' E on a random line bet secs 2 & 11
Va 17° 34' E

40.00 Set temporary ¼ sec cor
79.96 Intersect the N & S line 18 links south of the cor to secs 1. 2. 11. & 12.
Thence I run
S 89° 59' W on a true line bet secs 2 & 11
With same Va
Over gently rolling table land
30.95 Spring slough runs S E
39.98 Set a hard sandstone 15×12×4 ins 10 ins in the ground for ¼ sec cor Marked ¼ on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base along side
60.70 Ravine course S E
79.96 The cor to secs 2. 3 10. & 11.
Sand gently rolling
Soil clay loam 1st rate
No timber

At 1 30 PM. Diurnal change has increased Va 2°
N 0° 21' W on a random line bet secs 2 & 3.
Va 17° 36' E.

40.00 Set temporary ¼ sec cor
80.34 Intersect the N boundary of the Tp 10 links E of the cor to secs 2. 3. 34 & 35 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N. R 16 W.
Thence I run
S 0° 6' E on a true line bet secs 2 & 3
With same Va

Chains Over undulating ground.
40.34 Set a hard sandstone 18×10×7 ins 12 ins in the ground for ¼ sec cor Marked ¼ on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
80.34 The cor to secs 2 3. 10 & 11.
Sand undulating
Soil dark clay loam 1st rate
No timber
October 5th 1890.

Oct 6th At 6 00 AM. I go to the cor to secs 15. 16. 21. & 22. on the Provisional Base line.
I set my compass over the center of the cor and take a backsight to the Eastward bet secs 15 & 22. I lay off at this cor an Angle of 90° 05' to the South which gives the direction of the True Meridian and which I find has a Magnetic bearing of S 12° 47' E.
S 0° 3' E bet secs 21 & 22.
Va 17° 42' E.
Over smooth level table land
22.00 Leave table land and Descend bears N W & S E.
30.10 Small ravine course S E 70 ft lower than top of table land.
Ascend
33.50 Top of gravel hill bears N W & S E.
Descend
40.00 Set a hard sandstone 15×15×3 ins 10 ins in the ground for ¼ sec cor Marked ¼ on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
46.00 Enter valley bears N W & S E.
Over level valley
60.00 Enter scattering brush
63.00 Intersect the Left Bank of Nega Paha River.
bank 3 ft high and sandy
Set a hard sandstone 16×13×4 ins 11 ins in the

Chains

ground for Meander Corner to fractional secs 21 & 22. Marked M.C. on S. face; dug a pit 36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 4½ ft base alongside from which
a White Willow 5 ins diam bears S. 81° 25' W 179 links dist Marked T34 N R16 W S21. M.C. B.T. – No other trees within limits
Sand level and rolling
Soil dark clay loam 1st and 3rd rate
Timber. Small scattering willow brush 2 chs.

To connect the above Meander Cor with that of former surveys on the Right bank. I go to the line bet said secs 21 & 22 on the South side and search for Meander Cor. but find no evidence of a cor. I traverse South about 30 chs and find a cor to secs 21 22. 27 & 28. re-established by the county surveyor of Holt County Nebr. I make no further examination and am not able to connect the two lines

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At 10^30 AM. I go to the cor to secs 15.16.21 & 22. I set my compass over the center of the cor and take a backsight to the Eastward on the S. boundary of sec 15. from this line I lay off an angle of 89° 55' to the North which gives the direction of the True Meridian which has a magnetic bearing of N 17° 36' W and the Va is 12° 36' E.
N. 0° 31' W bet secs 15 & 16

Va 17° 36' E.

Over undulating table land
27.00 Drain course S.E. 5 ft deep
36.00 Top of gravelly hill
Descend from table land
40.00 Set a hard sandstone 15×9×5 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist

Chains

and raised a mound of earth 1½ ft high 3½ ft base alongside
50.40 Ravine course S.E 70 ft deep.
Ascend
60.00 Enter tableland N.W. & S.E.
66.50 Leave table land
Descend
80.00 Set a hard sandstone 16×10×3 ins 11 ins in the ground for cor to secs 9.10.15. & 16. Marked with 4 notches on S edge and 3 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
This cor stands on top of East point of steep bluff overlooking the Creek Valley – 15 ft high
Sand undulating and rolling
Soil clay loam 1st and 3rd rate
No timber

N 89° 55' E on a random line bet secs 10 & 15.
Var 12° 36' E
40.00 Set temporary 1/4 secs cor.
80.16 Intersect the N and S line 23 links North of the cor to secs 10.11.14 & 15
Thence I run.
N 89° 55' W on a true line line bet secs 10 & 15.
With same Va
Over rolling and broken ground
17.05 Ravine 60 ft lower than table land course S.E.
17.15 Enter table land bears N & S
Over undulating table land
40.08 Set a hard sandstone 14×10×6 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base along side
45.00 Leave table land and
Descend
55.15 Ravine course S.E.
Ascend.

Subdivisions T34 N R16 W. Continued

Chains	
59.15	Top of hill
	Descend.
64.60	Enter valley bears N & S.
77.10	Crest 3 links runs S
78.65	Leave valley and ascend step bank 15 ft to
80.16	The cor to secs 9.10.15 & 16. Valley bears N W & S E.
	Land level and broken.
	Soil clay Table land 1st rate
	balance 3rd rate farm land
	No timber

At 12 m

At the cor to secs 9.10.15. & 16 I observe Latitude and find it to be N 17° 55' +

At 12 m P.M. Diurnal change has deminished Va 3'

N 0° 3' W bet secs 9 & 10

Va 17° 33' E

Descend over step point of bluff to

1.50	Enter valley bears N W & S E.
9.75	Crest 5 links wide runs E.
13.75	Leave valley and ascend gradual slope Valley bears N W & S E.
18.00	Ravine course S E.
20.70	Ravine course N.
40.00	Set a hard sandstone 14x10x4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
77.30	Ravine course S W.
80.00	At South edge of table land Set a hard sandstone 16x10x6 ins 11 ins in the ground for cor to secs 3.4.9. & 10. Marked with 5 notches on S edge and 3 on E face dug pits 18x18x12 ins in each sic 5½ ft dist and raised a mound of earth 2 ft high 1½ ft base alongside
	Land level and rolling
	Soil in valley black loam 1st rate

Subdivisions T34 N R16 W. Continued

Chains	
	balance clay sandy and gravelly 3rd rate
	There is a small clump of white willows East of line in mouth of ravine where line leaves the crest valley.

N 89° 55' E on a random line bet secs 3 & 10.

Va 17° 33' E.

40.00	Set temporary 1/4 sec cor.
80.74	Intersect the N & S line 22 links North of the cor to secs 2.3.10 & 11.
	Thence I run
	N 89° 56' W on a true line bet secs 3 & 10. With same Va
	Over table land broken by ravines
7.74	Stone ledge
8.75	Ravine course S.
16.85	Ravine course S.
23.55	Ravine course S.
40.12	Set a hard sandstone 15x10x4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on S face dug pits 18x18x12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
67.85	Ravine course S.
79.75	Small Drain course S Heads 1.ch N of line
80.74	The cor to secs 3.4.9. & 10
	Land general surface gently rolling broken by ravines
	Soil clay loam 2nd rate
	No timber

N 0° 3' W on a random line bet secs 3 & 4

Va 17° 33' E

40.00	Set temporary 1/4 sec cor.
80.30	Intersect the N boundary of the Sp 1st limits W of the cor to secs 3.4. 33. & 34. which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N R16 W.

Subdivisions T34 N R16 W. Continued

Chains Thence I run
S 0° 3' W on a true line bet secs 3 and 4
With same Va
Over gently rolling table land.
37.90 Spring Branch 3 links wide clear cold water runs W.
40.30 Set a hard sandstone 15×9×5 ins 10 ins in the ground for 1/4 sec cor. Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
80.30 The cor to secs 3.4.9 and 10.
Land gently rolling
Soil Medium clay and sandy good 2nd rate
No timber

At 4.00 P.M. I go to the corner to secs 16.17.20 and 21. on the Provisional Base line. I set my compass over the center of the corner and take a backsight on N. boundary of sec 21 and lay off an Angle of 90° 05' to the South. Which gives the direction of the true Meridian and its Magnetic bearing is S 12° 39' E. and the Va is 12° 39' E
Thence I run
S 0° 3 1/2' E bet secs 20 and 21.
Va 12° 39' E
Over ascending ground along E slope
3.50 Top of ridge
Descend.
30.00 Enter valley bears E and W.
Over level valley
40.00 Set a hard sandstone 16×12×4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
42.50 Ravine course S.E. 4 ft deep.
44.95 Same Ravine course S.W. 4 ft deep.
48.25 Same Ravine course S.E 4 ft deep
64.40 Road bears E and W
67.70 Intersect the Left Bank of Keya Paha River.

Subdivisions T34 N R16 W Continued

Chains Bank 8 ft high
No brush or timber along bank.
Set a hard sandstone 18×12×4 ins 12 ins in the ground for Meander Cor. to fractional secs 20 and 21. Marked M.C. on S. face dug a pit 36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 4 1/2 ft base alongside ← B
From this corner
I run
S 89° 55' W 4.95 chains Thence
S 0° 3 1/2' E on an offset. 12.30 chains and.
80.00 Intersect the Left Bank of Keya Paha River
4.95 chains N 89° 55 W from point for sec cor.
Set a hard sandstone 16×12×4 ins 11 ins in the ground for Meander Cor. to fractional secs 20 and 29. and for witness cor to secs 20.21.28 and 29.
Marked W.C. M.C. on E face dug a pit 36 ins square 1 ft deep 8 links W of stone and raised a mound of earth 2 ft high 4 1/2 ft base alongside
River bank sandy 5 ft high. low bar of white sand in front at this point.
There are no trees in this vicinity suitable for bearing trees.
Scattering brush around the corner.
Land rolling and level
Soil Hills Clay 3rd rate
Valley clay and sandy loam 2nd rate
No timber along sec line small clump of plum brush in ravine S of 1/4 sec cor.
To connect the above Meander Cor to fractional secs 20 and 21. With that of former surveys on the Right Bank of the river I go to the 1/4 sec cor bet secs 28 and 29 which is a mound of earth with pits N and S.
The Line bet secs 28 and 29 was run in 1872 at a Va of 13° 40' E and dist to M.C. on Right Bank of River 35.00 chains from this point I allow 1° 16' for difference of Va for 18 Years and.
Thence run
North bet secs 28 and 29

Subdivisions T34 N. R16 W. Continued

Chains

Va 12° 28' E.

At 34.70 chs from the 1/4 sec cor I intersect Right Bank of Keya Paha River and am unable to find the Meander Cor or either of the bearing trees. I continue the line North across the River to 50.70 chs to a point 12.07 chs West of the point for cor to secs 20. 21. 28 and 29. from the above measurements I obtain the following result. to wit:-

Distance to M.C. bet secs 20 and 21 N of River	67.70 chs
Distance in River to point for cor to secs 20 and 21 28 and 29	12.30 chs
Distance from 1/4 sec cor bet secs 28 and 29 (S of River) to point W of cor to secs 20. 21. 28 and 29	50.70 chs
Total	130.70 chs
Subtract	120.00 "
Excess of Latitude	10.70 chs
Diff in Departure is	12.07 "

E

Knowing that I will strike the Keya Paha River bet secs 20 and 29 at less than 80.00 chs.

I commence at the Witness cor to secs 20. 21. 28 and 29 4.95 chs S 89°55' W of point for point for sec. cor. on Left Bank of Keya Paha River and run

S 89° 55' W on a true line bet secs 20 and 29.

Va 12° 39' E.

4.95 From point for cor to secs 20. 21. 28 and 29. (Which is inaccessable) to Meander Witness Cor.

6.63 N.E. end of pond 80 links wide bears N.E. and S.W.

Over level bottom

40.00 Set a hard sandstone 14×10×4 ins 9" in the ground for 1/4 sec cor Marked 1/4 on North face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

54.00 Enter brush

57.00 Intersect the Left Bank of Keya Paha River. bank sandy 5 ft high.

Set a hard sandstone 20×13×3 ins 15 ins in the ground for Meander Cor to fractional secs

Subdivisions T34 N R16 W Continued

Chains

20 and 29. Marked M.C. on W face dug a pit 36 ins square 1 ft deep 8 links East of stone and raised a mound of earth 2 ft high 4 1/2 ft base alongside

There are no trees suitable for bearing trees within limits

1 Land level

Soil Sandy and sandy loam 2nd and 3rd rate

Timber scattering willow and cottonwood brush

3.00 chains

October 6th 1890.

At 11.00 AM. Oct 7th I return to the cor to secs 16. 17. 20 and 21. and set my compass over the center of of the cor and take a backsight to the Eastward on S. boundary of sec 16 and lay off and angle of 89°55' to the North which gives the direction of the True Meridian. Its Magnetic bearing is N 12° 37' W which corrected by table on page 55 of the printed manual gives for Mean Declination 12° 39' E.

The Va is 12° 37' E.

Thence I run

N 0° 3 1/2' W bet secs 16 and 17.

Va 12° 37' E.

Over rolling descending ground

29.60 Ravine 10 ft deep course S.E.

38.15 Creek 2 links wide runs E. No valley along creek

Ascend.

40.00 Set a hard sandstone 20×15×4 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

74.00 Drain course W.

76.85 Descend steep bank. Thence along W. slope

80.00 On West slope among small yound oak bushes

Set a hard sandstone 15×10×5 ins 10 ins in the ground for cor to secs 8. 9. 16 and 17. Marked with 4 notches on S edge and E face dug pits

Chains 18×18×12 ins in each secs 5½ ft dist and raises a mound of earth 2 ft high 4½ ft base alongside
Land rolling and broken
Soil clay 3rd rate farm land.
Timber. There are some Ash & Oak trees along the creek.

N 89° 55' E on a random line bet secs 9 & 16
Va 12° 37' E.

40.00 Set temporary ¼ secs cor.
79.96 Intersect the N & S line 4 links S of the cor to secs 9.10.15. & 16.
Thence I run
S 89° 55' W on a true line bet secs 9 & 16
With same Va
Over ascending ground.
9.00 Top of hill
10.50 Drain course N.
17.00 Top of gravel hill and enter level table land and prairie deg town
39.98 Set a hard sandstone 15×10×5 ins 10 ins in the ground for ¼ sec cor Marked ¼ on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
63.00 Leave level ground
Ascend
63.50 Top of low gravel hill
Descend
71.00 Deep gulch course S W 25 ft deep
79.96 The cor to secs 8.9.16 & 17.
Land level and rolling
Soil clay and gravel Table land 2nd rate
balance 3rd rate
No timber

N 0° 3½' W bet secs 8 & 9
Va 12° 37' E.

Chains Over ascending
13.00 Hard sandstone ledge bears E & W.
14.80 Top of gravel ridge 100 ft higher than creek
Descend.
30.00 Over level ground.
40.00 Set a hard sandstone 14×10×4 ins 9 ins in the ground for ¼ sec cor Marked ¼ on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ base alongside
65.00 Land level and
Ascend
70.00 Top of low ridge
Descend
80.00 At foot of ridge – gentle slope.
Set a hard sandstone 14×10×7 ins 9 ins in the ground for cor to secs 4.5.8 & 9. Marked with 5 notches on S edge and 4 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Land level and rolling
Soil 2/3 chs clay gravel and stony 3rd rate
balance clay loam 1st rate.
No timber

N 89° 55' E on a random line bet secs 4 & 9.
Va 12° 37' E

40.00 Set temporary ¼ sec cor.
79.90 Intersect the N & S line 10 links S of the cor to secs 3 & 9. & 10.
Thence I run
S 89° 51' W on a true line bet secs 4 & 9
With same Va
Over gravelly descending ground.
11.00 Enter creek valley bears N & S
14.30 Creek 2 links wide runs S
14.40 Leave valley bears N & S
Ascend
26.60 Spring branch 1 link wide runs S

Subdivisions T 34 N R 16 W. Continued

Chains
27.90 Top of low gravelly ridge
Descend.
33.90 Enter valley bears N & S.
Ascend.
34.15 Spring bog 40 links wide running water on surface in grass course S.
37.90 Leave valley and ascend hills bears N.W. & S.E.
39.95 Set a hard sandstone 18×16×8 ins 17 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×17 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
57.90 Enter level table land
79.90 The cor to secs 4.5.8. & 9.
Land rolling and broken and level
Soil level ground 1st rate balance 3rd rate
No timber
There is a stone butte on North side of the crest N.E. from 1/4 sec cor.

N 0° 3½ West a random line bet secs 4. & 5
Var 17° 37' E.
40.00 Set temporary 1/4 sec cor
80.30 Intersect the N boundary of the Tp 3 links E of the cor to secs 4. 5. 32. & 33. which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 16 W.
Thence S run
S 0° 4½' E on a true line bet secs 4 & 5
With same Var
Over gently rolling ground
76.30 Enter valley at point bet E & W drains
Thence down broad flat, grassy, wet drain
40.30 Set a hard sandstone 14×10×8 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 W face dug pits 18×18×17 ins 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
47.70 Crest 5 links wide runs E
49.30 Broad flat wet drain course E.
49.60 Leave valley bears E & W.

Subdivisions T 34 N R 16 W. Continued

Chains
80.30 Ascend gentle slope
The cor to secs 4. 5. 8. & 9.
Land gently rolling and level
Soil in valley black loam 1st rate
balance dark clay loam 2nd rate
No timber
No brush along crest

At 5.00 P.M. I go to the cor to secs 17. 18. 19 & 20
I set my compass over the center of the corner and take a backsight to the Eastward on the N boundary of sec 20 and lay off an angle of 90° 05' to the South which gives the direction of the True Meridian: Its Magnetic is S. 17° 39' E which correctly by table on page 56 of the Manual gives for local Mean Declination 17° 39' E.
Thence S run.
S 0° 4½' E bet secs 19 & 20.
Var 17° 39' E.
Along East slope to point of ridge
7.50 Descend.
14.70 Ravine course S E.
Ascend.
21.50 Top of low ridge or hill bears N W & S E.
Descend gentle slope
40.00 Set a hard sandstone 16×10×4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×17 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
43.00 Enter valley bears E & W.
48.00 Road bears E & W.
52.00 Enter low bottom bears E & W
52.00 Enter scattering brush.
60.00 Intersect the Left Bank of Keya Paha River bank sandy 7 ft high
Set a hard sandstone 16×12×4 ins 11 ins in the ground for Meander Cor to fractional secs 19 & 20 Marked M.C. on S face dug a pit

Chains

36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 3½ ft base alongside from which
A cottonwood 12 ins diam bears N 58° 25' W. 106 links dist Marked T 34 N R 16 W. - M.C.B.T.
Land level and rolling
Soil N 75 chs clay 2nd rate
S. slope and 2nd bottom 1st rate
low bottom 3rd rate
Timber - There are some white willow trees along bank of River also low willow brush

To connect the above Meander Cor with that of former survey on Right Bank of Keya-Paha River
I go to the M.C. to fractional secs 19 & 20 on the S side of River which is a piece of the old post in mound of earth 50 links S. of River Bank. the two cottonwood bearing trees standing and agreeing with the notes furnished by the General Land Office
The line bet secs 19 & 20 was run on a Va of 13° 55' E. in 1872. I allow 1° 12' difference in Va for 18 years and from said M.C.
I run
N 89° 55' E.

Va 12° 43' E.

At 13.77 I intersect the line bet fractional secs 19 & 20 on North side of River 7.39 chs N. of the Meander Cor. or 5.01 chs S. of the cor to secs 17.18.19 & 20.
From the above Measurements I deduce the following

Distance to M.C. North of River	60.00 chs
Distance to M.C. South of River	35.80 "
Total	95.80 "
Subtract closing N of M.C.	7.39 "
Leaves	93.41 "
Subtract	80.00 "
Leaves for excess	13.41 "

Chains

Therefore the excess in Latitude is 13.41 chs
And the Diff in Departure is 13.77 "
October 7th 1890

At 10 00 AM. Oct 8th I go to the cor to secs 17.18.19 & 20 on the Provisional Base Line
I set my compass over the center of the cor & take a backsight to the Eastward on the S boundary of sec 17. and lay off an angle of 89° 55' to the N. which gives the direction of the true Meridian.
Its Magnetic bearing is N 17° 40' W and the Va is 17° 40' E.
N. 0° 14½' W bet secs 17 & 18.
Va 17° 40' E

Over Descending ground.
4.50 Ravine course S E 35 ft lower than sec cor.
Ascend.
18.50 Enter table land bears E & W.
Thence over smooth ground
25.00 N edge of table land bears E & W.
Descend.
36.50 Ravine 60 ft deep course E
Ascend point of ridge
40.00 Set a hard sandstone 13x10x4 ins 9" in the ground for ¼ sec cor Marked ¼ on W. face dug pits 18x18x17 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
Cor stands on East slope of steep hill
45.75 Ravine course S E 30 ft lower than ¼ sec cor.
47.00 Same Ravine course S W.
59.00 Same Ravine course S E
Ascend bluff
80.00 Set a hard sandstone 13x11x4 ins 8 ins in the ground for cor to secs 7.8.17 & 18 Marked with 4 notches on S edge and 5 on E face dug pits 18x18x17 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base along side

Subdivisions T 34 N R 16 W. Continued

Chains Sand rolling broken and level
Soil clay loam 2nd class & 4th rate
No timber

N 89° 55' E on a random line bet secs 8 and 17
Va 17° 40' E

40.00 Set temporary 1/4 sec cor.
80.00 Intersect the N and S line 10 links N of the cor to secs 8.9.16 and 17.
Thence I run
S 89° 59' W on a true line bet secs 8 and 17.
With same Va
Descend
1.85 Crust 2 links wide runs S.E. No valley
Ascend
32.50 Top of hill
40.01 Set a hard sandstone 18x8x6 ins 12" in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
43.65 Road bears N and S.
65.00 Descend.
69.80 Ravine course S 30 ft deep.
Ascend
72.00 Top of table land
Thence over smooth ground
80.00 The cor to secs 7.8.17 and 18.
Land rolling
Soil Clay N of 1/4 sec cor 3rd rate
Between Crust and 1/4 sec cor are croppings of hard sandstone on the surface. stone is broken into small pieces
Timber. Some Willow, ash, and oak along the crust

At 12^00 M I observe Latitude and find it to be N 47° 55'.
At 1^00 PM Diurnal change has diminished Va 14'

Subdivisions T 34 N R 16 W. Continued

Chains S 89° 55' W on a random line bet secs 7 and 18.
Va 17° 36' E.
14.00 Set temporary 1/4 sec cor.
79.00 Intersect the W boundary of the Tp 74 links S. of the cor to secs 7.17.13 and 18. Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 16 W.
Thence I run
S. 89° 55' E. on a true line bet secs 7 and 18.
With same Va
Descend steep bluff
4.00 Ravine 40 ft lower than sec cor. course S.
Ascend steep bluffs along N slope gravelly hills
38.50 Ravine 5 ft deep course S.E.
Ascend 5 ft to
39.00 Set a hard sandstone 15x10x4 ins 15" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
57.75 Ravine course S 75 ft deep.
Ascend.
66.80 Top of hill
Descend
72.75 Ravine course S 50 ft deep
Ascend steep hill
79.00 The cor to secs 7.8.17 and 18.
Land rolling and broken.
Soil light clay and gravelly 3rd rate
No timber

N 0° 12' W bet secs 7 and 8.
Va 12° 36' E.
Over level table land
3.00 N. edge of smooth land.
Descend.
11.50 Touch E. bend of ravine
Ascend
40.00 On point of gravelly hill

Subdivisions T34 N R16 W. Continued

Chains	
	Set a hard sandstone 15×11×3 ins 10" in the ground for 1/4 sec cor Marked 1/4 on W. face dug pits 18×18×12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
	Thence over smooth ascending ground.
73.25	Summit of gravelly ridge and N edge of smooth ground
	Descend gradually
80.00	Set a hard sandstone 15×7×6 ins 10" in the ground for cor to secs 5.6.7. and 8. Marked 5 notches on S edge and E face dug pits 18×18×12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
	On smooth gentle E. slope of hill
	Land rolling
	Soil S^2 gravelly 3rd rate
	balance clay 2nd rate
	No timber

N 89° 55' E on a random line bet secs 5 and 8.
Va 12° 36' E.

40.00	Set temporary 1/4 sec cor.
79.94	Intersect the N and S line 6 links N of the cor to secs 4.5.8. and 9.
	Thence I run
	S 89° 57 1/2' W on a true line bet secs 5 and 8. With same Va
	Over gently ascending ground.
12.00	Top of low gravel hill
	Descend.
39.97	Set a hard sandstone 18×10×4 ins 12" in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
44.30	Spring branch 1 link wide runs S. Water clear and cold.
	Ascend gradual slope

Subdivisions T34 N R16 W. Continued

Chains	
48.65	Drain 1 ch wide course S.
62.25	Drain course S E
79.94	The cor to secs 5.6.7. and 8.
	Land gently rolling
	Soil clay and sandy 2nd rate
	No timber
	The E^2 of this sec is well watered by numerous fine springs of clear cold water forming small running brooks
	On the N side near the level of the prairie but decend rapidly forming deep canyons from 30 to 50 ft deep on S side of sec
	There is a settler in S E^4 sec has sod house and cattle yards.

S 89° 55' W on a random line bet secs 6 and 7.
Va 12° 36' E

40.00.	Set temporary 1/4 sec cor.
78.85	Intersect the W boundary of the Tp 24 links S of the cor to secs 1.6.7. and 12. Which is a stone firmly set. properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N R16 W.
	Thence I run
	S 89° 55' E on a true line bet secs 6 and 7. With same Va
	Over gently ascending ground
22.10	Ascend an abrupt white earth bank
38.15	Top of gravel hill
	Descend
38.85	Set a hard sandstone 16×8×5 ins 11" in the ground for 1/4 sec cor Marked 1/4 on N. face dug pits 18×18×12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
48.35	Top of gravel hill bears N W and S E
	Descending
78.85	The cor to secs 5.6.7. and 8.
	Land rolling. Soil clay and gravel 2nd and 3rd rate
	There are springs in N W^4 sec 7.

Subdivisions T 34 N R 16 W Continued

Chains	
	N 0° 15' W on a random line bet secs 5 & 6. Va 17° 36' E
40.00	Set temporary 1/4 sec cor.
80.73	Intersect the N boundary of the Tp & finds 5 links E of the cor to secs 5.6.31 & 32. Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 16 W
	Thence I run
	S 0° 8' E on a true line bet secs 5 & 6 With same Va
	Ascend
14.23	Top of gravelly ridge bears N W & S E.
29.50	Sandy ravine course S E. bank 1 ft high
38.30	Top of ridge bears E & W.
	Descend.
40.23	Set a hard sandstone 13x10x4 ins 9" in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
41.73	Ravine course S E
	Ascend gradually along E slope
80.23	The cor to secs 5. 6. 7. & 8.
	Land rolling
	Soil S 35.00 chs hard dry clay land 3rd rate
	N 55.00 " sandy gravelly 3rd rate
	No timber
	October 8th 1890.

Meanders of Left Bank of Keya Paha River
Up Stream

I commence at the Meander Cor to fractional secs 19 & 24 on the East boundary of the Tp Which is a stone firmly marked and witnessed as heretofore described in notes of Survey of exterior boundaries of T 34 N R 15 W.
At 8.30 AM. Oct 4th the Magnetic bearing of the East boundary of sec 24 is N 17° 39' W.
Va 17° 39' E

Meanders T 34 N R 16 W

Course			
			Thence I run with Meanders in sec 24.
N 85 1/2°	W	6.00 chs	Banks 5 ft high
S 84 1/2	W	4.00 "	
N 78 1/2	W	6.00 "	
N 57 1/2	W	5.00 "	
N 75 1/2	W	4.00 "	
N 53°	W	4.00 "	
N 46°	W	9.00 "	Small willow and cottonwood bushes
N 57 3/4	W	13.00 "	
N 71°	W	3.00 "	
N 63 1/4	W	4.00 "	
N 51°	W	8.00 "	
N 65°	W	6.00 "	Along narrow bottom under high clay bluffs
N 87 1/2	W	7.00 "	
S 81 1/2	W	6.00 "	
S 59 3/4	W	3.70 "	
S 81 1/4	W	2.50 "	To Meander Cor to fractional secs 23 & 24
		90.70	
			Land nearly level
			Soil sandy 3rd rate
			Timber Willow scattering cottonwood bushes some Box Elder along foot of bluffs 66.00 chs
			Oct 4th 1890.

B

At 7.30 AM. Oct 5th the Magnetic bearing of the line bet secs 23. & 24 is N 17° 39' W
From the Meander Cor to fractional secs 23 & 24 I run with Meanders in sec 23.
Up Stream
Va 17° 39' E

			Leave narrow bottom traverse low bottom
S 87 1/2°	W	7.00 chs	Willow and plum brush
S 62 3/4	W	4.00 "	At 1.30 chs Mouth of Dry Creek course E.
S 35 1/4	W	4.30 "	
S 76°	W	5.00 "	At 4.30 chs slough 40 links wide
S 63 3/4	W	10.00 "	
S 6°	E	5.00 "	At 2.00 chs Enter open prairie bank 2 to 4 ft high
S 17°	E	11.00 "	
S 23°	E	8.00 "	
S 24°	E	7.00 "	
S 13°	E	8.00 "	
S 1°	W	6.00 "	
		75.30	

Meanders T34 N R16 W. Continued

Course		75.30	
S22¾°	W	4.50 chs	
S57½	W	3.00 "	Low sandy point
N75°	W	3.00 "	
N40°	W	7.00 "	At 4.00 chs enter higher bottom 8 to 14 ft high
N48°	W	8.00 "	
N57°	W	5.00 "	
S83°	W	6.00 "	
S19½	W	3.00 "	
S21¾	E	4.00 "	At 1.50 chs cross Morris creek 20 lks wide
S34¾	E	8.00 "	
S10°	E	4.70 "	to Meander Cor to fractional secs 23 and 26.

Land sand and high bottom, gently rolling
Soil clay and sandy 2nd and 3rd rate
Timber willows, and small scattering white willows and cottonwood trees 72.70 chs

At 10.30 A.M. Diurnal change has diminished Va 3'
Thence in sec 26.

Va 12° 36' E.

Through small scattering willow and cottonwood brush along sand bottom

S17°	E	2.30 chs	
S9°	W	8.00 "	
S26½	W	5.00 "	Banks 3 to 5 ft high
S45½	W	4.00 "	
S40½	W	7.00 "	
S59½	W	9.00 "	
S52½	W	5.00 "	
S57¼	W	2.00 "	
S82°	W	3.00 "	
N81¼	W	6.00 "	
N71¼	W	4.00 "	
N50°	W	10.00 "	
N72°	W	9.90 "	To Meander Cor to fractional secs 26 and 27

Land nearly level
Soil sandy 3rd and 4th rate
Timber-Scattering willows and cottonwood 55.30 chs

Oct 5th 1890.

At 8.00 A.M. Oct 6th the magnetic bearing of line bet secs 26 and 27 is N 12° 40' W and the Va is 12° 38' E.

Meanders T34 N R16 W. Continued

Course			
		From the Meander Cor to fractional secs bet 26 and 27 I run with Meanders in sec 27.	
		Va 12° 38' E.	
		Over level prairie	
N68°	W	6.00 chs	
N86¾°	W	17.00 "	Along low banks scattering willows
N31°	W	5.00 "	
N43¼	W	4.00 "	
S81°	W	5.00 "	
S50¼	W	7.00 "	At 4 chs leave open prairie and enter willows
S38°	W	4.50 "	
S44¾°	W	3.00 "	
West		3.00 "	
N8¼°	W	6.00 "	At 4 chs leave willows and enter prairie
N1¾°	W	7.00 "	
N37¾°	W	9.90 "	To Meander Cor to fractional secs 22 and 27.

Land nearly level
Soil sandy 3rd rate
Timber. Scattering willows 17.50 chs.

Thence in sec 22

Va 12° 38' E.

Along open prairie

N29°	W	6.00 chs	
N65¼	W	11.00 "	At 2 chs leave high bottom enter low bottom
N32°	W	6.00	and through small willows
N51½	W	3.00	At 2 chs leave high bottom. Enter low bottom
N76°	W	5.00	
S74° 05'	W	3.60	At 2.50 chs leave high bottom enter low bottom and enter willows. to Meander Cor to fractional secs 21 and 22.

Land rolling
Soil clay and sandy 2nd and 3rd rate
Timber. willow brush 17.10 chs

Oct 6th 1890

At 6.00 A.M. Oct 7th the line bet secs 21 and 22 has a magnetic bearing of N 12° 45' W. and the Va is 12° 42' E

Course From the Meander Cor to fractional secs 21 & 27 I run with Meanders in sec 21.
Va 17° 40' E.

Through scattering willow and cottonwood brush

N 83° W 7.00 chs
N 45¼ W 8.00 "
N 18¼ W 8.00 "
N 35¾ W 10.00 "
N 45¾ W 11.00 " At 10 chs leave brush and low bottom enter 2nd bottom
N 77¼ W 8.00 " 12 to 15 ft high
S 50° W 6.00 "
S 78¼ W 7.00 "
S 10¼ W 10.00 "
S 19° W 6.00 " At 4.50 chs Mouth of creek or bayou 60 lks wide course N.E.
S 37½ W 3.00 " Low sandy bottom enter small brush
S 36¾ W 4.00 "
S 55¾ W 4.00 " At 3.00 chs leave brush, enter prairie
S 61½ W 6.00 "
S 76½ W 7.00 "
N 61° W 5.00 " At 50 lks leave low bottom enter high bottom
N 75¼ W 5.00 "
S 87¾ W 5.00 "
S 39° 20' W 4.80 " To Meander Cor to fractional secs 20 & 21.
15.00
Land rolling low and high bottom
Soil sandy and clay good 3rd rate
Timber Willows and small cottonwood brush 53.00 chs

Thence in sec 20.
Va 17° 40' E.

S 33° W 5.00 chs high bottom
S 15° W 8.45 " (At 4.00 chs enter low sandy bottom Enter brush at 7.00 chs) to Meander cor to fractional secs 20 and 29
8.45
Land low and high bottom
Soil sandy 2nd and 4th rate
Timber scattering willow brush 4.45 chs

Thence in sec 29.
Va 17° 40' E.

Course Through scattering willow and cottonwood brush

S 14½° E 5.00 chs
S 37¼° W 6.00 "
S 52¾ W 5.00 "
S 67° W 11.00 "
N 81¼ W 4.00 " At 1 ch leave low bottom to bands 6 ft high and leave brush
N 37° W 3.00 "
N 42½ W 4.00 "
N 37° W 4.00 "
N 63° W 5.00 "
S 87° W 11.00 " At 1 ch enter low bottom and small willows & cottonwood brush. bands 5 ft high
N 74° W 9.00 "
N 39° 20' W 4.20 " To Meander Cor to fractional secs 20 & 29.
20.00
Land nearly level
Soil sandy 3rd rate
Timber Willow and cottonwood brush 51.10 chs
Oct 7th 1890.

At 6.00 AM Oct 8th the Magnetic bearing of the line bet secs 20 and 29 is N 77° 15' E and the Va is 17° 45' E
From the Meander Cor to fractional secs 20 & 29
I run thence with Meanders in sec 20
Va 17° 40' E.

Through willow and cottonwood brush

N 31½° W 4.00 chs
N 49° W 6.00 " At 1 ch enter high bottom and open prairie
N 37¾ W 7.00 "
N 53° W 8.00 " At 7 chs Enter low bottom. scattering brush
N 68 W 6.05 " To Meander Cor to fractional secs 19 & 20
31.05
Land undulating
Soil sandy 3rd rate
Timber Willow brush and cottonwood 11.05 chs.

Thence in sec 19.
Va 17° 40' E.

Through small willows and cottonwood brush

N 65¼ W 9.00 chs
N 67¼ W 7.00 "
N 77¾ W 17.00 "
33.00

Meanders T34 N R16 W Continued

Course	Dist	
N58° W	33.00 10.00 chs	At 5.50 chs Enter high bottom and open prairie
N78¼° W	6.00 "	
N89½° W	5.00 "	
N73¾° W	5.00 "	
S83½° W	8.00 "	
S72½ W	4.00 "	At 3.00 Enter low bottom and scattering brush
S56° W	8.00 "	
S70° W	3.00 "	
N88° 50' W	2.85 - 8385	to Meander Cor to fractional secs 19 and 24 on the West boundary of the Township which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of Exterior boundaries Tp 34 N R16 W.

Oct 8th 1890

General Description T34 N R16 W.

This is a fair Township. The surface is table land S. sloping bluffs and River valley

The table land is a gently rolling or undulating plain the bluffs at the N.E cor. of the Tp sweep in a curve to the N.W leaving the land S. of it about 50 or 75 ft lower than the top of bluffs with a gentle S. slope. The soil is of a medium dark clay and sandy soil 1st and 2nd rate. The S. slope has a more gentle Descent than the preceding Tps. The soil is generally light colored or gray clay with considerable gravel on the summit of the ridges. It is good grazing land. The River valley is narrow, not more than a half mile in width and has a clay and sandy soil from 1st to 4th rate. There are a large number of springs in the N part of the Tp. of clear cold water which form small creeks which flow southward Timber there is willow and plum brush cottonwood along the river and some box elder, willow ash and oak along some of the creeks in small quantities. the large timber along the river has all been cut down and carried away. Stone - Hard sandstone is found in several places those used for corners were obtained in secs 8. 9 and 12. There is one settler in sec 8.

General Description T34 N R16 W.

Note - The stone used for corners in this Township are all hard sandstone and impracticable to cut the notches on the corners so as to make clear and intelligible. So I caused all sec corners to be set with the flat sides to the East and West and edges N and S on the S.E. edge and East face the notches or horizontal bars not less than 2 inches long were cut sufficiently deep to make them clear and distinct and can be more easily read.

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, in ....., showing the respective capacities in which they acted:
.....
.....
.....
.....
.....
.....
.....

For List of Names and For Oaths of Assistants See T 34 N R 1880 page 190

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
.....
.....Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

6—151

Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the General Land Office, ~~U. S. Surveyor General for~~, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the Commissioner of the General Land Office ~~U. S. Surveyor General for~~, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Fractional Township 34 North Range 16 W of the 6th Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 2nd day of April, 1891.

C. E. Forbes
Clerk Dist Court

Approval.

Office of the ~~U. S. Surveyor General~~ Commissioner Genl Land Office
Washington D.C. June 30, 1891.

The foregoing field notes of the survey of Subdivisional lines in fractional T 34 N. R. 16 W of the 6th P.M. in the State of Nebraska

executed by U S Surveyors Nicholas J. Paul and Robert Harvey under ~~his~~ their Contract No. —, dated May 26th, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

J. H. Carter
Commissioner Genl Land Office ex officio Surveyor General.
~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.~~

~~U. S. Surveyor General.~~

6—151

Revised with letter of R B Hughes, Surveyor General, So Dak, dated Feb 8, 1897

(4—679.)

Exd

BOOK F

FIELD NOTES

OF THE SURVEY OF

Subdivision lines
of
Township No 35 North.
of
Range No. 16 West.
of the
Principal Base.

Of the 6th Principal Meridian,
in the State of
Nebraska.

AS SURVEYED BY

Robert Harvey and Alfred N. Gumaer U. S. Deputy Surveyors.

Under ~~his~~ their joint Contract No. 107, dated April 3rd 1895

Survey commenced July 20, 1895

Survey completed July 23, 1895

(12503—2,000.)

735816

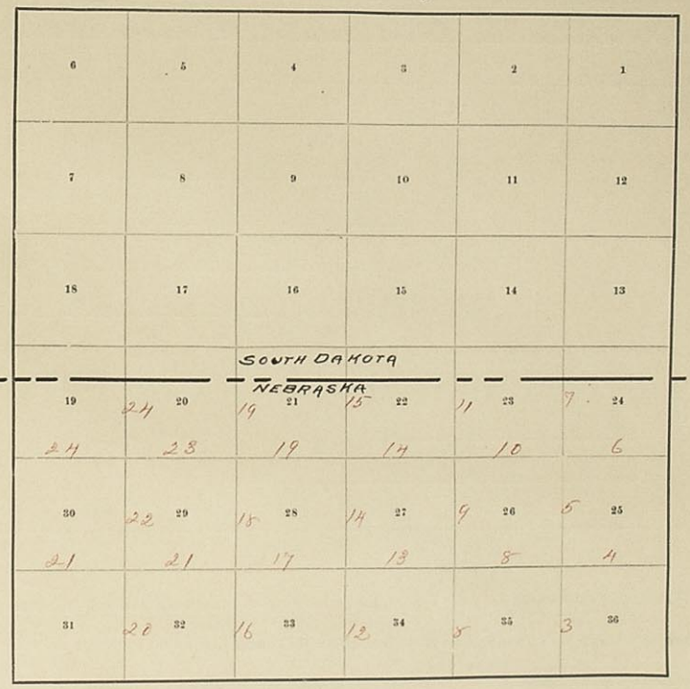
Names and Duties of Assistants.

Clifford H. Norton	Chainman
Herbert J. Paul	Chainman
Clayton J. Norton	Axman and Moundman
Howard J. Shepard	Axman and Moundman
William L. Stitt	Flagman
Lewis M. Williams	Flagman

T35 R16

INDEX DIAGRAM.

Township 35 N. . Range 16 W.



Meanders Page .....

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For preliminary oaths of assistants see those with Tp. 35 N. R. 13 W. contained in book lettered "B," executed under this Contract.

.....

.....

....., *Chainman.*

.....

....., *Chainman.*

.....

....., *Chainman.*

.....

....., *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

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6—151

1

To satisfy myself as to the length and course of the S.Bdy. of this Tp. On the 19th day of July 1895 preliminary to the running of the W.Bdy of the Tp. I carefully remeasure the S.Bdy as follows I set my instrument over the cross cut on top of the stone at the cor of Tps 34 and 35 N Rs 15 and 16 W. and from a true meridian turn an angle of 90° to the W. and run W. on a tangent line and at 8014 chs fall 6 links N of the cor of secs 1, 2, 35 and 36, the course of the S.Bdy of sec 36 is therefore S 89°-57' W. At said cor I determine a true meridian with the solar and run W on the S.Bdy of sec 35 and at 8015 chs fall 3 links N of the cors of secs 2, 3, 34 and 35, the course of the S.Bdy of sec 35 is therefore S 89°-58' W. At said cor I determine a true meridian with the solar and run W. on S.Bdy of sec 34 and at 8012 chs intersect cor of secs 3, 4, 33 and 34, the course of the S.Bdy of sec 34 is therefore W. At said cor I determine a true meridian with the solar and continue on the S.Bdy of sec 33 and at 8014 chs fall 23 links N of the cors of secs 4, 5, 32 and 33, the course of the S.Bdy of sec 33 is therefore S 89°-49' W. At said cor I determine a true meridian with the solar and run W on the S.Bdy of sec 32 and at 8017 chs fall 23 links N of the cor of secs 5, 6, 31 and 32, the course of the S.Bdy of sec 32 is therefore S 89°-50' W. At said cor I determine a true meridian with the solar and run W on the S.Bdy of sec 31 at 78.83 chs fall 9 links N of the cor of Tps 34 and 35 Rs 16 and 17 W the course of the S.Bdy of sec 31 is therefore S 89°-56' W and the total length of the S.Bdy of the Tp. is 479.55 chs. This distance I placed in the table of Latitudes Departures and closing errors of the survey of the W.Bdy of the Tp as the true length thereof. The E. ½ of S. bdy. of sec. 31. is 40.13 chs. and the W. ½ is 38.70 chs.

Robert Harvey
U. S. Deputy Surveyor

Note The Stone to be used for corners in this Township are a hard brittle sandstone found upon the hillsides, broken into flat slabs of irregular dimensions and cannot be cut or broken into regular proportions. It is found that notches cut on the Edges of the Stone very frequently resemble the notches caused by the breakage of the edges and cannot be distinguished therefrom. It is therefore determined to set the interior section corners with the flat faces E and W. and the narrow faces N and S. and cut grooves on these faces which can be readily distinguished.

continue

Subdivision of T 35 N. R 16 W. 2

Survey commenced July 20 1895 and executed with a Heller & Brightly transit No 6602 with a Solar attachment. The horizontal limb is provided with two double Verniers placed opposite to each other reading to 20" of arc. and the latitude and declination arcs. reading to single Minutes

The instrument was examined, tested on the True Meridian at Huron, S. D. found correct and was approved by the Surveyor General for South Dakota June 21-1895

I examine the adjustments of the transit and find the levels and collimation correct; then to test the Solar apparatus by comparing its indications resulting from Solar observations made during A.M. and p.m. hours with a True Meridian determined by observations on Polaris I proceed as follows.

Having established a true Meridian at the Cor. of Tps 34 and 35 N, Rs. 15 and 16 W. in Latitude 42° 57' 37" N Longitude 99° 8' 19" W. July 15th & 16th 1895 I copy from my notes of the W. boundary of R. 15 W. of that date, the method of determining the same

to wit:

"At 11h 49m p.m. l.m.t." (July 15)" by my watch which I compared with the Solar this afternoon, I observ Polaris at eastern elongation, in accordance with Manual of instructions, and mark a point on the line thus determined on a plug driven in the ground 8.00 chs S. of my station.

July 16th at 6h a.m. l.m.t. I lay off the azimuth of Polaris 1° 42'.7 to the West, and mark the true Meridian thus determined by cutting a small groove in the Stone at July 15 on which the true Meridian falls."

x x x x x x x x x x

July 20th To test the Solar apparatus I set the instrument over the cross (+) cut on top of the cor. above described and at 10h 55m a.m. l.m.t I set off 42° 57' 37" N on the lat. arc and 20° 38' 30" N on the decl arc and determine a true Meridian with the Solar, by marking a point on the stone already set

July 15. 8.00 chains S. of my station. This point falls 0.55 ins East of the the Polaris Observation

At 8h 0m p.m. I set off 20° 38' N on decl arc, and observe the sun on the Meridian: the resulting lat. is 42° 57' 30" which is about 0.5 less than the proper latitude.

At 1h 35m p.m. I set off 42° 57' 37" N on lat arc; and 20° 37' 30" N on decl arc; and determine a true Meridian with the Solar by marking a point on the stone already set 8.00 chs S. of my station. This point falls 0.55 ins W. of the Polaris Observation.

The Solar apparatus by A.M. and P.M. observations defines positions for true Meridians respectively about 0'.6 E and 0'.8 W. of the Meridian established by Polaris Observations. I therefore conclude the adjustments of the instrument to be satisfactory

The magnetic bearing of the true Meridian at 1h 35m p.m is N 12° 02' W.: the angle thus determined reduced by the table page 100, gives the Mean Mag. decl 12° 08' E.

Note I compare my measuring chain with the Standard Chain, and find it to be correct.

I Estabablished the line bet Rs. 15 and 16 W July 16. on a true Meridian. Therefore I do not retrace the E. bdy of sec 36

The E. bdy of sec 36 is therefore North

From the Tp. Cor. already discribed I turn an angle of 90° to the West from the True Meridian and run West on the S. bdy of sec 36: at 40.06 chs. fall 4 lks N. of the 1/4 sec cor, and at 80.14 chs fall 6 lks N. of the Cor of secs 1. 2. 35 and 36 on the S. bdy of the Tp Consequently the S. bdy of sec 36 bears S. 89° 57' W. Therefore the bearings are as above stated and my chaining practically agrees with the field notes of the original Survey.

July 20th I commence at the Cor of secs 1. 2. 35 and 36 on the S. bdy of the Tp which is a Sandstone 8 x 7 x 3 ins above ground firmly set, Marked and Witnessed as described by the Surveyor General.

At 2h 30m p.m. I set off 42° 57' 37" on the lat arc, and 20° 37' 0" N on the decl arc and determine a true Meridian with the Solar

Chains	Thence I run
	N. 0° 1' W. bet secs 35 and 36
	Over general ascending ground
	Descend from Cor to drain course S.E.
1.65	5 ft lower than cor, Then Ascend
5.00	Top of hill 20 ft higher than Cor.
11.50	Slough course S. 59° E. 59
13.85	Road bears N 38° E. and S. 38 W.
19.75	S. and E line of fence bears 20 lks W.
24.50	Begin ascent of a long slope
34.00	Ravine course S. 5° W. Ascend
40.00	Set a Sandstone 16 x 10 x 4 ins - 11 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face: dig pits 18 x 18 x 12 ins N and S. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor.
42.35	Same ravine course S 32° E Ascend
47.65	Top of hill and enter Tableland bears E and W.
	From this point a Sod house bears N 68° E.
	Jacob Meisler's Sod house bears N 15° W. about 30 chs. dist
	-------- Sod house bears S 40° 50' E. about 30 chs dist
	Thence over gently rolling
58.00	Drain course S.E.
61.10	Road bears E and W.
61.20	Enter Cornfield bears E and W. and enter Smooth tableland
68.70	Leave same field bears N 10° E and S 10° W.
80.00	Set a Sandstone 18 x 18 x 3 ins - 12 ins in the ground for Cor of secs 25. 26. 35 and 36. Marked with 1 grooves on S. face, and 1 on E. face: dig pits 18 x 18 x 12 ins in each sec 5 1/2 ft dist; and raise a Mound of earth 4 ft base 2 ft high W. of Cor.

Land, general S. slope rolling and level
Soil Clay and gravel - 2nd and 4 rate
No timber

N. 89° 57' E on a random line bet secs 25 and 36

40.00	Set temp 1/4 sec cor
80.12	Intersect the E. bdy of the Tp 5 lks S. of the Cor of secs 25. 30. 31 and 36 which I Estabished July 16 1895.
	Thence I run

5 Subdivision of T 35 N R 16 W. Continued

Chains	
	S. 89° 55' W. on a true line bet secs 25 and 36
	Over gently rolling table land
x x x	Leave field (omitted to note chainage) about 1 ch. west of sec. cor.
4.82	Ravine course N.
7.75	Head of ravine course N.E.
13.10	Top of ridge bears N.W. and S.E.
15.45	Ravine 10 ft deep course N.
23.64	Road bears N 85° E and S 85° W.
38.97	Enter wheat field bears N. and S.
40.06	Set a Sandstone 18 x 12 x 4 ins - 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins E and W of stone 3 ft dist and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of cor.
52.32	Leave wheat field bears S. 80° E. and N 80° W
59.62	Road bears N 88° W and S 88° E.
79.52	Road bears N and S.
80.12	The cor of Secs 25. 26. 35 and 36
	Note. From the 1/4 sec. cor. A sod house bears N 20° 20' E., about 15 chs. dist.
	A sod house bears S. 31° W.
	Land undulating and gently rolling
	Soil clay good 2nd rate
	No timber
	N. 0° 1' W bet secs 25 and 26
	Over undulating ground
1.10	Road bears E. and W.
24.05	Enter flaxfield bears N 3° E. and S 3° W.
40.00	Set a Sandstone 17 x 14 x 3 ins - 12 ins in the ground for 1/4 sec cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of cor.
	From this cor. C. Fisher's sod house bears S 53° 30' W about 20 chs. dist
	Henry Shoup's sod house bears S 50° 55' E about 15 chs dist
41.10	Leave flax field bears E. and W.
	Over rolling ground
42.75	Road bears N W and S E descend gentle slope
50.25	Ravine course N.W. ascend
60.00	N.E. cor. of Corn field
80.00	Set a Sandstone 20 x 12 x 6 ins - 15 ins in the ground

Subdivision of T 35 N. R 16 W. Continued 16

Chains	
	for cor of Secs 23. 24. 25 and 26. Marked with 2 grooves on S. face, and 1 on E. face; dig pits 18 x 18 x 12 ins in each Sec 5 1/2 ft dist and raise a mound of earth 4 ft. base 2 ft high W. of cor.
	From this cor. Gotlieb Meyer's adobe house bears N 28° 50' W about 30 chs dist
	Wm Meyer's adobe house bears N 29° W about 50 chs dist
	Martin Mankes adobe house bears S 62° 35' W about 25 chs dist
	Wm Bandel's adobe house bears N 45° 40' W in S² N W⁴ Sec 23.
	Land S² undulating - N² gently rolling
	Soil, clay 2nd rate
	No timber
	N. 89° 55' E. on a random line bet Secs 24 and 25
40.00	Set temp 1/4 sec. cor.
80.14	Intersect the E bdy of the Tp. 4 lks North of the Cor of Secs 19. 24. 25 and 30 which Set July 16 1895
	Thence Iron
	S 89° 57' W. on a true line bet secs 24 and 25 over gently table land
4.59	Enter Corn field, N 20° W S 20° E.
9.34	Leave same bears N and S
30.39	Enter plowed field bears N. and S.
40.07	Set a Sandstone 18 x 11 x 3 ins - 12 ins in the ground for 1/4 sec cor Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E and W. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N of cor
63.94	Leave plowed field bears N. and S. descend
70.84	Road in bed of ravine bears N 44° W. and S 44° E
	Course ravine is N 44° W. 20 ft deep - Ascend
78.00	Top of N.W. End of ridge - David Fishers adobe house bears S - - - E about 15 chs dist
80.14	The Cor of Secs 23. 24. 25 and 26 - about 15 ft lower than ridge -
	Note At 1/4 sec cor Henry Fishers adobe house bears N 77° E about 15 chs dist
	Phillip Schneider's adobe house bears N 10 1/2 W

Subdivision T. 35 N. R. 16 W. Continued

Chains	
	about 20 chs dist.
	Land – E. 64 chs gently rolling W. 20 chs Rolling
	Soil Clay and Sandy 2nd and 3rd rate
	No timber.
	At 6h P.M. l mt I set off 42° 59' N on the Sat arc; and 20° 37' 30" N on diel arc and determine a true Meridian with the Solar at the Cor of Secs 23. 24 25 and 26 I run
	No° 1' W. bet Secs 23 and 24
	Over rolling ground,
	Ascend gentle slope
2.10	Top of gravel ridge 5 ft higher than Cor. bears N.W. and S.E. descend
7.70	Ravine Course W.
9.25	Road bears N 49° W. Ascend gentle slope
31.50	Top of hill descend
34.15	Drain Course N.W.
35.50	Drain Course W.
40.00	Set a Sandstone 20 x 14 x 4 ins – 15 ins in the ground for 1/4 Sec Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N and S of stone 3 ft dist: And raise a Mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor
	Ascend gentle slope
49.00	Top of low ridge bears N.W. and S.E. descend
51.25	Drain Course N. 62° W ascend
54.00	Top of low ridge bears E and W.
57.97	Intersect the North boundary of Nebraska 65 chs. E. of the 25 Mile stone. which is a quartzite 3 1/2 ft x 10 x 10 ins above ground. Marked S.D. on N. N. on S and 25 M. on W. faces.
	Set a Sandstone 15 x 10 x 10 ins – 10 ins in the ground for closing Cor. of Secs 23 and 24. Marked C.C. 35 N and 3 grooves on S. face, 1 groove on E and 5 on W. faces. dig pits 24 x 18 x 12 ins crosswise on each line E. and W. 3 ft. and S. of stone 7 ft dist. and raise a Mound of earth 4 ft base 2 ft high S of Cor
	Land rolling.

	Soil Clay and gravelly 2nd and 3rd rate
	No timber
	July 20 1895
	July 21 1895 At 6h 30m a.m. l mt I set off 42° 57' 37" on Sat arc: and 20° 31' N. on diel arc: and determine a true Meridian with the Solar. at the Cor. of Secs 2. 3. 34 and 35 on S. bdy of the T. which is a Sandstone 10 x 7 x 4 ins above ground Marked and Witnessed as described by the Surveyor General.
	Thence I run
	N. 0° 02' W. bet Secs 34 and 35
	ascend general South Slope of bluffs
18.50	Top of bluffs bears N.W. and S.E.
	Over gravelly and rolling ground
24.10	Drain 25 ft deep Course E.
38.50	Ravine course E. head 1.00 ch W.
40.00	Set a Sandstone 18 x 15 x 3 ins – 12 ins in the ground for 1/4 sec Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N and S of stone 3 ft dist; and raise a Mound of earth 3 1/2 ft base, 1 1/2 ft high W. of Cor.
44.80	Bed of Sandy drain Course S.E.
50.00	Leave gravelly ridges and Enter Smooth Table land bears E and W
54.60	Jessie Fast's Sod house bears W. 4.00 chs dist
80.00	Set a Sandstone 16 x 11 x 4 ins – 11 ins in the ground for Cor of Secs 26. 27. 34 and 35; Marked with 1 groove on S face, and 2 on E. face; dig pits 18 x 18 x 12 ins in each Sec 5 1/2 ft dist; and raise a Mound of earth 4 ft base; 2 ft high W. of Cor.
	Note: this Cor stands in bottom of flat drain.
	Land S. 18.50 chs S. Slope – 31.50 chs gravel ridges 30.00 chs Smooth tableland
	Soil – S. part Sandy 3rd rate – Middle part Gravel 4th rate N. part Clay 2nd rate
	No timber
	N 89° 58' E on a random line bet Secs 26 and 35
40.00	Set temp 1/4 sec. Cor.
80.12	Intersect the N. and S. line at the Cor of

Chains	
	Secs 25. 26. 35 and 36
	Thence I run
	S89° 58' W. on a true line bet secs 26 and 35
	Over gently rolling ground
7.22	Enter plowed field bears N. and S.
28.10	Leave same . bears N. and S.
40.06	Set a sandstone 20x10x4 ins - 15 ins in the ground for 1/4
	Sec. Cor. Marked 1/4 on N. face: dig pits 18x18x12 ins E.
	and W. of stone 3 ft dist; and raise a mound of earth
	3½ ft base 1½ ft high N. of Cor,
	From this Cor. John Hoffman's sod house bears N 27½° W
	about 20 chs dist
	D. B. Fisher's sod house bears S. 38° E. 20 chs dist
54.12	Road bears S 66° E. and N 66° W.
58.97	Enter Corn-field bears N and S
76.87	Leave same bears N. and S.
80.12	The Cor of Secs 26. 27. 34 and 35.
	A sod school house in S.E. cor of Sec 27.
	Land gently rolling
	Soil Clay 2nd rate.
	No timber

	N. 0° 2' W. bet Secs. 26 and 27
	Over rolling prairie
	Ascend gentle slope
1.80	Road bears E. and W.
1.85	Enter plowed field bears E. and W.
19.60	Geo. Hauck's adobe house bears W. 3 chs dist
	Descend
25.00	Leave field bears E. and W.
25.15	Road, bears E. and W.
28.60	Ravine Course N 56° E. 25 ft deep - lower than hill
37.40	Ravine Course E
40.00	Set a sandstone 19x10x4 ins - 14 ins in the ground
	for 1/4 Sec Cor. Marked 1/4 on W. face: dig pits 18x18x12
	ins. N and S of stone 3 ft dist; and raise a mound of earth
	3½ ft base 1½ ft high W. of Cor
	From this Cor. Geo. Hauck's house bears S 7½° W. — Descend
40.75	Ravine Course S 26° E
41.85	Enter plowed field bears E. and W.

Chains	
44.40	Leave same bears E and W.
46.58	Top of hill - from this point
	Mrs Meyer's Sod house bears N 21° 20' E.
	Geo Hauck's sod house bears N 60° W., about 13 chs.
	Sod house bears S 12½ W about 25 chs.
55.15	Ravine Course S 69° E.
59.50	Road bears N 82° E and S 82° W
63.00	Ravine Course NE.
66.20	Ravine Course S 77° E.
74.80	Ravine Course N 70° E. ascend
75.05	Ravine Course E.
77.50	Top of hill - descend to
80.00	Set a sandstone 18x8x6 ins - 12 ins in the ground for
	Cor of Secs 22. 23. 26 and 27. Marked with 2
	grooves on S. face, and 2 on E. face: dig pits 18x
	18x12 ins in each Sec 5½ ft dist; and raise a
	Mound of earth 4 ft ~~base~~ 2 ft high W. of Cor
	Carl Shea's log house bears N 10° 40' W - - in
	S2 NE4 sec 22.
	Mrs Myers adobe house bears S. 51° 20' E about
	13 chs dist
	Land rolling
	Soil Clay 2nd rate
	No timber

	At 9h 30m A.M. L.M.t. I set off 42° 59' 21" on Lat arc
	and 20° 28' N on decl arc, and determine a true Merid-
	ian with the Solar: Thence I run.
	N 89° 58' E. on a random line bet secs 23 and 26
40.00	Set temp 1/4 sec. Cor.
80.12	Intersect the N and S. line 2 chs N. of the Cor of Secs
	23. 24. 25 and 26.
	Thence I run
	S 89° 59' West on a true line bet Secs 23 and 26
	Over rolling ground
	Descend
12.65	Leave upland and Enter Valley bears N and S
14.25	Ravine Course N
16.95	Ravine Course N
18.50	Leave Valley and ascend hills bears N and S.
40.06	Set a sandstone 18x10x4 ins - 12 ins in the ground

Chains	
	for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E. and W. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.
45.65	Road bears N. and S.
48.00	Top of hill – descend
60.00	Ravine course N.W.
68.20	Ravine Course N.
76.00	Foot of hill ascend
80.12	The Cor of Secs 22. 23. 26 and 27.
	Land rolling Soil Clay E. 40.00 chs good 2nd rate W. 40 chs Clay 2nd rate No timber
	N. 0° 2' W. bet Secs 22 and 23 Descend gentle slope
13.30	Ravine Course W. of line N.E. – East of line E.
26.50	Enter Valley – Leave upland bears N.W. and S.E.
30.50	S. Branch of Squaw Creek – dry on line Course N. 30° W.
34.30	Same creek – water hole on line Course N. 20° E.
40.00	Set a sandstone 16x10x4 ins – 11 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor. Carl Shea's house bears N. 10° 40' W.
43.25	N. Branch of Squaw Creek course S 40° E. dry on line
45.00	Leave Valley and ascend steep bank 10 ft higher than valley bears N.W. and S.E.
46.90	Enter field bears E. and W.
57.95	Leave field bears E. and W.
57.97	Intersect the North Boundary of Nebraska 6.38 chs. E. of the 24 Mile Stone which is a quartzite 3½ ft x 10 x 10 ins above ground; Marked S.D. on N. N. on S. and 24 M. on W. faces; Set a sandstone 20x15x3 ins – 15 ins in the ground for Closing Cor. of Secs 22 and 23. Marked C.C. 35 N. and 3 grooves on S. face 2 grooves on E. and 4 on W. faces; dig pits 24x18x12 ins crosswise on each line E. and W. 3 ft and S. of stone 7 ft dist; and

Chains	
	raise a mound of earth 4 ft base 2 ft high S. of Cor.
	From this Cor. Carl Shea's log house bears S. – – – – W. about 12 chs dist.
	Land undulating and rolling Creek Valley Soil is rich loam 1st rate Good hay in Creek bottom – Upland Soil 2nd rate No timber
	July 21 At the Cor of Secs 3. 4. 33 and 34 on the S bdy of the Tp. I set off 20° 26' 30" N on decl arc, and observe the Sun on the Meridian at 0h 6m p.M. l. M.t.; the resulting Latitude is 42° 57' 30" N which is about 0'.1 less than the proper Lat.
	At the above described Cor, which is a sandstone 8x6x4 ins above ground, marked and witnessed as described by the Surveyor General. At 2h p.M. l. M.t. I set off 42° 57' 34" N on Lat arc; and 20° 25' 30" N. on decl arc and determine a true Meridian with the Solar. Thence Run – N. 0° 0 2' W. bet Secs 33 and 34 Over general South slope of bluffs
1.03	Road bears N 57° W and S 57° E
11.80	Ravine Course S. 20° W.
13.00	West bend of ravine
29.70	Ravine Course S 40° W.
38.50	Road bears N. 29° E. and S. 29° W.
40.00	Set a sandstone 19x9x4 ins – 14 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high. W. of Cor.
46.00	Top of bluff and Enter smooth undulating Table land bears E. and W.
51.00	Enter flax field bears N. 5° W. and S. 5° E.
60.79	Wire fence bears E and W. – here leave flax field thence along East side of wire fence over plowed land
80.00	Set a sandstone 14x9x5 ins 12 ins in the ground

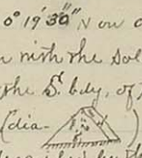
Chains	
	for Cor of secs 27.28.33 and 34 - Marked with 1 groove on S face, and 3 on E. face; dig pits 18X 18X12 ins in each Sec 5½ ft. dist, and raise a mound of earth 4 ft. base 2 ft. high W. of Cor.
	Land S. 46.00 chs South slope N 34.00 Smooth level prairie
	Soil gravel and Clay 4th and good 2nd rate
	No timber
	East on a random line bet. secs 27 and 34
40.00	Set temp ¼ sec Cor
80.10	Intersect the N and S line 4 lks. S of the Cor of Secs. 26.27.34 and 35
	Thence I run
	S. 89° 58' W. on a true line bet. Secs. 27 and 34
	Over undulating table land
0.80	Road bears N and S.
38.10	Drain Course N 28° W
39.27	Drain Course N 32° E 8 ft. lower than Cor.
	Ascend
40.05	Set a sand stone 18 x 14 x 5 ins - 12 ins in the ground for ¼ sec Cor. Marked 1/4 on N. face. dig pits 18x18x12 E and W. of stone 3 ft. dist: and raise a Mound of earth 3½ ft. base 1½ ft. high N. of Cor.
42.17	Road bears N and S.
42.22	Enter plowed field bears N and S
53.06	Wire fence bears N and S
56.95	S. S. Stockwell's White frame house bears S about 5.00 chs dist
58.60	Wire fence bears N. and S.
59.55	S. S. Stockwell's red frame barn bears S. about 4 chs
67.03	Wire fence bears N and S.
80.10	The Cor. of secs 27.28.33 and 34
	Land level and undulating
	Soil Clay 2nd rate
	No timber

Chains	
	No° 2' W. bet secs 27 and 28
	Over smooth level table land
0.21	Wire fence bears E and W., leave plowed field
0.34	Road bears E. and W.
21.40	Enter Cultivated field bears E and W.
24.00	D. Melendy's 2 story frame house bears E. 2.35 chs dist
40.00	Set a Sandstone 22 x 8 x 4 ins - 16 ins in the ground for ¼ sec. Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N and S. of stone 3 ft. dist. and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
40.90	Leave cultivated field bears E & W
41.75	Enter -- Probendas plowed field bears E and W.
56.27	Leave same bears E and W.
59.80	Ravine Course N. 55° E Ascend
72.00	Top of hill ~~Descend~~
78.50	Ravine course N.E. here
	Enter Valley bears N W and S.E.
80.00	Set a sandstone 18 x 9 x 5 ins - 12 ins in the ground for Cor of Secs 21. 22. 27 and 28. Marked with 2 grooves on S face, and 3 on E. face; dig pits 18x18 x12 ins in each Sec 5½ ft. dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land S. 55.00 chs level Clay soil good 2nd rate N. 25.00 chs Rolling Clay soil 2nd rate
	No timber
	N. 89° 58' E. on a random line bet. Secs 22 and 27
40.00	Set temp ¼ sec Cor
80.12	Intersected the N and S line 3 lks. N of the Cor of Secs 22. 23. 26 and 27
	Thence I run
	S 89° 59' W. on a true line bet. Secs 22 and 27
	Over rolling ground
	Ascend hill
3.00	Top of hill
9.00	Top of second hill 20 ft. higher than 1st hill
17.70	Ravine Course N 53° W
20.00	Drain Course N.E.
28.50	Top of hill 50 ft. higher than ravine

15 Subdivision of T 35 N. R 16 W Continued

Chains	Descend
40.06	Set a Sandstone 15x10x5 ins - 10 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E. and W. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of Cor
43.00	Ravine course N Ascend
52.00	Top of hill 50 ft higher than creek, descend
54.70	Foot of bluff and Enter Valley bears N E and S. W.
56.45	Squaw Creek, Now dry, Course N.E.
59.60	Enter Corn field bears N. W. and S. E.
68.00	Leave same bears N. W. and S. E.
77.60	Ravine Course S. E.
80.12	The Cor of Secs 21. 22. 27 and 28
	Land undulating and rolling
	Soil Clay and Sandy loam 2nd and 3rd rate
	No timber
	At 6h p.m. the sky is overcast and Solar Observations are impossible.
	N. 0° 2' W. bet Secs 21 and 22
	Over valley land - descend
1.55	Ravine Course S 63° E here
	Leave Valley and ascend hills
14.50	Top of hill
37.95	Ravine Course S 68° E ascend to
40.00	Set a sandstone 17x13x4 ins - 12 ins in the ground for 1/4 sec cor Marked 1/4 on W. face; dig pits 18x18x12 ins; N and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor. - This cor stands on S. slope from this Cor. C. O. Bealy's white log house bears S 55° E. It is on S W 4 sec 22
	Oli Bealy's frame shanty bears S 60° W. about 15 chs
	Ascend
41.50	Top of ridge bears N 60° W. and S 60° E. descend
47.00	Foot of ridge and enter Valley bears N. W. and S. E.
52.45	N. Branch of Squaw Creek, dry on line, Course E.
55.00	Leave Valley and ascend hill bears N. W. and S. E.
57.93	Intersect the North Boundary of Nebraska 6.26 chs. E. of the 23 mile stone which is a quartzite 3 1/2 ft x 10 x 10 ins above ground. Marked S. D. on N. N.

Subdivision of T 35 N. R 16 W. Continued 16

Chains	on S. and 23 M. on W. faces;
	Set a sand stone 15x12x4 ins - 10 ins in the ground for Closing Cor of Secs 21 and 22. Marked C.C. 35 N. and 3 grooves on S. face; and 3 grooves on E and W faces; dig pits 24x18x72 ins Crosswise on each line E and W, 3 ft and S of stone 7 ft, dist. and raise a Mound of earth 4 ft base 2 ft high S. of cor.
	This cor stands on S. slope of hill
	Land rolling
	Soil in Valleys Clay loam 1st rate on hills gravelly 3rd rate
	No timber
	July 21 1895
	July 22d 1895 At 6h 15m a.m. Unit I set off off 42° 57' 37" N on lat arc; and 20° 19' 30" N on decl. arc. and determine a true Meridian with the Solar, at the Cor. of Secs. 4. 5. 32 and 33 on the S. bdy. of the Tp. which is a Sandstone 8 x 6 x 4 ins (dia- ) above ground Marked and witnessed as described by the Surveyor General. Thence I run.
	N. 0° 3' W bet secs 32 and 33
	Over rolling ground
	Descend
3.70	Ravine Course S. 42° E. 10 ft lower than cor.
26.30	Ravine Course S. 40° W Ascend
30.00	Top of hill 50 ft higher than cor bears E. and W.
	Thence over broken sand and gravel ridges
40.00	Set a Sandstone 14 x 11 x 4 ins. 10 ins in the ground for 1/4 sec cor Marked 1/4 on W. face; dig pits 18x18x12 ins. N and S of stone 3 ft. dist.; and raise a mound of earth ~~of earth~~ 3 1/2 ft base, 1 1/2 ft high W. of Cor.
43.30	Ravine Course E
58.50	Ravine Course S 30° E. Ascend
62.00	Top of hill and enter table land bears N. W. and S. E.
70.00	Den Fredericks sod house, bears 4.00 chs East
	Descend over gravelly banks
80.00	Set a Sandstone 17x11x5 ins - 12 ins in the ground for cor. of secs 28. 29. 32 and 33. Marked with 1 groove on S. face and 4 on E. face; dig pits 18x18x12 ins

17 Subdivision of T 35 N R 16 W. Continued

Chains	
	in each Sec. 5½ ft dist: and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	This Cor. stands on what may be called foot of hills and Entrance of Valley, but it is difficult to determine where Valley begins
	A sod house bears S. 54° 20' W. about 30 chs. dist.
	A sod house bears N. 64° 40' W about 40 chs. dist.
	Land rolling and level
	Soil, Clay sandy and gravelly 2nd and 3rd rate
	No timber
	N 89° 49' E on a random line bet secs 28 and 33
40.00	Set temp ¼ sec. cor.
80.14	Intersect the N and S line 2 lks N. of cor. of secs 27. 28. 33 and 34.
	Thence I run
	S 89° 50' W on a true line bet secs 28 and 33
	Over smooth level Tableland and mountainous land
0.64	Wire fence bears N. and S. and leave S.S. Stockwells field
1.29	Road bears N and S
X 6.15	Leave Smooth tableland and Enter Mountainous land.
23.74	Ravine course S.E. 25 ft deep Ascend
X 30.15	Enter smooth ground, leave Mountainous land
35.15	Leave Smooth ground and descend
40.07	Set a Sandstone 19 x 9 x 5 ins - 15 ins in the ground. for ¼ Sec. Cor. Marked ¼ on N. face; dig pits 18 x 18 x 12 ins E and W. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high N. of Cor Enter mountainous ground.
48.50	Morris Creek 40 ft lower than Cor. dry on line - water in holes Course S. 25° W.
54.90	Head of ravine course S.
56.40	Top of ridge bears S.E. and N.W. descend
60.15	Enter Valley bears N.W. and S.E. ascend
64.34	Bed of sandy drain Course S Ascend, mountainous land.
70.15	Top of hill
75.55	W. edge of hill and descend over gravelly slope bears N and S
80.14	The Cor. of secs 28. 29. 32 and 33
	Land level, and broken, Mountainous

Subdivision of T 35 N. R 16 W. Continued 18

Chains	
	Soil Clay - sandy and gravelly 2nd and 4 rate
	No timber
	Mountainous land 54.14 chs.
	N 0° 3' W. bet secs. 28 and 29
	Over rolling ground
	Descend gentle slope
6.10	Ravine or dry creek course N. 62° E
9.50	N. branch of same course S 27° E
10.90	Same dry branch course S. 35° W.
12.00	Same dry branch course S. 55° E
+ 13.00	Leave Valley and Enter Mountainous land bears E and W. Ascend
16.50	Top of S. edge of hill descend
26.80	Ravine course S 25° E
32.00	Road bears N 12° W. and S 12° E.
X 34.30	Road bears N 74° W. and S 74° E, leave Mountainous land and Enter smooth level tableland
40.00	Set a Sandstone 18 x 14 x 4 ins - 12 ins in the ground for ¼ Sec Cor. Marked ¼ on W. face, dig pits 18 x 18 x 12 ins N and S. of stone 3 ft dist: and raise a mound of earth 3½ ft base, 1½ ft high W. of Cor.
55.48	Road bears N 50° W and S 50° E
64.68	Enter plowed field bears E and W.
76.80	Leave same bears E and W
80.00	Set a Sandstone 17 x 11 x 5 ins - 12 ins in the ground for Cor of secs. 20. 21. 28 and 29. Marked with 2 grooves on S. face, and 4 on E. face; dig pits 18 x 18 x 12 ins in each Sec 5½ ft dist: and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	From this Cor. Geo Holbrooks sod house bears S S 42° W., about 20 chs. dist.
	Lewis Petersens sod house bears N 9° 10' E. about 20 chs dist
	Adobe house bears N 54° W.
	School house bears N 66° W. 5 chs dist
	Land level and broken mountainous
	Soil Clay, sand and gravel 2nd and 4th rate
	No timber
	Mountainous land 21.30 chs

19 Subdivision of T 35 N. R 16 W. Continued

Chains	
	N. 89° 50 E on a random line bet secs. 21 and 28
40.00	Set temp. 1/4 sec. Cor.
80.16	Intersect the N. and S line 5 lks N. of Cor. of secs 21. 22. 27 and 28.
	Thence I run
	S 89° 52' W. on a true line bet. secs. 21 and 28
	Over gently rolling ground - Ascend gentle slope
4.40	Enter plowed field bears N. and S.
9.36	Sod house bears S 3° 20' W. about 8.00 chs dist
15.71	Leave plowed field bears N and S.
18.15	Leave smooth prairie and descend
39.21	Ravine Course N 20° W. 5 ft. lower than 1/4 Cor Ascend
40.08	Set a Sandstone 17x14x4 ins - 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face: dig pits 18x18x12 ins. E and W. of stone 3 ft. dist: and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of Cor.
42.15	Top of hill 8 ft. higher than Cor.
46.31	Ravine Course N. Ascend
53.15	Enter smooth level table land
80.16	The Cor. of Secs. 20. 21. 28 and 29.
	Land rolling
	Soil Clay 2nd rate
	No timber
	N 0° 3' W. bet secs 20 and 21
	Over smooth table land
0.25	Enter plowed field bears E. and W.
39.45	Leave same bears E and W.
40.00	Set a Sandstone 15 x 11 x 5 ins - 10 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face: dig pits 18x18x12 ins - N. and S. of stone 3 ft. dist: and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of Cor.
	From this Cor. Louis Petersen's Sod house bears S. 8° E
	Sod School house bears S. 7 1/2° W
	Sod house Miss Jennie Carmichael's bears S 24° 35' W.
44.45	Road bears E. and W.
44.50	Enter plowed field bears E. and W.
46.60	S. W. Corner. Joe Becker's Sod house
57.98	Intersect the North Boundary of Nebraska 5.87 Chs

Subdivision of T. 35 N R 16 W. Continued

Chains	
	E. of the 22nd Mile Stone. which is a quartzite 3 1/2 ft x 10 x 10 ins. above ground. Marked S. D. on N. N. on S. and 22 M. on W. faces
	Set a sandstone 17x13x4 ins - 12 ins in the ground for Closing Cor. of secs 21 and 22, Marked C.C. 35 N. and 3 grooves on S. face, and 4 grooves on E. and 2 on W. faces. dig pits 24x18x12 ins crosswise on each line. E and W 3 ft: and S. of stone 7 ft. dist: and raise a mound of earth 4 ft. base 2 ft. high S of Cor.
	Land undulating
	Clay soil 1st rate
	No timber
	July 22nd At cor of secs 5. 6. 31 and 32 on S. bdy of the Tp. I set off 20° 14' 45" N. on decl arc and at 0h 6m p.m. l.m.t I observe the sun on the Meridian: the resulting latitude is 42° 57' 40" N. which is about 0'.1 greater than the correct latitude
	At 2h p.m. l.m.t I set off 42° 57' 37 N on the lat arc: and 20° 14' N on the decl arc and determine a true Meridian with the solar, at the cor. of secs 5. 6. 31 and 32 on the S. bdy of the Tp. which is a sandstone 8x5x4 ins above ground Marked and witnessed as described by the surveyor General
	Thence I run
	N 0° 4' W. bet secs 31 and 32
	Over rolling ground
	Descend
4.00	Enter Valley bears N.W. and S.E.
21.00	Center of flat sandy bed of ravine of Morris Creek now dry Course E - 1.00 ch Wide
31.20	Ravine Co. E.
40.00	Set a Sandstone 17x10x3 ins - 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face: dig pits 18x18x12 ins N. and S. of stone 3 ft. dist: and raise a mound of earth 3 1/2 ft. 1 1/2 ft. high W. of Cor.
53.80	Center of bed of flat sandy ravine or N. branch of dry Morris Creek Course S.E. 1.50 chs wide on line
61.00	Leave Valley bears N.W. and S.E. Ascend hills
73.40	Drain Course S.W.

21 Subdivision of T 35 N. R 16 W. Continued

Chains	
80.00	Set a Sandstone 15x10x4 ins - 10 ins in the ground for cor. of secs 29. 30. 31 and 32. Marked with 1 groove on S. face and 5 on E. face; dig pits 18x18x12 ins in each Sec 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land rolling
	Soil Clay - sandy and gravelly 2nd and 3rd rate
	No timber
	N 89° 50' E on a random line bet secs 29 and 32
40.00	Set temp 1/4 sec. Cor.
80.18	Intersect the N. and S. line 7 lks S. of Cor. of secs 28. 29. 32 and 33
	Thence Irun
	S. 89° 47' W. on a true line bet secs 29 and 32
	Over rolling and broken ground
6.98	Ravine course N. ascend steep hill 20 ft high
8.40	Top of gravelly hill descend
12.18	Ravine course N. 20 ft deep
16.20	Ravine course N. 15 ft deep
36.20	Leave gravel ridges and enter smooth prairie
40.09	Set a Sandstone 17x11x5 ins - 12 ins in the ground for 1/4 sec. Cor. Marked 1/4 on N. face; dig pits 18x18x12 ins. E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of Cor
66.20	Leave smooth prairie and descend
69.08	Drain course S.
72.20	Top of Second hill, 15 ft higher than 1/4 sec. cor. descend
78.18	Ravine course S.
78.98	Top of low gravel ridge 5 ft higher than sec cor
80.18	The Cor. of secs 29. 30. 31 and 32
	Land rolling and undulating
	Soil Clay and gravel 2nd and 4th rate
	No timber
	S 89° 56' W. on a random line bet. secs 30 and 31
40.00	Set temp 1/4 sec. Cor.
78.75	Intersect the W. bdy of the Tp 1 lk South of the Cor of secs

Subdivision of T 35 N. R 16 W. Continued 22

Chains	
	25. 30. 31 and 36 which I established July 20th 1895.
	Thence Irun
	N. 89° 56' E. on a true line bet secs 30 and 31
	Over rolling. broken ground
23.75	Top of ridge lower than sec. cor. bears N.W. and S.E. descend
32.75	Descend over broken ground
34.75	Enter drain, N. of the line the course is S.E. - thence down same
35.75	Leave drain, N. of the line the course is N.E.
37.15	Same drain course S.E.
38.75	Set a Sandstone 18x10x3 ins - 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E and W. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.
40.00	Top of E. edge of bluff bears N.W. and S.E. descend steep bluff
42.25	Foot of bank, 25 ft high. bears N.W. and S.E. Enter Valley
42.75	Center of Ravine or dry Morris Creek course S 50° E - flat sandy bed
46.85	center of Same dry Creek course N. 15° W. flat sandy bed
49.70	center of Same dry Creek, flat sandy bed, 75 lks wide course S 48° E
51.75	Leave Valley and ascend hill bears N.W. and S.E. - d
56.95	Ravine course S.
65.95	Top of gravel ridge bears N. and S. descend
70.80	Leave hills and Enter narrow valley bears N. and S.
71.25	Ravine course S.
74.95	Leave Valley and ascend gravel hills bears N. and S.
77.55	Top of low hill; gentle descent
78.75	The Cor of secs 29. 30. 31 and 32
	Land rolling and broken
	Soil Clay sand and gravel 2nd and 4th rate
	No timber
	N. 0° 4' W. bet secs 29 and 30
	Over ascending gravel ridges
11.50	Top of table land
	Thence over gently rolling prairie
37.33	Road bears N 78° E. and S 78° W.
40.00	Set a Sandstone 15x9x6 ins - 10 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face. dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.

Chains	
68.35	Ravine course S. 55° E.
80.00	Set a Sandstone 15x14x4 ins – 10 ins in the ground for Cor. of Secs. 19. 20. 29 and 30 Marked with 2 grooves on the S. face, and 5 on E face, dig pits 18x18x12 ins in each Sec 5½ ft dist: and raise a mound of earth 4 ft base. 2 ft high W. of Cor.
	Land gently rolling
	Soil Clay and gravel – Clay 2nd rate S 11.50 chs gravel 4th rate
	No timber
	N. 89° 47' E on a random line bet Secs 20 and 29
40.00	Set temp 1/4 Sec. Cor.
80.20	Intersect the N. and S. line 7 chs N. of the Cor. of Secs 20 21. 28 and 29.
	Thence I run
	S. 89° 50 W. on a true line bet secs 20 and 29
	Over rolling ground
	Ascend to
2.20	Thence over level ground
17.80	Enter cornfield bears N. and S.
20.30	Leave same bears N. and S. descend gentle slope
40.10	Set a Sandstone 20x7x5 ins – 15 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face: dig pits 18x18x12 ins E. and W. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
	From this Cor. Pearl Holbrook's sod house bears N 10½° W about 10 chs dist
	P. J. Bennett's sod house bears S 19½° W. about 20 chs dist
48.35	Ravine course N.W. Ascend long slope
73.00	Top of hill descend 8 ft lower to
80.20	The Cor. of Secs 19. 20. 29 and 30
	Land rolling and level
	Soil good 2nd rate and 3rd rate
	No timber
	July 22nd 1895

Chains	
	July 23rd 1895. At 6h 15m a.m. I set off 4° 59' 21" N on the lat. arc: and 20° 7' 30" N on the arc and determine with the Solar a true Meridian, at the Cor. of Secs 19. 20. 29 and 30 which I established July 22nd
	Thence I run
	S 89° 56' W. on a random line bet Secs. 19 and 30.
40.00	Set temp. 1/4 sec. cor.
78.55	Intersect the W. boundary of the Tp 6 chs N of the Cor of Secs 19. 24. 25 and 30 which I established July 20th
	Thence I run
	N. 89° 53' E. on a true line bet. Secs 19 and 30
	Over undulating prairie
27.60	Enter plowed ground bears N. and S.
32.50	Leave same bears N and S
38.75 (55 lks)	Set a Sandstone 16x10x4 ins. 11 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E and W of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
	From this Cor, Sod house of Martin Olbrich bears N 72½° W about 20 chs dist
	Sod house of Ed. McCumber bears S. 10½° W. about 30 chs dist.
42.80	Fred Meyer's sod house bears N. 85 lks dist
71.05	Drain Course S. Ascend gentle slope
78.55	The Cor of Secs 19. 20. 29 and 30
	Land undulating
	Soil Clay good 2nd rate
	No timber
	N 0° 4' W. bet Secs 19 and 20
	Over rolling ground
3.30	Enter Cornfield bears E. and W.
11.50	Leave same bears N. and S.
17.00	Drain Course S. 40° E.
40.00	Set a Sandstone 16x13x4 ins – 11 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face. dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor
57.98	Intersect the North boundary of Nebraska 547

Chains | Chs. E. of the 21st Mile stone which is a quartzite 3½ ft x 10 x 10 ins above ground. Marked S.D. on N. N on S, and 21 M. on W. faces.
Set a Sandstone 18 x 12 x 5 ins - 12 ins in the ground for Closing Cor. of secs 19 and 20. Marked C.C. 35 N. and 3 grooves on the S. face; and 5 grooves on E. and 1 on W. faces; dig pits 24 x 18 x 12 ins crosswise on each line E and W. 3 ft and S of Stone 7 ft dist; and raise a mound of earth 4 ft base 2 ft high S. of cor.

Land rolling
Clay soil 2nd rate
No timber

July 23 1895
8 am

At the close of the Survey of this Tp. I go to the S.W. Cor. of the Tp. and set my transit over the center of the Cross (+) Cut on top of the stone and set off on the lat arc 42° 57' 37" N and 20° 04' N on decl arc: and at 9h 15m A.M. l.m.t determine a true Meridian with the Solar. The line thus determined falls on the stone set on the low ridge 8.39 chs S. of the cor. 0.6 ins W. of the Polaris Observation of July 19. which defines a position for a true Meridian of about 19" East of the Polaris observation, when referred to the North.

July 23 1895 9h 15m am

General Description.

The land in this township is rough, broken and Mountainous along the south tier of sections and level and rolling in the remaining portion.
The South part or rough broken land is generally gravel ridges and deep ravines or cayons. and is generally 3rd and 4th rate land unfit for farming
The smooth land is elevated table land and generally Clay soil 2nd rate and adopted for farming purposes
The south part is watered by a fine spring brook in sec 33 of clear cold running water, There are also numerous springs in a number of ravines issuing from the base of the gravel hills. The spring and well water found in this Tp is excellent
Excepting a few clumps of bushes and an occasional small tree there is no timber in the Tp.
There are a number of farmers occupying the best tracts of land and have fair crops of Wheat and oats and a fair prospect of a good corn crop. The houses are mostly of sod or adobe. In sec. 34 Mr S.S. Stock well has a fine red frame barn and a small frame house In sec 27 Mr D. Melendy has a fine two story frame house
Most of the stone for corners in this township was procured in secs. 4 and 11. T. 34 of R16.

Robert Harvey
U.S. Deputy Surveyor
Alfred W. Gunnar
U.S. Deputy Surveyor
And acting in Capacity of Topographer

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....
.....
.....
.....
.....
.....
..... Meridian, in ....., showing the respective capacities in which they acted:
.....
.....
.....
.....
.....
.....
.....

For list of names and Oaths of Assistants
Sec. 35 N R 20 W.
Page 294 Vol
Oath

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....
.....
.....
.....
.....
.....
..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....
.....
.....
.....
.....
.....
.....
.....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....
.....

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Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of ..... The final oaths of deputies and their assistants covering the field notes of Township 35 N. Range 16 W 6th Principal Meridian in Nebraska are with the field notes of T 35 N R. 20 W "Book J" executed under this Contract ..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,

Huron So Dak. Dec 12th, 1896

The foregoing field notes ~~of the survey of~~ Contained in one book lettered "F" of the subdivision lines of Township No 35 North of Range No 16 West of the 6th principal Meridian in the state of Nebraska

Robert Harvey and Alfred W Gumaer executed by under ~~his~~ their joint Contract No. 107, dated April 3rd, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Richard B Hughes

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in the State of Nebraska, has been correctly copied from the original notes on file in this office.

Richard B Hughes

U. S. Surveyor General.

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(4—679.)

FIELD NOTES

OF THE SURVEY OF

Subdivisional lines in Fractional Township 31 North Range 17 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. ....., *dated* May 26, 1890.

Survey commenced October 10th, 1890.

Survey completed October 16th, 1890.

(8781—2,000.) 6—151

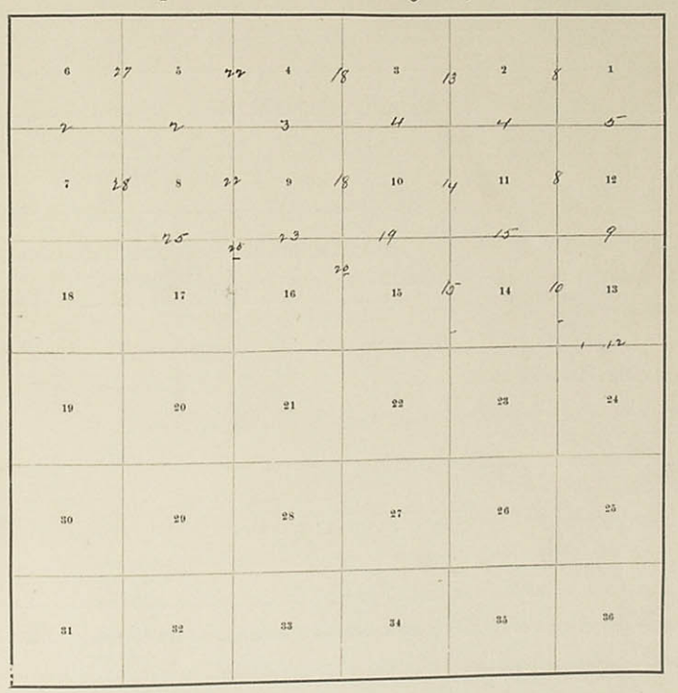
T31 R17
T31 R17

Names and Duties of Assistants.

Benjamin A Davidson	Chainman
Charles A Paul	Chainman
Henry A Burrell	Axeman
Truman C Lyle	Axeman
Jonathan L Peden	Flagman

INDEX DIAGRAM.

Township 24 N, Range 17 W



Meanders Page 30 to 35

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

..... , Chainman.

..... , Chainman.

..... , Chainman.

..... , Chainman.

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

..... , Axeman.

..... , Axeman.

.....

.....

Subdivision T 34 N. R 17 W.

Survey Commenced Oct 10th 1890 With a Burts improved Solar Compass Made by Wm J Young of Philadelphia Pa and Numbered 1432 in perfect adjustment

This Township fractional on West boundary bet secs 7 and 12 I proceed to run a Provisional Base Line as follows

At 7 00 am I set my compass over the center of the corner to secs 1.6.7 and 12 Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of Survey of Exterior boundaries of T 34 N R 16 W. and adjust it to a True Meridian by the Solar Apparatus

The Magnetic bearing of the True Meridian thus determined is N 17° 48' W. The Va is therefore 17° 48' E which corrected by table on page 55 of the printed manual gives for Mean Declination N 17° 45' E.

Thence I run

West on a random line on the Provisional Base Line

Va 17° 48' E

and set temporary half mile and Mile corners at every 40.00 and 80.00 chs and find the line to be 5 Miles 78 chs and 95 lks long And the falling to be 25 links N of the cor to secs 1.6.7 and 12 on the West boundary of the Township The correction will therefore be 7½ links S. per mile. The true course of the line will be N 89° 59' E.

At 1 00 PM I set my compass over the center of the above cor which is a stone firmly set and properly marked and witnessed as heretofore described in notes of Survey of Exterior boundaries T 34 N R 17 W. and take a backsight to a flag on hill North of the cor bet secs 1 and 6 Which has a Magnetic bearing of N 17° 45' W and the Va is 17° 45' E Which corrected by table on page 55 of the Manual gives for Mean Declination 17° 48' E

Thence I run

Subdivisions T34 N R17 W. Continued

Chains	
	N 89° 59' E on a true line bet secs 6 and 7 Va 12° 45' E
	Over level valley
1.50	Ascend bluffs bears N and S.
14.35	Drain course S.W.
28.85	Top of hill
32.90	Drain course S.
38.75	Drain course S.
38.95	Set a hard sandstone 14x12x5 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
41.45	Enter table land
52.45	Top of table land
54.75	Drain course S.E.
67.45	Top of hill
72.95	Drain course S.E.
77.45	Top of hill Descend
78.95	Set a hard sandstone 16x10x4 ins 11 ins the ground for cor to secs 5.6.7. and 8. Marked 5 notches on S edge and E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
	Sand rolling and broken
	Soil clay 3rd rate
	No timber
	N 89° 59' E on a true line bet secs 5 and 8. Va 12° 45' E
	Descend
1.50	Ravine 20 ft below sec cor. course S.E.
4.50	Flat Drain course S. Ascend
29.00	Top of hill Descend
38.50	Drain course S.E. 15 ft deep
40.00	Set a hard sandstone 15x10x4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
40.20	Drain course S.
	Ascend
58.00	Top of hill Descend.

Subdivisions T34 N R17 W. Continued

Chains	
70.00	Drain course N.
72.00	Broad flat Ravine course S.E.
80.00	Set a hard sandstone 15x12x4 ins 10 ins in the ground for cor to secs 4.5.8 and 9 Marked 5 notches on S. edge and 4 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside
	Sand rolling and broken
	Soil Clay 3rd rate farm land
	No timber
	N 89° 59' E on a true line bet secs 4 and 9 Va 12° 45' E
	Descend
4.50	Drain course S.W. Ascend
24.00	Top of hill
36.90	Drain course S.
40.00	Set a hard sandstone 15x10x4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
	Ascend
52.30	Top of gravel hill. Descend
60.00	Enter valley bears N and S.
69.25	Spotted Tail crest 6 links Wide runs S
77.00	Leave valley and ascend to
80.00	Set a hard sandstone 15x12x5 ins 10 ins in the ground for cor to secs 3.4.9 and 10 Marked 5 notches on S edge and 3 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base along side
	Sand rolling and broken
	Soil clay 2nd rate
	No timber on line. A few Scrub Oak and Willow trees along the crest
	Local Attraction has decreased the Va 3'

Subdivisions T34 N R17 W Continued

Chains	
	N 89°59' E on a true line bet secs 3 and 10 Va 17°47' E.
	Over ascending ground
4.00	Top of hill bears N W. and S E. Descend
11.75	Drain course N W. 10 ft deep Ascend
25.00	Top of hill Descend
37.75	Drain course S W.
40.00	Set a hard sand 18x12x4 ins 12 ins the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base along side
43.85	Drain course S W.
51.00	Leave table
53.45	Road bears N and S
64.00	Enter table land
74.50	Drain course S E
79.50	Drain course S.
80.00	Set a hard sandstone 18x12x3 ins 12 ins in the ground for cor to secs 2 3 10 and 11. Marked 5 notches on S edge and 2 on E face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
	Land rolling and broken
	Soil Clay 2nd rate
	No timber

	N 89°59' E on a true line bet secs 2 and 11 Va 17°47' E.
	Ascend
2.60	Top of sharp ridge bears N and S.
	Descend
6.50	Ravine course S
	Ascend
25.75	Top of hill
	Descend
36.70	Ravine course S 10 ft deep
39.00	Enter strip of table land.
40.00	Set a hard sandstone 16x12x4 ins 11 ins in the

Subdivisions T34 N. R17 W. Continued

Chains	
	for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
45.00	Leave table land
59.70	Ravine course S W. ascend
67.00	Top of hill Descend
68.70	Ravine course S E.
76.00	Top of gravelly hill Descend
80.00	Set a hard sandstone 18x12x6 ins 12 ins in the ground for cor to secs 1. 2. 11. and 12 Marked 5 notches on S edge and 1 on E face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
	Land good rolling table land
	Soil Clay 2nd rate
	No timber

	At 4.00 P.M. Declinal change has increased Va 2'
	N 89°59' E on a true line bet secs 1 and 12 Va 17°47' E.
	Over descending ground.
12.10	Drain course S.
16.00	Enter valley bears N and S.
17.20	Alkali crust 4 links wide runs S. Water clear and cold and is good drinking water
19.50	Leave valley bears N and S.
	Ascend.
23.00	Top of hill
40.00	Set a hard sandstone 14x10x4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
45.00	Top of hill
	Descend
60.50	Ravine course N. 6 ft deep
80.00	The cor to secs 1. 6. 7 and 12.

Subdivisions T34 N R17 W. Continued

Chains

Sand rolling
Soil E 40 chs sandy and gravelly 3rd rate
W 2 Clay 2nd rate
Scattering brush along Alkali Creek
October 10th 1890.

Oct 17th 1890. The last two nights being cloudy so that I could not make an observation of Polaris
At 6 30 A.M. I go to the cor to Sys 34 & 35 N R's 16 & 17 W. and set my compass over the center of the cor and adjust it to the point of observation set south of the ravine on line bet secs 1 & 6 on the night of Oct 8th 1890
The method of determining the True Meridian at this point I copy from my notes of Oct. 8th

Observation of Polaris Oct 8th 7h 31m

Astronomical Meantime by my watch compared with my Solar Compass this afternoon is 7h 31m
Tabular Local Mt. U C of Polaris Oct 1st 17 35.7
Reduction for Oct 7th 7.35
Local Mt U C of Polaris Oct 7th 17 17.7
Which taken from time of observation leaves hour angle of Polaris 19. 18.8
Subtract from 23. 56
Argument for Table II 4. 37
Azimuth for Latitude 43° 1 37° E
North end of Needle 11°.08' E
The sum is the Va 17° 45' E.

I lay off the Azimuth of 1° 37' to the West and drive a picket at 3p cor which is on the line of the True Meridian.
The Magnetic bearing of the true Meridian as established is now (Oct 17th) S 17° 48' E. & the Va is 17° 48' E which corrected by

Subdivisions T34 N R17 W Continued

Chains

table on page 55 of the Manual gives for Mean Declination 17° 45' E
I now continue the True Meridian South and at 40.00 find the 1/4 secs cor and at 80.00 chs find the cor to secs 1. 6. 7. & 12 on line which is in Lat 47° 56' N Long 99° 15' W.
The course of the Range line is therefore south
At 7.00 A.M. I set my instrument over the center of said cor and take the Magnetic bearing of the Range line which I find to be 17° 48' E.
Thence I run
S 89° 59' W on the S. boundary of sec 1.
Va 17° 48' E
At 40.00 chs find the 1/4 sec cor and at 80.01 find the cor to secs 1. 2. 11. & 12 on line
The South boundary of sec 1 is therefore as above stated

With the above true bearings I will run the subdivisional lines of the Eastern tier of secs. (Corrected by table X for Meridional sec lines.) N & S of the Base Line as required by the Manual of instructions

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At 8.00 A.M. I set my compass over the center of the cor to secs 1. 2. 11. & 12. and take a back sight to the Eastward on the S. boundary of Sec 1. and from this line I lay off an angle of 89° 59' to the North which gives the direction of the True Meridian and which I find has a Magnetic bearing of N 17° 48' W.
The Va is 17° 48' E which corrected by table on page 55 of the manual gives for Mean Declination 17° 45' E.
Thence I run
N 0° 1' W on a random line bet secs 1 & 2
Va 17° 48' E.

40.00 Set temporary 1/4 sec cor.

Chains
80.00 Intersect the N. boundary of the Tp & finds W of the cor to secs 1. 2. 35 & 36 Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T 34 N R 17 W.

Thence I run
S 0° 1' W on a true line bet secs 1 & 2
With same Va

Over level land.

3.00 Enter Spring bog bears N.W. & S.E.
16.40 Alt'd'd Crest 1 link wide runs S.W. bears bog
20.40 Same crest runs S.E.
26.60 Touch W bank of crest
29.90 Same crest. A pond on line 20 links wide course S.W.
40.00 Set a hard sandstone 14x10x4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5 1/4 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
59.00 Same crest Dry on line course S.E.
63.85 Same crest Dry on line course S.W.
70.85 Same crest. Dry on line course S.E. &
Ascend steep bank 10 ft high leave valley bears N.W. & S.E.
80.00 The cor to secs 1. 2. 35 & 36.

Land gently rolling
Soil Clay 3rd rate
No timber
Water in crest clear and cold and good drinking water.

At 8 30 AM. I set my compass over the center of the cor to secs 1. 2. 11 & 12. and adjust it to a true Meridian by the Solar Apparatus which has a Magnetic bearing of N 17° 48' E and the Va is 17° 48' E
Thence I run
S 0° 1' E bet secs 11 & 12.
Va 17° 48' E.

Chains Ascend.
2.25 Top of hill or ridge bears N.W. & S.E.
Descend
7.65 Drain course S.E.
19.35 Ravine course E.
39.00 Small Drain 2 ft deep course S.E.
40.00 Set a hard sandstone 16x10x4 ins 11 in in the ground for 1/4 sec cor. Marked 1/4 on W face Dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
53.00 Drain course S.E.
Ascend
67.00 Top of high hill bears S.E. & N.W.
Descend over smooth S. Slope
80.00 Set a hard sandstone 18x8x7 ins 12 in in the ground for cor to secs 11 12 13 & 14 Marked 4 notches on Sedge and 1 on E face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base alongside

Land N 67 chs rolling and broken
S 13 " good clay
No timber

N 89° 59' E on a random line bet secs 12 & 13
Va 17° 48' E.

40.00 Set temporary 1/4 sec cor.
80.00 Intersect the E boundary of the Tp at the cor to secs 7. 12. 13 & 18 Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of Exterior boundaries of T 34 N R 17 W.

Thence I run
S 89° 59' W on a true line bet secs 12 & 13
With same Va

Ascend ridge
2.00 Top of ridge bears N & S.
Descend
13.50 Ravine course S.E.

Subdivisions T34 N R17 W. Continued

Chains

18.75 Ravine course S.

19.00 Set a hard sandstone 15×12×4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

50.00 Enter valley trans N and S.

51.15 Alkali crust 3 links wide runs S.E.

56.60 Same crust runs N.E.

57.40 Same crust runs S.E. Ascend.

57.50 Leave valley trans N and S.

73.50 Top of ridge trans N.W. and S.E.

Descend over smooth smooth S.W. slope

80.02 The cor to secs 11.12.13 and 14.

Land rolling

Soil Clay 1st and 2nd rate

Some scrub oak trees along crust.

At 10.30 AM Diurnal change has decreased Va 2' 50°1' E bet secs 13 and 14

Va 17° 46' E.

Over smooth descending prairie

13.00 Leave smooth prairie

Descend

25.50 Ravine course S.E.

Ascend.

30.00 Top of gravel ridge trans S.E. and N.W.

40.00 Set a hard sandstone 16×10×5 ins 11" in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

40.60 Ravine course S.E.

Ascend

47.00 Top of hill

Descend smooth S. slope

72.00 South edge of clay band 15 ft high

Descend

74.10 Intersect the Left Band of Steya Paha River band sandy. A low sand bar in front.

Subdivisions T34 N. R17 W. Continued

Chains

Set a hard sandstone 17×12×9 ins 8 ins in the ground for Meander Cor to fractional secs 13. 14. 23 and 24 Marked M C on S face dug a pit 36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 4½ ft base alongside.

In front is a Sandbar of white sand and about 2 chs wide

No trees large enough for bearing trees within limits

Land rolling

Soil Clay 2nd rate

To connect the above Meander Corner with that of former Survey on Right Bank of Steya Paha River

I go to the Corner to Sections 13 14 23 and 24 which is a Cedar post in mound of earth with pits in each sec

The line bet secs 13 and 14 was run at a Va of 13° 40' E in 1875. I deduct 1° 00' for difference in Va for 15 years and from said cor

I run

North bet secs 13 and 14

Va 17° 40' E.

At 20.16 chs Intersect the Right bank of Steya Paha River

The M C and bearing trees have been destroyed by the River.

Thence I run

East from this point

With same Va

And at 11.88 chs intersect the Meander Corner on Left bank of Steya Paha River.

From the above measurements I deduce the following =

Distance N of River to M.C.	74.10 chs
Dist S. of River to point of offset	20.16 "
Total	94.26 "
Subtract	80.00 "
	14.26 "

Chains		
	Forward.	
	Excess of Latitude	14.26
	Departure is	11.88 E

Knowing that the line bet secs 13 & 24 will intersect the Keya Paha River at less than 80.00 chs
I go to the cor to secs 13.18.19 & 24 on the East boundary of the Tp. and set my compass over the center of the above cor which is a stone firmly set and properly marked and witnessed as heretofore described in notes of Survey of Exterior boundaries of T 34 N R 16 W.
At 11^30 AM I take a backsight to the Northward on the East boundary of sec 13. and find the Magnetic bearing of the line to be N 17°48' W. and the Va is 17°40' E.
I lay off from this line an Angle of 90°01' to the West.
Thence I run
S 89°59' W on a true line bet secs 13 & 24
Va 17° 50' E

Chains	
	Over rolling ground
1.10	Shallow Drain course S E.
15.00	Enter valley bras N.W. & S.E.
	Over level valley.
37.00	Alkali Crust 10 links wide runs S. bands 6 ft high
40.00	Set a hard sandstone 16x17x5 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E & W of stone 5 1/2 ft dist & raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
69.00	Intersect the Left Bank of Keya Paha River bank clay and 10 ft high
	Set a hard sandstone 18x8x4 ins 12 ins in the ground for Meander cor to fractional secs 13 & 24. Marked M.C. on N face dug a pit 36 ins square 1 ft deep 8 links E of stone and raised

Chains	
	a mound of earth 2 ft high 4 1/2 ft base alongside
	Land rolling and level.
	Valley level Soil Clay 1st rate
	Hills Clay 2nd rate farm land
	Oct 17th 1890.

At 7^00 AM. Oct 13th I go to the cor to secs 2.3.10 & 11 on the Provisional Base Line and set my compass over the center of the cor & take a backsight to the Eastward on S of sec 2. from this line I lay off an angle of 89°59' to the North which gives the direction of the true Meridian.
The Magnetic bearing of the True Meridian thus determined is N 17°48' W and the Va is 17°48' E. which corrected by table on page 55 of the Manual gives for Mean Declination 17°45' E
Thence I run
N 0° 2' W bet secs 2 & 3 on a random line
Va 17°48' E.

Chains	
40.00	Set temporary 1/4 sec cor.
79.98	Intersect the N boundary of the Tp 4 links E of the cor to secs 2 3. 34 & 35. Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of Survey of exterior boundaries of T 34 N R 17 W.
	Thence I run
	S 0°4' E on a true line bet secs 2 & 3.
	With same Va
	Descend 8 ft.
2.80	Spring bog 10 links wide course W.
	Ascend 10 ft to
6.00	Level ground.
39.98	Set a hard sandstone 18x8x5 ins 12 ins in the ground for 1/4 sec cor Marked 1/4 on W. face dug pits 18x18x12 ins N & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside

Chains
50.00 Leave level prairie and
Descend
56.50 Ravine course S.E. 75 ft deep
Ascend
63.00 Top of hill
Descend along W slope
79.98 Thence cor to secs 2. 3. 10. and 11
Sand level and rolling
Soil clay 1st and 2nd rate
No timber

At 8 o'clk A.M. I set my compass over the center of the cor to secs 2. 3. 10. and 11 and adjust it to a True Meridian by the Solar Apparatus the Magnetic bearing of the True Meridian so found is N 12° 48' E and the Va is 17° 48' E.
Thence I run
S 0° 2' E bet secs 10 and 11
Va 17° 48' E.
Along foot of slope 5 chs
7.60 Ravine course S.E.
Ascends.
13.50 Top of hill bears E & W.
Descends
21.25 Ravine course S.E. 10 ft deep
29.50 Ravine course S.E. 5 ft deep
Ascends
36.00 Top of hill
Descend
40.00 Set a hard sandstone 15×10×4 ins 10 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18×18×12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
47.00 Broad Drain course S.E.
59.75 Top of ridge bears N.W. & S.E.
75.00 Drain course S.E. 5 ft deep
77.50 Top of sharp ridge bears S.E. & N.W.
Descend
80.00 Set a hard sandstone 16×10×6 ins 11 ins in the

Chains
grounds for cor to secs 10. 11. 14 and 15 Marked with 4 notches on S edge and 2 on E face dug pits 18×18×12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside
Sand rolling
Soil clay 3rd rate farm land.
No timber

N 89° 59' E bet secs 11 and 14 on a random line
Va 17° 45' E
40.00 Set temporary 1/4 sec cor
79.86 Intersect the N and S line 2 links S of the cor to secs 11. 12. 13 and 14.
Thence I run
S 89° 58' W on a true line bet secs 11 and 14
With same Va
Over smooth nearly level table land
32.45 Ravine course S. 10 ft deep.
39.93 Set a hard sandstone 20×12×3 ins 15 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18×18×12 ins E & W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
45.00 Begin Descending along gradual W. slope
65.40 Ravine course S.
Ascends gradually.
76.80 Drain course S.
79.86 Thence cor to secs 10. 11. 14. and 15.
Sand level and rolling
Soil clay 1st and 2nd rate
No timber

S 0° 2' E bet secs 14 and 15
Va 17° 48' E.
Descending
5.35 Drain course S.E. 6 ft lower than corner.
Over smooth land
19.40 East slope of a round gravelly Peak or Butte

Subdivisions T34 N R17W. Continued

Chains

50 ft high. Line crosses about half way up the slope. Top bears West 118 links dist
The Peak is the S.E. terminus of a low ridge which bears S.E. and N.W.
Descend.
23.00 Enter river valley bears E and W.
40.00 Set a hard sandstone 16x10x4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
70.00 Enter small scattering brush
75.00 Intersect the Left Bank of Keya Paha River bank 3 or 4 ft high Sandbar in front.
Set a hard sandstone 15x14x4 10 ins in the ground for Meander Cor to fractional secs 14 and 15 Marked M.C on N face dug a pit 36 ins square 8 links N of stone and raised a mound of earth 2 ft high 4 1/2 ft base along side from which
A cottonwood 15 ins diam bears N 57° 35' W 205 links dist Marked T34 N R17W S15. M.C.B.T.
No other trees suitable for bearing trees within limits.
In front is a white sandbar 2 chs wide.
Opposite bank of River is perpendicular clay bank 20 ft high
Land level and undulating. Gentle smooth South slope
Soil N 60 chs clay 1st rate
S 15 " sandy 2nd rate
Timber A few scattering bushes and cottonwood trees along River.

To connect the above corner with that of former survey on Right Bank of the River I run
West from the above M.C. 11.35 chs to a point 1.86 chs S of the Meander cor bet fractional

Subdivisions T34 N R17W. Continued

Chains

secs 14 and 15 on Right bank or 19.14 chs N of the cor to secs 14.15.22. and 23. Which is a Cedar post in a mound of earth with a pit on S. side Marked M.C
From which
An Oak bears S 50° W 57 links dist agreeing with the field notes as furnished me by the General Land Office. The other tree has been washed away by the River and in a year or two the Meander Corner will also fall into the River
From the above Meander Corner I obtain the following results. towit:-

Distance to Meander Cor N of River	75.00 chs
Distance from cor to secs 14.15.22. and 23 to offset South of River	19.14 chs
Total	94.14 "
Subtract	80.00 "
Leaves for excess of Latitude	14.14 "

Diff in Departure is 11.35 chs
October 13th 1890.

At 7.00 AM Oct 14th I set my compass over the center of the cor to secs 3.4.9. and 10 and adjust it to a true Meridian by the Solar apparatus and the Magnetic bearing so determined is N 12° 48' W and the Va is 12° 48' E which corrected by table on page 55 of the Manual gives for Mean Declination 12° 45' E.
Thence I run
N 0° 3' W on a random line bet secs 3 and 4.
Va 12° 48' E.

40.00 Set temporary 1/4 sec cor.
79.98 Intersect the N boundary of the Tp 7 links E of the cor to secs 3.4. 33 and 34 Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of Exterior boundaries of T34 N R17W.
Thence I run

Subdivisions T 34 N. R 17 W. Continued

Chains

S 0° 6' E on a true line bet secs 3 and 4
With same Va

Gentle ascent over smooth prairie

17.00 S. side of smooth land and
Descend.

37.00 Enter valley bears N. E and S W.

39.98 Set a hard sandstone 14x10x4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

51.50 Drain course S. W 2 ft deep

58.00 Leave valley bears N. E and S W.
Ascend

60.00 Top of low ridge bears E and W. Descend

67.00 Enter valley bears N W and S E.

69.50 Spotted Oak 6 inch 5 links wide runs S E. and
74.75 Same crest runs W.
Ascend steep bank to

75.67 Top of sharp bank bears E and W.
Descend gentle slope

79.98 The cor to secs 3.4.9 and 10 on the Provisional Base Line

Land rolling
Soil clay 2nd rate
No timber

S 0° 3' E bet secs 9 and 10
Va 12° 48' E.

Gradual Ascent

10.70 Drain course N W.

26.50 Top of hill
Descend.

35.50 Drain course N W.
Ascend

40.00 Set a hard sandstone 16x7x6 ins 11 ins in the ground for W 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N and S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside

47.00 Top of hill

Subdivisions T 34 N. R 17 W. Continued

Chains

68.00 Enter River Valley bears E and W.
Over level valley

80.00 Set a hard sandstone 20x7x6 ins 15 ins in the ground for cor to secs 9.10.15. and 16 Marked 4 notches on S. edge and 3 on E face dug pits 18x18x12 ins in each sec 5½ ft dist and raised a mound of earth 2 ft high 4½ ft base alongside

Land level and rolling
Soil. Hills clay 2nd rate
Valley clay 1st rate
No timber

N 89° 59' E on a random line bet secs 10 and 15
Va 12° 48' E.

40.00 Set temporary 1/4 sec cor.

79.98 Intersect the N and S line 12 links N of the cor to secs 10.11.14 and 15

Thence I run
N 89° 56' W on a true line bet secs 10 & 15
With same Va

Over rolling ground. Descend.

6.00 Drain course S. E.
Ascend

10.00 Top of low ridge bears N W and S E
Descend

17.50 Drain course S. E
Ascend.

30.50 Top of ridge bears N W and S E
Descend

37.10 Drain course S. E
Ascend

39.99 Set a hard sandstone 16x10x4 ins 11 ins in the ground for 1/4 sec cor Marked 1/4 on N face dug pits 18x18x12 ins E and W of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside On top of bluff 100 ft high to the valley

40.90 West edge of bluff
Descend rapidly

41.40 Foot of bluff and enter valley bears N W and S E

Subdivisions T34 N R17W Continued

Chains
79.98 The cor to secs 9.10.15 and 16
Land level and rolling
Soil Hills clay 2nd rate
Valley clay 1st rate
No timber

S 0° 3' E bet secs 15 and 16
Va 12° 48' E

Over level valley
6.50 Wire fence inclosing comfield bears E and W.
18.00 S.W. Cor of settlers sod cabin
21.00 Wire fence bears E and W.
21.25 Road to ford bears E and W.
22.00 Intersect left of Keya Paha River on low bank.
Set a hard sandstone 15×12×3 ins 10 ins in the ground for Meander Cor to fractional sections 15 and 16 Marked M.C. on S. face dug a pit 36 ins square 8 links N of the M.C. and raised a mound of earth 2 ft high 4½ ft base alongside from which
A cottonwood 14 ins in diam bears N 41° 05' W 54 links dist Marked T34 N. R17W S16. M.C. B.T.
Land level
Soil Clay 1st rate
Timber-Scattering brush and a few scattering cottonwood trees along bank

To correct the above Meander Cor with that of former survey on the Right bank of Keya Paha River. I find the bearing trees to the Meander Cor bet fractional secs 15 and 16 as described in the notes furnished by the Gen'l Land Office. The Meander Cor is destroyed by the river. I go to the Cottonwood Marked S15 M.C. B.T. and run N 22° W 248 links and to the Cottonwood Marked S16. M.C. B.T. and run N 60° E 260 links which locates a

Subdivisions T34 N R17W Continued

Chains
a point on the sandbar in the River Allowing 1° 0' for diminished Va since 1875.
I run
North
Va 12° 40' E
9.46 chs to a point 10.72 chs West of the Meander Cor on Left bank of River bet fractional secs 15 and 16.
I add the following distances and obtain the following result.

Dist from cor to secs 15.16.21 and 22 to M.C. on Right Bank of River	62.40 chs
Dist North from M.C. on Right Bank	9.46 "
Dist from cor to secs 9.10.15 and 16 to M.C. on Left Bank of River	22.00 "
Total	93.86 "
Subtract	80.00 "
Leaves for excess of Latitude	13.86 "

October 14th 1890.

At 7.00 AM Oct 15th I set my compass over the center of the cor to secs 4.5.8 and 9. on the Provisional Base Line and take a back-sight to the Eastward on S. boundary of sec 4 and lay off an Angle of 89° 59' to the North which I find has a Magnetic bearing of N 12° 51' W and the Va is 12° 51' E which corrected by table on page 55 of the printed Manual gives for Mean Declination 12° 48' E
Thence I run
N 0° 3½ W on a random line bet secs 4 and 5
Va 12° 51' E.

40.00 Set temporary ¼ sec cor.
79.96 Intersect the N. boundary of the Tp 3 links E of the cor to secs 4.5.32 and 33. Which is a stone firmly set and properly marked and witnessed as heretofore described in notes of

Chains survey of exterior boundaries of T 34 N R17 W.

Thence I run
S0°5' E on a true line bet secs 4 & 5
With same Va

Over smooth ascending ground
16.85 Ravine course S.E.
39.96 On S edge of table land bears S.E. & N.W.
Set a hard sandstone 14x12x4 ins 9 ins in the ground for 1/4 sec cor Marked 1/4 on W. face dug pits 18x18x12 ins E. & W. of stone 5 1/2 ft dist & raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside. Descend
57.45 Ravine course S.E. 10 ft deep
Ascend
74.65 Top of E end of low ridge 10 ft higher than sec cor. Descend to. (bears N.E. & S.W.)
79.96 The cor to secs 4.5.8 & 9.
Land rolling
Table land gentle N slope
Soil Clay 1st rate
Stocks rolling clay 2nd rate
No timber

At 8°0' AM I again set my compass over the center of the cor to secs 4.5.8. & 9 and adjust it to a true Meridian by the Solar Apparatus. Its Magnetic bearing is N17°51' W and the Va is 17°51' E
Thence I run
S0°3 1/2' E bet secs 8 & 9
Va 17°51' E
Gentle Descent
2.80 Broad flat Drain course S.E.
Ascend gently
16.40 Top of ridge bears N.W. & S.E.
Descend
37.00 Enter valley bears N.E. & S.W.
Over smooth ground gentle S. slope
40.00 Set a hard sandstone 14x10x7 ins 9 ins in the

Chains Ground for 1/4 sec cor Marked 1/4 on W. face dug pits 18x18x12 ins N. & S of stone 5 1/2 ft dist and raised a mound of earth 1 1/2 ft high 3 1/2 ft base alongside
71.40 Road bears N.E. & S.W.
80.00 Set a hard sandstone 14x10x7 ins 9 ins in the ground for cor to secs 8.9.16. & 17 Marked 1/4 notches on S edge & W face dug pits 18x18x12 ins in each sec 5 1/2 ft dist and raised a mound of earth 2 ft high 4 1/2 ft base along side
Land nearly level and rolling
Soil Clay. Hills 2nd rate
Valley 1st rate
No timber

N. 89°59' E on a random line bet secs 9 & 16
Va 17°51' E
79.00 Intersect the Left Bank of Keya Paha River and set temporary Meander Cor to fractional secs 9 & 16.
I now run an offset N 3 1/2' W 5.40 chs
Thence N 89°59' E 11.00 chs which added to 79.00 makes an easting of
90.00 To a point on Left bank of Keya Paha River where I set temporary Witness cor to 1/4 sec cor
I continue offset 9.00 chs
Thence
S0°3 1/2' E to a point in the random line bet secs 9 & 16 on the Left Bank of Keya Paha River Meaning
49.00 From the sec cor.
Thence on a random line and at
79.90 Intersect the N & S Line at the corner to secs 9.10.15. & 16.
Thence I run
S89°59' W on a true line bet secs 9 & 16
With same Va

Over undulating ground

Chains

30.95 Intersect Left Bank of Skya Paha River:
Set a hard sandstone 14x10x4 ins 9 ins in the ground for Meander cor to fractional secs 9 & 16 Dug a pit 8 links E of stone 36 ins square 1 ft deep Marked Stone M. C on W face. and raised a mound of earth 2 ft high 4½ ft base alongside
No trees suitable for bearing trees within limits
I now run an offset
N 0° 3½' W 5.40 chs
Thence
S 89° 59' W parallel to true line 9.00 chs which added to 30.95 chs makes a Westing of

39.95 To a point on Left Bank of North Bend of Skya Paha River. The W¼ sec cor being inaccessable
Set a hard sandstone 14x10x4 ins 9 ins in the ground for witness corner to W¼ secs cor Marked "W C to W¼" dug a pit 36 ins square 1 ft deep 8 links North of stone and raised a mound of earth 2 ft high 4½ ft base alongside On account of the banks it is impracticable to dig pits E & W of stone
I continue offset 10.95
Thence
S 0° 3½' E. 5.40 chs and Intersect at temporary Meander Cor. being

50.90 Dist from sec cor on true line in place of temporary corner I
Set a hard sandstone 14x12x5 ins 9 ins in the ground for Meander Cor to fractional secs 9 & 16 Marked M.C. on E face dug a pit 36 ins square 1 ft deep 8 links W of stone 5½ ft dist and raised a mound of earth 2 ft high 3½ ft base alongside from which
A cottonwood 4 ins diam bears N 69° 40' W 12 links dist Marked S.9 M.C. B.T.
Thence
S 89° 59' W on a true line 29.00 chs makes

79.90 The cor to secs 8.9 16 & 17.

Chains

The length of the line is composed of the several distances

Distance East of River	30.95 chs
Distance on offset	10.95 "
Distance West of River	29.00 "
Total	79.90 "

Land Level & Undulating
Soil clay and Sandy 1st & 3rd rate
Timber Scattering brush along River bank.

Knowing that I will strike the Skya Paha River bet secs 8 & 17 at less than 80 chs
I run
S 89° 59' W on a true line bet secs 8 & 17
Va 17° 51' E
Over rolling sandy ground
Ascend
2.00 Low sandy ridge 6 ft higher than sec cor bears N 73° W & S 73° E
Descend
23.70 Intersect the Left Bank of Skya Paha River bank 6 ft high
Set a hard sandstone 15x10x5 ins 10 ins in the ground for Meander cor to fractional secs 8 & 17 Marked M C on W face dug a pit 36 ins square 1 ft deep 8 links E of stone and raises a mound of earth 2 ft high 4½ ft base alongside
No trees large enough to mark for bearing trees within limits
Land gently rolling
Soil sandy 3rd rate
Timber Some willows along river bank.

S 0° 3½' E bet secs 16 & 17
Va 17° 51' E.
Over gently rolling ground
Ascend to
.60 Top of low sandy ridge bears N 73° W & S 73° E
5.00 Enter Willows

Subdivisions T34 N R17 W Continued

Chains

570 Intersect the Left Bank of Skya Paha River bank.
Set a hard sandstone 16x10x3 ins 11 ins in the ground for Meander Cor to fractional secs 16 & 17 Marked M.C. on S face dug pits 36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 4½ ft base alongside
No trees suitable for bearing trees within limits
Land gently rolling
Soil sandy 3rd rate
Timber Scattering willow brush along river bank.

To connect the above Corner with that of former Surveys on Right bank of Skya Paha River I go to the cor to secs 8. 9. 16 & 17 south of the River which is a large mound of earth with pits in each sec and a piece of rotten end of old post, charred in mound – On top of high bluff 75 ft above the River
The line bet secs 8 & 9 was run at a Va of 13° 40' E in 1875. and dist to M C on river bank is 8.00 chs. I allow 1° for decreased Va for 15 years and run

North bet secs 8 & 9
Va 17° 40' E

150 At edge of table land and
Descend steep bluff to
450 Foot of bluff. & Enter valley bears E & W.
720 Intersect Right bank of Skya Paha River Water edge bears N 78° W & S 78° E.
757 A point in Skya Paha River 9.98 chs W of the M.C. bet fractional secs 16 & 17. on Left Bank of River
Note – The point for M.C. at 8.00 chs as described in the notes of Survey on Right Bank of River with the bearing tree falls in the middle of the River which is 160 chs wide — North bank is lined with small willow brush
From the above measurements I obtain the following results.

Subdivisions T34 N R17 W. Continued

Chains

Dist bet secs 8 & 9 S of the River	7.57 chs
" bet secs 16 & 17 N of the River	5.70 "
Total is excess of Latitude	13.27 "

Diff in Departure is 9.98 chs

October 15th 1890.

At 6.00 AM. Oct 16th I set my compass over the center of the cor to secs 5. 6. 7. & 8 on the Provisional Base line and taste a backsight to the Eastward on the S boundary of sec 5. & from this line I lay off an angle of 89° 59' to the North which gives the direction of the True Meridian Its Magnetic bearing is N 17° 51' W & the Va is 17° 51' E which corrected by table on page 55 of the printed Manual of instructions gives for mean Declination 17° 48' E.
Thence I run
N 0° 41½' W on a random line bet secs 5 & 6
Va 17° 51' E

40.00 Set temporary 1/4 sec cor
79.96 Intersect the N boundary of the Tp 4 links East of the Cor to secs 5. 6. 31. & 32 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries of T34 N. R17 W.
Thence I run
S 0° 06' E on a true line bet secs 5 & 6
With same Va
Over gently rolling ground ascend
200 Top of ascent 5 ft higher than sec cor.
Descend.
1785 Ravine course N.W. 75 ft deep
Ascend.
2200 Top of hill
Descend gradual smooth slope
3996 Set a hard sandstone 17x10x5 ins 8 ins in the ground for 1/4 sec cor Marked 1/4 on W face dug pits 18x18x12 ins N & S of stone 5½ ft dist and raised a mound of earth 1½ ft high 3½ ft base alongside
5200 Scarp smooth and

Subdivisions T34 N R17 W Continued

Chains

Enter rolling ground
60.00 Top of ridge bears N.W. & S.E.
Descend
75.00 Ravine course S.E.
Ascend 40 ft to
79.96 The cor to secs 5. 6. 7 & 8.
Land Undulating and valley.
Soil Clay 1st & 2nd rate
No timber

At 7.00 A.M. I again set my compass over the center of the cor to secs 5. 6. 7 & 8 and take a backsight to the Eastward on the North boundary of sec 8. and from this line I lay off an angle of 90°01' to the South which gives the direction of the True Meridian. Its Magnetic bearing I find to be S 17°51' E and the Var is 17°51' E.
Thence I run
S 0°42½' E bet secs 7 & 8
Var 17° 51' E.

Over rolling ground
Ascend
50 Top of Clay ridge N.W. & S.E.
Descend
17.00 Ravine course S.E.
Ascend
18.00 Ravine course S.W.
Ascend
27.00 Top of gravel hill
Descend
39.00 Enter valley bears E & W.
Over level valley
40.00 Set a hard sandstone 11x10x5 ins 7 ins in the ground for W sec cor Marked W on W face dug pits 18x18x12 ins N & S of stone 5½ ft east raised a mound of earth 1½ ft high 3½ ft base alongside
67.00 Enter small brush.
68.10 Intersect Left Bank of Keya Paha River bank

Subdivisions T34 N R17 W Continued

6 ft higher than River
Set a hard sandstone 11x8x3 ins 7 ins in the ground for Meander Cor to fractional secs 7 & 8 Marked M C on S face dug a pit 36 ins square 1 ft deep 8 links N of stone and raised a mound of earth 1½ ft high 4½ ft base alongside from which
A cottonwood 4 ins diam bears N 78° E 48 links dist Marked S 8 M C B.T.
A White willow 5 ins diam bears S 65° W 49 links dist Marked S.7. M.C B.T.
Bank on S side of River is perpendicular clay and shale bluff 100 ft high
Land level and rolling
Soil Clay 1st & 2nd rate
Timber - Some willows and a few small cottonwood trees along river bank.
To Connect the above Meander Corner with that of former survey on Right Bank of River I examine along the summit of high bluff but do not find any corner. South from this point is a large cornfield I search along the road line on the S. side of the field but cannot find the sec cor. The farmer informs me that this corner had been plowed out by a former owner of the land I make no further effort to connect the surveys
Oct 16th 1890.

Meanders of Left Bank of Keya Paha River Up Stream
At 1.00 PM Oct 17th 1890 I set my compass over the center of the Meander corner to fractional secs 19 & 24 and take a backsight to the North on East boundary of sec 24
The Magnetic bearing of the line is N 17°42' E and the Var is 17°42' E which corrected by table on page 56 of the Manual gives for Mean Declination 17°16' E.
Thence I run
With Meanders in sec 24.

Meanders T34 N R17 W. Continued

Va 12° 42' E.

Course

Over sandy bottom

N68¾° W 6.00 chs
N47° W 10.00 "
N43° W 12.00 " At 5.00 chs leave low bottom and brush Enter
N48½ W 8.00 " high bottom open prairie
N76° W 13.00 "
N88° W 5.00 " At 3.15 chs Crest 20 links wide runs S.E.
S68° W 4.00 "
S84¼° W 5.00 " Enter low bottom and small willows
N78¾ W 4.00 " At 3.00 chs leave willows and low bottom and
N27° W 17.00 " Enter high bottom
N20¼ W 6.00 "
N34°53' W 3.45 " Scattering brush to Meander Cor to fractional secs 13 and 24
Land nearly level
Soil. Sandy 2nd and 3rd rate
Timber. Willow and cottonwood brush 32.15 chs

At 5.00 P.M. Diurnal change has increased Va 3'
Thence in sec 13.

Va 12° 45' E.

Along high bank.

N53½° W 8.00 chs
N75° W 4.70 " At 1.00 chs leave brush and enter high bottom
To Meander Cor to fractional secs 13 and 14
Land level and rolling
Soil Clay and sandy 2nd and 3rd rate
brush 9.00 chs

Oct 12th 1890.

At 1.00 P.M. Oct 14th I set my compass over the Meander Cor to fractional secs 13 and 14 and take a backsight to a flag on the hill to the North bet secs 13 and 14. Its Magnetic bearing I find to be N 12° 42' W and the Va is 12° 42' E
Thence I run
With Meanders in sec 14.

Va 12° 42' E.

Meanders T34 N R17 W. Continued

Course

N59° W 15.00 chs Along low bottom and under high bank 1 to
S66½ W 6.00 " 3 chs wide
S78½ W 7.00 "
S75¾ W 10.00 "
N58¾ W 3.00 " At 2.00 chs leave low bottom and scattering brush
N68½ W 6.00 "
N78° W 4.00 "
S87¾ W 5.00 "
N83½ W 7.00 "
S70° W 7.00 "
S66½ W 5.00 " At 75 links Slough 40 lks wide course S.
S52¾ W 6.00 " Enter level bottom small scattering brush
S37°55' W 4.40 "
S65° W 2.60 " To M.C. bet fractional secs 14 and 15
Land level and gently rolling
Soil Clay and Sandy 2nd and 3rd rate
Timber. Willow brush 32 chs. Large trees cut down by settlers on S. side

Oct 13th 1890

At 12.00 M. Oct 14th I set my compass over the cor to fractional secs 14 and 15 and take a back sight to the North to a flag bet secs 14 and 15 on line. Its Magnetic bearing I find to be N 12° 44' W and the Va is 12° 42' E.
Thence I run
With Meanders in sec 15.

Va 12° 42' E.

Along low bottom throug small brush

N83½ W 4.00 chs
N64½ W 4.00 "
N43½ W 3.50 " Leave low bottom for higher ground and prairie
N16¾ W 4.00 "
N29½ W 5.00 "
N39¼ W 7.00 " At 1.00 ch Enter small willows and cottonwoods
N83¾ W 9.00 "
S85¾ W 3.00 "
N75° W 3.00 "
N53½ W 6.00 "
N41½ W 3.00 "

Meanders T 34 N R 17 W Continued

Course		
N 78½	W	4.00 chs
N 13°	W	8.00 "
N 6°	W	3.00 "
N 10°	E	4.00 "
N 75°	E	7.00 At 1.00 chs Leave brush and ascend high bank 50 to 75
N 15°	E	7.00 " ft high
N 73¾	E	15.00 "
N 46°	W	9.00 " At 4.00 chs Leave high bluff and enter bottom
N 86¾	W	6.00 "
S 77°	W	7.00 " Enter small scattering willows
S 67½	W	9.00 "
S 39°10'	W	17.00 " At 7 chs wire fence bears E and W.
S 37°	W	8.90 " At 8.75 chs ford. To M C. to fractional secs 15 and 16.

Land level
Soil sandy 3rd rate
Timber - Willows and small cottonwoods 89.50 chs
Oct 14th 1890

At 1.00 PM Oct 16th I set my compass over the cor to fractional secs 15 and 16 and take a back-sight to a picket which I set yesterday on the SW cor of the sod cabin bet secs 15 and 16. The Magnetic bearing of the line is N 17°45' W and the Va is 17°47' E.

Thence I run
With Meanders in sec 16.
Va 17°47' E.

Through small willows and cottonwoods

S 50°	W	8.00 chs
S 67¾	W	6.00 "
N 86¾	W	5.00 "
N 60°	W	8.00 "
N 78°	W	4.00 "
N 3¼	W	4.00 "
N 17°	W	6.00 "
N 11½°	W	6.00 "
N 18°	W	6.70 " At 1.00 ch enter prairie At 5.00 enter small brush.

Land nearly Level

Meanders T 34 N R 17 W. Continued

Soil sandy 3rd rate
Timber - 49.55 chs. Cottonwood trees cut down and hauled away

---

Thence in sec 9
Va 17°47' E.

Through small brush

N 73¾	W	3.00 chs
N 61¼	W	4.00 "
N 87½	W	4.50 "
S 89°	W	7.00 "
S 76°	W	7.00 " At 1.00 ch Mouth of Spotted tail creek no bank
S 59¾	W	6.00 " wide course S.
S 45°	W	7.55 " To Cor to fractional secs 9 and 16.

Land level
Soil sandy 4th rate
Timber small willows and young cottonwoods 73.05 chs

Thence in sec 16.
Va 17°47' E.

Through small willows and cottonwoods

S 64¾	W	9.00 chs
S 78¾	W	6.00 "
S 81¾	W	8.00 "
N 85°	W	7.70 " to Meander Cor bet secs 16 and 17.

Land Level
Soil sandy 4th rate
Timber - Willow and cottonwoods 31.00 chs

At 4.30 PM. Diurnal change has increased Va 3'
Thence in sec 17.
Va 17°45' E.

Along edge of low sandy and shale bank at edge of brush

N 78°	W	5.75 chs
N 89°	W	8.30
N 76°	W	7.35
N 70½	W	5.00

Meanders T34 N R17 W.

Course		
N49°	W	3.25 chs To Meander Cor bet fractional secs 8 and 17.

Sand level
Soil sandy and shale 4th rate
Line runs along bank near waters edge
Timber-Willow brush to right of line
Oct 15th 1890

At 9.00 AM Oct 16th I set my compass over the center of the M.C. to fractional secs 8 and 17 and adjust it to a True Meridian by the Solar apparatus. The True Meridian has a Magnetic bearing of N 12°45' W and the Va is 12°45' E.
Thence I run with Meanders in sec 8
Va 12°45' E.

Through small willows

N62°	W	2.30 chs
N50½	W	14.00 "
N54°	W	5.50 " To Sedge of clay and shale bluff thence
N56°	W	9.00 " along foot of bluff.
N67°	W	7.25 " Leave bluff. Thence along level bottom
S86°	W	9.00 "
S71°	W	8.00 "
S59°	W	7.00 " Enter small willow brush
S47°30'	W	3.65 " M.C. bet fractional secs 7 and 8.

Sand gently rolling
Soil clay and sandy 2nd and 3rd rate
Timber brush 32.65 chs

At 1.00 P.M. Diurnal change has decreased Va 5'
Thence in sec 7.
Va 12°40' E.

Through small scattering brush

S61°	W	3.40 chs
S69°	W	9.00 " Leave brush thence along low bar 3 ft high
N68½	W	2.55 "
N53°	W	3.00 "
N61	W	7.00 "
West		6.50 "

Meanders T34 N R17

Course		
S61°	W	7.50 chs
West		2.00 "
N77°	W	5.00 " Along edge of Willows
N44½	W	3.00 " Enter small willows
N26½	W	3.75 "
N20½	W	11.00 " At 10.00 chs Leave willows at foot of sandy and
N30°	E	12.00 " shale bluff. Ascend.
N24°	W	12.00 " On high bank
N43½	W	5.50 "
N62½	W	13.00 " Along clay bank
S78°	W	3.90 "
S46°55'	W	8.35 " At 2.50 chs Mouth of Wolf Creek 30 links wide runs S.E. 1 to Meander Cor bet fractional secs 7 and 12 on W boundary of the Township

Sand rolling
Soil Clay and sandy 1st and 3rd rate
Timber brush 33.70 chs.
Oct 16th 1890.

Copy note on pg. 36 here, then copy General description

General Descriptions

This Township lies in the Keya Paha River valley on South slope of bluffs and on table land. The soil in valley is clay and sandy and varies from 1st to 4th rate. The South slope is clay land and much of it will be fair farm land and is good grazing land and there is no difficulty in teams ascending and descending

The table land is about 100 ft higher than River and 75 or 100 ft lower than the table land North of the Township line. It is properly the 2nd bench; surface is rolling clay soil and varies from 1st to 3rd rate Along the Summit of many of the Sharp ridges are deposits of washed gravel varying in color from clear white to black

There are numerous springs at the head of the creeks having an excellent quality of drinking water. Alkali Creek is very irregular in its flow, in places having a strong current and at others the channel is dry.

General Description Continued

Spotted tail creek has a strong current of excellent spring water
Timber Willow and cottonwood brush grow along the River bank. The large cottonwood timber has all been cut down and hauled away there is none standing on the North side of the river Some small clumps of willows and plum brush along the creeks
Stone—The stone for corners were hauled from the Butte in sec 12.
Grass—There is an excellent growth of Buffalo grass and Blue joint all over the Tp. In the bottom of the flat ravines the settlers South of the River, cut hay in large quantities

Note—The stone used for corners in this Tp are all hard sandstone and impracticable to cut the notches on the corners so as to make them clear and intelligible. So I caused all sec corners to be set with the flat sides to the East and West and edges N and S. on the S. E. edge and East face the notches or horizontal bars not less than 2 inches long were cut sufficiently deep to make them clear and distinct and can be more easily read.

List of Names.

A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

For list of names and oath of Assistants
Sec T 34 N. R 18 W. page 190

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

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Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the, ~~U. S. Surveyor General for~~ General Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Fractional Township 34 N Range 17 W. of 6th

Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U.S. Deputy Surveyor.

Subscribed and sworn to before me this 8th day of April, 1891.

C. E. Forbes
Clerk Dist. Court
Neb.

Approval.

Office of the ~~U. S. Surveyor General~~ Commissioner, Genl Land Office
Washington D.C. June 30, 1891.

The foregoing field notes of the survey of Subdivisional lines in fractional T. 34 N., R. 17 W. of the 6th Principal Meridian in the State of Nebraska.

executed by U.S. Surveyors Nicholas J. Paul and Robert Harvey under his Contract No. 107, dated May 25th, 1891, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

J. H. Carter
Commissioner Genl Land Office
Ex Officio Surveyor General

~~U. S. Surveyor General.~~

~~I certify that the foregoing transcript of the field notes of the above-described surveys in, has been correctly copied from the original notes on file in this office.~~

~~U. S. Surveyor General.~~

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Rec'd with letter of R. S. Hughes, Surveyor General, S. D. dated Feb. 8, 1897

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(4—679.)

Exhibit

BOOK G

FIELD NOTES

OF THE SURVEY OF

Subdivision lines
of
Township No 35 North
of
Range No 17 West
of the
Principal Base

Of the 6th Principal Meridian,
in the State of
Nebraska.

AS SURVEYED BY

Robert Harvey and Alfred W. Gumaer, U. S. Deputy Surveyors

Under ~~his~~ their joint Contract No. 107, dated April 3, 1895.

Survey commenced July 24, 1895.

Survey completed July 27, 1895.

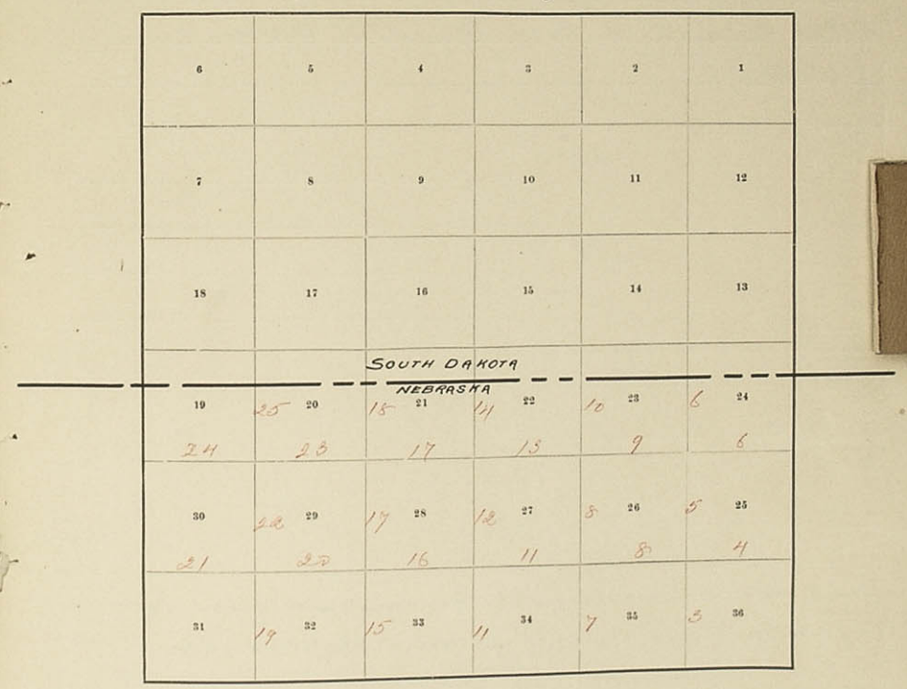
(12503—2,000.)

Names and Duties of Assistants.

Clifford H. Norton	Chainman
Herbert J. Paul	Chainman
Clayton J. Norton	Axman and Mounduman
Howard J. Sheppard	Axman and Mounduman
William L. Stitt	Flagman
Lewis M. Williams	Flagman

INDEX DIAGRAM.

Township 35 N. . Range 17 W.



Meanders Page .....

Preliminary Oaths of Assistants.

We, ...

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For preliminary oaths of assistants see those with T.35N. R13W. Contained in Book lettered "B" executed under this Contract.

....., Chainman.

....., Chainman.

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., Axeman.

....., Axeman.

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6—151

T.35 N.R.18

T.35 N.R.18

T.35 N.R.19

T.3.1.H18
T.35.H18
T.35.H19

To satisfy myself as to the length of the S Bdy of Tp 35 N R 17 W - On the 25th of July preliminary to running the W Bdy of the Tp. I carefully re-measured the S Bdy of the Tp. as follows.

S Bdy	sec	36	80.10 chs
S Bdy	sec	35	80.16 chs
S Bdy	sec	34	80.12 chs
S Bdy	sec	33	80.08 chs
S Bdy	sec	32	80.04 chs
S Bdy	sec	31	78.86 chs {E.½ - 40.12 / W.½ - 38.74}
	Total		479.36 chs

This distance I placed in the table of Latitudes, Departures and closing errors of the survey of the W Bdy of the Tp as the true length thereof.

Robert Harvey
U. S. Deputy Surveyor

Note The stone to be used for corners in this Township are a hard, brittle sand stone found upon the hillsides broken into flat slabs of irregular dimensions, and cannot be cut or broken into regular proportions. It is found that notches cut on the edges of the stone very frequently resemble the notches caused by the breakage of the edges and cannot be distinguished therefrom. It is therefore determined to set the interior section corners with the flat faces E. and W. and the narrow faces N and S. and cut grooves on these faces which can be readily distinguished.

Survey commenced July 24 1895 and executed with a Heller & Brightly transit No. 6602 with a Solar attachment. The horizontal limb is provided with two double Verniers placed opposite to each other reading to 20" of arc, and the latitude and declination arcs reading to single minutes.

The instrument was examined, tested on the true meridian at Harm S. D., found correct and was approved by the Surveyor General for South Dakota June 21 1895.

I examine the adjustments of the transit, and find the levels and collimation correct, then to test the Solar apparatus by comparing its indications resulting from Solar observations made during A.M. and P.M. hours, with a true meridian determined by observations on Polaris I proceed as follows:

Having established a True Meridian at the cor. of Tps 34 and 35 N. Rs 16 and 17 W. in latitude 42° 57' 57" N. longitude 99° 15' 24" W. July 19th and 20th 1895. I copy from my Notes of the W. boundary of R. 16 W. through T. 35 N. of the above dates - the method of determining the same to wit

"At 11h 34m P.M. I set by my watch, which I compare with the Solar this afternoon at 6h 30m, I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined on a plug driven in the ground 8.35 chs S. of my station

July 19th 1895

July 20 At 5h 30m a.m. I set Stay off the azimuth of Polaris 1° 42.7 to the West and mark the true Meridian thus determined by cutting a small groove in the stone set July 19th (on a low ridge 8.39 chs S. of the cor)

July 24 1895 At 10h 15m A.M. I set at the above described cor. I set off 42° 57' 37" N on the lat. arc, 19° 51' N on the decl arc, and determine a true meridian with the Solar and mark a point thereof on the stone already set July 19th - 8.39 chs S. of

Chains	
	my station, which falls 0.5 ins W. of the Polaris observation
	At 0h 6m p.m. l.m.t. I set off 19° 50' N. on the decl arc and observe the sun on the Meridian: The resulting lat, is 42° 57' 40" N. which is about the proper latitude
	At 2h p.m. l.m.t. I set off 42° 57' 37" N. on the lat arc and 19° 49' 30" N on the decl arc and determine with the solar a true Meridian and mark a point thereof on the stone already set 8.39 chs S. of my station: This mark falls 0.4 ins East of the Polaris observation
	The solar apparatus by A.M. and p.m. observations defines positions for true Meridians respectively about 0'.15" East and 0'.12" West of the Meridian established by the Polaris observation, when referred to the North. I therefore conclude that the adjustments of the instrument are satisfactory
	The magnetic bearing of the true Meridian at 2h p.m. is N 12° 10' W.: The angle thus determined reduced by table page 100 gives the mean mag. decl 12° 15' E
	I compare my measuring chain with the standard chain and find it agrees with the same.
	Having established the 2nd Guide Meridian W. and E. bdy of sec 36 on a true Meridian July 20th I do not retrace the E. bdy of sec 36 — Therefore the E. bdy of sec 36 bears N.
	From the Tp cor above described I turn off an angle of 90° to the West from the true Meridian and run
	West on the S. bdy of sec 36 and at 40.06 chs fall 9 lks N. of the 1/4 sec. cor.: and at 80.10 fall 17 lks N. of the cor of secs 1. 2. 35 and 36 on the S. bdy of the Tp. consequently the S. bdy of sec 36 bears S 89° 53' W.
	Therefore the bearings are as above stated and my chaining practically agrees with the field notes of the Original Survey
	I commence at the cor of secs 1. 2 35 and 36 on S. bdy of the Tp. which is a sandstone 10 x 10 x 3 ins above ground, firmly set and marked and witnessed as described by the Surveyor General
	Thence I run
	N 0° 1' W. bet secs 35 and 36
	Over undulating valley land
5.50	Center of flat sandy bed of Alkali Creek — Now dry course S, 30° W
15.20	Low sand ridge bears N.E. and S.W. descend steep bank

Chains	
16.00	Foot of bank 15 ft high and S. edge of same dry creek course S E, and thence across bend of gravelly bed of same
21.00	Leave dry bed of Alkali creek course S.E. Ascend steep bank 15 ft high here leave valley bears N W and S E
22.10	Top of ridge on left bank of the dry creek bears N W and S E Descend
29.20	Ravine course S 35° W. 5 ft deep
34.03	Wire fence bears E. and W.
34.90	Ravine course S. 43° W. 15 ft deep. Ascend gentle slope
40.00	Set a sandstone 20 x 10 x 4 ins — 15 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face: dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of cor.
44.60	Top of ridge 15 ft higher than 1/4 sec. cor.
45.80	Top of second ridge
50.00	Wire fence bears N 20° W and S. 20° E. Ascend
56.00	Top of gravelly ridge bears E and W. descend
63.30	Top of gravelly ridge bears E and W. descend
68.65	Ravine 20 ft deep course S. 50° W
70.50	Ravine course S W. Road in bottom of same Ascend
76.25	Leave broken and rolling gravel ridges and enter smooth table land
80.00	Set a sandstone 18 x 10 x 5 ins — 12 ins in the ground for cor of secs 25. 26. 35 and 36 Marked with 1 groove on S. face, and 1 groove on E. face: dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft dist: and raise a mound of earth 4 ft base 2 ft high W. of cor.
	From this cor. J. M. Macumber's sod house bears N. 49° E. about 5.00 chs dist.
	W. L. Osborne's sod house bears N 19° 20' W about 30 chs dist
	Land rough and broken
	Soil sand and gravel 4 rate
	No timber
	N. 89° 53' E. on a random line bet secs 25 and 36
40.00	Set temp 1/4 sec cor
80.10	Intersect the E. bdy of the Tp. 1 lk N of cor of secs

5 Subdivision of T 35 N R 17 W. Continued

Chains	
	25.30.31 and 36 which I established July 20' 1895
	Thence I run
	S 89° 53 W. on a true line bet secs 25 and 36
	Over smooth undulating prairie
26.48	Enter plowed ground bears N and S.
33.80	Leave same bears N. and S.
36.50	Joseph Kofruneko sod house bears N 4.00 chs dist
40.05	Set a Sandstone 18x12x5 ins - 12 ins in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18x18x12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of cor.
78.49	Road bears N. and S.
80.10	The cor of secs 25.26.35 and 36
	Land undulating
	Soil Clay good 2nd rate
	No timber
	N. 0° 1 W. bet secs 25 and 26
	Over smooth undulating prairie
6.00	Road bears N 20° W and S. 20 E
40.00	Set a Sandstone 19x11x4 ins. 16 ins. in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S. of stone 3 ft dist, and raised a mound of earth 3½ ft base 1½ ft high W. of cor.
	Thence along W. side of plowed field
80.00	Set a Sandstone 22x12x4 ins - 16 ins in the ground for cor of secs 23.24.25 and 26, marked with 2 grooves on S. face, and 1 groove on E. face; dig pits 18x18x12 ins in each sec. 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of cor
	From this cor a sod house bears N 77° 20' W, about 15 chs.
	Mrs Taylors sod house bears N. 82° E
	Oran Taylors sod stable bears S 80° E
	Land level or undulating
	Soil Clay good 2nd rate
	No timber

Subdivision of T 35 N R 17 W. Continued 6

Chains	
	At 5h 30m l. m. t. I set off 42° 59' 21" N on lat arc; 19° 49' N on decl arc; and determine a true meridian with the solar
	Thence I run
	N 89° 53' E. on a random line bet secs 24 and 25
40.00	Set temp 1/4 sec cor.
80.10	Intersect the E. bdy of the Tp 3 lks N. of the cor of secs 19. 24.25 and 30 which I established July 20 1895
	Thence I run
	S 89° 54' W. on a true line bet secs 24 and 25
	Over gently undulating prairie
40.05	Set a Sandstone 21x10x4 ins - 15 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of cor
	From this cor. Lee Daly's frame house bears N. 21° E about 4.00 chs dist
	Sod house of Mrs Martha Taylor bears N 83° 20' W
	Sod stable Oran Taylor bears S. 80° 20' W.
	Sod house Horatio Pilgrimes bears S 34° E about 5.00 chs dist.
80.10	The cor. of Secs. 23.24.25 and 26
	Land gently undulating
	Soil Clay good 2nd rate
	No timber
	N 0° 1' W. bet secs 23 and 24
	Over smooth level prairie
40.00	Set a Sandstone 20x10x5 ins. 15 ins in the ground for 1/4 sec cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W of cor.
	Descend gentle slope
55.53	Ravine Course E.
	Ascend gentle slope
58.10	Intersect the North Boundary of Nebraska 6.74 chs. E. of the 19th Mile stone which is a quartzite 3½ ft x 10 x 10 ins above ground, marked S.D. on N. N. on S. and 19 M. on W. faces:
	Set a Sandstone 16x13x5 ins. 11 ins in the ground

7 Subdivision of T 35 N. R 17 W. Continued

chains	
	for Closing Cor. of secs. 23 and 24 Marked C.C 35N and 3 grooves on S. face, and 1 groove on E. and 5 on W. faces: dig pits 24×18×12 ins crosswise on each line E and W. 3 ft, and S. of stone 7 ft dist: and raise a mound of earth 4 ft base 2 ft high S. of Cor.
	Land level and rolling
	Soil Clay good 2nd rate
	No timber
	July 24th 1895
	July 25 1895 At 5h 30m a.m. l.m.t. I set off 42°57' 37N on the lat arc: 19°44' 30" N. on decl arc. and determine a true Meridian with the solar. at the cor of secs 2, 3 34 and 35 which is a sandstone 8×8×5 ins above ground marked and witnessed as described by the Surveyor General.
	Thence I run
	N 0° 2' W. bet secs 34 and 35
	Over rolling west slope of foot hills
3.00	Ravine Course W.
15.25	Road bears N 8° W and S 8° E.
19.60	Flat sandy ravine Course N 35° W.
24.80	Ravine course W. 15 ft deep
40.00	Set a sandstone 16×12×5 ins – 11 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18×18×12 ins N and S. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor
44.70	Top of gravel ridge 10 ft higher than Cor
77.60	Drain Course N.W.
78.30	Drain course W.
79.40	Drain course S 79° W. Ascend 3 ft higher than drain to
80.00	Set a sandstone 21×15×5 ins – 16 ins in the ground for Cor. of secs 26. 27. 34 and 35. Marked with 1 groove on S. face, and 2 on E. face; dig pits 18×18×12 ins in each sec 5½ ft dist: and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land rolling west slope
	Soil sandy and gravelly 3rd rate No timber

Subdivision of T 35 N R 17 W. Continued 8

Chains	
	N. 89° 55' E. on a random line bet secs 26 and 35
40.00	Set temp 1/4 sec. cor
80.14	Intersect the N and S. line 5 lks S. of the cor of secs 25 26. 35 and 36
	Thence I run
	S 89° 51' W. on a true line bet secs 26 and 35
	Over smooth level ground
12.48	Head of drain Course S.
	Thence over rolling ground
19.00	Ravine Course S.
37.40	Road bears S. 44° W.
40.07	Set a sandstone 18×15×4 ins – 12 ins in the ground for 1/4 sec cor. Marked 1/4 on W. face; dig pits 18×18×12 ins E and W. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
49.70	Ravine course N.
65.00	Top of ridge bears N W and S E descend
74.50	Leave hills and enter low foot hills bears N and S.
80.14	The Cor of secs 26. 27. 34 and 35
	Land level ~~and~~ rolling and broken
	Soil Clay and gravel 2nd and 4th rate
	No timber
	N 0° 2' W bet secs 26 and 27
	Over rolling ground
	Ascend
6.30	Top of hill 10 ft higher than Cor.
17.40	Drain Course S 57° W.
35.30	Center of bed of sandy ravine Course N 40° W
39.25	Gulch course S W.
40.00	Set a sandstone 17×14×5 ins. – 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18×18×12 ins N. and S. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
	Note: this cor stands on the S. slope of hill
40.20	Top of hill. bears N E and S W
41.00	Leave foot hills and ascend Mountainous ground bears N W and S E.
50.60	Road bears N.E. and S.W.
56.40	Top of high sharp ridge bears N 55° E and S. 55° W.
61.20	Gulch course S 75° W. 60 ft deep

9 Subdivision of T 35 N R 17 W Continued

Chains	
65.95	Ravine course S.W. 25 ft deep Ascend
76.00	Top of ridge bears E. and W.
79.50	Drain course W. Ascend 5 ft to
80.00	Set a Sandstone 13×11×11 ins – 9 ins in the ground for Cor of secs 22. 23. 26 and 27. Marked with 2 grooves on S. and E. faces: dig pits 18×18×12 ins in each Sec. 5½ ft dist: and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	School house (Sod) in S E⁴ sec 27
	Land rolling — broken and Mountainous
	Soil gravelly. S² 3rd rate. N² 2 rate
	No timber
	Mountainous land 39⁰⁰ chs
	N. 89° 51' E. on a random line bet secs 23 and 26
40.00	Set temp ¼ sec cor.
80.10	Intersect the N. and S. line 3 lks S. of the Cor of secs 23. 24. 25 and 26.
	Thence I run
	S 89 50' W. on a true line bet secs 23 and 26
	Over undulating ground
12.80	Shallow drain course N.
31.10	Flat shallow drain course N. 75° E.
36.80	Enter plowed field bears N. and S.
40.05	Set a Sandstone 14×13×10 ins – 10 ins in the ground for ¼ sec. cor. Marked ¼ on N. face: dig pits 18×18×12 ins E. and W. of Stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high N. of Cor
	From this Cor. E. L. Claytons frame house bears S 48° 5 chs dist W about
	W. L. Osbornes sod house bears S 31° E
	Wm Daly sod house bears S. 6° W. about 43 chs.
58.60	Leave plowed field bears N. and S.
59.05	Wagon Road bears N 50° W and S. 50° E.
73.10	Leave Smooth ground and descend over rough broken gravel ridges
80.10	The Cor of Secs. 22. 23. 26 and 27
	Land undulating
	Soil Clay and gravel E 73¹⁰ 2nd rate W 7⁰⁰ chs 4 rate
	No timber

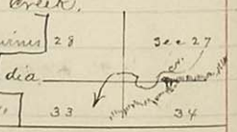
10 Subdivision of T 35 N R 17 W. Continued

Chains	
	N 0° 2' W. bet secs 22 and 23
	Over rolling and level ground
	Ascend
1.00	Top of ridge 10 ft higher than Cor. bears NE and SW
2.30	E. bend of ravine
10.00	Leave gravel ridges and Enter Smooth table land
19.55	Road bears N 53° W. and S 53° E
40.00	Set a Sandstone 17×15×4 ins – 12 ins in the ground for ¼ sec. cor. Marked ¼ on W. face; dig pits 18×18×12 ins N. and S. of stone 3 ft dist and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
42.35	Enter plowed ground bears E and W.
50.05	Leave same bears E and W.
54.85	Drain course N.E.
58.25	Intersect the North Boundary of Nebraska 6.47 chs. E. of the 18 Milestone, which is a quartzite 3½ ft×10×10 ins. above ground. Marked S.D. on N. N. on S. and 18 M. on W. faces.
	Set a Sandstone 18×12×7 ins – 12 ins in the ground for closing Cor of secs 22 and 23. Marked C.C. 35 N. and 3 grooves on S. face: and 2 grooves on E. 3/4 on W. faces; dig pits 24×18×12 ins crosswise on each line E and W. 3 ft and S of stone 7 ft dist. and raise a mound of earth 4 ft base 2 ft high S. of Cor.
	Land level and rolling
	Soil clay and gravel good 2nd rate and 4 rate
	No timber.
	July 25 At the Cor. of Secs 3. 4. 33 and 34 on the S bdy of the Tp. I set off 19° 37' N. on the decl arc and at 0h 6m p.m. l.m.t. observe the sun on the Meridian: The resulting latitude is 42° 57' 30" which is about 0.1 less than the proper latitude.
	At 2h 15m p.m. l.m.t I set off 42° 57' 37" N on the lat. arc, 19° 36' N. on decl arc: and determine a true Meridian with the solar, at the Cor. of secs 3. 4. 33 and 34 on the S. bdy of the Tp. which is a Sandstone 7×7×5 ins above ground Marked and witnessed as

Chains	
	described by the Surveyor General
	Thence Drew
	N. 0° 2' W. bet Secs 33 and 34
	Over level ground
2.75	N. edge of smooth ground and enter broken gravelly ridges
7.00	Leave same and enter smooth ground
12.50	Begin descent
25.25	Foot of hill and enter creek valley bears N.E. and S.W.
25.95	E. branch of Spotted Tail Creek 2 lks wide 2 inches deep clear running spring water Course S 60° W
28.90	Same creek course S 30° E
29.75	Same Creek course West
30.25	Leave Valley and ascend hills bears N. and S.W. 25 ft high
35.25	Ravine Course S 25° E
40.00	Set a Sandstone 19 x 12 x 4 ins. 17 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
42.50	Top of hill and enter smooth ground
55.90	Ravine Course S.W.
64.50	Begin descent
68.18	Ravine with road in bottom course N.W.
78.25	Enter Creek valley and leave hills bears N.E. and S.W.
80.00	Set a Sandstone 20 x 12 x 5 ins. 15 ins in the ground for Cor. of Secs 27. 28. 33 and 34 Marked with 1 groove on S face, and 3 on E. face; dig pits 18 x 18 x 12 ins in each Sec 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.

This Cor. stands in a small bend of Creek.

Land rolling and broken by creeks and ravines
Soil on table land 2nd rate in valley 1st rate
No timber } good grass along creek valley



N 89° 55' E on a random line bet Secs 27 and 34

40.00	Set temp 1/4 sec. cor.
80.10	Intersect the N. and S line 3 lks S. of the Cor of Secs 26. 27. 34 and 35
	Thence Drew
	S 89° 52' W. on a true line bet Secs 27 and 34

Chains	
	Over gently rolling demanding ground
1.00	Drain Course S.W. (shallow)
3.70	Drain Course N. 43° W. (shallow)
6.75	Same drain Course S 60° W.
11.80	Same drain Course N 65° W.
13.00	Same drain Course S 67° W.
24.80	N. bend of same thus
25.90	Road bears N 53° E and S 53° W.
36.00	E. branch of Spotted Tail Creek 1 lk wide 1 inch deep Clear running spring water Course S.W.
40.05	Set a Sandstone 17 x 11 x 6 ins - 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.

From this Cor A Sod School house bears N. 57° E in S.E. 1/4 Sec 27

A Sod house in N.E. 1/4 Sec 34 bears S 47° E about 15 ch

41.95	Enter Wheatfield bears N. and S.
48.75	Leave same bears N. and S.
	Thence through a prairie dog town
69.50	Leave smooth ground
74.75	Edge of bluff thence along N. edge of same
79.00	Leave bluff and enter valley bears N.W. and S.E. South of the point of bluff See diagram preceding mile
79.35	Spotted Tail Creek 3 lks wide 3 inches deep, clear running spring water, course S 20° W.
79.84	Same Creek 3 lks wide course N 21° E.
80.10	The Cor. of Secs 27. 28. 33 and 34

Land rolling W. descent and level
Soil Clay and gravel 2nd and 3rd rate
No timber

N° 2 W bet Secs 27 and 28

Over valley land

0.24	Spotted Tail Creek 3 lks wide 3 ins deep clear running water Course W.
5.80	S. edge of spring bog bears E and W.
6.80	N. Edge of same bears E and W.
6.95	Leave Valley and ascend steep bluff 20 ft high. thence

13 Subdivision of T 35 N R 17 W. Continued

Chains	
	Over Smooth land
12.50	R. W. Adkins sod house bears East about 3.00 chs
13.80	Wire fence bears E and W
40.00	Set a Sandstone 20×12×4 ins - 15 ins in the ground for 1/4 sec cor. Marked 1/4 on W. face: dig pits 18×18×12 ins N and S. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor
43.05	Wire fence in bed of ravine E. and W.
43.10	Center of flat sandy bed of ravine Course W.
61.00	Leave valley and ascend bluffs bears E and W.
66.25	Ravine course S 60° E
80.00	Set a sandstone 19×13×5 ins - 14 ins in the ground for Cor of secs 21. 22. 27 and 28 Marked with 2 grooves on the S. face, and 3 on E. face; dig pits 18×18×12 ins. in each sec 5 1/2 ft dist. and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land level and rolling
	Soil, clay and gravel 2nd and 4th rate
	No timber
	At 5 P.M. but I set off 42° 59' 21" N. on lat arc: and 19° 35' 30" N on decl. arc and determine a true Meridian with the solar
	N. 89° 52' E on a random line bet. secs 22 and 27
40.00	Set temp 1/4 sec. cor.
80.06	Intersect the N. and S. line 5 lks N. of the cor of secs 22. 23. 26 and 27.
	Thence I run.
	S. 89° 54' W. on a true line bet. secs 22 and 27
	Over rolling, broken and Mountainous land
	Descend
0.60	Ravine Course N.W. 5 ft lower than Cor.
1.60	Same Ravine Course S 75° W.
2.25	Same Ravine Course N.
4.65	Same Ravine Course S.W.
5.05	Same Ravine Course N.W.
6.80	Same Ravine Course S 60° W
7.75	Ravine Course S
18.30	Ravine 25 ft deep Course S W.

Subdivision of T 35 N. R 17 W. 14

Chains	
24.75	Ravine Course S 40° E - 30 feet deep
~~32.20~~	
32.20	Ravine Course N 50° E
37.75	Ravine Course N 10° E
40.03	Set a Sandstone 20×15×5 ins - 15 ins in the ground for 1/4 sec. Cor. Marked 1/4 on N. face: dig pits 18×18×12 ins E. and W. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of Cor.
50.00	Top of gravel hill bears N. and S.
56.40	Road bears N 35° E and S 35° W. descend
73.35	Ravine Course S. 50 ft deep. ascend
80.06	The Cor of secs. 21. 22 27. and 28
	Land rolling, broken and Mountainous
	Soil gravelly 4th rate
	No timber
	Mountainous land 80.06 Chains
	No° 2' W. bet secs 21 and 22
	Over level east slope
2.00	Begins descent
9.25	Ravine course S 40° E 50 ft lower than Cor.
22.30	Ravine Course S 65° W. Ascend
34.00	Top of table land and enter smooth ground leave mountainous ground
40.00	Set a Sandstone 21×12×4 - 15 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18×18×12 ins. N and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor.
50.50	Road bears E. and W.
50.60	Enter plowed field bears E and W.
58.30	Intersect the North Boundary of Nebraska 6.38 chs. E. of the 17 Mile stone, which is a quartzite 3 1/2 ft×10×10 ins above ground, Marked S.D on N. N. on S. and 17 M. on W. face;
	Set a Sandstone 19×14×5 ins. 15 ins in the ground for closing Cor of secs. 21 and 22. Marked C.C. 35 N. and 3 grooves on S. face; and 3 grooves on E and W. faces; dig pits 24×18×12 ins. Cross-

Chains

rise on each line E. and W. 3 ft and S of stone 7 ft dist; and raise a mound of earth 4 ft base 2 ft high S of Cor.

From this Cor. Frank Daish sod house bears S. 82° E. about 20 chs. dist.
Thomas Drain sod house bears S 68° W.

Land smooth and level - rough and Mountainous
Soil Clay and gravel 2nd and 4th rate
No timber
Mountainous land 34.00 chains

July 25 1895

July 26 1895 At 6h a.m. I set off 42° 57' 37" N on the lat. arc: 19° 29' 30" N on the declination arc: and determine a true meridian with the Polar: at the Cor of secs 5. 32 and 33 on the S. bdy of the Tp. which is a Sandstone 9 x 4 x 3 ins above ground marked and witnessed as described by the Surveyor General.

Thence I run
N. 0° 3' W. bet secs 32 and 33
Over rolling and broken ground

0.30 Road bears E and W.
1.50 Begin descent bears E and W
6.30 Ravine Course E. 40 ft deep Ascend
11.50 Top of Table land. Leave Mountainous land
16.55 Ravine 20 ft deep Course E
39.50 Ravine Course E. ascend to
40.00 Set a Sandstone 17 x 17 x 10 ins - 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face: dig pits 18 x 18 x 12 ins N and S. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor

Note This Cor stands about 6 ft higher than ravine.

50.30 Drain Course S.E.
63.18 Drain Course S 40° E.
80.00 Set a Sandstone 17 x 12 x 6 ins. 12 ins in the ground for Cor of Secs. 28. 29. 32 and 33 Marked with 1 grooves on S. face, and 4 on E. face: dig pits 18 x 18 x 12 ins in each Sec 5 1/2 ft dist and raise a mound of earth 4 ft base 2 ft high W. of Cor

Chains

Land rolling broken and Mountainous
Soil Clay 3rd rate N. 68.50 chs 2nd rate
No timber
Mountainous land 11.50 chains

N 89° 53 E on a random line bet secs 28 and 33
40.00 Set temp 1/4 sec. cor.
80.06 Intersect the N. and S. line at Cor of secs 27. 28. 33 and 34
Thence I run
S 89° 53' W. on a true line bet secs 28 and 33
Over rolling and broken valley land
0.55 Spotted Tail Creek course S 60° W. 3 links wide 3 ins deep Clear running water.
2.20 Old Creek channel course S.
2.60 Leave Creek valley and ascend open between creeks
6.90 Leave Open and enter Valley bears N.W. and S.E
8.07 Spring Branch of Spotted Tail Creek 2 links wide clear running water Course S 30° E
8.20 Leave Creek Valley and ascend to 2nd bench or high Valley bears N and S.
12.00 Top of bench
From this point John Woods sod house bears N. 5° E about 12.00 chs. dist
12.75 S.E. Cor. Woods Wire fence thence along same
15.05 Spring Branch 1 lk wide 1 inch deep Course S. 32° E. 30 ft lower than Top of bench
31.50 S.W. Cor of Wire fence 30 links N.
33.70 Ravine S 40° E
40.03 Set a Sandstone 17 x 10 x 6 ins 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face: dig pits 18 x 18 x 12 ins E and W. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of Cor.
From this Cor Henry Hitchcock's sod house bears N 50° 40' W. about 15.00 chs dist
Miss May Hitchcock's sod house bears S. 8° W. about 6.00 chs dist
42.05 Road bears N. and S.
45.80 Ravine Course S 5° W.
58.45 Spring Branch 1 lk wide 1 inch deep Course S 50° E

17 Subdivision of T. 35 N. R. 17 W. Cont^d

Chains	
61.35	Enter plowed field bears N and S.
79.25	Leave same bears N and S.
80.06	The Cor of Secs 28. 29. 32 and 33
	Land rolling - broken by deep Canyons - Mountainous
	Soil Clay 2nd rate and 3rd rate
	No timber
	Mountainous land 70.36 chains

	No° 3' W. bet secs 28 and 29
	Over rolling ground
9.50	---- Carlson's log house bears 1.20 chs West
	Dismd
16.90	Foot of hill and enter Spring bog bears S.E. and N.W.
18.70	Leave spring bog and ascend bears E. and W.
	Ascend long slope
26.00	Road bears N.E. and S.W.
40.00	Set a Sandstone 21 x 9 x 5 ins. - 15 ins in the ground for 1/4 Sec Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N and S of stone 3 ft dirt; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor.
	Note here leave Valley and ascend bluffs bears E. and W. The ascent is so gradual that it is difficult to determine where edge of Valley and foot of bluffs. Ends and begins.
52.85	Top of gravel ridge 100 ft higher than valley bears N.W. and S.E.
78.40	Ravine course S. 59° E.
80.00	Set a Sandstone 17 x 14 x 4 ins - 12 ins in the ground for Cor. of Secs 20. 21. 28 and 29. Marked with 2 grooves on S. face, and 4 on E. face; dig pits 18 x 18 x 12 ins in each Sec 5 1/2 ft dirt; and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land gently rolling and high bluffs
	Soil Clay and gravel 2nd and 4th rate
	No timber

	N 89° 55' E, on a random line bet Secs 21 and 28
40.00	Set temp 1/4 Sec. Cor

Subdivision of T 35 N. R 17 W. Continued 18

Chains	
80.02	Intersect the N and S line 5 lks N of the Cor of Secs. 21. 22. 27 and 28
	Thence Run
	S. 89° 55 W. on a true line bet secs 21 and 28
	Over ~~rolling~~, broken hills, Mountainous
0.45	Top of hill or ridge 4 ft higher than Cor. bears N and S.
5.90	Ravine Course S. 20° E. Ascend
8.00	Top of ridge bears N.W. and S.E.
12.90	Ravine Course S
21.70	Ravine Course S.
28.00	Enter high valley leave Mountainous ground bear N.W. & S.E.
36.40	Ravine Course S.
40.01	Set a Sandstone 18 x 12 x 5 ins. 12 ins in the ground for 1/4 Sec Cor Marked 1/4 on N. face dig pits 18 x 18 x 12 ins E and W. of stone 3 ft dirt; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of Cor.
42.70	Ravine Course S. 20° E.
46.80	Ravine Course S 60° E. here leave Valley & Enter Mountainous land Ascend bears N.E. and S.W.
55.20	Ravine Course S. Ascend
62.20	Top of hill bears N and S.
	Thence over rough hill
65.90	Road bears S. 40° W
75.40	Same road bears N.W. and S.E.
80.02	The Cor of Secs 20. 21. 28 and 29
	Land undulating - high rolling and broken
	Soil Clay sandy and gravelly 2nd 3rd and 4th rate
	No timber, Mountainous land 63.22 chains

	N.0° 3' W. bet Secs 20 and 21
	Over Mountainous and level land
	Ascend
0.82	Same Road bears E. and W.
3.00	Top of hill bears E. and W. descend
10.60	Ravine 100 ft wide course S 80° W.
	Ascend
21.00	Ravine course S 45° W.
31.50	Top of hill, leave Mountainous ground
	Thence over smooth table land

Chains

40.00 Set a Sandstone 17x10x5 ins – 12 ins in the ground for 1/4 Sec Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base. 1½ ft high W. of Cor.

58.35 Intersect the North Boundary of Nebraska 6.35 chs E. of the 16 Mile stone, which is a quartzite 3½ ft x 10 x 10 ins above ground. Marked S.D. on N. N. on S. and 16 M. on W. faces

Set a Sandstone 19x14x3 ins – 12 ins in the ground for Closing Cor. of Secs 20 and 21 Marked C.C. 35 N. and 3 grooves on S. face and 4 on E and 2 on W. faces: dig pits 24x18x12 ins crosswise on each line 3 ft E and W and S. of stone 4 ft dist: and raise a mound of earth 4 ft base 2 ft high S. of Cor.

From this Cor. Shot Brain's Sod house bears S 72° E.

Sand Mountainous and level

Soil Clay and gravel 2nd and 4th rate

No timber

Mountainous land 31.50 chs

July 26 Near my Camp at Cor of Secs 28.29.32 and 33 I set off 19° 24' N. on decl arc; and at 0h 6m P.M. l.m.t I observe the sun on the Meridian. The resulting latitude is 42° 58' 35" which is the proper latitude nearly.

At 2h 45m P.M. l.m.t I set off 42° 57' 37" N on the lat. arc; and 19° 23' N on decl arc; and determine a true Meridian with the Solar at the Cor of Secs 5.6.31 and 32 on the S bdy of the Tp. which is a sandstone 10 x 7 x 3 ins. above ground Marked and witnessed as described by the Surveyor General.

From this Cor a Sod house bears N 62° E about 25 chs dist

Thence true

N. 0° 4' W. bet Secs 31 and 32

Over rolling and Mountainous ground

11.30 Ravine 6 ft deep Course N 45° W.

15.60 Enter plowed ground bears E and W.

29.70 Leave same bears E and W. and enter Mountainous

Chains

ground – descend

37.20 Ravine Course N W. 50 ft deep Ascend

40.00 Set a Sandstone 16x10x4 ins – 11 ins in the ground for 1/4 Sec Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor

46.50 Enter Grass field bears E and W.

50.88 Leave same bears E and W. descend

58.00 Enter Spring bog bears E and W.

59.30 Leave same bears E and W Ascend

61.20 Jed Humphreys Sod house bears E. 75 lks

71.50 Enter Valley bears N. W. and S. E. – Leave Mountainous ground

72.10 Spring Branch 1 lk wide course S 35° E.

79.90 Spring Branch 3 lks wide course S 5° W.

Thence up Stream

80.00 Point for Sec Cor. falls in creek and cannot therefore be established – Creek 2 lks wide Course S. 5° W. Char running north

Note For witness Corner. to Cor of Secs 29.30.31 and 32, see lines bet Secs 30 and 31 and 29 and 30.

Land Rolling – Timber, and Mountainous

Soil Clay 3rd rate

No timber

Mountainous land 41.80 chs.

From the point for Cor. of Secs. 29.30.31 and 32 in the Creek

I run

N. 89° 53' E on a random line bet Secs 29 and 32

40.00 Set temp 1/4 Sec Cor.

80.04 Intersect the N. and S. line 4 lks S. of the Cor of Secs 28.29.32 and 33.

Thence true

S. 89° 51' W. on a true line bet Secs 29 and 32

Over gently rolling land

4.70 Flat Drain Course S. E.

5.95 Enter plowed ground bears N. and S.

20.70 Leave plowed field bears N. and S.

24.30 Road bears S 22° W

26.35 Enter plowed field bears N. and S.

21 Subdivision of T 35 N. R. 17 W. Continued

Chains	
27.00	Road bears N. and S.
40.02	Set a Sandstone 17×14×3 – 12 ins in the ground for 1/4 sec cor Marked 1/4 on N. face; dig pits 18×18×12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of cor.
45.60	Leave plowed field bears N and S.
	Begin descent over mountainous ground
55.40	Ravine course N 60° W
57.50	Same ravine course S 50° W.
66.00	Same ravine course N 60° W
71.65	Same ravine course S 20° W. Ascend
75.50	Top of hill or ridge bears N. and S. descend
80.04	The point for sec. cor of 29.30.31 and 32 in the Creek
	Land gently rolling – broken and Mountainous
	Soil Clay E. 45.60 chs 2nd rate W. 34.44 3rd rate
	No timber
	Mountainous land 34.44 chs.
	From the point for cor of secs 29.30.31 and 32 in the Creek I run
	S 89 55 W. on a random line bet secs 30 and 31
0.15	Set temporary witness cor to secs 29.30.31 and 32
40.00	Set temp 1/4 sec. cor.
78.75	Intersect the W. bdy of the Tp 3 lks S. of the cor of secs. 25.30.31 and 36 – which I established July 24 1895
	Thence I run
	N. 89° 54' E on a true line bet secs 30 and 31
	Over rough ~~land and~~ Mountainous land
	Descend
6.25	Leave hills and Enter Valley bears N and S.
17.20	Wolf creek course S.E.
22.75	Leave Valley and ascend bluffs bears N. and S.
23.85	Wire fence bears N. and S.
31.05	Top of bluff 100 ft higher than valley
	From this point A sod house bears N 6° 20' E., about 30 chs.
	Jos. L Payne's log house bears N 74° 30' W.
	Descend gentle slope to
38.75	Set a Sandstone 13×12×4 ins – 9 ins in the ground for 1/4 sec cor Marked 1/4 on N. face; dig pits 18×18×

Subdivision of T 35 N R 17 W. Continued 22

Chains	
	12 ins. E. and W. of stone 3 ft dist. and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of cor
42.00	Ravine course S.
49.35	Enter plowed ground bears N and S.
53.55	Leave same bears N and S.
56.65	Ravine course S.
62.40	Ravine course S.W.
65.95	Road bears S 40° E and N 40° W.
66.85	Road bears S 20° E and N 20° W
67.75	Descend hill or bluff
75.35	Ravine 75 ft lower than top of bluff course S. 50° E
78.60	Set a Sandstone 18×8×4 ins. 12 ins. in the ground for Witness cor. to cor. of secs 29.30.31 and 36 Marked W. C. on E. face; with 1 groove on S. face and 5 grooves on E. face dig pits 18×18×12 ins N.E. S.E. S.W. and N.W. of cor. 5 1/2 ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.
78.75	The point for cor of secs. 29.30.31 and 32 in the Creek.
	Land rolling broken and Mountainous
	Soil Clay 3rd rate Valley land good 2nd rate
	No timber
	Mountainous land 62.75 chs.
	From the point for cor. of secs 29.30.31 and 32 which falls in the creek I run
	N 0° 4' W. bet secs. 29 and 30
	Over ascending ground
0.38	Set a Sandstone 14×9×4 ins – 9 ins. in the ground for Witness Cor. to cor of secs. 29.30.31 and 32 Marked W.C. on E. face: with 1 groove on S face, and 5 grooves on E. face; dig pits 18×18×12 ins N.E. S.E. S.W. and N.W. of cor 5 1/2 ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.
10.00	Enter smooth ground.
	Thence over undulating prairie
40.00	Set a Sandstone 15×13×3 ins – 10 ins in the ground for 1/4 sec cor. Marked 1/4 on W. face dig pits 18×18× 12 ins N. and S. of stone 3 ft dist: and raise a mound of earth 3 1/2 ft base, 1 1/2 ft high W. of Cor,

Chains	
	Note This Cor. Stands in a flat shallow drain 1 ft deep
	Course S 32° W.
	From this Cor. Wm Bailys sod house bears S 83½° E. 10 chs
	Jas. Pourells sod house bears S 78° 35' E 20 chs dist
41.50	Road bears E and W.
59.75	Drain Course S. 40° W
66.05	Road bears N. 40° W.
80.00	Set a Sandstone 17x9x5 ins - 12 ins in the ground for Cor of secs 19. 20. 29 and 30. Marked with 2 grooves on S. face, and 4 grooves on E. face; dig pits 18x18 x12 ins in each Sec 5½ ft dist; and raise a Mound of earth 4 ft base 2 ft high W. of Cor.
	From this Cor J. D. Kyes sod house bears S 50° 30' W. 12.00 chs dist
	Frank Richmonds sod house bears N 10° 20' W.
	Land Undulating
	Soil Clay 2nd rate
	No timber

Chains	
	N 89° 51' E. on a random line bet secs 20 and 29
40.00	Set temp 1/4 sec. cor.
80.02	Intersect the N. and S. line 4 lks N. of the cor of secs 20. 21. 28 and 29.
	Thence I run
	S. 89° 55' W. on a true line bet secs. 20 and 29.
	Cross rolling gravel hills
	Ascend
2.00	Ridge bears N. and S. on top of ridge 10 ft higher than Cor.
11.90	Top of ridge bears N.W. and S.E. descend
20.00	Leave hills and Enter Valley bears N. and S. 100 ft lower than top of hills
30.10	Top of gravelly ridge 20 ft higher than valley bears N.W. and S.E. S.E. end Extends about 3.00 chs
	Ascend over gentle slope to the West
40.00	Set a Sandstone 17x9x6 ins - 12 ins in the ground for 1/4 Sec Cor Marked 1/4 on N. face dig pits 18x18x12 ins E and W. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high N. of cor.
80.02	The Cor. of Secs. 19. 20. 29 and 30.

Chains	
	Land undulating Valley and high fine
	Soil Clay and gravel 2nd and 4th rate
	No timber. July 26 1895

July 27 1895

At the Cor of secs 19. 20. 29 and 30 established last night I set off 12° 59' 31" N on the 1st arc and 19° 15' 30" N on the 2nd arc; and at 6h 15m a.m. f.m.t. determine a true Meridian with the Solar

S 89° 54' W. on a random line bet secs 19 and 30

Chains	
40.00	Set temp. 1/4 sec Cor
78.60	Intersect the W. bdy of the Tp. 7 lks N of the Cor. of secs 19. 24. 25 and 30 which I established July 24 1895
	Thence I run
	N. 89° 51' E. on a true line bet secs 19 and 30
	Over mountainous, ~~and rolling~~ land
	Ascend
4.40	Top of ridge bears N. and S. 50 ft higher than Cor.
5.60	Foot of hill and enter creek Valley bears N. and S.
6.70	Spring Branch 1 lk wide 1 inch deep course S 20° E
10.60	Leave Valley and ascend bluffs 75 ft high bears N. and S. mountainous land
15.60	Top of Spur of hill
23.10	Top of South slope of sharp spur
25.40	Foot of step Spur. Enter Valley bears N. and S.
25.50	Dry Branch of Wolf Creek course S.
27.30	Same dry branch course N.
29.60	Dry Branch of Wolf Creek course S 50° W. water in holes
31.20	Leave Valley and ascend bluffs 75 ft high bears N.E. and S.W. mountainous land.
34.70	Top of step ascent - thence ascent is gradual
36.60	Summit of hill leave Mountainous land - descend
38.60	Set a Sandstone 20x12x5 - 18 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E. and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.
45.00	Foot of hills and Enter Valley bears N.E. and S.W.
50.55	Dry Branch of Wolf Creek course S.
54.60	Ascend point of hill bears N.E. and S.W.
55.10	Leave Spur and Enter Valley bears N.W. and S.E.
57.20	Same Dry Branch course N 14° W
59.20	Same Dry Branch course S 45° W
61.00	Same Dry Branch course N. 45° W.

25 Subdivision of T 35 N R 17 W. Continued

Chains	
64.60	S. point of Spur bears N. and S.
71.20	Road bears N. and S.
72.35	Same Dry Branch Course S 60° W.
76.85	Leave Valley and Ascend slope 15 ft higher to
78.60	The Cor. of Secs. 19. 20. 29 and 30
	Land rolling and broken - Mountainous
	Soil Clay loam and gravelly 2nd rate and 4 rate
	No timber
	Mountainous land W. 36.60 chains
	N. 0° 4' W. bet secs 19 and 20
	Over gently rolling ground
	Descend
1.50	Foot of descent, 15 ft lower than Cor. and Enter valley bears N.E. and S.W.
4.80	Same dry Branch Course W.
6.00	Leave Valley and ascend bench 10 ft high bears E and W.
16.65	Enter Corn field of Frank Richmond bears E and W.
31.20	Leave same bears E and W.
32.60	Enter plowed ground bears E and W.
34.90	Leave same bears E and W. Enter valley
40.00	Set a Sandstone 18×15×3 ins - 12 ins in the ground for 1/4 sec Cor Marked 1/4 on W. face dig pits 18×18×12 ins N and S. of stone, 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor
40.25	Leave Valley and ascend steep bank 10 ft high bears E and W.
48.50	Leave bench and Enter Valley bears E. and W.
49.60	Branch of Wolf creek, water in holes - water hole on line Course S 25° W.
56.20	Leave Valley and ascend bench bears N E and S.W.
58.48	Intersect the North Boundary of Nebraska 6.24 Chs E. of the 15th Mile stone, which is a quartzite 3 1/2 ft×10×10 ins above ground marked S.D. on N. N. on S. and 15 M. on W. faces.
	Set a Sandstone 16×15×4 ins - 10 ins in the ground for Closing Cor. of Secs. 19 and 20. Marked C.C. 35 N. and 3 grooves on S. face: and 5 grooves on E. and 1 on W. face, dig pits 24×18×12 ins. Crosswise on each line E. and W. 3 ft. and S. of stone 7 ft dist: and raise a mound of earth 4 ft base 2 ft high S. of Cor.

Subdivision of T 35 N R 17 W. Continued 26

Chains	
	From the above Cor. Frank Richmonds Sod house bears S 11° 40' W.
	Land rolling
	Soil Clay and loam 2nd and 1st rate
	No timber
	July 27 1895 8h 30m a.m.

At the close of the survey of this Tp I repaired to the S.W. Cor. thereof and set my transit over the center of the cross (+) cut on top of the stone and set off 42° 59' 37" N on the latitude arc, and 19° 12' N. on the decl arc and at 9h 45m a.m. (mt) determine a true Meridian with the solar: the line thus determined falls on the stone set July 24th 6.50 Chs. North of the Cor. 0.5 ins East of the True Meridian determined by the Polaris Observation

Note During the survey of this Tp my measuring chain was carefully compared with standard chain each morning before work commenced.

General Description

This township has a variety of surface - from low narrow creek bottom, high bench or Valley to Elevated table land

The soil in the creek bottoms is rich black loam and produces good crops of grain, vegetables and hay. The amount of land along the creeks is however limited

The bench or high Valley land is the 2nd bench of the Keya Paha River and is 100 ft or more, higher than the river and extends North to the foot of the table land in this township. The surface has a general S. slope but is cut by the small creeks and numerous cayons or ravines. The soil is generally Clay and 2nd rate.

The Tableland is about 100 ft higher than the above descrid 2nd bench and is mostly in the Northeastern portion of the township. The surface is generally

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smooth and undulating dark clay soil and 2nd rate
The S. slope of this table land is generally rough and broken
sandy and gravelly and 4th rate
There are a number of excellent springs and spring brooks of clear
cold water issuing from the foot of the gravelly hills
and run S. into Tp 34
There are a number of settlers living along the Spring
branches and on the Tableland.
Stone is found along the south slope of the bluffs but
generally ~~#~~ of a poor quality. Most of the stone for
Cors. were brought from T 34, Rs 16 and 18.
There is no timber in this Tp excepting some willow
brush and small trees along Spotted Tail creek.

Robert Harvey
U.S. Deputy Surveyor
Alfred W. Gunnard
U.S. Deputy Surveyor
And acting in Capacity of Topographer

List of Names.

A list of the names of the individuals employed by .....
....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Oaths of Assistants dec 9, 35 N R20 W page 294
Entries of surveyor page 295

Final Oath of Assistants:

We hereby certify that we assisted .....
....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18

SEAL

6—151

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of ..... The final oaths of the deputies and their assistants covering the field notes of Township 35 N. Range 17 W. 6th Principal Meridian in the Nebraska are with the field notes of T 35 N R 20 W "Book J" executed under this Contract ..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....
U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL.

.....

.....

Approval.

Office of the U. S. Surveyor General,
Huron So Dak. Dec. 12th, 1896

The foregoing field notes ~~of the survey of~~ Contained in one book lettered "G" of the Surveys Subdivision lines of Township No 35 North, Range No 17 West of the 6th principal Meridian in the State of Nebraska executed by Robert Harvey and Alfred W Gumaer their joint under his Contract No. 107, dated April 3, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Richard B Hughes
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in the State of Nebraska, has been correctly copied from the original notes on file in this office.

Richard B Hughes
U. S. Surveyor General.

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169.

170

(4—679.)

54197

FIELD NOTES

OF THE SURVEY OF

Subdivisional lines in Fractional Township 34 North Range 18 West

Of the 6th Principal Meridian,

AS SURVEYED BY

Robert Harvey, U. S. ~~Deputy~~ Surveyor,

Under his Contract No. , dated May 26th, 1890.

Survey commenced October 17th, 1890.

Survey completed October 20th, 1890.

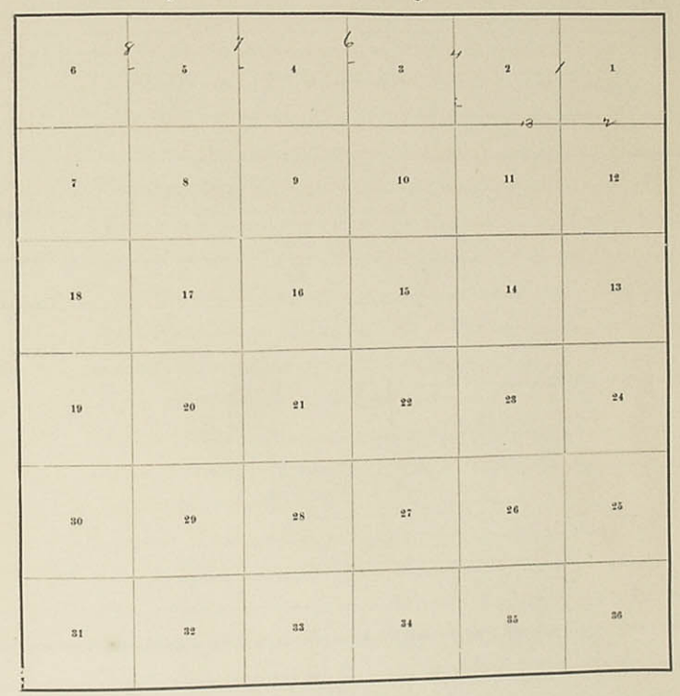
(8780—2,000.) 6—151

Names and Duties of Assistants.

Benjamin H Davidson	Chainman
Charles A Paul	Chainman
Henry A Burrell	Axeman
Sumner C Lyle	Axeman
Jonathan L Peden	Flagman

INDEX DIAGRAM.

Township 34 N, Range 18 W.



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page 10 to 14

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

.....

.....

.....

.....

....., Chainman.

....., Chainman.

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., Axeman.

....., Axeman.

.....

.....

6—151

Subdivision T 34 N R 18 W. Continued

Survey commenced Oct 17th 1890 with a Burts improved Solar compass manufactured by Wm J. Young of Phila Penn. and numbered 4432 in perfect adjustment

This Tp not having a full tier of meridional lines on the West tier, The North boundary of the Tp will be used as a baseline, from which the lines will be run South.

There being only a small amount of subdivision lines to be run, I do not make an observation of Polaris or remeasure any portion of the E or N boundaries.

In my camp at noon I compare my measuring chain with the standard chain and find it correct. I also compared it this morning before I began running the North boundary.

At 2 P.M. I place my instrument over a flag on the ridge East of the Cor. to Secs. 1, 2, 35 and 36 on the North boundary, adjust it by the Solar apparatus, to an East and West line and find that it agrees with the line run this morning. I conclude that it is in perfect adjustment

I now remove my compass to the said Cor. to Secs. 1, 2, 35 and 36. and adjust it to a true meridian by the Solar apparatus

The magnetic bearing of the true meridian so determined I find to be N 12° 48' W and the Var. is 12° 48' E which after allowing 3' for diurnal change gives for mean declination 12° 51' E

Thence I run

S 0° 1' E bet. Secs 1 and 2

Va 12° 48' E

Descend

.65 Drain course S E 5 ft lower than Sec Cor.

Ascend along E slope of hill

15.00 Top of E slope of hill and

Descend

40.00 Set a hard sandstone 16+12+4 ins, 11 ins in the ground for 1/4 Sec Cor, marked 1/4 on W face, dug pits 18+18+12 ins

Subdivision T 34 N R 18 W continued

Chains	
	N and S of stone 5½ft dish and raised a mound of earth 1½ft high 3½ft base alongside
48.50	Short gulch 15ft deep heads about 1 ch E of line course SW.
54.00	Enter low table land or second river bottom bears E and W
74.00	Leave table land and descend
79.50	Short ravine course SW
80.00	Set a hard sandstone 10+12+6 ins, 15 ins in the ground for cor to secs, 1, 2, 11 and 12 marked 5 notches on S edge and 1 on E face, dug pits 18+18+12 ins, in each sec 5½ft dish and raised a mound of earth 2ft high 4½ft base, alongside
	Hills clay soil 2d rate
	Table land soil 1st rate
	No timber.

	East on a random line bet. secs. 1 and 12 Va 12° 48' E
40.00	Set temporary ¼ sec cor.
79.98	Intersect E boundary of Tp. 25 links S of cor to secs 1, 6, 7 and 12 which is a stone firmly set and properly marked and witnessed as heretofore described in notes of survey of exterior boundaries T 34 N R 18 W
	Thence I run
	S 89° 48' W. on a true line bet secs. 1 and 12 with same Va
	Over undulating Valley
9.05	Wolf creek 3 links wide runs S
28.00	Commence Ascending
29.35	Ravine course S E. 8ft deep
39.50	Top of gravel hill or ridge bears N and S
	Descend
39.79	Set a hard sandstone 15+10+4 ins, 10 ins in the ground for ¼ sec cor, marked ¼ on W face, dug pits 18+18+12 ins E and W of stone 5½ft dish and raised a mound of earth 1½ft high 3½ft base alongside
53.00	Enter smooth gravelly strip of S side of

Subdivision T 34 N R 18 W continued

Chains	
	table land bears N and S
74.50	Descend W into level ground. N and S
79.98	The cor to secs. 1, 2, 11 and 12
	Land level and rolling, soil in valley clay 1st rate
	Table land and slopes gravelly 3rd rate
	No timber,

Knowing that I will strike the Keya Paha River at less than 80 chs

I run

West on a true line bet secs 2 and 11 Va 14° 48' E.

Descending

.50	Ravine course W 8ft deep
8.00	Enter river bottom, bears N W and S E.
14.70	Intersect the Left bank of the Keya Paha River — bank sandy 6ft high
	Set a hard sandstone, 16+10+4 ins, 11 ins in the ground for meander cor to fractional secs 11 and 12, marked M.C. on W face, dug a pit 36 ins square 1ft deep 8 links E of stone and raised a mound of earth 2ft high 4½ft base alongside
	Land valley level
	Soil clay and sandy 2d and 3d rate
	Timber scattering willows along river bank

S 0° 1' E bet Secs 11 and 12 Va 14° 48' E

	South descend
8.50	Enter valley bears N W. and S E
	Over level valley
19.00	Enter scattering willows and brush cottonwood
21.75	Intersect Left Bank of Keya Paha River banks 3ft high sandy
	Set a hard sandstone 16+12+4 ins 11 ins in the ground for meander cor to fractional secs, 11 and 12, marked, M.C. on W face and dug a pit 36 ins square 1ft deep 8 links N of stone and raised a mound of earth 2ft high ~~4½ft base~~ alongside

1.53MB 35MB

Subdivisions S 34 N R 18 W continued

Chains

No trees large enough to mark
Land level and rolling
Soil clay and sandy 2d and 4th rates
Timber small scattering, willow and cottonwood brush
To connect the above meander cor. with that of previous survey on S side of the river
I run W. from the meander cor. just established 11.09 chs to a point, 8.56 chs S of the cor to secs 1, 2, 11 and 12 or 71.44 chs N of the cor. to secs. 11 and 12. 13 and 14 on the right bank which is a mound of earth, with pits S E, S W. and N W of mound (N E pit washed away) from which
A cottonwood stump bears N 25° W. 2.10 links dist. The other bearing tree is washed away by the river.
From the above measurement, I obtain the following results, viz: Distance from cor. to secs. 1, 2, 11 and 12.

S to meander cor on left bank	21.75 chs
Subtract distance to offset S of cor to secs. 1, 2, 11 and 12 on right bank of riv	8.56 "
Difference is the excess of Latitude	13.19 "
The difference of departure is	11.09 "

Note The cor. to secs. 1, 2, 11 and 12 on North side of River bears N 40½° E, which I plainly see from this point Oct 17th 1890

At 6 A M Oct 18" I set my compass over the center of the cor. to secs. 2, 3, 34 and 35, on the N boundary and take a back sight to the Eastward on N boundary of sec 2, from which I lay off an angle of 90° to the S. Its true magnetic bearing is S 12° 53' E and the Va is 12° 53' E. which corrected by table on page 55 of Manual gives for mean declination, 12° 50' E
S 0° 2' E. bet secs 2 and 3

Va 12° 53' E

Gentle ascent 4 ft to
2.00 Top of hill and descend
12.20 Ravine course S E. ascend

Subdivision S 34 N R 18 W continued

Chains

15.00 Top of ridge bears N W and S E.
Descend gentle slope
25.00 Enter river valley bears E and W
40.00 Set a hard sandstone 16×10×4 ins, 11 ins, in the ground for 1/4 sec. cor, marked 1/4 on W face, dug pits 18×18×12 ins. N and S of stone, 5½ ft dist, and raised a mound of earth 1½ ft high, 3½ ft base alongside
67.75 Enter brush
70.20 Intersect the left bank of Keya Paha River
Set a hard sandstone, 14×12×4 ins 9 ins, in the ground for meander cor to secs 2 and 3 marked M C on S side, dug a pit 3 6 ins square, 1 ft deep 8 links N of stone and raised a mound of earth 2 ft high 4½ ft base alongside
No trees within limits suitable for bearing trees
Land rolling and level
Soil clay and sandy 1st and 2d rate
Willow brush along river
To connect the above meander cor. with that of former surveys on right bank I go to the cor to secs. 2, 3, 10 and 11 on the S side of the River which is a post set in mound with faint tracing of pits in old plowed ground, but shown by farmers as the original sec. cor. The line bet secs, 2 and 3 was run in 1875, at the Va. of 13° 45' E. and distance to the M C on river bank 24 chs. I allow 1° for difference of Va and
Run
North bet. fractional secs 2 and 3

Va 12° 45' E

11.00 Top of bank of second bottom
11.50 Descend 8 ft to 1st bottom, bears E and W. large scattering cottonwoods
21.75 Intersect right bank of Keya Paha River
22.00 Enter river
24.00 Across river on North side of a clump of willows and on S edge of old river channel — the river has formerly run N of this point, and it is probable was the channel

Subdivision T 34 N R 18 W continued

Chains when the survey was made
From the above point, I run E and at 11.05 chs intersect the line bet secs. 2 and 3. 56 links N of the Meander Cor. to fractional secs 2 and 3 on left bank, or the meander Cor is 23.44 link N of the sec. Cor, on the S side
I added the amounts and obtained the following result

Distance to meander Cor. bet secs 2 and 3 North of the river	70.20 chs
Distance N from Cor. to secs 2, 3, 10 and 11 S of River	23.44 "
Total	93.64 "
Subtract	80.00 "
Difference is excess of Latitude	13.64 "
Difference of departure	11.05 "

Today while meandering I observe Latitude at Cor to secs. 1, 2, 11 and 12, and find it to be N 42° 56'

Oct 18th 1890

At 6 a.m. Oct 19th I set my compass over the corner to secs 3, 4, 33 and 34 on the N boundary of Tp and take a back sight to the Eastward on N boundary of sec 2. I lay off from the line an angle of 90° to the S which gives the direction of the true meridian. The magnetic bearing of the true meridian is S 12° 53' E the Va. is 12° 48' E corrected by table on page 55 of the manual gives for mean declination, 12° 53' E
Thence I run
S 0° 3' E bet. secs 3 and 4

Va 12° 53' E

Over descending ground
6.00 Enter Valley bears E and W.
35.55 Intersect Left bank of Keya Paha River
6 ft high and sandy
Set a hard sand stone, 16 x 12 x 3 ins, 11 ins in the ground for meander Cor. to fractional secs 3 and 4 marked M.C. on S face, dug a pit 36 ins square 1 ft deep, 8 links N of stone and raised a mound of earth, 2 ft high 4½ ft base alongside.
No trees large enough to mark, within limits
Land gentle S slope
Soil clay and sandy 1st and 2d rate

Subdivision T 34 N R 18 W continued

Chains Scattering young willow and Cottonwood brush along river bank
To connect the above meander Cor, with that of former survey on right bank of the river, I run from the meander Cor just established N 11.01 chs to a point 81 links N of meander Cor, on S bank of the river which is the top of red cedar stake 8 x 2½ x 1 ins marked M.C. in mound of earth, with a pit on S side from which a Cottonwood 24 ins diam bears S 62½° W, 165 links dist blazed facing the Cor, which is grown over
From the above measurements of distances I obtain the following result

Length of line bet secs 3 and 4 to meander Cor, on Left bank	35.55 chs
Distance from Cor. to secs 3, 4, 9 and 10 to meander Cor, on Left bank	60.30 "
Dist N of meander Cor. off	.81 "
Total	96.66 "
Subtract	80.00 "
The difference is excess of Latitude	16.66 "
The difference in departure is	11.01 "

At 1.00 P.M. I set my compass over the center of the Cor. to secs. 4, 5, 32 and 33 on the N boundary of the Tp, and take a back sight on the N boundary of sec. 4, and lay off from this line, an angle of 90° to the S, which gives the direction of the true meridian. Its magnetic bearing is S 12° 48' E and the Va is 12° 48' E. Corrected by table on page 56 of manual, gives for mean declination 12° 51' E.
S 0° 3½' E. bet. secs 4 and 5

Va. 12° 48' E

Descend
2.10 Ravine Course S E 8 ft deep
Ascend
9.00 Top of hill or ridge bears S E and N W
25.00 Descend steep bluff, bears S E and N W
27.50 Enter Valley bears E and W
38.00 Enter Small brush
39.00 Intersect left bank of Keya Paha River
Set a hard sand stone 18 x 10 x 4 ins, 12 ins in the

Chains

ground for meander cor. to fractional secs. 4 and 5 marked M C on S face, dug a pit 36 ins square 1 ft deep 8 links N g stone and raised a mound of earth 2 ft high, 4 ft base alongside, No trees along bank
Sand Valley
Soil clay sandy mixed 3rd rate
Timber Small willow brush along river bank
To connect the above meander cor. with that of former survey on right bank, I run N 1 E 10.33 chs to a point, 19.33 chs, north of the 1/4 sec cor bet secs 4 and 5, which is a piece of Red Cedar Stake 8 ft 7 in + 1 in in a mound of earth with pits. N and S of Rock (cor of wire fence)
By adding the above measurements of distance I obtain the following result
Distance measured bet secs, 4 and 5 to meander cor on Left bank 39.00 chs
Distance N from 1/4 sec cor
South of river to point of Offset 19.33
Total 58.33
Subtract 40.00
Difference in secs of Latitude 18.43
Note- I measure N from the 1/4 sec cor on S side 37.20 chs the distance to meander Cor which falls in River at edge of bank I find no trace of the cor, or bearing tree mentioned in Notes of survey furnished by the General Office Oct 19th 1890

At 6 A M Oct 20th I set my compass over the corner to secs. 5, 6, 31 and 32 on the North boundary of the Tp and take a backsight on the N boundary of sec 5 from which line I lay off an angle of 90° to the S which gives the direction of the true meridian. The magnetic bearing of the line so determined is S 12° 54' W. The Va is 12° 54' E which corrected by table on page 55 of manual gives for mean declination 12° 51' E
S 0° 4½' E bet secs. 5 and 6

Gentle S descent Va 12° 54' E

Chains

6.00 Enter valley bears N E and S W over undulating valley
37.00 Enter Willow brush
38.65 Intersect left bank of Keya Paha River bank Sandy 7 ft high
Set a hard sandstone 16 + 10 + 3 ins, 11 ins in the ground for meander cor. to fractional secs 5 and 6 marked M.C. on S face, dug a pit 36 ins square, 1 ft deep 8 links, N g stone and raised a mound of earth 2 ft high, 4 ft base alongside
No trees within limits large enough to mark
Land undulating, clay and sandy, 3rd and 3rd rate
Timber - Willow brush along river bank
To connect the above meander cor. with that of former surveys on S side of the river I go to the Bur Oak Stump 20 ins diam, marked B.T. on N E side from which I run N 49° E. 105 links to a point at foot of river bank at water edge, from which point I measure S 85° E 35 links dist to roots of rotten Cottonwood stump on the edge of the bank, I conclude what I have practically located the original point for meander Cor. on the Right bank
Thence I run East 9.55 chs to a point 7 links S of meander Cor. to fractional secs 5 and 6 on left bank I add the following measurement to
Distance to Meander Cor. bet. secs 5 and 6 N of river 38.65 chs
Distance to point of intersection of offset S of meander Cor .07 "
Distance from cor. to secs. 5, 6, 7 and 8, to meander Cor. S of river 60.00 "
Total 98.62 "
Subtract 80.00 "
Difference in secs of Latitude 18.62
Difference in departures 9.55
Oct 20th 1890.

Meanders of the Left bank of Keya Paha River - up stream
At 8 A M Oct 18th I set my compass over the meander Cor. to fractional Secs. 7 and 18 on the E boundary and take a backsight to the North to a flag on a hill bet. secs 5 and 6

1.35.18.19

Subdivision T 34 N R 18 W continued

Course — The magnetic bearing of the line is N 17° 54' W. the Va. is 12° 54' E which corrected by table on page 55 of manual gives for mean declination 17° 51' E

Thence S pass with meanders in Sec 12

Va 12° 54' E

Through scattering brush

S 55° W	4.00 ch	
S 81° W	3.80 "	Leaves willows thence along edge of bar
N 74° W	7.50 "	
N 86½° W	4.50 "	Enter & bottom
S 82° W	3.00 "	
S 53¾° W	6.00 "	
S 33½° W	17.00 "	At 12 chs enter scattering willow brush
S 59° W	6.50 "	
S 73° W	3.00 "	Leave brush along edge of bar
Rest	4.00 "	
N 71½° W	5.00 "	Enter small willow brush
N 65½° W	1.80 "	
N 56½° W	5.70 "	
N 10° E	9.00 "	Leave willows and ascend
N 14½° W	6.50 "	Along high bank 12 ft high
N 44° W	7.00 "	At 3.30 chs short deep gulch. 10 ft deep
N 64° W	3.65 "	Along bank 20 ft high at 1.50 chs - descend and enter low bottoms and willow brush
N 85° 25' W	15.20 "	To meander Cor to fractional Secs 11 and 12

Land undulating

Soil clay and sandy 1st and 3d rate

Willow brush and timber 54.95 chs

At 1 PM diurnal change has decreased Va 6'

Thence in Sec 11

Va 12° 48' E

Through scattering willow and cottonwood brush

N 43¾° W	6.00 ch
N 43¾° W	6.50 "
N 36¾° W	3.50 "
N 21½° W	8.00 "
N 16° W	7.60 " To meander Cor to fractional Secs. 2 & 11

Land level

Soil sandy 4th rate

Timber and brush. 24.42 chs

Meanders T 34 N R 18 W continued

Course — Thence in Sec 2

Va 13° 48' E

Through small scattering willow brush

N 4½° W	5.00 chs	
N 1½° W	4.30 "	
N 3° W	5.00 "	
N 19½° W	5.00 "	Through small cut brush
N 38° W	3.50 "	Through willow brush
N 65¾° W	5.50 "	
N 41½° W	4.80 "	
N 28½° W	6.00 "	
N 45½° W	6.00 "	
N 85½° W	17.00 "	
S 65¾° W	3.50 "	Leave brush
S 67½° W	7.00 "	
S 37½° W	5.00 "	
S 40¼° W	3.65 "	Enter brush
S 27½° W	7.00 "	
S 40½° W	5.00 "	
S 46½° W	10.00 "	
S 67° 20' W	1.17 "	To meander Cor to fractional Secs 2 and 3

Land undulating

Soil sandy and clay 2d and 3d rate

Timber and brush 87.75 chs.

Oct. 18th 1890.

At 9 AM. Oct 19th I set my compass on the center of the meander Cor to fractional Secs. 2 and 3 and adjusted it to a true meridian by the solar apparatus, I find the magnetic bearing of the true meridian so found to be N 17° 53' W and the Va is 12° 58' E corrected by table on page 55 of manual gives for mean declination 17° 51' E

Thence with meanders in Sec 3

Va 17° 53' E

Through small willow brush

S 71° W	2.00 ch
Rest	1.50 "
N 81° W	3.25 "
S 85½° W	7.00 "
N 78½° W	3.50 "
N 65½° W	6.00 "
N 46° W	11.00 "

Meanders of 34 N R 18 W Continued

Course		
N 34½° W	3.50 chs	
N 19½° W	4.00 "	
N 13½° W	6.80 "	
N 8½° E	9.50 "	At 6 chs begin ascend high Clay and shale bluff
N 22° E	5.00 "	Along top of bluff.
N 9½° W	5.00 "	
N 30½° W	4.00 "	
N 60° W	20.00 "	At 7.50 chs inter valley bears NW and SE
N 77° W	7.00 "	
West	9.00 "	
S 78½° W	5.50 "	Along bank 10 ft high
S 41° W	6.00 "	At 3 chs mouth of Shingle Creek Course SE
S 15½° W	7.00 "	
S 47½° W	6.40 "	To meander cor to fractional Secs. 3 and 4

Land level and rolling
Soil clay and sandy 2d and 3d rate
Brush and timber. 129.70 chs

At 2 PM diurnal change has decreased Va 5'
Thence in Sec 4

Va 12° 48' E

Through brush

S 62½° W	2.90 chs
N 75° W	3.50 "
N 60½° W	22.00 " At 16 chs enter high broken bank
West	14.00 "
N 60° W	1.25 "
N 75° W	2.00 "
S 66° W	4.50 "
S 3° W	7.50 "
S 15° E	5.10 " At 4.50 chs mouth of Indian Creek 30 links wide NE
S 36° E	5.00 "
S 15° E	7.50 " Along sandy bank
S 75° W	5.50 "
S 55° W	5.50 "
S 86° W	6.50 "
N 60° W	4.00 "
N 44½° W	7.00 " Through small cottonwood trees
N 37½ W	7.50 " Through small willow brush
N 58° W	15.10 " To meander cor. to fractional Secs. 4 and 5

Land Valley, Soil clay and sandy 2d and 3d rate

Meanders of 34 N R 18 W Continued

Course Cottonwood and willow brush. 176.35 chs

Oct 19th 1890

At 9 AM Oct 20th I set my compass over the meander to fractional Secs. 4 and 5. and take a backsight to the Northward to a gray oak on the bluff back Secs. 4 and 5 The Magnetic bearing of the line is N 12° 54' W and the Va is 12° 53' E. Corrected by table on page 55 of manual gives for mean declination. 12° 51' E

Thence I run with meanders in Sec 5

Va 12° 53' E

Through small willow brush

N 59½° W	5.00 chs
N 37½° W	9.00 "
N 61½° W	17.00 " 150 chs foot of bluff thence along foot of bluff
N 75½° W	8.50 "
N 88½° W	9.00 "
S 58° W	20.00 " 1 ch leave foot of bluff thence through small open cottonwood and willow brush
S 59½° W	4.50 "
S 65½° W	3.00 "
S 73½° W	9.00 "
S 80° W	3.00 "
S 84° W	5.00 "
S 87° 30' W	7.60 " To meander cor. to fractional Secs 5 and 6

Land undulating Soil Sandy 3d rate
Willow brush 90.60 chs

At 1 PM. diurnal change has decreased Va 5'
Thence in Sec 6

Va. 12° 48' E

Through small willow brush

N 81° W	3.00 chs
N 87½° W	2.00 "
N 81° W	6.00 "
N 63½° W	3.70 "
N 68½° W	6.00 "
N 49° W	2.50 "
N 34½° W	2.00 "
N 26½° W	6.40 "

Meanders T 34 N R 18 W Continued.

Course	
N 4¾° W	2.00 chs
N 16½° E	4.75 "
N 32¾° E	10.00 "
N 28°50' E	10.35 " (Leave brush and ascend sandy and clay bluff)

To meander cor. to fractional secs 6 and 31 on N boundary of Tp, as heretofore described in notes of exterior boundaries T 34 N R 18 W

Land rolling

Soil sandy 3d rate

Timber - willow brush 48.35 chs

Total distance (in this Tp) of subdivision lines lines through brush and timber 7.95 chs

Total distance (in this Tp) through brush and timber of meander lines. 7 mi 2 chs. 12 links

Oct 20th 1890

General Description

This Tp. lies wholly on the South Slope of the river bluffs and in the Valley, soil is clay and sandy varying from 1st to 4th rate

There is some clay land in the valley and on the S slope suitable for farming

There is considerable hard sandstone lying on the hillsides in the Wr of the Tp

Timber is wholly small willow brush with occasional clumps of oak brush, the large timber has been cut down and hauled away

There is a fine growth of buffalo grass on the hills, and in the Valley bluejoint is found in many places

There are no settlers

Note - The stone used for cors. in this Tp are hard sandstone and it is impractical to cut the notches on the corners so as to make them clear and intelligible, so I caused all sec. corners to be set with flat side to the E and W. and edges N and S on the S E. edge and E face, the notches or horizontal bars not less than 2 inches long were cut sufficiently deep

to make them clear and distinct and can be more easily read

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I hereby Certify that I assisted Robert Harvey U S Deputy Surveyor in surveying all those parts or portions of the fractional West boundaries of Townships 34 N. of Rs 9 and 10 W. of the 6th Principal Meridian, in Nebraska as are represented the foregoing field-notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of My Knowledge and belief, well and faithfully surveyed, and the Corner Monuments Established, according to the instructions furnished by the Commissioner of the General Land Office

Elias J Hershiser

Axman

Subscribed and sworn to before me this 5th day of Feb 1891

R R Decker
Notary Public &
Ex Off Nebr

List of Names.

A list of the names of the individuals employed by Robert Harvey, U. S. ~~Deputy~~ Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Subdivisional lines of Fractional Township 34 N. Range 9 W. Fractional Township 34 N. R. 10 W. Fractional Townships 33 and 34 N. R. 11 W. Fractional 33 and all of Township 34 N. R. 12 W. Fractional Townships 33 and all of Township 34 N. R. 13 W. Fractional Townships 33 and 34 N. R. 14 W. Fractional Township 34 N. R. 15 W. Fractional Township 34 N. R. 16 W. Fractional Township 34 N. R. 17 W. and Fractional Township 34 N. R. 18 W. of the 6th Principal Meridian, in Nebraska, showing the respective capacities in which they acted:

Benjamin F. Davidson	Chainman
Chas H Paul	Chainman
Henry A Burrell	Axman
Summer C Lyle	Axman
Jonathan L Peden	Flagman

Final Oath of Assistants:

We hereby certify that we assisted Robert Harvey, U. S. ~~Deputy~~ Surveyor, in surveying all those parts or portions of the Subdivisional lines of Fractional Township 34 N. R. 9 W. Fractional Township 34 N. R. 10 W. Fractional Townships 33 and 34 N. R. 11 W. Fractional Township 33 and all of Township 34 N. R. 12 W. Fractional Township 33 and all of Township 34 N. R. 13 W. Fractional Townships 33 and 34 N. R. 14 W. Fractional Township 34 N. R. 15 W. Fractional Township 34 N. R. 16 W. Fractional Township 34 N. R. 17 W. and Fractional Township 34 N. of R. 18 West of the 6th Principal Meridian, in Nebraska, as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office

Benjamin F. Davidson
Chas H Paul
Henry A. Burrell
Summer C. Lyle
Jonathan L. Peden

Subscribed and sworn to before me this 26th day of October, 1890

SEAL

A M Darm
Notary Public

6—151

Final Oath of U. S. ~~Deputy~~ Surveyor.

I, Robert Harvey, U. S. ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the ~~U. S. Surveyor General for~~ General Land Office, bearing date of the 26th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Fractl Twp 34 N. R 9 W. Fractl Twp 34 N. R 10 W. Fractl Twps 33 and 34 N. R 11 W. Fractl Twp 33 and all of Twp 34 N. R 12 W. Fractl Tp 33 and all of Twp 34 N. R 13 W. Fractl Twps 33 and 34 N. R 14 W. Fractl Twp 34 N R 15 W Fractl Twp 34 N R 16 W. Fractl Twp 34 N. R 17 W. and Fractl Twp 34 N R 18 W. of 6th Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. ~~Deputy~~ Surveyor.

Subscribed and sworn to before me this 8th day of April, 1891.

C. E. Forbes
Clerk Dist Court
Fand.
in m. R.

Approval.

Office of the ~~U. S. Surveyor General~~ Commissioner, Genl Land Office
Washington D.C., June 30, 1891.

The foregoing field notes of the survey of Subdivisional lines in fractional Tps 34 N. R 9 W., Fractional T. 34 N. R 10 W. Fractional T. 33 and 34 N. R. 11 W., T. 33 and all of T. 34 N., R. 12 W., Fractional T. 33 and all of Tp. 34 N., R. 13 W., Fractional Tps 33 & 34 N. R. 14 W., Fractional T. 34 N., R 15 W., Fractional T. 34 N., R 16 W., Fractional Tps 34 N. R. 17 W. and Fractional Tp. 34 N., R 18 W. of the 6th Principal Meridian in the State of Nebraska.

executed by U. S. Surveyors Nicholas J. Paul and Robert Harvey under ~~his~~ their Contract ~~[illegible]~~ dated May 26, 1890, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Signed, T. H. Carter.
Commissioner Genl Land Office
Ex Officio Surveyor General
~~U. S. Surveyor General.~~

I certify that the foregoing transcript of the field notes of the above-described surveys in the State of Nebraska, has been correctly copied from the original notes on file in this office.

T. H. Carter
Commissioner General Land Office
Ex Officio Surveyor General.
~~U. S. Surveyor General.~~

List of Names.

A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the ..... Meridian, in ....., showing respective capacities in which they acted:

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the ..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this ..... day of ....., 18 .

SEAL

6—151

173/18

Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from the Commissioner of the General, ~~U. S. Surveyor General for~~ Land Office, bearing date of the 7th day of May, 1890, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Subdivisional lines in Fractional Township 34 North Range 18 West of the 6th

Principal Meridian, in the State of Nebraska, as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the ~~U. S. Surveyor General for~~ Commissioner of the General Land Office and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 2nd day of April, 1891.

SEAL

C. E. Forbes
Clerk Dist. Court

Approval.

Office of the U. S. Surveyor General,

, 18 .

The foregoing field notes of the survey of

executed by under his Contract No. , dated , 18 , having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in , has been correctly copied from the original notes on file in this office.

6—111

U. S. Surveyor General.

Received with letter of A. B. Hughes, Surveyor Genl. So. Dak. dated Feb. 8, 1897

(4—679.)

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BOOK H

FIELD NOTES

OF THE SURVEY OF

Subdivision lines
of
Township No 35 North
of
Range No. 18 West
of the
Principal Base

Of the 6th Principal Meridian,
in the State of
Nebraska

AS SURVEYED BY

Robert Harvey & Alfred W. Gumaer, U. S. Deputy Surveyors,

Under ~~his~~ their joint Contract No. 107, dated April 3 1895.

Survey commenced July 27, 1895.

Survey completed August 1, 1895.

(12503—2,000.)

I copied the 35 for N.D. Bureau of Pub. Lands PO in Oct 1900 Griff.

Names and Duties of Assistants.

Clifford H. Norton	Chainman
Herbert J. Paul	Chainman
Clayton J. Norton	Axman and Moundman
Howard J. Sheppard	Axman and Moundman
William L. Stitt	Flagman
Lewis M. Williams	Flagman

INDEX DIAGRAM.

Township 35 N., Range 18 W.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
S.D. / NEB.					
19 25	20 24	21 18	22 14	23 10	24 6
30 22	29 21	28 17	27 12	26 8	25 4
31	32	33	34	35	36

Meanders Page

Preliminary Oaths of Assistants.

We, ...

.....

.....

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For the preliminary oaths of assistants see those with Tp. 35 N. R 13 W. Contained in Book lettered "B" ~~and~~ surveyed under this ~~same~~ Contract

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

..... , *Chainman.*

Subscribed and sworn to before me this .....
day of ....., 18 .

.....

.....

We, ...

.....

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

.....

.....

.....

.....

Subscribed and sworn to before me this .....
day of ....., 18 .

..... , *Axeman.*

..... , *Axeman.*

.....

.....

6—151

73351A19

Note The stones to be used for corners in this township are a hard brittle sandstone found upon the hillsides, broken into flat slabs of irregular dimensions and cannot be cut or broken into regular proportions. It is found that notches cut on the edges of the stone very frequently resemble the notches caused by the breakage of the edges and cannot be distinguished therefrom. It is therefore determined to set the interior Section corners with the flat faces E. and W. and the narrow faces N. and S. and cut grooves on these faces, which can be readily distinguished.

Survey Commenced July 27. 1895 and executed with a Heller & Brightly transit No. 6602 with Solar attachment; the horizontal limb is provided with two double Vernier placed opposite to each other reading to 20" of arc: and the latitude and declination arcs reading to single minutes.

The instrument was examined, tested on the True Meridian at Huron S. D. found correct and was approved by the Surveyor General for South Dakota June 21 1895.

I examine the adjustments of the transit and find the levels and collimation to be correct; then to test the Solar apparatus, by comparing its indications resulting from Solar Observations, made during A.M. and P.M. hours with a true Meridian determined by observations on Polaris I proceed as follows.

At the cor. of Tps 34, and 35 N Rs. 17 and 18 W. latitude 42° 57' 37" N. Longitude 99° 22' 29" W. I compare my transit with the Polaris Observations made on the night of July 23rd 1895. The method of determining the True Meridian I copy from my note of the W. boundary of Range 17 T. 35 N. of that date; to wit:

At 11h, 17m p.m. l.m.t. by my watch which I compared with the Solar at 6h p.m. I observe Polaris at eastern Elongation in accordance with the Manual of instructions, and mark a point in the line thus determined on a plug driven in ground 6.50 chs. N. of my station _____ July 23rd 1895.

July 24 1895 at 8h 45m a.m. l.m.t. I lay off the Azimuth of Polaris 1° 42.7 to the West and mark a true Meridian thus determined by cutting a small groove in the stone set July 23 on which the true Meridian falls.

At 10h a.m. l.m.t. I set my transit over the cross (+) cut on top of the stone and set off 42° 57' 37" N on the lat. arc: 19° 11' 30" N on the decl. arc, and determine a true Meridian with the Solar and mark a point thereof on the stone already set July 23 6.50 chs N. of the cor. This mark falls E of the Polaris Observation 0.5 lks.

At 0h 6m p.m. l.m.t. I set off 19° 10' 30" N on the decl arc; and observe the Sun on the Meridian. the resulting lat is 42° 57' 35" N

At 2h p.m. l.m.t. I set off 42° 57' 37" N on the lat arc, and 19° 09' 30" N on the decl arc: and determine a true Meridian with

the Solar, and mark a point thereof on the stone already set 6.50 chs. N. of my station. This point falls 0.45 ins W. of the Polaris Observation. The Solar apparatus by A.M. and P.M. observations defines positions for true meridians respectively about 0.20" E. and 0.18" West of the Polaris Observation. I therefore conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 2 p.m. is N 12° 15' W. the angle thus determined, reduced by the table, page 100, gives the mean mag. decl 12° 21' E.

Note I compare my measuring chain with the Standard chain and it agrees with the same.

From the Tp. cor. already described I run

North on the Range line and E. bdy. of Sec 36 and at 39.99 chs intersect the 1/4 Sec. Cor.; and at 80.00 chs intersect the cor. of Secs 25.30.31 and 36

Therefore the line bears N.

From the Tp. cor. I run West on the S bdy of Sec 36 and at 40.02 chs fall 7½ lks N. of the 1/4 Sec. cor.; and at 80.06 chs fall 15 lks N. of the Cor. of Secs. 1.2.35 and 36 on the S. bdy of the Tp. Consequently the S. bdy of Sec 36 bears S. 89 54' W.

Therefore the bearings are as above stated and my chaining practically agrees with the field notes of the original Survey.

Note This afternoon I traverse the S bdy of the remaining Secs. of the Tp to the cor of Secs. 5.6.31 and 32 and find the alinement good and the course substantially agreeing with the S. bdy of Sec 36 to wit S. 89° 54' W. The lengths of the S. bdy of the respective Secs of the Tp. are according to my measurement as follows: S. bdy Sec 36. 80.06 chs Sec 35 80.12 chs. - Sec 34 - 80.20 chs. Sec. 33. 80.26 chs. Sec 32. 80.24 chs. The total excess in measurement for 5 miles is therefore 88 lks

July 27 1895

July 28 1895. At 6h a.m. l.m.t. I set off 42° 57' 37" N on the lat. arc 19° 02' 30" N on decl arc: and determine a true meridian with the Solar at the cor. of Secs 1.2.35 and 36 on the S. bdy of the Tp which is a sandstone 15 x 7 x 3 ins above ground firmly set marked and witnessed as described by the Surveyor General

Thence I run

No. 1' W. bet secs 35 and 36

Over rough, broken Mountainous land

Ascend steep hill

Chains	
5.50	Top of hill 60 ft higher than cor descend
11.40	Canyon course S. 55° E 75 ft deep Ascend
17.50	Top of ridge bears N W and S.E. 100 ft high
	From this point the top of stony peak bears S 36° E 1.80 chs dist
	The S.E. end of a peak bears N 53° 20' W. about 10.00 chs dist
23.80	Stony ridge, begin rapid descent
27.90	Ravine 75 ft deep course S 45° E. Ascend
40.00	Set a sandstone 17 x 8 x 4 ins - 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base, 1½ ft high W. of cor
43.00	Top of hill bears N W and S.E.
66.30	Ravine Course S 55° E. 100 ft deep Ascend
70.00	Enter smooth East slope, leave Mountainous land
80.00	Set a sandstone 15 x 10 x 5 ins - 10 ins in the ground for cor of secs. 25, 26. 35 and 36. Marked with 1 groove on S. face, and 1 groove on E. face; dig pits 18 x 18 x 12 ins in each sec 5½ ft dist; and raise a mound of earth 4 ft base, 2 ft high W. of cor.
	Land high rolling and broken Mountainous
	Soil. S 70 chs gravelly stony. 4 rate - N 10 chs clay 2 rate
	No timber
	Mountainous land. 70.00 chs
	N 89° 54' E on a random line bet secs 25 and 36
40.00	Set temp 1/4 sec cor.
80.02	Intersect the E bdy of the Tp. 2½ lks S. of the cor of secs 25.30.31 and 36 which I established July 24
	Thence I run
	S. 89° 53' W. on a true line bet secs 25 and 36
	Over high 2nd bench land
	Ascend
1.00	Top of steep ascent - thence over gradual ascent
2.00	Top of table land
	Thence over level surface
3.92	Wire fence - at S. edge of post
30.00	W. edge of smooth ground begin descent

Chains	
36.00	Foot of bluff and Enter Valley bears N. and S.
39.20	Ravine course S.E.
39.50	Leave Valley and ascend bluff bears S E and N W
40.01	Set a sandstone 17x8x4 ins – 12 ins in the ground for 1/4 Sec cor Marked 1/4 on N. face; dig pits 18x18x12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.
46.00	Top of hill
	Over smooth ground gently ascending
49.55	Road bears N.E. and S.W.
59.40	John Shaffer's sodhouse bears S. 1.00 ch dist.
65.05	Enter plowed ground bears N. and S.
77.80	Leave same bears N and S.
80.02	The Cor of secs 25. 26. 35 and 36
	Land high 2nd bench smooth surface
	Soil Clay 2nd rate
	No timber

N 0° 1' W. bet secs 25 and 26
Over smooth descending land

17.40	Road bears E. and S.W.
25.15	Ravine course NE 20 feet deep.
35.50	Ravine course S.E. 25 ft deep
40.00	Set a sandstone 17x13x3 ins – 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N. and S. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
44.00	Top of low ridge bears E and W.
58.00	Ravine course S. 40° E
64.60	Road bears N 10° E and S. 10° W.
80.00	Set a sandstone 12x10x5 ins – 8 ins in the ground for cor of secs 23. 24. 25 and 26. Marked with 2 grooves on S. face, and 1 on E. face; dig pits 18x18x12 ins. in each sec. 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor
	Land gently rolling
	Soil Clay 2nd rate
	No timber

Chains	
	N 89° 53' E on a random line bet secs 24 and 25
40.00	Set temp 1/4 sec. cor.
79.96	Intersect the E bdy of the Tp. 4½ lks S. of the cor. of Secs. 19. 24. 25 and 30.
	Thence Drun
	S. 89° 51' W. on a true line bet secs 24 and 25
	Over rolling ground
	Descend
0.25	Enter Creek valley bears N.W. and S.E. about 2 ft lower than cor.
1.82	W. branch of Wolf Creek dry on line water in holes Course S.
4.40	Same dry branch Course N. 60° E.
4.65	Leave Valley and ascend Spur of hills
10.00	Leave Spur and Enter Valley bears N. and S.
10.25	Same dry branch Course S. 25° E.
10.50	Leave Valley and ascend bluff bears N. and S.
15.50	Top of hill 30 ft high
21.70	Ravine Course S.E. 25 ft deep Ascend
23.00	Enter gently rolling land high 2nd bench
39.98	Set a sandstone 17x12x4 ins 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on N face; dig pits 18x18x12 ins E and W. of stone 3 ft dist and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.
43.70	Road bears N 30° W.
51.55	A Sod house bears N. 20° W. about 13.00 chs.
55.40	Ravine Course S.W. 30 ft deep
70.55	Top of hill descend
75.55	Road bears N. E. and S.W.
76.75	Low hill bears N and S.
79.96	The Cor. of Secs. 23. 24. 25 and 26
	Land rolling
	Soil Clay 2nd and 3rd rate
	No timber

N 0° 1' W. bet secs 23 and 24
Over rolling surface
Ascend

7 Subdivision of T 35 N R 18 W. Continued

Chains	
10.00	Top of W. slope of gravelly hill
	Descend over long gradual slope
40.00	Set a Sandstone 17 x 9 x 4 ins – 12 ins in the ground for 1/4 sec Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
44.40	Ravine Course S.E. 8 ft lower than Cor.
58.27	Shallow drain Course S.E. ascend
58.68	Intersect the North Boundary of Nebraska 7.59 Chs. E. of the 13th Mile Stone which is a quartzite 3½ ft x 10 x 10 ins. above ground Marked S.D. on N. N. on S. and 13 M. on W. face;
	Set a Sandstone 14 x 11 x 4 ins – 10 ins in the ground for closing Cor. of Secs 23. and 24 Marked C.C. 35 N and 3 grooves on S. face; and 1 groove on E. and 5 grooves on W. faces; dig pits 24 x 18 x 12 ins (Crosswise on each line) E. and W. 3 ft and S. of stone 7 ft. dist; and raise a Mound of earth 4 ft base 2 ft high S. of Cor.
	Land gently rolling
	Soil Clay and gravel 2nd and 3rd rate
	No timber

July 28: At the cor of secs 2.3.34 and 35 on the S. bdy of the Tp I set off 18° 56' 30" N and at 0h 6m p.m. L.M.T. observed the Sun on the Meridian; The resulting latitude is 42° 57' 40" N. which is the correct latitude closely.

Note Stone at Cor of secs. 2.3.34 and 35 has been dug up and a piece of cast iron placed in the bottom of the hole. the stone is broken. I therefore, in its place, Set a sandstone 24 x 14 x 4 ins, on top of the iron, Marked with 2 grooves on the E. 4 on the W. and 6 on the S. faces. as per original notes, and is witnessed as described by the Surveyor General.

At 2h p.m. (h.m.t.) I set off 42° 57' 37" N. on the lat. arc; and 18° 55' 30" N on decl. arc. and determine a true Meridian with the Solar, at the above described cor.

Thence I run

8 Subdivision of T 35 N. R. 18 W. Continued

Chains	
	N. 0° 2' W bet secs 34 and 35
	Over rolling broken and Mountainous land
	Descend gently to
5.50	Begin ascent over mountainous land
11.25	Top of ridge bears S E and N W. descend
20.50	Ravine Course N. 65° W. 75 ft deep
25.60	Ravine Course N 75° W 50 ft deep
25.95	Road bears N 75° W. and S 75° E
37.25	Ravine Course S 75° W. 50 ft deep
	Ascend steep bluff
40.00	Set a Sandstone 17 x 9 x 4 ins – 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N and S. of stone 3 ft dist and raise a mound of earth 3½ ft base 1½ ft high W. of Cor. So. house bears S 46° 50' W. 30 chs hit.
51.50	Top of ridge bears E and W.
64.70	Ravine Course W. 75 ft deep ascend
77.00	Top of hill descend
80.00	Set a sandstone 16 x 13 x 3 ins, 11 ins in the ground for Cor of secs 26.27.34 and 35. Marked with 1 groove on S. face, and 2 grooves on E. face; dig pits 18 x 18 x 12 ins. in each sec 5½ ft dist. and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land very broken and Mountainous
	Soil Clay and gravelly 3rd and 4 rate
	No timber
	Mountainous land 74.50 Chs.

N 89° 54' E on a random line bet secs 26 and 35

40.00	Set temp 1/4 sec. cor.
80.14	Intersect the N and S. line 3 lks S. of the Cor of Secs 26.25.35 and 36
	Thence I run
	S 89° 53' W. on a true line bet secs. 26 and 35
	Over rolling and Mountainous land
	Ascend
4.70	Top of hill descend
15.75	Ravine Course S 35° E 75 ft deep Ascend
25.50	Road bears N and S. descend over sunwork surface
40.07	Set a Sandstone 16 x 10 x 4 ins – 11 ins in the ground

Chains	
	for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18x18x12 ins. E. and W. of stone 3 ft. dist.; and raise a mound of earth 3½ ft. base 1½ ft. high. N. of cor.
43.30	Gulch course S. head 1.00 ch. N. of line
52.00	Begin descent over rolling ground
59.15	Low divide between ravines
61.25	Ravine course S 30° W. 25 ft. lower than divide
69.40	N. bend of same ravine
74.20	Same Ravine course N 55° W.
80.14	The Cor. of Secs 26. 27. 34 and 35
	Land undulating, rolling, broken and Mountainous
	Soil clay and gravel 3rd and 4th rate
	No timber
	Mountainous land 47.30 chs.

N. 0° 2' W. bet Secs 26 and 27
Over broken Mountainous land
Descend

5.75	Ravine course N. 25° W. 40 ft. lower than sec. cor.
14.20	Ravine course S 30° W. 100 ft. deep
40.00	Set a Sandstone 16x10x4 ins — 11 ins in the ground for 1/4 sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S. of stone 3 ft. dist.; and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.
	Descend rapidly
47.95	Ravine course S 60° W. 75 ft. deep
73.88	Road bears N.W. and S.E.
80.00	Set a Sandstone 13x12x3 1/2 ins in the ground for Cor of Secs 22. 23. 26 and 27 Marked with 2 grooves on the S. face and 2 on E. face; dig pits 18x18x12 ins in each Sec 5½ ft. dist and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
	Land rolling, broken and Mountainous
	Soil Clay 3rd rate
	No timber
	Mountainous land 80.00 chs

Chains	
	At 5h 30m p.m. I set off 42° 59' 24" N on the lat arc and 18° 54' N. on dec arc; and determine a true Meridian with the Solar
	Thence I run
	N. 89° 53' E on a random line bet. Secs. 23 and 26
40.00	Set temp 1/4 sec cor
80.12	Intersect the N and S. line 5 lks N. of the cor of secs 23. 24. 25 26
	Thence I run
	S 89° 55' W. on a true line bet. Secs 23 and 26
	Over rolling ground
	Ascend gradually
5.00	Top of low ridge bears N and S. descend
7.80	Enter plowed ground bears N and S.
16.05	Leave same bears N. and S.
16.50	Ravine course S. 40° E
17.45	Harry Baker's old house bears N. 2.50 chs dist
18.50	Enter Harry Baker's plowed field bears N and S.
23.40	Leave same bears N and S.
30.15	Ravine course S 35° E
37.00	Road bears S 60° W and N 60° E
40.06	Set a sandstone 14x12x4 ins — 10 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18x18x12 E and W. of stone 3 ft. dist.; and raise a mound of earth 3½ ft. base 1½ ft. high N. of cor.
41.50	Ravine course S 40° E Mound
61.00	Enter Mountainous ground descend
66.20	Head of drain course S.W.
74.30	Ravine course N.W.
75.80	Ravine course N.
80.12	The cor of Secs 22 23 26 and 27
	Land rolling and Mountainous
	Soil, Clay 2nd rate E. 61.00 chs W 19.12 chs 3rd rate
	No timber Mountainous land 19.12 chs.

N. 0 2' W bet Secs. 22 and 23
Over rough, broken Mountainous land
Descend

6.40	Ravine course N 45° W. 30 ft lower than cor.

Chains	
18.55	Wire fence bears E and W.
19.25	Ravine course W. Ascend
25.20	Top of round knoll, descend
29.40	Ravine course N.W. Ascend along W. slope
40.00	Set a sandstone 20x12x4 ins. - 15 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins. N and S of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
41.75	Wire fence bears E and W.
46.15	Ravine course S.W.
53.50	Ravine course S 35° E
55.80	Same Ravine S. 40° W.
58.80	Intersect the Boundary of Nebraska 7.30 chs E. of the 12th Milestone, which is a quartzite 3½ ft x 10x10 ins above ground Marked S.D. on N. N. on S and 12 M. on W. faces. Set a hard flint stone 14x7x6 ins - 10 ins in the ground for Closing Cor. of Secs. 22 and 23, Marked C.C. 35 N. and 3 grooves on S. face, and 2 grooves on E. and 4 grooves on W. faces; dig pits 24x18x12 ins Crosswise on each line E and W. 3 ft and S. of stone 7 ft dist; And raise a Mound of earth 3 ft base 2 ft high S. of Cor.

Land rough, broken and Mountainous
Soil Clay and gravel 3rd rate
No timber
Mountainous land 58.80 chs

July 28 1895

July 29 1895. At 6th A.M. I set off 42°57'37" N on the lat arc. and 18°45' 30" N. on decl arc; and determined a true Meridian with the Solar, At the Cor of Secs 3. 4. 33 and 34 which is a sandstone 9x5x3 ins above ground Marked and witnessed as directed by the Surveyor general.

Thence I run

Chains	
	N. 0. 2' W. bet Secs 33 and 34
	Over rough ascending ground
0.02	Wire fence bears E and W.
12.00	Top of hill 50 ft higher than sec cor

Chains	
	Thence over Mountainous ground
29.30	Drain Course S 45° E
40.00	Set a sandstone 17x10x4 ins - 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor. This Cor stands on N.E. slope of hill
42.00	Ravine Course S 60° E.
46.90	Center of drain - Course W. of line is S.E.
63.00	Ravine Course S.E. 50 ft amp Ascend
80.00	Set a sandstone 24x12x8 ins - 18 ins in the ground for Cor of Secs 27. 28. 33 and 34. Marked with 1 groove on S. face, and 3 on E. face; dig pits 18x18x12 ins in each Sec 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.

Land rolling and broken, Mountainous
Soil Clay 3rd rate
No timber
Mountainous land 68.00 chs

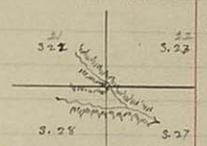
N. 89 54' E on a random line bet secs 27 and 34

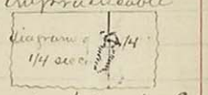
Chains	
40.00	Set temp 1/4 sec. cor.
80.22	Intersect the N and S line 5 lks S. of the Cor of Secs 26. 27. 34 and 35

Thence I run
S 89° 52' W. on a random line bet secs 27 and 34
Over rough, broken Mountainous land
Ascend

Chains	
1.25	Top of N. slope of ridge bears N.W. and S.E.
12.85	Top of sharp ridge 40 ft higher than Creek (drain → line ⊕ E.) crossing N. of a run N. 32° W. - S. Fork S 60° W. Descend steep bluff to
19.15	Ravine Course S 40° W.
19.45	Road bears S 40 W and N 40° E
25.75	Top of ridge bears N. and S. Descend rapidly steep bluff 50 ft to "Shingle Creek" Marshy, Course S. 25° W.
28.25	Level Valley and ascend hill bears N and S.
35.50	
40.11	Set a sandstone 19x8x5 ins - 15 ins in the ground for 1/4 sec. Cor. Marked 1/4 on N. face; dig pits 18

Chains	
	x 18 x 12 ins. E and W. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high N. of Cor.
44.25	Top of hill bears N and S.
50.00	Ravine Course S 20° W.
50.50	Ravine Course S 65° E.
69.25	Ravine Course S 55° E
	Ascend
80.22	The cor of secs 27. 28. 33 and 34
	Land rough, broken and Mountainous
	Soil Clay 3rd rate Valley Clayloam 2nd rate
	Timber - brush along Shingle Creek
	Mountainous land 72.97 chs.
	N. 0° 2' W. bet secs 27 and 28
	Over rolling ground along E. slope of high ridge
4.95	Drain Course E.
7.35	E. point of rocky slope
13.70	Ravine Course S.E. 25 ft deep. Ascend
14.20	Enter smooth tableland
17.15	Road bears N. 55° W. and S 55° E.
26.75	Ravine Course S 65° E. head is 0.50 chs. W.
40.00	Set a Sandstone 16 x 9 x 5 ins - 11 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high W. of Cor. here
	leave table and descend
46.10	Ravine 30 ft deep Course S 40° E
58.95	Ravine 25 ft deep Course S 35° E. ascend
69.50	Top of hill bears N.W. and S.E. descend
79.37	Ravine Course E. 50 ft deep
	Make gentle ascent to point of Ridge between ravines to
80.00	Set a Sandstone 14 x 11 x 4 ins - 10 ins in the ground for cor of secs 21. 22. 27 and 28 Marked with 2 grooves on S. face, and 3 grooves on E. face; dig pits 18 x 18 x 12 ins in each Sec. 5½ ft dist and raise a Mound of earth 4 ft base 2 ft high W of Cor.
	Land rolling broken Mountainous

Chains	
	Soil Clay and gravelly and stony 2nd 3rd and 4th rate
	No timber
	Note The above Cor stands on S.E. point of spur between two ravines and near the foot of same and 6 lks W. and 6 lks South of the North ravine as shown in annexed diagram
	
	At 9h a.m. I set off 42° 58' 29" N. on lat arc: 18° 44' 30" N on decl arc; and determine a true Meridian with the Solar at the cor just established. Thence I run
	N 89° 52' E. on a random line bet Secs. 22 and 27
40.00	Set temp 1/4 sec. Cor.
80.26	Intersect the N and S. line 3 lks N. of the cor of Secs 22. 23. 26 and 27
	Thence I run
	S. 89° 53' W. on a true line bet. secs 22 and 27
	Over rough, broken, Mountainous ground
	Ascend
6.90	Road bears N.W. and S.E.
11.81	Top of hill
	From this point a sod house bears N 19¾° W about 30 chs dist.
27.50	Descend steep bluff.
27.80	Foot of bluff and Enter Valley bears N and S
27.85	Shingle Creek dry on line Course S. 20° W
31.70	Leave Valley and ascend hills bears N. and S.
40.13	Set a Sandstone 19 x 8 x 5 ins. 15 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E and W of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of cor
48.05	Road bears S. 60° W N 60° E
60.85	Same road bears N 15° W. and S. 15° E.
61.75	Top of hill 125 ft higher than Shingle Creek
72.20	Ravine Course S.
80.20	Ravine Course S.E.

Chains	
	gentle ascent 2 ft higher than center of Ravine to
80.26	The cor of Secs 21. 22. 27 and 28
	Land rough, broken, and Mountainous
	Soil clay loam ~~and~~ clay and gravel 2nd and 3rd rate
	Timber - willow plum and buffalo brush along the Creek
	Mountainous land 76 36/100 chs
	No 1/4 M. bet Secs 21 and 22
	Over Mountainous ground
	Make gentle descent to
0.06	Center of ravine course S 45° E. about 2 ft below
	than Cor. Ascend
9.75	Head of ravine course S.E.
12.02	Road bears E. and W.
27.15	Ravine course S.E.
39.95	S. edge of Cap rock on Summit of high peak 100 ft high
	bears N W. and S.E.
40.00	Point for 1/4 Sec cor falls on soft Cap rock and cannot
	Mark same with durable figures I therefore
	Set a Sandstone 18 x 15 x 4 ins - in small Mound of rock
	for 1/4 Sec. Cor. Marked 1/4 on W. face. and raise a
	Mound of Stone 3 1/2 ft base 2 1/2 ft high 3 ft W. of
	Cor. on Edge of Cap rock, pits impracticable
42.05	N. edge of Cap rock bears E and 
	descend N. slope of peak
58.95	Intersect the North Boundary of Nebraska 6.87 chs E.
	of the 11th Mile stone which is a quartzite 3 1/2 ft x 10
	x 10 ins above ground Marked S.D. on N. N. on S.
	and 11 M. on W. faces;
	Set a Sandstone 15 x 12 x 4 ins - 10 ins in the ground
	for closing Cor of Secs 21 and 22. Marked C.C. 35
	N. and 3 grooves on S. face and 3 grooves on E and
	W. faces: dig pits 24 x 18 x 12 ins. crosswise on
	each line E and W. 3 ft and S. of Stone 7 ft dist.
	and raise a Mound of earth 4 ft base 2 ft high S.
	of Cor.
	Land rough and Mountainous
	Soil clay ~~loam~~ gravel and rock
	No timber land
	Mountainous 58.95 ch.

July 29: At the cor of Secs 4. 5. 32 and 33 on the S. bdy of the Tp. I set off 18° 42' 30" N on decl arc: and at 12h 6m p.m. L.m.t. I observe the sun on the Meridian, the resulting latitude is 42° 57' 40" N which is about 0.1 mor than the proper latitude.

At 2h p.m. l.m.t. I set off 42° 57' 37" N on lat arc: 18° 41' 30" N. on decl arc and determine a true Meridian with the Solar at the cor of Secs 4. 5. 32 and 33 which is a Sandstone 10 x 9 x 4 ins above ground marked and witnessed as described by the Surveyor General.

Thence I run

N. 0° 3' W. bet Secs 32 and 33

Over rolling surface

3.50	Shallow drain course S.E. Ascend
5.90	Top of hill
6.01	Road Bears E. and W
12.30	Ravine course E 25 ft deep
21.80	Ravine course S 25° E. 30 ft deep
	Ascend long slope
34.50	Top of ridge bears N 75° E and S 25° W. here enter
	Mountainous ground
40.00	Set a Sandstone 17 x 14 x 3 - 12 ins in the ground for
	1/4 sec cor Marked 1/4 on W. face: dig pits 18 x 18 x 12
	ins. N and S. of Stone 3 ft dist, and raise a mound of
	earth 3 1/2 ft base 1 1/2 ft high W. of Cor.
42.90	Ravine course S. 50° E. 40 ft deep
56.60	Ravine course S 45° E. 25 ft deep
67.35	E. end of gravel ridge, descend
72.10	Gulch 10 ft deep course N.E.
78.50	Ravine course S. 45° E Ascend
80.00	Set a sandstone 20 x 12 x 8 - 15 ins in the ground
	for Cor of Secs 28. 29. 32 and 33 Marked with 1
	groove on S face, and 4 grooves on E. face;
	dig pits 18 x 18 x 12 ins in each Sec 5 1/2 ft dist
	and raise a mound of earth 4 ft base 2 ft high
	W. of Cor.
	Note, this Cor stands on gentle East slope about
	20 ft higher than ravine
	Land rolling and Mountainous
	Soil sandy and gravelly 4 rate
	Timber small oak brush in ravine
	Mountainous land 45 50/100 chs

chains	
	N. 89° 54' E on a random line bet. secs 28 and 33
40.00	Set temp. 1/4 sec. cor.
80.26	Intersect the N and S. line 4 lks N. of the cor. of secs 28 27. 34 and 33
	Thence Run
	S. 89° 56' W. on a true line bet secs 28 and 33
	Over rolling ground
	Ascend
2.00	Top of hill
	Descend over smooth prairie
25.41	Road bears S. 40° E. and N 40° W.
33.25	Top of hill descend
40.13	Point for 1/4 sec cor falls on a boulder imbedded in the ground 22 x 10 ins and 6 ins. above ground. Marked 1/4 on N. face: dig pits 18 x 18 x 12 ins E and W. of stone 3 ft dist and raise a mound of earth and stone 3 1/2 ft base 2 ft high N. of Cor
57.55	Top of ridge bears N.W. and S.E. Enter Mountainous land
62.35	N.W. point of steep spur descend slip bluff
65.25	Enter valley bears N and S.
69.66	Road bears N and S.
70.75	Enter brush bears N and S.
71.96	Indian Creek dry on line Water in holes Cor S.E.
72.75	Leave brush bears N and S.
75.25	Leave valley and ascend hill bears N and S
80.20	Road bears N 35° W and S 35° E.
80.26	The cor of secs 28. 29. 32 and 33
	Land rolling, broken and Mountainous
	Soil E. 35 chs Clay 2nd rate valley loam 1st rate hills 4 rate
	Timber — Willow, cherry and Elm brush along Creek
	Mountainous land 7 70/100 chs

	N. 0 3' W. bet secs 28 and 29
	Over Mountainous ground
0.08	Road bears N 35° W and S 35° E.
19.15	Gulch 10 ft deep Course S.E.
25.00	Descend bluff
26.00	Leave Mountainous ground and enter valley

chains	
	bears E and W.
32.90	Indian Creek, dry on line, Water in holes Course S.E.
33.85	Same Creek dry on line course S.W.
35.40	Same Creek dry on line course E.
40.00	Set a Sandstone 24 x 12 x 3 ins — 18 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist. and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor
41.70	Drain Course W. at foot of bluff 6 ft lower than Cor
56.10	Road bears S. 45° E. and N. 45° W.
62.40	Leave valley and ascend high steep bluff bears N.W. and S.E. mountainous
75.40	Ravine Course W. 75 ft deep Ascend
80.00	Set a Sandstone 20 x 9 x 6 ins — 15 ins in the ground for Cor of secs 20. 21. 28 and 29. Marked with 2 grooves on S. face, and 4 grooves on E. face; dig pits 18 x 18 x 12 ins in each Sec 5 1/2 ft dist; and raise a Mound of earth 4 ft base 2 ft high W. of Cor.
	Land rolling, broken and Mountainous
	Soil loam sandy and gravelly 1st and 4th rate
	Timber Willow and Elm brush along Creek
	Mountainous land 43 60/100 chs

	N. 89° 56' E. on a random line bet secs. 21 and 28
40.00	Set temp 1/4 sec. cor
80.24	Intersect the N and S. line 7 lks S of the cor of sec. 22 21 28 and 27.
	Thence Run
	S. 89° 53' W. on a true line bet secs 21 and 28
	Over rolling ground
	Ascend S.E. point of slip hill
4.20	Ravine Course S.
16.25	Road bears N.W. and S.E. and
	Enter table land
19.30	Head of ravine Course S.E.
40.12	Set a Sandstone 15 x 11 x 4 ins — 10 ins in the ground for 1/4 sec. cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins E and W. of Stone 3 ft dist. and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor
	Descend

19 Subdivision of T. 35 N. R 18 W. Continued

Chains	
42.30	Ravine course S.W.
44.15	Ravine course S. head is 1/2 ch N. over smooth ground
51.40	Enter plowed land bears N and S
65.55	Leave same bears N and S.
80.24	The Cor of Secs 20. 21. 28 and 29
	Land rolling
	Soil Clay 2" and 3" rate
	No timber
	N. 0° 3' W. bet secs 20 and 21
	Over rolling ground
	Ascend
12.97	Top of hill
	From this point Mrs Elizabeth Conners sod house bears S 75° W. about 10 chs dist
17.19	Road bears E. and W.
26.37	Wire fence bears E. and W.
40.00	Set a Sandstone 17 x 11 x 4 ins. 12 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face: dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor. This cor stands on steep N. slope of point between the dry creek and a ravine from the S.E.
	Descend rapidly over Mountainous ground
40.90	Foot of hill and enter Valley bears E and W
41.15	Ravine course N.W.
46.15	E. Branch of Indian Creek (now dry) course W.
48.80	Mell Pratts Sod house bears W. 2,32 chs dist
49.00	Leave Valley and ascend hills bears E and W. mountainous
55.40	Edge of broken Clay Creek bank
	Thence along the West slope of steep Creek bluff
59.05	Intersect the North Boundary of Nebraska 6.43 chs. E. of the 10th Mile Stone which is a quartzite 3 1/2 ft x 10 x 10 ins above ground, Marked S.D. on N.N. on S. and 10 M. on W. faces.
	Set a Sandstone 16 x 14 x 3 ins. 17 ins in the ground for Closing Cor. of Secs. 20 and 21. Marked C.C. 35 N.

Subdivision of T 35 N R 18 W. Continued 20

Chains	
	and 3 grooves on S. face and 4 grooves on E and 2 grooves on W. faces: dig pits 24 x 18 x 12 ins Crosswise on each line E. and W. 3 ft and S. of stone 7 ft dist. And raise a mound of earth 4 ft base, 2 ft high S. of Cor. This corner stands on steep West slope of creek bluff.
	Land rolling Diagram of C.C.
	Soil Clay 2nd and 3rd rate
	No timber
	Mountainous ground 19.05 chs July 29 1895
	July 29 1895 At 10h 54m p.m. l.m.t. by My watch compared with the Solar this afternoon. I observe Polar is at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a plug driven in the ground 5.00 chs. N. of my station, which is the Cor. of Secs. 5. 6. 31 and 32 on the S. bdy of the Tp.
	July 30 1895 At 5h 43m a.m. l.m.t. I lay off the azimuth of polaris 1° 42',7 to the West, and mark the True Meridian, thus determined, by cutting a small groove in a stone firmly set 5.00 chs. N. of the Cor. At 6h a.m. l.m.t. I set off 42° 57' 37" N on lat arc and 18° 34' N. on decl arc: and determine a true meridian with the Solar by cutting a small groove in the stone already set 5.00 chs N. of My station. This mark falls 0.5 ins E. of the polaris Observation
	The Magnetic bearing of the true Meridian, at 6h a.m. is N. 12° 30' W.: The angle thus determined, reduced by the table, page 100 gives the mean mag. decl 12° 26' E.
	From the Cor of Secs 5. 6. 31 and 32 on the S. bdy of the Tp which is a Sandstone 12 x 2 1/2 x 2 ins above ground Marked and witnessed as described by the surveyor General
	Thence I run
	N. 0° 4' W. bet secs 31 and 32
	Over rolling ground
	Make gentle ascent
5.00	Observation Stone
20.60	Top of Stony Knoll

Chains Thence over mountainous ground
30.55 Ravine course N 52° W. 25 ft below than trail
38.80 Top of W. point of gravelly hill
Over more gentle rolling ground
40.00 Set a Sandstone 17 x 11 x 3 ins - 12 ins in the ground for 1/4 sec Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor
43.60 Top of West point of hill
50.00 Leave mountainous and enter undulating land
60.00 Road bears N 20° W. and S 20° E
77.00 Top of low ridge bears E and W - gentle ascent
80.00 Set a Sandstone 14 x 10 x 4 ins 10 ins in the ground for Cor. of Secs. 29. 30. 31 and 32. Marked with 1 groove on S. face, and 5 on E. face; dig pits 18 x 18 x 12 ins in each sec. 5 1/2 ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.

Land undulating, rolling and Mountainous
Soil Clay and gravelly 2nd and 3rd rate
No timber
Mountainous land 29.60 chs.

N. 89° 54' E. on a random line bet secs 29 and 32
40.00 Set temp 1/4 sec. cor.
80.26 Intersect the N and S. line 7 lks S. of Cor of secs 28. 29. 32 and 33
Thence Drum
S. 89 51' W. on a true line bet secs 29 and 32
Over rolling broken ground
1.23 Ravine 20 ft deep Course S 35° E Ascend
4.50 Top of ridge bears N. W. and S. E.
8.00 Top of table land
12.65 Road bears S E and N.W.
24.15 Ravine Course S. E.
33.95 Road bears S E and N.W.
39.10 Road bears N. and S.
39.20 Enter plowed field bears N. and S.
40.13 Set a Sandstone 15 x 12 x 3 ins - 10 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18 x

Chains 18 x 12 ins E. and W. of stone 3 ft dist and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of Cor.
From this Cor a 2nd house bears N 2° W. about 40 chs dist
57.75 Leave plowed ground bears N and S.
57.80 W. point of gravelly and rocky ridge
Descend steep bluff
62.25 Foot of bluff enter valley and 50 ft below table land bears N. and S.
63.75 Dry Creek - dry on line - Course S.
64.75 Leave Valley and ascend hills bears N. and S.
72.00 Top of hill 75 ft higher than Valley bears N and S
80.26 The Cor of secs. 29. 30. 31 and 32

Land undulating and rolling
Soil Clay and gravel 2nd and 3rd rate
No timber

At 8h 15m a.m. L.M.T. I set off 42° 58' 29" N. on the lat arc 18° 30' 30" N. on dec arc: and determine a true Meridian with the Polar, at the Cor. of Secs 29. 30. 31 and 32 from which in accordance with the Special Instructions under My joint contract Drum
West on a true line bet secs 30 and 31
Over gradually ascending ground
11.60 Road bears N 35° W. and S 35° E.
16.40 Road bears N. and S
+16.75 Begin ascent of S. slope of mountainous ridges
26.50 Summit of ridge descending S.E. from peak.
28.75 The top of "Mt. Nett," Peak, bears N. 2° chs dist 100 ft higher than the line
38.60 Quick course S. 50 ft deep
40.00 Set a Sandstone 17 x 9 x 8 ins - 12 ins in the ground. for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E and W. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of Cor.
This Cor stands on top of stony point
Descend
41.70 Ravine course S. Ascend
49.50 Top of rocky ridge descend
56.80 Quick 75 ft deep Course S. 15° E

Chains	
	Ascend
65.90	Top of high ridge 100 ft high
67.60	Top of rocky S. point descend
X 78.54	Set a Sandstone 18 x 12 x 6 ins – 12 ins in the ground for Cor. of Secs 25. 30. 31 and 36 (Bet Rs. 18 and 19 W) marked R 18. on E. and R 19 on W faces with 1 groove on S. and 5 grooves on N. faces; dig pits 18 x 18 x 12 ins, in each Sec, 5½ ft dist: and raise a mound of earth 4 ft base 2 ft high W. of Cor.

Land undulating rolling and Mountainous
Soil Clay and gravel 2nd and 4 rate
No timber
Mountainous land 61.72 chs

July 30 1895

July 31 1895. At the Cor of Secs 29. 30. 31 and 32 established July 30, I set off 4° 53' 29" on the Polaris: 18° 20' W. and at 5h 45m p.m. L.M.T. determine a true Meridian with the Solar.

Thence Drew

Chains	
	N. 0° 4' W. bet Secs. 29 and 30
	Over gently rolling prairie
16.50	Ravine Course E.
24.90	Sharp point of hill, descend step bluff 50 ft high
25.90	Foot of bluff and enter Valley bears N.W. and S.E.
29.65	Saw Grass Creek of Dry Creek Course E.
31.00	Leave Valley and ascend hills bears N.W. and S.E.
35.25	Ravine course S.W. ascend
40.00	Set a Sandstone 16 x 10 x 4 ins – 11 ins in the ground for 1/4 Sec. Cor. Marked, 14 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
43.50	S. point of gravelly hill bears E. and W.
57.65	Ravine course S.W.
62.20	Enter Falling table land bears E. and W.
70.25	Sod house bears W. 40 lks dist
80.00	Set a Sandstone 15 x 8 x 5 ins – 10 ins in the ground for Cor. of Secs 19. 20. 29 and 30. Marked with 2 grooves on the S. face, and 5 grooves on E. face; dig pits 18 x 18 x 12 ins in each Sec 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.

Lock Billings 30 x 18 house bears N 40° 20' W 30 lks dist
Cyrus McMahan 3 x 18 house bears S. 3° W 7.75 chs dist

Chains	
	Land undulating, rolling and mountainous
	Soil clay and gravel 2nd and 4 rate
	No timber

N. 89° 51' E on a random line bet Secs 20 and 29

Chains	
40.00	Set temp ¼ Sec. Cor.
80.28	Intersect the N and S. line 8 lks N. of the Cor of Secs. 20. 21. 28 and 29

Thence Drew

S. 89° 54' W on a true line bet Secs 20 and 29

Over ~~rolling~~ mountainous ground

Chains	
4.60	Ravine course S.W. 30 ft deep Ascend
6.15	Top of ridge bears N.E. and S.W.
8.20	Ravine course S.W.
12.00	Enter valley and leave, mountainous land bears N.E.
13.85	Road bears N. and S.
16.18	Indian Creek, now dry, course S.W.
22.97	Wire fence bears N. and S.
27.00	Leave Valley and ascend hills bears N.E. and S.W.
34.20	Enter flat ravine course S. 80° E. Thence up ravine
38.00	Leave ravine and ascend hill side Covered with small oak brush bears N.W. and S.E.
40.14	Set a Sandstone 20 x 11 x 3 ins – 10 ins in the ground for ¼ Sec. Cor. Marked ¼ on N. face; dig pits 18 x 18 x 12 ins E. and W. of stone 3 ft dist. and raise a mound of earth 3½ ft base 1½ ft high N. of Cor
42.35	Top of bluff
51.30	Road bears N 25° W and S 25° E. Ascend
55.71	Wire fence bears N. and S.
67.85	Top of high hill.

From this point Lewis Smothers log house bears S 32° 35' E. about 5 chs dist Descend

Chains	
80.28	The Cor of Secs 19. 20. 29 and 30

Land level, rolling and mountainous
Soil loam, clay and gravelly. 1st rate and 3rd rate
Timber small oak burk oaky ravine at 14 Sec Cor
Mountainous land 12.00 chs

Chains	
	West on a random line bet Secs 19 and 30
40.00	Set temp 1/4 Sec. Cor.
78.43	Intersect the W. bdy of the Tp 10 lks N. of the Cor of Secs. 19. 24. 25 and 30 Which I Established July 30.
	Thence I run
	N 89° 56' E. in a true line bet Secs 19 and 30
	Cor rolling ground and Mountainous
	Descend Gradual Slope
21.43	"Johns Cassyon" Course S 50° E.
24.43	Wm Connells Sod house bears N. 65 lks dist
26.53	Road bears N 20° W and S 20° E
28.90	Enter Valley bears N. and S.
31.68	"Johns Canyon", Course N.
31.90	Leave Valley and ascend bluffs 30 ft high N. and S.
38.43	Set a Sandstone 18 x 12 x 4 ins - 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins on E and W. of Stone. 3 ft dist; and raise a mound of earth 3 1/2 ft 1 1/2 ft high N of Cor
46.40	Descend
51.40	Enter valley bears N. and S.
54.38	Dry Creek (now dry) Course S. 10° E
54.50	Leave Valley and ascend bluffs bears N. and S.
54.65	Steep point of hill
56.00	E. Branch of Dry Creek, now dry, S. 30° W. Ascend
62.40	Top of bluff - and enter level ground, gradual ascent.
78.43	The Cor of Secs 19. 20. 29 and 30
	Land rolling, broken, and Mountainous
	Soil Clay and gravelly, 2nd and 3rd rate
	No timber
	Mountainous land 62.50 chs.

	No° of W. bet Secs 19 and 20
	Cor rolling and broken ground
	Ascend
21.30	Ravine Course S. 70° W 15 ft dep
21.60	Wire fence bears N 80° E and S 80° W
26.25	Ravine Course W. Road in same
30.58	Wire fence bears E. and W.
40.00	Set a Sandstone 15 x 10 x 4 ins - 10 ins in the ground

Chains	
	for 1/4 Sec. Cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor.
44.50	Ravine Course W.
59.10	Intersect the North Boundary of Nebraska 6.00 chains E. of the 9th Mile Stone, which is a quartzite 3 1/2 ft x 10 x 10 ins above ground. Marked S. B. on N N. on S. and 9 M. on W. faces.
	Set a Sandstone 16 x 9 x 4 ins - 10 ins in the ground for Closing Cor of Secs. 19 and 20. Marked C.C. 35 N. and 3 grooves on S. faces and 5 grooves on E and 1 groove on W. faces; dig pits 24 x 18 x 12 ins Crosswise on each line, E and W. 3 ft, and S. of Stone 7 ft dist; and raise a mound of earth 4 ft base 2 ft high. S. of Cor
	Land rolling and broken
	Soil Clay and sand 3rd rate
	No timber
	July 31 1895

Meanders T. 35 N. R. 18 W.

Meanders of the Left Bank of Keya Paha River, Up Stream.

I find that the Meander Cor on the left bank of Keya Paha River 14.50 chains W. of the Cor of Secs. 5. 6. 31 and 32 on S. bdy of the Tp which was located on a high shelving sand and Shale bluff 75 ft higher than the River has been entirely washed away no trace of stone mound or pits are to be seen. It is impracticable to re-establish the same. I therefore go to the Witness Cor. to the Meander Cor 12.00 chs West of the Cor of Secs 5. 6. 31 and 32 and 2.50 chs. E. of the Meander Cor and take a backsight on the said sec. Cor. and project the line West 2.50 chs. and drive a hub in the sand for the

point of the Original Meander Cor.
At the above described point I set off 42° 57' 37" N on the lat arc. 18° 14' 30" N on the decl arc: and at 10h 30m a.m. l.m.t July 31 1895 determine a true Meridian with the Solar.
Thence I run with the Meanders in sec 31
N 2½° E 6.75 chs. Along W. slope of shale bluff
At 4.00 chs Enter dense brush
N 20½° E 5.10 " Through scattering brush
N. 40° W. 11.05 "
N. 77° W. 7.85 " Enter dense brush
N. 62° W. 2.50 " Through " "
N 51° W 5.00 " " " "

At the above described Witness Cor. on the S. bdy of the Tp. I set off 18° 13' 30" N. on the decl arc and at 0h 06m p.m. l.m.t. July 31 I observe the sun on the Meridian the resulting lat. is 42° 57' 50" N. which is about the correct latitude

At 1h 30m p.m. l.m.t at the end of the last course I set off 42° 57' 50" N. on the lat arc: and 18° 12' 30" N. on the decl arc: and determine a true Meridian with the Solar.
N. 35¾° W 12.65 chs. Through dense brush
N 74½° W. 8.00 " " " "
N 84° W. 7.25 " " " "
S 80° W. 7.20 " " " "
S 53½° W 7.25 " " " "
S. 76½° W 6.60 " At 1.85 chs Ford across Rim bears N and S.
2.45 " Wire fence bears N. and S
5.10 " Wire Suspension foot bridge across Rim bears N. 15° E.
At end of this station Jack Donaldson frame house bears N 7° W. about 8 chs. dist
S. 66¾° W 4.13 / 9.33 " To the Meander Cor of fract secs 31 and 36. on the W. bdy of the Tp.
Land rolling and undulating
Soil clay and sandy 2nd and 3 rate
Timber - plum. Willow Cottonwood, ash and oak brush
Dense undergrowth 71.18 chs July 31 1895

August 1 1895 I go the cor. of secs 5. 6. 31 and 32 on the S. bdy of the Tp and at 7 a.m. l.m.t I set off 42° 57' 37" on the lat arc and 18° 03' N. on the decl. arc and determine a true Meridian with the Solar and mark a point thus determined on the stone set July 30, 5.00 chs N. of my station - This point falls 0.5 ins East of the Polaris Observation. which defines a position of 0' 26" East.
August 1 1895

General Description.

This Township is composed of Narrow Creek Valleys high 2nd bench or table land and high peaks and ridges
The Creek Valleys are generally only a few chains in width and have a deep rich soil of black loam - The bench land is generally clay and gravelly soil and mostly 2nd and 3rd rate land
The peaks and ridges are rocky and 4th rate
There is no running water in the Creeks but a few fine springs are found
Keya Paha River in the S. W. Corner is the only stream of running water.
There is some brush along the dry creeks and considerable brush along the left bank of the river. The large timber has been cut down and hauled away
There are a number of settlers in the Township living in log and sodhouses. and cultivate small tracts. and keep small herds of cattle. Mill Pratt has a sheep Ranche on Indian Creek in sec 20
Mt Nett is a prominent land Mark in sec 30 near the 1/4 sec. cor. the large white rock on top renders it quite conspicuous: its Elevation is the same as all the peaks and ridges in this and adjoining Tps as determined by the level on the instrument.

Alfred W Gamaer
U. S. Deputy Surveyor
and acting as Topographer on Subdivisional lines and Mean on Meander lines

Robert Harvey
U. S. Deputy Surveyor
Acting as Surveyor

T. 35 N. R. 19

7.35.119

List of Names.

A list of the names of the individuals employed by .....

....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Oath of Assistants see T35 NR20W pg 294
Oath of Chainmen pg 295

Final Oath of Assistants:

We hereby certify that we assisted .....

....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

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T35,N19

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Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of The final oaths of deputies and their assistants covering the field notes of Township 35 N. Range 18 W 6th Principal Meridian in Nebraska, are with the field notes of T 35 N R 20 W – "Book J" executed under this contract

..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

Approval.

Office of the U. S. Surveyor General,

Huron So Dak Dec 12th, 1896

The foregoing field notes ~~of the survey of~~ Contained in one book lettered "H" of the survey of the subdivision and meander lines of Township No 35 North of Range No 18 West of the 6th principal Meridian in the State of Nebraska

Robert Harvey and Alfred W Gumaer executed by ~~his~~ their joint under ~~his~~ Contract No. 107, dated April 3rd, 1896, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Richard B Hughes

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in the State of Nebraska, has been correctly copied from the original notes on file in this office.

6—151

Richard B Hughes

U. S. Surveyor General.

Feb. 8, 1897.

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7.35.1.19

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Received with letter of R. B. Hughes, Surveyor General, So. Dak, dated Feb. 8, 1897.

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(4—679.)

BOOK I

FIELD NOTES

OF THE SURVEY OF

Subdivision and Meander lines

of

Township No. 35 North.

of

Range No. 19 West

of the

Principal Base

Of the 6th Principal Meridian,

in the state of

Nebraska

AS SURVEYED BY

Robert Harvey and Alfred W. Gumaer, U. S. Deputy Surveyors

Under ~~his~~ their joint Contract No. 107, dated April 3, 1895.

Survey commenced August 1, 1895.

Survey completed August 9, 1895.

(12503—2,000.)

7335 1619

Names and Duties of Assistants.

Clifford H. Norton	Chainman
Herbert J. Paul	Chainman
Clayton J. Norton	Axman and Moundman
Howard J. Sheppard	Axman and Moundman
William L. Stitt	Flagman
Lewis M. Williams	Flagman

Preliminary Oaths of Assistants.

We, ...

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

For preliminary oaths of assistants see those with Tp. 35 N Rg 13 Contained in Book lettered "B." executed under this Contract.

....., Chainman.

....., Chainman.

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this .....
day of ....., 18 .

We, ...

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

Subscribed and sworn to before me this .....
day of ....., 18 .

....., Axeman.

....., Axeman.

INDEX DIAGRAM.

Township 35 N., *Range* 19 W.

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30	29	20 28	17 27 4	9 26 3	6 25 2
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Meanders Page.....

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Note The stones to be used for corners in this Township are a hard brittle sandstone, found upon the hillsides, broken into flat slabs of irregular dimensions and cannot be cut or broken to regular proportions. It is found that notches cut on the edges of the stone very frequently resemble the notches caused by the breakage of the edges and cannot be distinguished therefrom. It is therefore determined to set the interior section corners with the flat faces E and W. and the narrow faces N. and S. and cut grooves on these faces, which can be readily distinguished.

Subdivision of T 35 N. R. 19 W.

Survey commenced August 1 1895 and executed with a Heller & Brightly transit No 6602 with Solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to 20" of arc: and the latitude and declination arcs to single minutes.
The instrument was examined, tested on the true Meridian at Huron South Dakota, found correct and was approved by the Surveyor General for South Dakota June 21 1895.
I examine the adjustments of the transit and find the levels and collimation to be correct, I test the Solar apparatus by comparing its indications resulting from Solar observations made during A.M. and P.M. hours, with a true Meridian determined by observations on Polaris I proceed as follows
At the cor to Secs 25.30.31 and 36 T. 35 N R. 18 and 19 W. Latitude 42° 58' 29" N. Long. 99° 29' 34" W. I set off 42° 58' 29" N on lat arc: and 17° 58' N. on decl arc: and at 6h 15m P.M. l.mt, determine a true Meridian with the Solar and mark a point thereof, on a peg driven in the ground 10 chs S. of my station.
At 10h 45m P.M. by watch which I compare with the Solar this afternoon I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground 10 chs S. of my station. August 1 1895
Aug 2 1895 At 6h 15m A.M. l.mt I lay off the azimuth of Polaris 1° 4' 2" to the West and mark the true Meridian thus determined, by driving a tack in the peg already driven August 1 on which the true Meridian falls, 0.70 ins West of the mark determined by the Solar.
At 6h 30m A.M. l.mt I set off 42° 58' 29" N on lat arc and 17° 48' 30" N. on decl. arc. and mark a point in the true Meridian determined with the Solar, on the peg already set 10 chs. S. of my station; this mark falls 0.8 ins West of the true Meridian determined by the Polaris Observation.
The Solar apparatus by P.M. and A.M. observa-

T.35 R.20

2 Subdivision of T 35 N. R 19 W. Continued

Chains	
	tions defines positions for true Meridians respectively about 0', 21" West and 0', 18" East of the meridian established by the Polar's Observations I therefore conclude that the adjustments of the instrument are satisfactory The magnetic bearing of the true Meridian, at 6h 30m a.m. is N 12° 23" W.: The angle thus determined, reduced by the table, page 100, gives the mean mag. decl 12° - 18' E.
	Note. This morning I compared my measuring chain with the standard chain and find the same correct.
	I commence at the corner above described which I set July 30 1895, and in accordance with the Special instructions
	I run
	West on a true line bet secs 25 and 36
	Over mountainous hills and ridges
	Descend to
4.50	Ravine course S. 30 ft lower than Cor. Ascend
11.30	Top of high S. slope of ridge 100 ft higher than ravine Descend
21.30	Ravine course S 100 ft deep
33.55	Road, bears N. and S.
34.00	Ravine course S. 50 ft deep ascend
38.75	E. edge of flat topped ridge bears N and S.
40.00	Set a sandstone 27x14x5 ins - 20 ins in the ground for 1/4 sec cor, Marked 1/4 on N. face; dig pits 18x18x12 ins E. and W. of stone 3 ft dist. and raise a mound of earth 3 1/2 ft base, 1 1/2 ft high N. of Cor.
42.25	W. side of flat ridge bears N and S. descend
47.60	Top of sharp ridge bears N. and S.
54.00	Ravine course S.
65.30	Leave mountainous hills and Enter Valley bears N & S
68.80	Shallow drain course S
73.45	Enter strip of plowed ground bears N and S
73.65	Leave same bears N and S
74.85	Wire fence bears N. and S.
80.00	Set a sandstone 13x9x5 - 9 ins in the ground for Cor. of secs 25. 26. 35 and 36. Marked with 1 groove on S. and E faces; dig pits 18x18x12 ins

Chains	
	in each sec 5 1/2 ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor.
	Land - gently rolling - high rough and mountainous Soil, Clay loam - gravelly and stony 2" and 4" rate No timber
	Mountainous land 65 30 chs
	At 7h 30m a.m. l.m.t I set off 42° 58' 29" N on lat arc; and 17° 46' 32" N. on decl arc & determine a true Meridian with the Solar;
	I run
	West on true line bet secs 26 and 35
	Over level ground
3.40	Shallow drain course S. 80° E here
4.00	Leave valley and ascend hills bears N W and S E
19.85	Road bears S. 40° E. and S 40 W.
20.80	Ravine course S 50° E
25.56	Edge of high abrupt bluff 75 ft high
27.40	Foot of bluff. and Enter valley bears N W and S E
28.40	Road bears N 30° W. and S 30° E.
30.25	Intersect the Left Bank of Keya Paha River
	Set a sandstone 15x12x6 ins - 10 ins in the ground for Meander Cor of frac'l secs 26 and 35. Marked M.C. on on W. face, 1 groove on S face ——— dig a pit 36x36x12 ins 8 ft E. of stone; and raise a mound of earth 4 ft base and 2 ft high E. of Cor
	Note A bend of Keya Paha River and narrow strip of land on left bank will fall N. of this line.
	Thence across bend of Keya Paha River on a blank line
62.60	Intersect the Left bank of Keya Paha River
	Set a sandstone 26x11x5 ins - 19 ins in the ground for Meander Cor of frac'l secs 26 and 35 Marked M.C. on E. face; with 1 groove on S. face. dig a pit 36x36x12 ins 8 ft W. of stone; and raise a mound of earth 4 ft base 2 ft high W. of Cor
	Here Enter brush - ascend
63.50	Leave brush bears N E and S W.
67.00	Ascend second bench bears N E and S W. 10 ft high
67.63	Wire fence on top of bench bears N 60° E and S 60° W.

T.35 R.20

Chains	
	and enter plum thicket
69.63	Leave thicket
80.00	Set a sandstone 18x15x4ins - 12ins in the ground for Cor. of Secs 26. 27. 34 and 35 Marked with 1 groove on S. face and 2 on E. face: dig pits 18x18x12ins in each sec 5½ ft dist: and raise a mound of earth 4ft base 2ft high W. of Cor.
	Land - level - undulating and rolling
	Soil sandy - clay 2nd and 3rd rate
	Timber - beech along the river bank and in thicket
	Across bend of Keya Paha River through brush 32.35 chs
	Brush 22.00 chs

At 9h a.m. l.m.t. I set off 42° 58' 29" N on lat. arc; and 17° 45' N. on dec'l arc; and determine a true Meridian with the Solar

Chains	
	Run
	West one true line bet Secs 27 and 34
	Over undulating valley land
0.72	Road bears N. and S.
29.00	Enter brush N and S
30.35	Intersect the Left Bank of Keya Paha River
	Set a sandstone 20x12x3ins - 15ins in the ground for Meander Cor. of fract secs 27 and 34 Marked M.C. on W. face - with 1 groove on S. face; dig a pit 36x36x12ins 8ft E. of stone; and raise a mound of earth 4ft base 2ft high E. of Cor. from which A Cottonwood tree 9ins in diam bears N. 41° 10' W 80½ lks dist. Marked T. 35 N. R 19 W S. 27 M.C. B.T. - no other trees suitable for bearing trees within limits.
	Land undulating
	Soil sandy 3rd rate
	Timber - willow brush
	Brush 1.35 chs

August 2 1895 At 10h 30m a.m. l.m.t I set off 42° 58' 29" N on lat arc; and 17° 44' 30" N on dec'l arc; and determine a true Meridian with the Solar at the Cor. of Secs 25. 26. 35 and 36

Chains	Thence I run
	S 0° 01' E. bet secs 35 and 36
	Over undulating descending ground
1.75	Wire fence bears N.E. and S.W.
3.40	Enter plowed field bears E and W.
11.35	Road bears S 70° E and N 70° W
14.00	Shallow drain course S 30° W. here leave plowed field
15.55	Same drain course S. 35° E.
19.00	W. bend of same drain
21.35	Same drain, course S 60° W
21.70	Enter plowed field
32.40	Leave same bears E. and W.
33.30	Foot of bluff bears S.E. and N.W.
36.60	Enter brush bears E and W.
38.35	Intersect the left bank of Keya Paha River
	Set a sandstone 22x10 x4ins - 16ins in the ground for Meander Cor. of fract secs 35 and 36; marked M.C. on S. face with 1 groove on E. face; dig a pit 36x36x12ins 8ft N. of stone; and raise a mound of earth 4ft base, 2ft high N. of Cor

To connect this Cor. with the surveys on the South bank of the River, I go to an oak bearing tree marked M.C. B. 36 which stands on the steep slope of the 2nd bench near the river bank and run N. 65° W. 46 lks dist to a point for the Original Meander Cor. as per notes of Original survey. No Meander Cor. or other bearing tree found; from said point I run East 11.51 chs and intersect the line bet secs. 35 and 36 31.85 chs S. of the Cor. of Secs 25. 26. 35 and 36. and 6.50 chs N. of the Meander Cor. on the left bank just established

I add the following distances on the opposite sides of the river, to wit,

From Cor to secs 1. 2. 35 and 36 on S. bdy of the Tp north to the M.C. on Right bank	66.45 chs
From Cor of Secs 25. 26. 35 and 36 S. to point of intersection of offset	31.85 chs
Total distance	98.30 chs

T. 35 N. R. 20

Chains		
	Forward	98.30 chs
	Subtract	80.00 chs
	Diff in latitude	18.30 chs
	Diff in departure	11.51 chs

Hence, bearing and dist. from orig M.C. on left bank to M.C. on right bank is N. 60° 33' W. 13.22 chs.

Chas Sylvester lives in N.W.th Sec 36

Wm Justice lives in N.E.th Sec 35

Land undulating

Soil Clay and sandy loam 2nd and 3rd rate

Timber - Willow brush along river bank

Dense brush 17.5 chs

At the meander cor, on left bank, of fract Secs 35 and 36 I set off 17° 43' N. on the declare. and at 0h 06m p.m. I observe the Sun on the Meridian: the resulting latitude is 42° 58' N. or about 0'.1 less than the proper latitude

August 2 1895

August 3 1895. At 6h 15m a.m. I set off 42° 58' 29" N on lat arc: and 17° 33' N on decl arc; and determine with the Solar a true Meridian at cor of secs. 25.26.35 and 36 which I established August 2

Thence I run

N 0° 1' W. bet Secs 25 and 26

Chains	
13.00	Over rolling ground Leave Valley and Ascend over Mountainous ground bears E. & W.
18.50	Top of hill bears N.W. and S.E.
29.30	Ravine, Course E.
32.00	Ravine Course S 30° E ascend
40.00	Set a Sandstone 17x8x7 ins - 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face: dig pits 18x18x12 ins N and S. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
45.25	Shallow drain course E. 20 ft down than Cor
49.00	Drain Course S.E. Ascend
54.80	Top of high E. point of rocky ridge 75 ft high
65.30	Ravine Course S.E. 60 ft deep Ascend
80.00	Set a Sandstone 17x8x5 ins - 12 ins in the ground for Cor. of secs 23. 24. 25 and 26. Marked with 2 grooves on

Chains	
	S. face, and 1 on E. face; dig pits 18x18x12 ins. in each Sec. 5½ ft dist: and raise a mound of earth 4 ft base 2 ft high W. of Cor.

From this Cor. E. end of Peak bears S. 34° 10' W. 6.55 chs dist

Land rolling rough and Mountainous

Soil Clay gravelly and stony 2nd and 4th rate

No timber

Mountainous land 79.00 chs.

East on a random line bet Secs 24 and 25

Chains	
40.00	Set a mp 1/4 Sec Cor
80.06	Intersect the E. bdy of the Tp 2½ lks S. of the Cor to secs 19. 24. 25 and 30. which I established July 30 1895

Thence I run

S. 89° 59' W. on a true line bet Secs 24 and 25

Over high ridges and mountainous ground

Ascend

Chains	
25.26	E. edge of Cop rock on high flat top ridge bears and S.
26.26	W. Edge of same bears N and S. descend rapidly
34.45	Ravine Course, S. ascend
40.03	Set a Sandstone 14x9x5 ins - 9 ins in the ground for 1/4 Sec Cor. Marked 1/4 on W. face: dig pits 18x18x12 ins E and W. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high W. of Cor
44.35	Ravine. 25 ft deep Course S.W. ascend
53.75	Top of ridge 75 ft high bears N and S. descend
72.00	Top of S. slope of hill descend
80.06	The Cor. of Secs 23. 24. 25 and 26

Land, rough, broken and Mountainous

Soil, Clay, gravelly and rocky 2nd and 4th rate

No timber

Mountainous land 80.06 chs

N. 0° 1' W. bet Secs 23 and 24

Over rough, broken Mountainous ground

Chains	
6.70	Top of ridge bears E and W.
20.00	Ravine Course N.W. 75 ft deep
26.65	Ravine Course S.W.

T. 35 N. R. 20

8 Subdivision of T 35 N R 19 W. Continued

Chains

33.35 Road bears E. and W

36.60 Shallow drain Course NW

40.00 Set a Sandstone 18x8x4 ins. - 12 ins in the ground for 1/4 sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N and S of stone 3 ft dist; and raise a Mound of earth 3½ ft base 1½ ft high W. of Cor

49.15 Top of ridge bears N.W. and S.E. descend

58.15 Ravine Course NW. Ascend to

59.21 Intersect the North Boundary of Nebraska 7.37 chs E. of the 7th Mile Stone. which is a quartzite 4 ft x 10 x 10 ins above ground Marked SD on N, N on S and 7M on W. faces.

Set a Sandstone 17x14x8 ins - 12 ins in the ground for Closing Cor of Secs 23 and 24. Marked C.C. 35N and 3 grooves on S. face; and 1 groove on E and 5 grooves on W. faces; dig pits 24 18x12 ins Crosswise on each line E and W. 3 ft and S of stone 7 ft dist; and raise a Mound of earth 4 ft base 2 ft high S. of Cor

Land - broken by deep ravines - Mountainous land

Soil Clay and gravilly 3rd and 4th rate

No timber

Mountainous land 59.21 chs.

On my return to camp in Sec 36. At the cor. of secs 25. 26. 35 and 36 I set off 17° 27' 30" N on decl arc; and at 12h 06m p.m. l.m.t I observe the sun on the Meridian the resulting latitude is 42° 58' 20" N which is about 0.15 less than the proper latitude

August 3 1895

August 4 1895 At 6h A.M. l.m.t I set off 42° 58' 29" N on lat. arc; and 17° 18' N on decl arc; and determine with the solar a true Meridian at cor of secs. 26. 27 34 and 35

Thence I run

S. 0° 2' E. bet secs 34 and 35

Over undulating prairie

7.25 Wire fence bears E and W.

8.70 S. Edge of bank bears E and W descend

8.75 Road bears N. 17° W and S 17° E.

9.45 Intersect the left bank of Keya Paha River

Subdivision of T 35 N. R 19 W. Continued 9

Chains

Set a Sandstone 21x13x4 ins. 15 ins in the ground for Meander Cor. of frac'l secs 34 and 35. Marked M.C. on S. face with 2 grooves on E. face.

dig a pit 36x36x12 ins 8 ft N of stone; and raise a mound of earth 4 ft base 2 ft high N. of Cor

To connect this Cor. with the Surveys on S. side of the River I go to the Cor of Secs 26, 27, 34 and 35 on S. side of river ~~bdy of the Tp~~ which is a Mound of earth with pits N.E. S.E. S.W. and N.W. I run N. 3.40 chs to M.C. on top of 2nd bench, thence N. from M.C. 5.19 chs. Thence E. 10.99 chs to the Meander Cor. (on left bank), of frac'l secs. 34 and 35

Therefore from M.C. of secs. 34 & 35 on left bank S. 64° 43' 15" 12.15 chs to M.C. of secs. 26 & 27 on right bank

I add the following distances on the opposite sides of the River

From Cor. of Secs 2. 3. 34 and 35 N. to M.C. on R. bank	3.40 chs
From M.C. N. across River	5.19 chs
From M.C. on left bank N. to Cor. of Secs 26. 27. 34 & 35	9.45 chs
Diff in latitude is	18.04 chs
Diff in departure is	10.99 chs

Land undulating

Soil sandy 3rd rate

No timber

August 4 1895

At 7h 30m A.M. l.m.t I set off 42° 58' 29" N on lat. arc and 17° 15' N. on decl arc; and determine a true Meridian with the solar at cor of secs 26. 27. 34 and 35

Established Aug 2 ~~as described on page 4~~

Thence I run

N. 0° 2' W. bet secs 26 and 27

Over undulating valley

11.80 Foot of bench bears E and W ascend bench 8 ft high

12.50 Enter Ben Sylvester's Cornfield bears E and W.

23.60 Road bears E and W.

33.72 Leave Cornfield bears E and W.

From this point Ben Sylvester's sod house bears S 28° 20' W. about 20 chs dist

Adolph Clear's log house bears N 63° 20' E about 20 chs dist

34.40 Buffalo Creek - No running water, water in holes, Water on line Course S 65° E

T.35 N. R. 20

Chains	
38.70	Same Creek Course N 40° W.
40.00	Set a Sandstone 20x12x3 ins – 15 ins in the ground for 1/4 Sec. Cor. Marked 1/4. on W. face; dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor
40.60	Foot of Ascent bears E and W. – ascent 8 ft high
44.65	Same Creek. Water in holes. Water hole on line Course E
47.45	Same Creek, dry on line, course N 40° W.
48.75	Same Creek, dry on line, course S. 60° E
50.00	Leave Valley and Ascend bluffs bears N W and S E
	Thence along W. slope of bluffs
66.00	Drain Course W. (shallow)
66.80	Drain Course S. W.
80.00	Set a sandstone 17x10x3 ins – 12 ins in the ground for Cor of Secs 22. 23. 26 and 27, Marked with 2 grooves on S. and E. faces; dig pits 18x18x12 ins in each Sec 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of Cor
	Land undulating and rolling
	Soil Clay and sandy loam good 2nd rate and ¾ rd rate
	Timber – Willow brush and a few small Elm trees along the Creek
	East on a random line bet Secs 23 and 26
40.00	Set temp 1/4 Sec. Cor.
80.04	Intersect the N. and S. line, 7 links N. of the Cor of Secs 23. 24. 25 and 26
	Thence Drun
	N. 89° 57' W. on a true line bet Secs 23 and 26
	Over rolling, broken, Mountainous ground
3.74	Top of N. slope of ridge – 15 ft higher than Cor.
9.25	Gulch 10 ft deep course N.W.
15.00	Gulch 30 ft deep Course N.W. ascend
18.34	Top of N.W. slope of rocky point of ridge, from which the abrupt, broken cap rock of N.W. Corner of flat Top ridge bears S. 11° 40' E 4.15 chs dist, descend
40.02	Set a Sandstone 17x10x3 ins 12 ins in the ground for 1/4 Sec Cor. Marked 1/4 on N. face; dig pits 18x18x12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base, 1½ ft high N. of Cor, from

Chains	
	Which a round top peak bears N 27° 20' W. 12.40 chs dist
46.55	Leave Mountainous hills and Enter Valley bears N.E. and S.W.
47.55	Dry channel of Creek, Course S.
49.20	Dry channel of Buffalo Creek Course S 25° E.
49.30	Leave Valley and Ascend Mountainous hills bears N. and S.
50.99	Road. bears N 15 W. and S 15° E
52.94	Road bears N. 15° W. and S. 15° E
61.25	Ravine Course S. 50 ft deep
66.05	Top of hill bears N and S
70.00	Ravine Course S.E. 25 ft deep ascend
74.25	Top of hill 50 ft higher than sec. cor.
80.04	The Cor. of Secs 22. 23. 26 and 27
	Land high, rolling and Mountainous
	Soil – Clay, gravelly, rocky and Mountainous 2nd and 4th rate
	No timber
	Mountainous Land 77.29 chs
	N. 0° 2' W. bet Secs 22 and 23
	Over ~~rolling~~, broken, Mountainous ground
4.65	Drain Course W.
14.00	Top of ridge on N.W. slope of hill
25.45	Drain Course N 45° W. 10 ft deep
30.32	Ravine Course N 45° W. 25 ft deep
	Road in same ravine bears N 55° W and S 55° E
31.30	Ravine, Course S 45° W.
40.00	Set a Sandstone 17x10x4 ins – 12 ins in the ground for 1/4 Sec. Cor. Marked 1/4 on W. face; dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of Cor. This Cor. Stands in flat run Course S. 30° W. Then ascend
53.05	Top of ridge bears N.W. and S.E. descend
55.35	Ravine Course N. 70° W.
57.00	Ravine Course S. 35° W.
59.14	Intersect the North Boundary of Nebraska 7.11 chs. East of the 6th Mile Stone, which is a quartzite 3½ ft H 10x10 ins above ground, Marked S.D. on N. N. on S. and 6 M. on W. faces
	Set a Sandstone 14x12x4 ins – 9 ins in the ground for Closing Cor. of Secs 22 and 23

T. 35 N. R. 20

12 Subdivision of T 35 N R. 19 W. Continued

Chains	
	Marked
	C.C. 35 N and 3 grooves on S. face, 2 grooves on E and 4 on W. faces; dig pits 24×18×12 ins crosswise on each line, E and W. 3 ft ~~dist~~: and S. of stone 7 ft dist: and raise a mound of earth 4 ft base 2 ft high S. of cor.
	From this cor Adolph Clearslog house bears S 67° 20' W. about 20 chs dist:
	Land rolling broken by deep ravines - Mountainous
	Soil - Clay 2th ~~rate~~ and 4th rate
	No timber
	Mountainous land 59.14 chs August 4 1895
	August 4 At noon large Clouds obscure the sun so that observation for latitude cannot be made.
	August 5 1895; At 6h 30m a.m. l.m.t I set off 42° 59' 21" N on lat arc: and 17° 00' 30" N. on decl arc: and with the solar determine a true Meridian at the cor of secs 22. 23. 26 and 27 which I established August 4 ~~and described on page 10.~~
	From which in accordance with Special Instructions under my joint Contract
	I run
	West on a true line bet secs. 22 and 27
	Over rolling and broken ground
	Descend
5.80	Wire fence bears N. and S.
14.45	Leave hills and enter Valley bears N. and S.
20.45	Buffalo Creek, Now dry, Course S 15° W
29.00	Leave Valley and ascend hills bears N. and S.
32.00	Top of ridge bears N and S descend
37.30	Ravine course S. 70° E. Spring in ravine blow line about 2.00 chs ascend
40.00	Set a sandstone 18×10×4 ins - 12 ins, in the ground for 1/4 sec, cor. Marked 1/4 on N. face: dig pits 18×18×12 ins E and W. of stone 3 ft. dist; and raise a mound of earth 3½ ft base 1½ ft high N. of cor.

Subdivision of T. 35 N. R 19 W. Continued 13

Chains	
	Enter rough, broken Mountainous ground.
42.00	Top of north point of gravelly hill 15 ft higher than cor
47.30	Wire fence bears N. and S. on top of hill
66.90	Ravine course S. 50 ft deep
75.00	Ravine course S. 30 ft deep
80.00	Set a Sandstone 18×8×5 ins - 12 ins. in the ground for cor of secs 21. 22. 27 and 28 Marked with 2 grooves on S. and 3 grooves on E. faces: dig pits 18×8×12 ins in each sec. 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of cor.
	Land level rolling. broken and Mountainous
	Soil 2th 3rd and 4th rate
	No timber
	Mountainous W. 40.00 chs
	At 7h 35m l.m.t I set off 42° 59' 21" N on lat arc; and 16° 59' N, on decl arc: and determine a true Meridian with the solar at cor of secs 21. 22. 27 and 28
	Thence I run
	West on a true line bet. secs. 21 and 28
	Over rolling ground
	Descend
4.00	Foot of hills and enter Valley bears N.W. and S.E.
5.70	Road bears N 50° W. and S 50° E.
10.00	Ravine course S 30 ft lower than cor
10.50	Leave Valley and ascend hills bears N and S.
11.00	Mouth of short flat drain from the S.W. - then ascend along N. side of drain. Enter Mountainous land
16.20	Top of ridge bears N. and S. descend
20.48	Ravine course S 50 ft lower than hill, ascend
24.00	Top of ridge bears N. and S.
29.30	Ravine course S. 50 ft deep
40.00	Set a sandstone 19×18×5 ins - 12 ins in the ground for 1/4 sec. cor Marked 1/4 on N. face; dig pits 18×18×12 ins E and W. of stone 3 ft dist: and raise a mound of earth 3½ ft base 1½ ft high N. of cor.
47.50	Flat ravine course S 13° W ascend
55.00	Enter Table land bears N and S. leave Mountainous land
59.40	Road bears N. E. and S. W.

14 Subdivision of T 35 N R 19 W Continued

Chains	
74.00	W. side of level ground, Enter Mountainous ground bears N and S
	Descend steep bluff.
	Having ascertained that 80.00 chains will fall in bottom of deep narrow gulch – and pits will be impracticable at
79.50	Set a Sandstone 19×17×3 ins – 12 ins in the ground for Witness Cor, to Cor of secs 20. 21. 28 and 29, Marked W.C. on E face with 2 grooves on S. and 4 grooves on E. faces: dig pits 18×18×12 ins N.E. S.E. S.W. and N.W. of Cor. 5½ ft dist and raise a mound of earth 4 ft base 2 ft high W. of Cor.
80.00	Bottom of narrow gulch 10 ft lower than Witness Cor.
	Set a sandstone 22×7×4 ins – 16 ins in the ground for Cor of secs. 20. 21 28 and 29. Marked with 2 grooves on S and 4 on E. faces. pits impracticable from which
	An Elm 7 ins. diam bears N. 8° 05' E. 15 lks. dist. Marked T. 35 N. R 19 W. S 21 B.T. No other trees large enough within limits,
	Course of Gulch is S. W.
	Land level and rolling
	Soil Clay sandy and gravelly 2nd and 4th rate
	Timber Willow – elm and oak bushes in the gulch
	Mountainous land 50.00 chs

A 9h A.M. l.m.t. I set off 42° 59' 21" N on lat arc; and 16° 57' 30" N. on decl arc; and determine with the solar a true Meridian at the cor of secs 20. 21. 28 and 29 just Established

Thence I run

West on a true line bet secs 20 and 29

Over rough, Mountainous ground

Ascend

0.75	Top of bank
1.20	Ravine Course S. Ascend steep hill
3.50	Top of hill or ridge bears N.W. and S.E.
10.50	Ravine Course S 20° E Ascend
13.80	Top of sharp ridge bears N 40° W and S 40° E.
	Descend steep Mountainous bluff

Subdivision of T. 35 N. R. 19 W. Continued 15

Chains	
18.50	Foot of Mountain. Enter River Valley bears N.W. and S.E.
19.75	Road bears N. 15° W and S 15° E.
29.25	Road bears N. 60° W and S 60° E.
40.00	Set a sandstone 16×8×5 ins – 11 ins in the ground for ¼ sec. cor. Marked ¼ on N. face; dig pits 18×18×12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base, 1½ ft high N. of cor.
44.80	Wire fence bears N and S.
50.45	Wire fence bears N. and S.
50.95	Enter Wheatfield bears N and S.
56.90	Leave same bears N and S.
57.15	Road bears N. and S.
57.30	Wire fence bears N and S.
59.62	"Lutes Creek", Now dry, Course S. 20° E
61.95	Road bears N W and S E
68.20	Foot of bench 15 ft high bears N.W. and S.E.
72.80	Foot of bench and ascend bank bears N.E. and S.W.
76.00	Leave Valley and ascend hills bears N.E. and S.W.
79.55	Drain ~~Course~~ Course S.E. (Shallow)
80.00	Set a Sandstone 18×15×4 ins 12 ins in the ground for Cor. of secs 19. 20. 29 and 30, Marked with 2 grooves on S and 5 grooves on E. faces; dig pits 18×18×12 ins in each sec 5½ ft dist; and raise a mound of earth 4 ft base, 2 ft high W. of Cor.
	Land level. gently rolling and Mountainous
	Soil Clay loam – Sandy and gravelly good 2nd rate and 4th rate
	Timber – Willow ~~oak~~ and oak brush in Canyon and along Lutes Creek
	Mountainous land 18.50 Chs.
	From the above Cor. Frank A. Lewis frame house bears N 72¾° E about 25.00 chs

At 10h A.M. l.m.t I set off 42° 58' 29" N on lat arc; and 16° 57' N on decl arc; and determine a true Meridian with the Solar at the cor of secs 19. 20. 29 and 30 just Established.

16 Subdivision of T 35 N R 19 W. Continued

Chains	
	Thence I run
	West on a true line bet secs 19 and 30
	Over rolling ground
	Ascend
4.20	Top of hill descend
12.40	Broken edge of hills bears N W and S E descend
13.05	Intersect Left Bank of Keya Paha River 8 ft above water
	Set a Sandstone 26 x 8 x 5 ins - 20 ins in the ground for Meander Cor. of frac'l Secs 19 and 30, marked M.C. on W. face, with 2 grooves on S. face dig a pit 36 x 36 x 12 ins 8 ft E of stone; and raise a mound of earth 4 ft base 2 ft high E. of Cor. from which
	A Cottonwood 6 ins diam bears S. 82° 10' W 29 lks dist. Marked
	T. 35 N. R 19 W. S 30 M.C. B.T. No other trees within limit
	Note A bend of Keya Paha River and a narrow strip of land on Right Bank lies North of this line when extended across bend of River on a blank line.
23.00	Intersect Left Bank of Keya Paha River
	Set a sandstone 21 x 12 x 3 ins - 15 ins in the ground for Meander Cor. of frac'l Secs 19. and 30 Marked with 2 grooves on S face, and M.C. on E. face, dig a pit 36 x 36 x 12 ins 8 ft W. of stone; and raise a mound of earth 4 ft base 2 ft high W of Cor. from which a
	Cottonwood 7½ ins diam bears N 3° 48' W. 102 lks dist Marked
	T 35 N R 19 W S. 19 M.C. B.T. No other trees within limits.
	Over undulating Valley
25.80	Enter smooth prairie
39.00	Enter dense Oak brush bears N and S
40.00	Set a Sandstone 19. 12 x 3 ins - 12 ins in the ground for 1/4 sec Cor. Marked 1/4 on N. face; dig pits 18 x 18 x 12 ins E and W. of stone 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high N. of Cor
45.00	Leave dense brush
56.80	Enter dense brush bears N. and S.
57.50	Intersect the Left Bank of Keya Paha River
	Set a Sandstone 18 x 10 x 5 ins - 12 ins in the ground for

Subdivision of T. 35 N. R 19 W. Continued 17

Chains	
	Meander Cor. of frac'l Secs 19 and 30 Marked M.C. on W. face; with 2 grooves on S. face, dig a pit 36 x 36 x 12 ins, 8 ft E. of stone; and raise a mound of earth 4 ft base 2 ft high E. of cor.
	Land rolling and undulating
	Soil Clay and sandy 2nd and 3rd rate
	Timber - willow, plum ash and oak brush
	Across bend of River on a blank line 9.95 chs
	Dense undergrowth 6.70 chs.
	At this the cor. of secs 21. 22. 27 and 28 I set off 16° 55' 30" N on decl arc; and observe the sun on the meridian at 0h 04m p.m. l.mt. The resulting lat. is 42° 59' 20" N which is about the proper latitude
	At 2h p.m. l.mt. I set off 42° 59' 21" N on lat arc; and 16° 54' N. on decl arc; and determine with the solar a true meridian at the cor. of secs 21. 22. 27. and 28
	Thence I run
	S. 0° 2' E bet secs. 27 and 28
	Over rolling ground.
	Descend
3.00	Leave hills and enter Valley bears E. and W.
7.00	Ravine course S. 35° E
10.50	Same Ravine course S 25° W.
15.00	Leave valley and ascend hills bears N.E. and S.W.
27.30	Top of hill
	From this point Mrs. Elizabeth Leavitt's (widow) stone house bears S. 70° W. about 40 chs dist
	Descend
40.00	Set a sandstone 16 x 14 x 5 ins - 10 ins in the ground for 1/4 sec. cor. Marked 1/4 on W. face; dig pits 18 x 18 x 12 ins N. and S. of stone, 3 ft dist; and raise a mound of earth 3½ ft base 1½ ft high W. of cor.
41.30	Leave hills and enter valley bears N.E. and S.W.
42.50	Enter low bottom bears N.E. and S.W. - bank 20 ft high
	Thence across old River Channel - scattering brush.
44.50	Leave low bottom and ascend 2nd bench bears N.W. and S.E.
46.40	Ravine Course E.
52.00	Mrs Elizabeth Leavitt's stone house bears N 71° 20' W.

T. 35 N. R. 20

18 Subdivision of T 35 N. R 19 W. Continued

Chains	
52.60	Descend through willow brush
53.20	Intersect the left bank of Keya Paha River Bank sandy 8 ft high

Set a sandstone 29x9x4 ins. 22 ins in the ground for Meander Cor. of frac'l secs 27 and 28 marked M.C. on S face with 3 grooves on E. face. — faces

dig a pit 36x36x12 ins N. of stone 8 ft dist; and raise a mound of earth 4 ft base 2 ft high N. of Cor.

To connect this Cor with the surveys on Right Bank of River. I go to the S. side of River and search for the Meander and 1/4 sec cors. without success. I therefore go to the Cor of Secs 27. 28. 33 and 34 and run North bet said secs 27 and 28 40.00 chs to a point on N. slope of a sand ridge which bears E. and W. 10 ft high where I find the upper end of a red cedar post marked 1/4 S. I clear away the earth and find the point of the red cedar post 1 ft in the ground — S. pit is visible — from which point a Cottonwood stump bears S. 73 3/4 W 40 lks dist. No marks on stump, I run N. to 47.00 chs to a point on Right bank. Where I am unable to find the Meander Cor. as stated in the Original Notes. From which point I run East 10.73 chs and intersect the N and S line bet secs 27 and 28, 51.21 chs S. of the Cor of secs 21. 22. 27 and 28 and 1.99 chs N. of the Meander Cor just established on left bank. Therefore, from the M.C. on left bank to the point for M.C. on right bank is N. 79°30' W. 10.91 chs.

I add the following distances on opposite sides of the river

From Cor. of Secs. 27. 28. 33 and 34 N. to Right Bank	47.00 chs
From Cor of Secs 21. 22. 27 and 28 S. to point of inter-section of point of offset	51.21 chs
Total Distance	98.21 chs
Subtract	80.00 chs
Diff in latitude	18.21 chs
Diff in departure	10.73 chs

Land rolling and undulating
Soil sandy 3rd rate
Timber — scattering — plum bixelder and ash brush in valley

August 5 1895

Subdivision T. 35 N. R. 19 W. Continued 19

Chains	
	August 6 1895 At 10h 30m a.m. l.m.t I set off 42°59' 21" N on lat arc; and 16° 40' N on dec'l arc; and determine a true meridian with the solar; at cor of secs 21. 22. 27 and 28 which I established August 5.
	Thence I run
	N. 0 02' W. bet secs 21 and 22
	Over rolling land
	Ascend
10.10	Top of S.E. end of stony and gravelly ridge Thence along W. side
12.60	Top of same dividing ridge bears N 65° E and S 65° W.
25.00	Enter smooth undulating table land
40.00	Set a sandstone 19x15x5 ins — 14 ins in the ground for 1/4 sec cor. marked 1/4 on W. face. dig pits 18x18x12 ins N. and S. of stone 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high W. of Cor.
59.11	Intersect the North Boundary of Nebraska 6.91 chs E. of the 5th Mile Stone which is a quartzite 3 1/2 ft x 10x10 ins above ground marked S.D. on N. N on S. and 5 M. on W. faces —

Set a sandstone 15x10x5 ins — 10 ins in the ground for closing Cor. of secs 21 and 22 marked C.C. T 35 N. and 3 grooves on S. face — and 3 grooves on E. and W. faces — dig pits 24x18x12 ins crosswise on each line E and W. 3 ft; and S of stone 7 ft; dist. and raise a mound of earth 4 ft base 2 ft high S. of Cor. — faces

From this Cor Mrs Mary Snyder's (widow) log house bears S. 81° 15' W. about 15.00 chs dist.
E. end of flat top stony butte bears N 18 1/2 W. 1 mile dist

Land rolling and undulating
Soil. S. 25.00 chs 4 rate balance clay 2nd rate
No timber

At noon the sun is obscured by large clouds. so that observation for latitude cannot be made

At 1h 45m p.m. l.m.t I set off 42° 59' 21" N. on lat arc; and 16 37' 30" N on dec'l arc; and determine with a solar, a true meridian at the cor of secs 20. 21 28 and 29. which I established Aug 5.

20 Subdivision of T 35 N R. 19 W. Continued

Chains	
	Thence I run
	S 0° 3' E, bet secs 28 and 29
	Over rough broken, mountainous ground
	Ascend steep bank 10 ft high
0.20	Top of bank
3.40	W. side of point of gravelly hill 60 ft higher than Cor,
	Descend
5.65	Gulch Course S 40° W. 40 ft deep
6.75	Gulch Course W. Ascend steep hill
8.00	Top of hill
13.60	Near S. edge bluff which has a steep shelving descent
	Set a sand stone 22x10x3 ins; 16 ins in the ground for Witness Cor. to Meander Cor. Marked M.C. W.C. and 2 grooves on S. face; and 4 grooves on E. face dig a pit 36x36x12 ins 8 ft N. of stone: and raise a mound of earth 4 ft base 2 ft high N. of cor
13.85	Edge bluff descend steep bank rapidly
15.95	Foot of shale bluff or Mountain 75 ft high bears E and W
	Intersect the left bank of Keya Paha River
	Set a sandstone 16x11x4 ins – 11 ins in the ground for Meander Cor of frac'l secs 28 and 29 Marked M.C. on S. face; with 4 grooves on E. face dig a pit 36x36x12 ins in the shale bank 36x36x12 ins N of stone 8 ft dist; and raise a mound of earth 4 ft base, 2 ft high N. of cor.
	To connect this Cor. with the survey on the Right Bank of the River I continue the line S 0° 03' E. across the River 2.68 chs. thence run W. 10.11 chs to the Cor. of Secs 20. 21. 28 and 29 which is an ash or oak post 4 ins square Marked for Secs 20. 21. 28 and 29 T 35 N. R. 19 W. with 2 notches on S and 4 on E. edges – Cor stands on top of steep bank of 2nd bench –
	Note I am unable to find the M.C. on Right Bank 2.50 chs N. of sec cor
	I add the following distances on the opposite sides of the River to wit
	From Cor to secs 20. 21. 28 and 29 S. to M.C. on left Bank 15.95 chs
	Distance across River to point of offset 2.68 chs
	Diff. in lat between sec. cors. 18.63 chs

Subdivision of T. 35 N. R. 19 W. Continued 21

Chains	
	Difference in departure is ..... 10.11 chs
	Therefore from M.C. on left bank. S. 88° 59' W. 10.11 chs. to M.C. on right bank
	Land rough, broken, Mountainous
	Soil gravelly 4th rate
	Timber oak bushes in ravine at sec. cor
	Mountanous land 15.95 chs August 6 1895
	August 7 1895 At 9h a.m. l.m.t I set off 42° 59' 21" N on lat arc and 16° 24' 30" N on decl arcs and determine a true meridian on the solar at Cor of Secs 20. 21. 28 and 29 which I established August 5, ~~as described on page 14~~
	Thence I run
	N 0° 3' W. bet secs 20 and 21
	Over ~~rolling~~ broken Mountainous land
	Ascend
0.50	Set a sand stone 20x15x3 ins – 15 ins in the ground for Witness Cor of secs 20. 21. 28 and 29 Marked W.C. on E. face: with 2 grooves on S. face; and 4 on E face; dig pits 18x18x12 ins N.E. S.E. S W and N.W. of Cor. 5½ ft dist; and raise a mound of earth 4 ft base 2 ft high W. of cor. from which
	An Elm 7 ins. diam (same as described on page 14) bears S 3° E 34½ lks dist. Marked W.C. S 21 T 35 N R 19 W B.T.
3.40	S.E. end of gravelly and stony point thence along E. side of ridge near the top
6.50	Top of ridge bears N.W. and S.E. 75 ft higher than Cor.
9.85	Ravine Course S.E. 60 ft deep – ascend
13.00	Enter table land, Leave Mountainous ground.
24.80	Road bears N 40° E and S. 40° W
40.00	Set a sand stone 17x10x4 ins – 12 ins in the ground for 1/4 sec. ~~sec~~ cor Marked 1/4 on W. face; dig pits 18x18x12 ins N and S of stone 3 ft dist: raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
59.12	Intersect the North Boundary of Nebraska 6.82 chains E. of the 4th Mile stone which is a quartzite 3½ ft x 10x10 ins above ground. Marked S.D. on N. N on S. and 4 M on W. faces
	Set a sand stone 15x10x5 ins – 10 ins in the ground for

T. 35 N. R. 20

Closing Cor of secs 20 and 21 Marked
C. C 35 N with 3 grooves on S. face; 4 grooves on E
and 2 on N. faces; dig pits 24 x 18 x 12 ins crossing on
each line E. and W. 3 ft. and S. of stone 7 ft. dist; and
raise a mound of earth 4 ft. base, 2 ft high S. of Cor.

Land Smooth and undulating - rough and Mountainous
Soil Clay and gravelly 2nd and 4th rate
Timber - Oak bushes around Cor, Cor and in ravine
Mountainous land 13.00 chs

At 10h 30m A.M. l.mt. I set off 42° 59' 21" N on lat arc
and 16° 22' 30" N. on dec arc; and determine with the Solar
a true Meridian at Cor of secs 19. 20. 29 and 30. which
I established August 5, ~~as described on page 15~~
S 0° 4' E bet secs 29 and 30
Descend
1.60 Leave hills and enter valley bears N.E. and S.W.
2.50 Foot of 2nd bench 15 ft high and enter Rim Valley
bears N.E. and S.W.
Cross undulating sandy valley
15.00 Broken Edge of bank bears N.W. and S.E.
Descend gently along old Rim bank
17.00 Intersect the left Bank of Keya Paha River
Set a sandstone 18 x 13 x 4 ins - 12 ins in the ground for
Meander Cor. of fracl secs. 29 and 30 Marked M.C. on S.
face with 5 grooves on E face,
dig a pit 36 x 36 x 12 ins. 8 ft N. of stone; and raise
a mound of earth 4 ft base 2 ft high N. of Cor. from which
a Cottonwood 6 ins diam bears N 43° 11' E. 180 chs dist
Marked T 35 N R 19 W. S 29 M.C. B.T.
A Cottonwood 6 ins diam bears S 56° 10' E. 142 lks dist Marked T 35 N R 19 W S 29 M.C. B.T.
To connect with the surveys on the Right Bank of the River
after diligent search I find a Cottonwood bearing tree Marked
M.C. S 30 in the N. bend of the River. from which I run
N 39° E. 157 lks as per notes of Original survey for
M.C. bet fracl secs 29 and 30. which falls in thick
Willow brush, I fail to find the M.C. from this point
I run S 12.60 chs. and find the Cor. of secs 19. 20
29 and 30. which is a mound of earth with

pits N.E. S.E. S.W and N.W. find deposit of coal in
Mound - Therefore from the point for M.C. on Right
Bank I continue the line N. and intersect the sec.
line bet 29 and 30, at 17.04 chs 8.94 chs W. of Cor. of secs. 19. 20
29 and 30.
The diff. in latitude is 17.04 chs.
diff. in departure is 8.94 chs.
Therefore from M.C. of secs. 29 & 30 on left bank, N 35° 30' W. 15.03 chs. to point for
M.C. of secs. 19 and 20 on right bank.
Land. rolling and undulating
Soil Clay and sandy 2nd and 3rd rate
Timber
Scattering bushes and small cottonwood trees
Near the M.C. bet fracl secs 29 and 30 I set off
16° 22' N. on dec arc; and observe the sun at
12h 05m P.M. l.mt; The resulting latitude is 42° 59' 16" N
which is 0.1 less than the proper lat.
August 7 1895

August 8 1895 At 6h A.M. l.mt I set off 42°
59' 21" N on lat arc: and 16° 12' N. on dec arc
and determine a true Meridian with the solar: at the
Cor of secs 19. 20. 29 and 30 which I established
Aug 5 ~~as described on page 15~~
Thence I run
N. 0° 4' W. bet secs 19 and 20
Over rolling ground
Ascend
0.75 Shallow drain course S.E.
4.25 Top of hill 40 ft higher than Cor - descend.
9.20 Ravine course E. 30 ft deep
9.50 Road bears S 80° E. and N 80° W.
13.80 Top of round gravelly knoll 30 ft higher than ravine
17.80 Ravine course S 60° E
19.15 Road bears S 48° E N 48° W
38.48 Drain course S.E. ascend
40.00 Set a Sandstone 20 x 11 x 4 ins - 15 ins in the ground
for 1/4 sec. Cor. Marked 1/4 on W. face; dig pits 18 x 15
x 12 ins N. and S. of stone 3 ft dist; and raise a mound
of earth 3 1/2 ft base, 1 1/2 ft high W. of Cor
44.00 Shallow drain course S 20° E.
51.00 Road course S. 10° E. and N. 10° W.

T. 35 R. 20

Chains	
57.70	Top of ridge bears N.W. and S.E. descend gentle slope to
59.14	Intersect the North Boundary of Nebraska 6.54 chs. E. of the 3rd mile stone: which is a quartzite 3½ft x 10 x 10 ins. above ground marked S.D. on N. N. on S. and 3 M. on W. faces set a sandstone 23 x 15 x 5 ins. 18 ins in the ground for Closing Cor. of Secs 19 and 20 Marked C.C. 35 N and 3 grooves on S face: and 5 grooves on E and 1 groove on W. faces. dig pits 24 x 18 x 12 ins. crossewise on each line E. and W. 3 ft. and S. of stone 7 ft. dist: and raise a mound of earth 4 ft base, 2 ft high S. of Cor.

Land rolling. hills have smooth slopes
Soil clay and gravelly 2nd and 3rd rate
No timber
Frank A Lewis lives in a frame house on SE¼ SW¼ Sec 20 - East bank of Yates Creek
Stillman Lewis lives in NE¼ SW¼ sec 20 on E. side of Yates Creek

August 8 1895

Meanders T. 35 N., R. 19 E.

Meanders of the Left Bank of Keya Paha River, up stream

I commence at the Meander Cor. of fract. secs 31 and 36 on the E bdy. of the Tp. which established July 30 and described in my Notes of the W. bdy of T 35 N R 18 W. At this cor August 2, I set off 42° 58' N. on lat arc 17° 41' 30" N on decl arc; and at 2h p.m. l.m.t determine a true Meridian with the Solar.
Thence I run with meanders in sec 36
Through scattering brush

S 76¾° W	4.45 chs	At 4.05 gulch course S. bank 8 ft high
S. 58¼° W.	7.65	" Through dense brush, on this course
S. 76¼° W.	7.10	" Through ~~thick~~ dense brush

Meanders of Left Bank of Keya Paha River, up stream Continued

N 87½° W.	6 70 chs.	Through ~~thick~~ dense brush
N 79½° W.	11 00 "	Through ~~thick~~ dense brush - heavy brush at end of course
S. 71½° W.	3 85 "	
N 88¼° W	5 25 "	along bar
N 66° W	3 55 "	clear open banks
N 80° W.	5 00 "	Through dense brush, on this course
N 59° W.	6 50 "	Through dense brush
N 75¾° W	2 95 "	Through dense brush
N 39° W.	7 30 "	Through dense brush
N 71° W	6 65 "	Through dense brush
N 83½° W.	5 10 "	Through dense brush - At 1.50 chs wire fence across the River
N 60° 35' W	3 53 "	Through dense brush - To Meander Cor. of fract'l secs 35 and 36

Land nearly level
Soil sandy 3rd rate
Timber a few scattering cottonwood and willow trees
Dense Undergrowth 6 9.48 chs

August 2 1895

August 3 1895 At the Meander Cor. of fractional secs 35 and 36 I set off 42° 58' N on lat. arc: 17° 26' N. on decl arc and determine a true meridian with the Solar. at 2h 15m p.m. l.m.t
Thence I run with Meanders in Sec 35

N 74¾° W	4 63 chs	Through dense brush on this course
N 52¼° W.	4 30 "	through dense brush
N 39½° W	5 25 "	through dense brush
N 32¼° W	3 85 "	through dense brush.
N 32¾° W	10 75 "	Through dense brush
N 7¼° W	5 45 "	At 2.70 chs leave brush At end of course Wm Gustine's frame house bears N 42¾° E. about 50 chs dist
N 41° W	14 50 "	At 2.25 chs Mouth of gulch At 4.00 chs lower end of ball race of irrigation plant - ditch not yet staked out. At 9.35 chs dam across River for irrigation
N 28° 40' W	2 00 "	To Meander Cor. of fract secs 26 and 35

Land nearly level
Soil sandy and Clay loam 3rd and 4th rate
Timber - A few scattering willow and cottonwood trees
Dense undergrowth 31.48 chs

Thence in sec 26
Over level land

T. 35 N. R. 20

Meanders of Left Bank of Keya Paha River, up stream, Continued

N 30¾° W. 3 50 chs along clear bank 10 ft high
N 42½ W 5 45 " At 5.00 chs gulch co S.E.
N 69° W 4 75 " Along S. slope of bank 8 ft higher than River, scattering brush
N 82¼° W 3 00 "
N 86° W. 2 85 " Through dense brush on this course
S 88½° W 4 35 " {Through scattering brush
At 3.40 chs Edge of broken bank descend to low bar 1 ft higher than water
S. 58½° W. 8 10 " along edge of low bank
S. 46° 35' W 7 46 " {At 25 lks mouth of Buffalo Creek 10 lks wide course E.
To Meander Cor. of frac'l secs 26 and 35

Land along sloping bank, low, bars.
Soil sandy 3rd rate
Timber - Willow brush
Dense undergrowth 2,85 chs

August 3 1895

Meanders of Left Bank of Keya Paha River, up stream, Continued

August 4 1895 At 2h P.M. l.m.t. I set off 42° 58' 29" N on lat arc; 17° 10' 30" N on dec'l arc; and determine a true meridian with the solar at Meander Cor of frac'l secs. 26 and 35. 6.2.60 chs W. of Cor. of Secs 25.26.35 and 36.

Thence in sec 35
Along sandy bank, through dense brush.
S 43¾° W 10 80 chs At 6.00 chs leave dense brush - then along low bank 3 ft high
S 69¾ W 3 30 " At 2.90 chs Enter brush Ascend bank 5 ft high
At 3.20 " leave brush, then along sandy bank
S. 82¾° W. 4 60 " Along sandy bank 4 ft high
At 2.00 chs ford across River
N 87° 32' W 2 29 " To Meander Cor bet. frac'l secs 34 and 35
Soil sandy 3rd rate
Timber brush and a few small Cottonwood trees
Dense undergrowth 6.00 chs

Thence in sec. 34
Along sandy bank
S 64° W. 7 75 chs - At 3,55 chs Wire fence bears N and S.
6.50 " Enter low brush
S 78¼° W. 2.75 " Leave brush and descend to low bank 1 ft high - At 2.00 chs ascend to bank 5 ft high and enter brush
N. 60½ W. 6.20 " Through dense brush on this course
N 53° W. 5.80 " through low brush

Meanders of Left Bank Keya Paha River - Up Stream - Continued

N 64¾° W. 7 00 chs
N. 52½° W 3 45 "
N 43° 35' W 2 35 " At 1.00 ch enter dense brush
To Meander cor. bet. frac'l secs. 27 and 34
Soil sandy 3rd rate
Timber willow brush and few scattering cottonwood trees (small)
Dense undergrowth 6.20 chs.

August 4 1895

August 5 1895 At 4h 15m P.M. l.m.t. I set off 42° 58' 29" N on lat arc; 16° 53' N on dec'l arc, and determine a true meridian at Meander Cor. of frac'l secs 27 and 34
Thence I run with Meanders up stream, in Sec 27
Through dense brush
N 46° W 3 50 chs
N 39° W 3 45 " At 2.00 chs leave brush
N 23½° W 6 65 " along bank 5 ft high
N 28½° W. 4 00 " At 50 lks Road - banks 5 ft high
N 25° W 5 00 "
N 21½° W 3 30 " Through dense brush
N 8° W. 2 00 " " " "
N 2½° E 7 30 " {At 4.00 chs leave brush, ascend clay bank 20 ft high at the end of this course
N 24½° W 9 40 " {At 2.15 chs Enter low bottom - thence along foot of high shale bank - at water edge
At 8.70 chs mouth of gulch co S.W.
N 39½° W 4 30 "
N 56¼° W 7 00 " along foot of shale bluff at water edge
N 81¾° W 3 75 " Ascend to bank 5 ft high at end of Course
S 26½° W 3 50 " At 1.60 chs enter dense brush
S. 7½° W 3 00 "
S 17° W. 3 50 "
S 18¾° W 5 20 "

August 5 1895

August 6, 1895 At 6h a.m. l.m.t. I set off 42° 59 N on lat arc; and 16° 45' 30" N on dec'l arc. and determine a true meridian with the solar at the end of the last named course - I continue the meanders up stream
S 1¼° E. 2 80 chs. Through dense brush
S 17° E 5 00 "
S 7½° E 3 00 "
S 2¾° W. 2 25 "

Meanders of Left Bank of Kuya Paha River, up stream, Continued

S 7° W. 2 85 chs ~~through dense brush~~
S 25½° W. 2 80 "
S 52° W 2 25 "
S 57½° W. 3 65 " At 3.20 chs leave brush
S 81½° W 2 15 " Along bank 3 ft high
N 66¾° W. 1 00 "
N 38° W 2 75 " At 1.00 chs Enter dense brush - bank 3 ft high
N 7½° W 4 50 "
N 34¾° W 8 25 "
N 51½° W 1 95 " To Meander Cor. bet frac'l secs 27 and 28

Soil Clay - sandy and shale 2nd 3rd and 4th rate
Timber Willow brush and a few small Scattering Cottonwoods
Dense undergrowth 73.85 chs.

August 6 1895 At 3h 30m p.m. l.m.t. I set off 42° 58' 40" N on the lat arc; and 16° 37' N on dec'l arc. and determine a true Meridian with the solar at the Meander Cor of frac'l secs. 27 and 28
Thence I run with the Meanders, up stream, in sec 28
Through dense brush

N 60° W 7 00 chs
S 87¼° W 6 90 " At 4.40 chs mouth of ravine course S.
S 70° W 4 25 "
S 52° W. 8 55 " At 8.00 chs Leave brush and ascend to sandy bank 10 ft high above water
S 18° W 9 50 " Low bar at End of course
S 40° W 1 50 " At 30 lks leave low bank and enter brush and bank 5 ft high
S 51¼° W. 8 20 " Through dense brush on this course and next.
S 54° W 3 00 " End of this course on low bank 1 ft high
S 59° W 5 70 " At 1.00 ch leave brush
N 71¾ W 3 00 " Through dense brush on this course
N 66° W 3 30 " At 2.00 leave brush
N 53½° W 3 85 " Through dense brush At 3.40 chs Leave brush
N 48° W 2 60 " Along edge of low bank
N 40¾° W 5 00 " At 4.00 Enter dense brush
N 30° W 1 30 "
N 20½ W 9 80 " At 1.80 Leave brush and descend to low bank 1 ft high above water
At 8.40 chs ford bears S W and N E

August 6 1895

Meanders in Sec 28 Continued
August 7 1895 At 5h 30m a.m. l.m.t. I set off 42° 59' N. on lat arc 16° 32' 30" N on dec'l arc and determine a true Meridian at the end of the last course
Thence I continue the Meanders in Sec 28

N 25° W. 2 80 chs
N 8° W 7 45 " Along low bank 1 ft high
N 2½° W 4 50 " Through low brush
N 24¾° W 6 00 " At 1.00 leave brush - thence along low bank
N 22° W. 7 50 " at 6 30 chs Ascend bank 6 ft high Ascend slope
N 45½ W 8 00 " At 80 lks descend to low bank at water edge thence along same 1 ft high
N 19¾° W 3 00 " At 1.40 chs ford course E. and W. At 2.20 " begins abrupt shale bank along foot of which this course runs
N 43½° W. 3 00 " Along foot of abrupt shale bank 75 ft high
N 51° 23' W. 5 07 " At 4.80 chs ascend bank 8 ft high To Meander Cor bet. secs. 28 and 29

Soil Sandy and shale
Timber - willow cottonwood brush
Dense undergrowth 56.20 chs.

August 7 1895: At 3h p.m. l.m.t. I set off 42° 59' 10" N on lat arc; 16° 20' N on dec'l arc and determine a true Meridian with the solar at Meander Cor. bet frac'l secs. 28 and 29
Thence I run with the Meanders, up stream, in sec 29
Along sandy bank

S 87½° W. 6 00 chs At 90 lks descend to low bank at water edge
N 80° W. 4 50 " End of this course on bank 5 ft high
N 84¾° W 6 50 " At 25 lks Enter dense brush
S 88½° W 5 50 " " "
S 86¾° W. 4 50 " " "
S 79° W 2 70 " At 2.40 chs Leave heavy brush
N 79½° W 4 50 " At 3.00 chs Enter dense brush bank 6 ft high
S 79¼° W 5 65 " At 70 lks leave brush; descend to low bank 1 ft high
S 84° W 5 50 " Along low bank
S 64½° W 3 40 " At 70 lks Mouth of Lutes Creek now dry the course S 70° E. The End of this course is opposite the mouth of a spring brook
N 83¾° W 7 40 " At 2.40 chs descend to low bank 1 ft high
S 83½° W 3 00 "
S 57¼° W. 5 80
S 88¼° W 10 70

Meanders of Left Bank of Keya Paha River in Sec 29 — Cont'd
N 78° W 3.00 Chs Through young Cottonwoods 20 ft high bank 5 ft high
N 55° W 3 40 "
N. 17° 58' W 1 53 " To Meander Cor. bet frac'l secs 29 and 30
Soil sandy 3rd rate
Timber willow brush small willow and Cottonwood trees
Dense undergrowth 28.78 chs.

Thence in Sec 30
Through dense brush
N. 33° W. 2 00 Chs At 1.70 chs leave brush
N. 23 3/4° W. 4 90 "
N 37° W. 8 80 "
N 51° 18' W 6 04 " To the Meander Cor bet frac'l secs 19 and 30
Soil sandy 3rd rate
Timber — willow brush
Dense undergrowth 1.70 chs.

August 7 1895.

August 8 1895 At 7h 30m a.m. lmt I set off 42° 59' 21" N on lat. arc: 16° 09' N on dec'l arc: and determine a true Meridian with the Solar At Meander Cor of frac'l secs 19 and 30
Thence I run with Meanders in Sec 19. upstream
N 74° W. 5 00 chs - descent to foot of Shale bank 1 ft above water
S. 75° 14' W 5 35 " At 4.95 chs Mouth of a Ravine Course S 20° E
1035
To Meander Cor. bet. frac'l secs 19 and 30
Soil sandy clay-shale 4 rate
No timber

Thence in Sec 30
Along sandy bank
S 44° W. 6 70 chs. At 25 lks Enter dense brush
At 5.40 chs leave brush
S 58 3/4° W. 4 50 "
S 46 1/4° W. 6 75 " 5.70 chs Old dam in river
6.00 chs opposite rapids
S 72 1/2° W. 7 85 " Opposite high shale bank
S 88° W. 3 75 " Along low bank
At 3.05 chs opposite spring brook bulling over the shale bluff
N 70 1/2° W. 3 00 Along low bank
N 56 1/2° W. 4 00
3655

Meanders of Left Bank of Keya Paha River in sec 30 Cont'd
N 45 1/4° W 4 80 chs
N 16 1/2° W 3 40 "
N 3 1/2° E 2 60 "
N 13° 28' E 1.94 " To the Meander Cor bet frac'l secs 19 and 30
Soil sandy 3rd rate
Timber willow brush scattering young cottonwood trees
Dense undergrowth 5 15/28 chs. August 8 1895

August 9 1895 At 2h p.m. lmt I set off 42° 59' 21" N on lat arc; 15° 46' 39" N on dec'l arc: and determine a true Meridian with the solar at Meander Cor. of frac'l secs, 19 and 30, 57.50 chs W. from the cor. of secs 19. 20. 29 and 30
Thence I run with the meanders in sec 19
Along sandy bank through dense brush
N 6 3/4° W 3 15 chs
N 10 1/2° E 3 70 "
N 32° E 5 25 "
N 11° E 3 30 " At 1.00 ch leave brush
N 12 1/2° W 7 30 " Along foot of bank 8 ft high. At 4.20 chs Road bears N & S and SE — thence along foot of shale bluff
N 23 1/2° W 2 50 " Along foot of shale bluff 20 ft high. End of this course on N. end of dam across River for irrigation purposes, built by Stillman Lewis — who lives in sec 20.
N 39° W 3 40 " At 2.00 chs Enter dense brush
" 2.95 " Wire fence bears N & S; End of this course is on sharp Clay bank 10 ft higher than water in dam
Leave brush at End of course
N 65 3/4° W 2 00 " 40 lks Mouth of Spring Branch 1 lk wide 1 inch deep, then ascend to high bank 15 ft high
N 77° W 2 55 " At 2.40 chs Enter dense brush
S 61 1/4° W 3 00 " through dense brush
S 83 1/4 W 1 80 " " " "
N 77 1/4° W 2 00 " " " "
N 62 1/2 W. 1.35 " " " "
N 52° W. 4 10 " " " "
N 71° 35' W 4 28 " At 1.00 ch leave brush
At 1.70 begin ascent of high bank 40 ft high to
To the Meander Cor of frac'l secs 19 and 24 on W. bdy of Tp. which I established August 9 1895
Soil Sandy clay and shale bank 3rd and 4th rate
Timber — willow brush and scattering trees

T.35 R.20

32 Meanders T 35 N R 19 W. Continued

Dense undergrowth 27.90 chs.

August 9 1895.

General Description

This Township is generally rough broken and Mountainous.
There is some good farm land along the Kuya Paha River and in the Creek Valleys
The upland consists of a high 2nd bench 50 to 75 ft higher than the valley, and of elevated peaks and ridges --
The bench land is generally sand and clay mixed forming a hard soil to break especially in a dry season, it is generally 3rd rate
Nearly all the good land is occupied by settlers who live in sod and log houses.
Several of the settlers are preparing to irrigate their land by constructing dams across the River. one is located in sec 26 and one in sec 19.
There is no large timber in the township the large trees or all body timber has been cut down and hauled away

Robert Harvey
U.S. Deputy Surveyor
Acting as Surveyor
Alfred W Sumner
U.S. Deputy Surveyor
And acting as Topographer on Subdivisional lines and Axman on the meander lines.

List of Names.

A list of the names of the individuals employed by ....., U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the .....

..... Meridian, in ....., showing the respective capacities in which they acted:

Oath of Assistants to T. 35 N R 20 W. page 274
Oath of Surveyor page 295

Final Oath of Assistants:

We hereby certify that we assisted ....., U. S. Deputy Surveyor, in surveying all those parts or portions of the .....

..... Meridian, ..., as are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for .....

Subscribed and sworn to before me this .....
day of ....., 18

SEAL

6—151

T.35 N.R.20

Final Oath of U. S. Deputy Surveyor.

I, ..., U. S. Deputy Surveyor, do solemnly swear that, in pursuance of instructions received from ....., U. S. Surveyor General for ....., bearing date of the ..... day of ....., 18 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for ....., the surveying manual, and the laws of the United States, surveyed all those parts or portions of The final oaths of deputies and their assistants covering the field notes of Township 35 N. Range 19 W. 6th Principal Meridian in Nebraska are with the field notes of T. 35 N. R. 20 W. "Book J" executed under this contract

..... Meridian, in the ....., as are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

.....

U. S. Deputy Surveyor.

Subscribed and sworn to before me this .....
day of ....., 18 .

SEAL

.....

.....

Approval.

Office of the U. S. Surveyor General,
Huron So Dak Dec 12th, 1896

The foregoing field notes ~~of the survey of~~ contained in one book lettered "J" of the Survey of the Subdivision and Meander lines of Tp. No 35 N. Range No 19 West of the 6th principal Meridian in the State of Nebraska.

Robert Harvey and Alfred W Gumaer executed by their joint under ~~his~~ Contract No. 167, dated April 3rd, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Richard B Hughes
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ~~State of Nebraska~~ in the has been correctly copied from the original notes on file in this office.

Richard B Hughes
U. S. Surveyor General.

6—151

T. 35 R. 20

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Received with letter E dated at Huron S. Dak April 1899.

(4—679.)

Original

BOOK J

FIELD NOTES

OF THE SURVEY OF

Subdivision lines
of
Township No 35 North
of
Range No 20 West
~~of the~~
~~Principal Base~~

Of the 6th Principal Meridian,
in the States of
Nebraska and South Dakota

AS SURVEYED BY

Robert Harvey and Alfred W Gumaer, U. S. Deputy Surveyors

Under ~~the~~ their joint Contract No. 107, dated April 3 1895.

Survey commenced August 9, 1895.

Survey completed ~~May 8~~ ~~August 14~~, 1895.

(12503—2,000.)

Otherwise Dec 12/96

T.35 R.20

Names and Duties of Assistants.

Clifford H. Norton	Chainman
Herbert J. Paul	Chainman
Clayton J. Norton	Axman and Mounduman
Howard J. Sheppard	Axman and Mounduman
William L. Stitt	Flagman
Lewis M. Williams	Flagman

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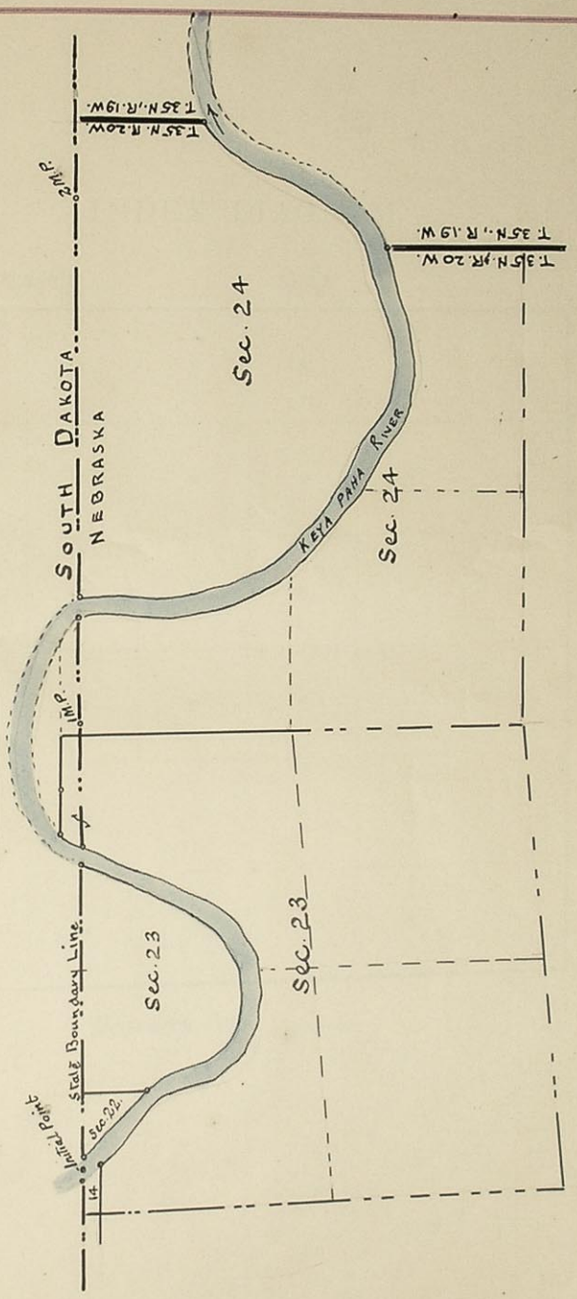

INDEX DIAGRAM.

Township ..... . *Range* .....

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page .....

Preliminary Oaths of Assistants.

We, ...

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the .....

..... , Chainman.

..... , Chainman.

..... , Chainman.

..... , Chainman.

Subscribed and sworn to before me this ..... day of ....., 18 .

We, ...

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the .....

For preliminary oaths of assistants covering the subdivision of this T. 35 N. R. 20 W., see those filed with the field-notes of T. 35 N. of R. 13 W. book B, subdivided under this same contract.

Subscribed and sworn to before me this ..... day of ....., 18 .

..... , Axeman.

..... , Axeman.

Subdivision of T. 35 N. R. 20 W.

Survey commenced August 9th 1895 and executed with a Heller & Brightly transit No 6602 with Solar attachment. The horizontal limb is provided with two double verniers placed opposite each other reading to 20" of arc: and the latitude and declination arcs reading to single Minutes.

The instrument was examined, tested on the True Meridian at Nurow South Dakota, found correct and was approved by the Surveyor General for South Dakota June 21 1895.

Examined the adjustments of the transit and find the levels and collimation correct. I then, to test the Solar apparatus by comparing the p.m. with a.m. indications proceed as follows;

At my camp about 50 chs. S. of North Boundary of Nebraska Latitude 42° 59' 27" N. Long. 99° 36' 40" W. I set off 42° 59' 27" N. on the latitude arc; and 15° 46' 30" N. on the decl arc, and determine a true Meridian with the Solar at 6h p.m. l.m.t. and mark a point thereof on a plug firmly driven in the ground 5.00 chs. N. of my station.

At 10h 11m l.m.t. p.m. Polaris is obscured by clouds and observation is impossible. August 9 1895

August 10th 1895, I set off 42° 59' 27" N. on the lat. arc and 15° 37' 30" N. on decl arc, and at 6 A.M. l.m.t I determine a true Meridian with the solar; the line thus determined falls 1.0 ins. East of the point marking the true Meridian on the plug driven August 9th 5.00 chs. N. of my station, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the True Meridian thus determined at 6h a.m. is N 12° 28' W. This angle reduced by table page 100 gives the mean Mag. decl 12° 24' E.

Note I compare my Measuring chain with the Standard chain and find it agrees with the same.

To determine the proper distance to establish the closing corner of frac'l secs. 23 and 24

Subdivision of T. 35 N. R. 20 W. Continued

chains on the North Boundary line I remeasure the distance from the 2nd to the 1st Mile Stone
Difference between measurements by two sets of chainmen is 6 lks.
By 1st set 79.77 chs.
By 2nd set 79.83 chs. the mean of which is 79.80 chs.
From the 1st Mile Stone, which is a quartzite 3½ ft x 10 x 10 ins. above ground marked S.D. on N. N. on S. and 1 M. on W. faces. I run
East on said Boundary line through dense brush
7.58 Intersect the Right Bank of Keya Paha River — proportional Measurement — bank, sandy 8 ft. high.
Set a sandstone 20 x 12 x 4 ins — 15 ins. in the ground for Meander Corner of fracl sec. 24 in Nebraska, marked M.C. on E. face — S.D. on N. face, and N. on S. face; dig a pit 36 x 36 x 12 ins W. of cor. 8 ft dist & raise a mound of earth 4 ft base 2 ft high W. of cor.
8.48 Intersect the Left Bank of Keya Paha River at foot of bank 6 ins. above and 5 links from the edge of the running water.

Note The above is the distance by proportional measurement for the closing cor. of fracl secs. 23 and 24, I find by examination the line between fracl secs. 23 and 24 will run along the foot of the bank near water's edge about 3.00 chains, thence on bank across bend of river 7.00 chs. The tract lying between this line and the River bank is a small narrow strip. I therefor determine not to establish said line but include the strip in the Meanders of sec 24

I continue East on the Boundary line
6.25 Set a sandstone 16 x 14 x 4 ins. — 10 ins in the ground for meander cor. of fracl sec. 24. in Nebraska, Marked M.C. on W. face: S.D. on N. and N. on S. face; dig a pit 36 x 36 x 12 ins. E. of stone 8 ft dist and raise a mound of earth 4 ft base 2 ft high E. of cor.

Note This cor. stands on E. edge of a wagon road at foot of high bluff.

Note I also find by examination that only a small

Subdivision of T. 35 N. R. 20 W. Continued

chains fraction of the South Boundary of fracl sec 24 will extend across a short bend of the River, leaving a narrow strip on the S. side. I determine to include this strip also in the Meanders of sec 24.

[illegible] August 10 1895

August 11 1895 9h 30m a.m. To determine the proper distance to establish the closing cor. of fracl secs. 22 and 23 east of the Initial Point in the Keya Paha River I measure West along the North Boundary from the 1st Mile Stone as follows.
West from the 1st Mile stone along the North Boundary of Nebraska
Over level ground and through dense brush
23.90 Intersect the Right Bank of Keya Paha River and set temporary Meander Cor. Leave brush
25.20 Intersect the Left Bank of Keya Paha River and set temporary meander cor.
Difference in measurement of E. half mile by 2 sets of Chainmen is 4 lks.
By 1st set 39.85 chs.
By 2nd set 39.89 chs. the mean of which is
39.87 To the 1/2 mile stone.
79.30 Intersect the Left Bank of Keya Paha River and set temporary Meander Cor.
Difference in measurement from 1st Mile Stone to the "Initial Point" 1.20 chs. E. of the "Initial Monument" by 2 sets of chainmen is 2 lks.
By 1st set 79.80 chs.
By 2nd set 79.78 chs. the mean of which is
79.79 To the "Initial Point" in Keya Paha River which is 1.20 chs. East of the "Initial Monument" as marked on E. face thereof
Therefore the closing cor. of fracl secs 22 and 23 will be established 5.48 chs. — proportionate Measurement — East of the "Initial Point".

From the Initial Point in Keya Paha River
I run
East on the North Boundary of Nebraska
over level Valley

Subdivision of T. 35 N. R. 20 W. Continued

chains

5.65 Leave valley and ascend 2nd bench 15 ft high

6.20 Top of bench,

8.48 Set a sandstone 17×11×5 ins – 12 ins. in the ground for closing cor. of fracl Secs. 22 and 23 marked C.C. 35 N. and 3 grooves on S. face; and 2 grooves on E. face and 4 grooves on W. face; dig pits 24×18×12 ins. E. and W. 3 ft; and S. of Stone 7 ft. dist; and raise a mound of earth 4 ft base, 2 ft high S. of cor.

At 1h 30m p.m. l.m.t. I set off 43° N. on the latitude arc and 15° 11' 30" N. on decl arc; and determine a true Meridian with the Solar at the above described closing cor.

Thence I run

S. 0° 2' E on true line bet. fracl secs. 22 and 23.

Over smooth and gently descending ground.

8.30 Edge of bank – descend through dense brush,

10.00 Intersect the left Bank of Keya Paha River

Set a sandstone 20×12×4 ins – 15 ins in the ground for meander cor. of fracl secs. 22 and 23 marked M.C. on S. face; with 2 grooves on E. face; dig a pit 36×36×12 ins. 8 ft N. of Stone; and raise a mound of earth 4 ft base 2 ft high N. of cor.

The difference between the surveys on the opposite sides of the River is as follows.

The closing cor. of fracl secs 22 and 23 just established is east of the "Initial Point" – – – – – – 8.48 chs.

The closing cor. of secs. 14 and 15 of survey of 1875 is W. of "Initial Point" – – – – – – 2.15 chs.

Total difference between Closing Cors. 10.63 chs.

Note The closing cor. of fracl secs. 14 and 15, survey of 1875, stands 15 lks. S. of the North Boundary line: The distance from the cor. of secs. 14.15.22 and 23 is therefore 1.10 chs. south of said Boundary line instead of 95 lks. as stated in the notes of Original survey.

Subdivision of T. 35 N. R. 20 W. Continued

chains

The difference of latitude of said surveys is 21.96 chs. found by subtracting 59.14 chs from 81.10 chs.

Land, smooth – South descent,
Soil, clay and gravel 3rd rate.
Timber – brush along river bank.
Dense undergrowth 1.70 chs

At 4h p.m. I proceed to establish the meander corners at the intersection of the 1st Mile of the North Boundary with the right and left banks of the Keya Paha River, by proportional measurement resulting from chaining the line this forenoon.

From the "Initial Point" in the Keya Paha River

I run

East on the North Boundary of Nebraska.

0.50 Intersect the left bank of Keya Paha River

Set a sandstone 19×16×3 ins – 15 ins. in the ground for meander cor. marked M.C. on W. face, and S.D. on N. and N. on S. edges; dig a pit 36×36×12 ins. E. of Stone 8 ft dist; and raise a mound of earth 4 ft base 2 ft high E. of cor.

From which

A cottonwood tree – on Right-Bank – 48 ins diam bears S. 5° 40' W. 180 lks. dist, Marked M.C.B.T.

This tree stands at foot of 2nd bench.

A cottonwood tree – on Right bank of River – 40 ins diam bears S. 14° W. 151 lks dist – Not Marked.

8.48 The Closing Cor. of fracl secs 22 and 23 just established

39.92 The ½ mile stone.

54.66 Intersect the left bank of Keya Paha River

Set a sandstone 17×15×5 ins – 12 ins in the ground for meander cor. of fracl sec. 23 in Nebraska, Marked M.C. on E. face, S.D. on N. and N. on S faces; dig a pit 36×36×12 ins W. of stone 8 ft dist and raise a mound of earth 4 ft base 2 ft high W. of cor.

55.97 Intersect the Right Bank of Keya Paha River

Set a sandstone 17×15×5 ins – 12 ins in the ground

Subdivision of T. 35 N. R. 20 W. Continued

Chains

for Meander Corner of frac'l sec. 23 in Nebraska
Marked M.C. on W. face: S.D. on N and N. on S. faces:
dig a pit 36x36x12ins E. of stone 8ft dist and raise a
mound of earth 4ft base, 2ft high E. of cor.

79.79 The 1st Mile stone.
Dense undergrowth 23.82 chs. August 11 1895

August 12 1895 At 8h I set off 14° 54' 30" N. on the dial
arc and observe the Sun on the Meridian 20 chs. W.
of the 1st Mile stone; The resulting latitude is 43°
N. which is correct

At 1h 30m p.m. I search for the cor. of secs 13. 14. 23 & 24
of survey of 1875 and find indications of same North
of the Boundary line: to satisfy myself I go to
the 1/4 sec. cor. bet. secs 23 and 24 which is a red
cedar post in mound of earth Marked 1/4 S. on W. face
with stone in mound at foot of post — pits N and S. of cor.
from which I run
N. 0° 5' E bet. secs 23 and 24
and counting from the cor. of secs. 23. 24. 25 & 26, and at.

77.69 Intersect the North Boundary of Nebraska 88 links
W. of the 1st Mile Stone.
Set a sandstone 18x16x4 ins — 12 ins. in the ground
for closing cor. of frac'l secs 23 and 24. Marked
C.C. 35 N. and 3 grooves, on S. face.
1 groove on E face and
5 grooves on W. face
dig pits 24x18x12 ins. E and W. 3ft and S. of stone 7ft
dist.; and raise a mound of earth 4ft base 2ft
high S. of cor.
Note continuing the line N. at 79.87 chs. counting
from the sec. cor. I intersect the cor. of secs. 13. 14
23 and 24 already found, Which is a mound of
earth nearly destroyed with pits NE. SE. SW & N.W.
which I identify by the black deposit of ashes and Veg-
etable Mold.
Land on N. half mile gently rolling
Soil clay and Sandy loam 2nd rate
Timber — plum ash and oak brush
Dense undergrowth 39.87 chs

Chains

Note — The difference bet. the surveys on the opposite
Sides of the River is as follows.
Distance from the 1st Mile stone E. to the C.C. of secs
23 & 24 Not established — — — — — 8.48 chs
Distance from 1st Mile Stone W. to C.C. bet.
frac'l secs. 23 and 24 just established 0.88 chs
Total difference is 9.36 chs
The difference in latitude between the
surveys is 18.55 chs. which I find by
subtracting the E. boundary of the Township
59.14 chs from frac'l secs 23 and 24 77.69 chs.

From the cor. of secs. 13. 14. 23 and 24 survey of 1875
I run
West. bet. frac'l secs 14 and 23
Through dense brush

12.28 The distance to the Right Bank of Keya Paha River
as per original notes — and drive a peg for tempora-
ry Meander Cor. This point falls on N. slope of
an old bar or ridge covered with grass and brush and
is out in the middle, between the courses of the
River bend about 10 chs dist.
I do not find any trace of the meander cor.
I continue the line West to the River Bank but
am unable to find any trace of the original Mean-
der cor. here
I now return to the temporary point for Meander
cor. 12 28 chs. W. from the cor. of secs. 13. 14. 23 & 24
from which I retrace the original meanders in sec
23 as follows.
S. 48° W. 23.30 chs through dense brush
S. 56° W. 3.00 chs. to a point in the line of the
original Meanders, which falls on the
West slope of the 2nd bench near the
River Bank

Thence I run
N. 31° 10' E 17.57 chs. through dense brush to
the Meander Cor. on Right Bank which I established
August 11. at the intersection of the 1st Mile of the
North Boundary 23.82 chs. West of the 1st Mile Stone

Subdivision of T 35 N. R. 20 W Continued

Chains

Therefore conclude that there is an error in the original Survey of the line between frac'l secs. 14 and 23 of 10 ch chs.

Dense undergrowth 56.15 chs

From the cor. of secs. 13. 14. 23 and 24 of Survey of 1875 already described,

I run

East bet. frac'l secs. 13 and 24

8.50 The distance to the Right-Bank of Keya Paha River as per original Notes and drive a peg. for temporary Meander Cor. This point falls on sandy bank 8 ft high north of a ford across the River and has been trodden by stock for many years. I am unable to find the original cor. The survey of this line may therefore be considered obliterated.

I retrace the original Meanders in sec 24 as follows.

From the temporary cor. I run

S 3° W. 5.40 chs. to a point at end of course of the original Meanders,

Thence I run

N. 5° E. 3.22 chs to the meander cor. on Right Bank which I established August 10th at the intersection of the 2nd Mile of the North Boundary 7.58 chs E. of the 1st Mile stone – I find no discrepancy in the original survey here.

August 12 1895

Meanders T. 35 N. R 20 W.

Meanders of the Left Bank of Keya Paha River up stream

I commence at the meander cor. of frac'l secs. 19 and 24 on E. bdy of the Tp. which I established August 9 1895

At this cor. August 10th I set off 42° 59' 40" N on the latitude arc, and 15° 29' 30" N. on decl arc and at 1h 30m p.m. l.m.t. determine a true Meridian with the Solar.

Thence I run with the Meanders in sec 24

Meanders. T 35 N. R 20 W. Continued

Chains

Through dense brush

S. 70¼° W. 6.60 chs.

S. 21½° W 6.25 " on high bank 20 ft above River

S. 7° E 10.70 " bank 10 ft high

S. 4½° W 1.80 "

S 18¼° W 2.60 "

S. 38¾° W 1.75 "

S. 56½° W 4.00 "

S 82¾° W 6.40 " At 1.25 chs. leave brush and descend to bank 1 ft high
At 3.50 chs ford bears N.W. & S.E.
At 4.00 chs. riffle in river over slate bottom.

N. 59° W 1.80 "

S. 79½° W 1.65 "

S. 39° W 5.15 " At 1.50 chs. enter dense brush.

S. 65° 21' W 1.37 "

S. 51° 10' W 0.89 " At 70 lks leave dense brush

S. 78° W 1.60 "

S. 83¼° W 2.90 " At 75 lks wire fence bears N. & S.

N. 63¼° W 2.78 " At 2.40 chs enter dense brush

August 10 1895

August 11 1895 At 6h a.m. l.m.t I set off 42° 59' 21" N. on latitude arc, and 15° 20' N. on decl arc: and determine a true Meridian with the Solar at the end of last course run last night.

Through dense brush

N. 66½° W 2.97 chs.

N. 33¾° W. 8.00 "

N 64½° W 2.40 "

N 52° W 5.00 " Leave dense brush at end of this course

N. 70¼° W 11.70 " Along low bank 1 ft high

S. 87° W 4.00 "

S. 74½° W 5.65 "

N. 73¾° W 2.50 "

N. 56½° W 3.65 "

N. 35¼° W 2.15 " At 70 lks enter dense brush; At 1.95 chs. wire fence bears E. & W.

N 25¼° W 4.90 "

N 19° W 2.45 "

N. 10½° W. 3.70 " Along bank 4 ft high

Meanders of Left Bank of Keya Paha River Continued

N. 7¾° W. 4.50 "
N. 16° W. 2.50 "
N. 3½° E 2.15 "
N 4° W 6.40 " At 3.85 chs Wire fence bears E and W
At 6.00 chs bear brush
At 6.14 chs wire fence bears E and W.
N. 1° 11' W 2.61 " Bank 6 ft high
N. 5¼° W 4.40 " level bank
N. 9° 02' E 2.56 "
N. 4° 10 E. 5.11 " To the Meander Cor. of fracl sec. 24 on the North Boundary of Nebraska, 3.85 chs. E of 1st mile stone

Land undulating
Soil clay and sandy 2nd and 3rd rate
Timber Willow and Cottonwood brush - the large trees having been all cut and hauled away,
Dense undergrowth 90.77 chs.

August 11 1895

August 12 1895 At 6h a.m. I set off 43° N. on latitude arc and 15° 02' N. on decl arc, and determine a true meridian at the meander Cor. on left bank of Keya Paha River at intersection of the North Boundary of Nebraska 25.13 chs. W. of the 1st Mile stone, which I established August 11th

Thence I run with meanders in Sec. 23
Through scattering brush, up stream
S 35¾° W. 4.00 chs. bank 5 ft high
S 18¼° W 2.65 "

(Meanders continued Next page)

Meanders of Left Bank of Keya Paha River Continued

S 27° W 3.30 chs free from brush
S 39°¼ W. 8.90 " At end of this station - a high abrupt shale bank on S. side of river
S 51¾° W 4.00 " Along opposite shale bank
S 63½° W. 5.40 "
S. 75° W. 4.25 "
S. 86¾° W 9.00 "
S 78½° W 6.45 "
N 85¾° W 4.15 "
N 82° W. 2.70 "
N 32° W 1.00 "
N 4½° E. 3.40 " through scattering brush
N 21½° E 4.30 " At end of this course bank 10 ft high
N 10½° W 4.75 "
N 34°13' W 1.71 through dense brush
To Meander Cor of fracl sec's 22 and 23

Land level and undulating
Soil sandy 3rd rate
Timber - willow brush
Dense under growth 1.71 chs

Thence in sec 22
Through dense brush
N 30½ W 4.85 chs bank 6 ft high
N 56½° W 2.70 "
N 42½° W 1.40 " heavy brush at end of the course
N 34°12' W 3.84 " To the Meander Cor at intersection of North Boundary with the left Bank of Keya Paha River 10.50 chs. East of the Initial point

I set my instrument over the point of intersection on top of the stone in the above described Meander Cor. and with the horizontal limb clamped at N 34°12' W. take a back sight on the limb at the beginning of the last course and turn off 55°48' to the West making the angle of 90° the vertical wire in the telescope cuts the letter "O." in the word "MON". on E. face of the Initial Monument

Land level
Soil sandy 3rd rate
Timber Willow brush
Dense undergrowth 9.15 chs August 12 1895

Meanders of T 35 N R 20 W. Continued

Meanders of the Right Bank of Kuya Paha River down Stream

August 13 1895 At 6h a.m. l.m.t I set off 43° N on lat arc, and 14° 44' N, on decl arc, and determine a true Meridian at the Meander Cor. of fracl secs 14 and 23 on the Right Bank of the Kuya Paha River, which was Established in 1875

Thence I run with the Meanders in sec 23

Through brush

S	42° E.	450 chs	
S	51° E	340 "	through scattering brush
S	33¼° E	630 "	
S	11½ E.	400 "	
S.	19° W.	450 "	
S.	4½° W	350 "	
S.	34° E	220 "	
S	81¾° E	300 "	Along foot of high shale bank
S	86° E	430 "	
N	78° E	670 "	
N	87° E.	850 "	
N	75° E.	500 "	
N	63¾° E	550 "	
N	57° E.	500 "	
N	39° E	850 "	Enter dense brush, se over Shale bank
N	26° E	600 "	
N	33°40' E	645 "	To the Meander Cor ~~of~~ on Right bank of Kuya Paha River at intersection of North Boundary of Nebraska 2382 chs W. from the 1st Mile stone

Land undulating

Soil Clay and Sandy 3rd rate

Timber Willow brush

Dense undergrowth 20.95 chs

August 13

At the 1st Mile Stone on the North Boundary I set off 14° 36' 30" N, on decl. arc and at 0h 4m p.m. l.m.t. observe the sun on the Meridian. the resulting latitude is 42° 59' 55" N. which is 5" less than the proper latitude.

Meanders of T 35 N R 20 W. Continued

Meanders of Right Bank of Kuya Paha River Continued

At the Meander Cor. on Right Bank of Kuya Paha River 7.58 chs East of the 1st Mile Stone - which I established August 10 - I set off 43° N, on lat. arc and 14° 35' N, on decl arc: and at 2h p.m. l.m.t determine a true Meridian with the Solar

Thence I run with the meanders in sec 24, down stream,

Through dense brush

S	2° W	500 chs	
S.	8° W.	250 "	
S	6¼ E.	500 "	through scattering brush
S	3¾° E	800 "	
S	1° W.	250 "	
S	14¾ E	350 "	
S	6¼° E	500 "	
S	13½° E	450 "	
S	25° E	575 "	
S	33° E.	250 "	
S	57° E	375 "	
S	74° E	300 "	
N	75° E	575 "	
N	87¼ E	375 "	
S	70° E	1150 "	through dense brush
S.	51° E.	450 "	

August 13 1895

August 14 1895 At the End of the last course I set off 42° 59' 40" N on lat arc: and 14° 25' 30" N. on decl arc; and at 6h a.m. l.m.t determine a true Meridian with the solar

Thence I continue the meanders in sec 24

S	64° E	225 "	through scattering brush
S	34° E	825 "	
S	65¼° E	630 "	
N	82° E.	500 "	
N	62° E.	275 "	
N.	41° E	530 "	
S	62° E	180 "	
N	85° E	700 "	
N	78°33' E	420 "	through dense brush

Meanders of T. 35 N R 20 W. Continued

To the Meander Cor of frac'l secs 19 and 24 on the E. boundary of the Tp. which is a red cedar post in mound of earth marked M.C. with a pit S. of cor
This Cor. stands near the top of N. slope of the 2nd bench and about 2 chs S. of the river bank

Land undulating
Soil Sandy 3rd rate
Timber Willow and Cottonwood brush
Dense undergrowth 4 20 chs.

August 14 1895

At 10h l.m.t. Aug 14. I set my instrument over the tack in the hub driven in the ground on top of the bluff East of the Keya Paha River on the Secant line on which the North Boundary was run, and set off 43°N on the lat. arc and 14° 19' N. on the decl arc and determine a true meridian with the solar
I turn off an angle of S 89° 57' 40" to the West, the vertical wire in the telescope cuts the picket held on the tack driven in a hub on said Secant line. on the hill East of the "Initial Point" about one Mile West of my station
At 2h p.m. I set my instrument over the tack in the hub driven in the ground on the secant line on the hill East of the "Initial Point" and set off 43°N on lat arc. and 14 16' 30"N on decl arc. and determine a true meridian with the solar.
I turn off an angle of 89° 59' 50" to the East. the vertical wire in the telescope cuts a flag on the hub on top of the bluff East of the Keya Paha River above described
I examine the levels and collimation of my instrument and find them correct.

August 14 1895
2-30-P.M.

General description

This Township embraces only a small tract of land North of the Keya Paha River
The land consists of bluffs and Valley land
The bluffs are broken by ravines soil is clay 2nd and 3rd rate land
The Valley land lies in the Keya Paha River Valley and is sandy and clay loam and is 2nd and 3rd rate
The timber consists of brush - along the River the trees having been all cut and hauled away
There is one settler in the Tp. in the N W¼ of Sec 24.

Robert Harvey
U.S. Deputy Surveyor
acting as Topographer
Alfred N. Tuniaux
U.S. Deputy Surveyor
and acting in Capacity of Axman

Copy of this to take place of final in 35719

List of Names.

A list of the names of the individuals employed by Robert Harvey and Alfred W. Gunnar, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivision and meander lines of fractional townships 35 N. of ranges 13, 14, 15, 16 and 17 and the completion of the subdivision and meander lines of fractional townships 35 N of ranges 18, 19 and 20 all West of the 6th Principal Meridian, in Nebraska, showing the respective capacities in which they acted:

Clifford H. Norton	Chainman
Herbert J. Paul	Chainman
Clayton J. Norton	Axeman and Monumentman
Howard J. Sheppard	Axeman and Monumentman
Lewis M. Williams	Flagman
William L. Stitt	Flagman

Final Oath of Assistants:

We hereby certify that we assisted Robert Harvey and Alfred W. Gunnar, U. S. Deputy Surveyor, in surveying all those parts or portions of the subdivision and meander lines of fractional townships 35 N of ranges 13, 14, 15, 16 and 17 and the completion of the subdivision and meander lines of fractional townships 35 N of ranges 18, 19 and 20 all West of the 6th Principal Meridian, in Nebraska, which are represented in the foregoing field notes as having been surveyed by ~~him~~ them and under ~~his~~ their direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for South Dakota

Clifford H. Norton Chainman
Herbert J. Paul Chainman
Clayton J. Norton Axeman and Monumentman
Howard J. Sheppard Axeman and Monumentman
William L. Stitt Flagman
Lewis M. Williams Flagman

Subscribed and sworn to before me this 23rd day of August, 1895

SEAL

H. J. Paul
Notary Public

My commission expires Aug. 13. 1897

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35/20 J.

Final Oath of U. S. Deputy Surveyor.

We, Robert Harvey and Alfred W Gunnaes, U. S. Deputy Surveyors, do solemnly swear that, in pursuance of ~~instructions~~ a contract received from Richard B. Hughs, U. S. Surveyor General for South Dakota, bearing date of the 3rd day of April, 1895, we have well, faithfully, and truly, in ~~my~~ our own proper persons and in strict conformity with the instructions furnished by the U. S. Surveyor General for South Dakota, the surveying manual, and the laws of the United States, surveyed all those parts or portions of subdivision and Meander lines of fractional townships 35 N of ranges 13, 14, 15, 16 and 17 and the completion of the subdivision and Meander lines of fractional townships 35 N. of ranges 18, 19 and 20 all West of the 6th Principal Meridian, in the Nebraska, ~~as~~ which are represented in the foregoing field notes as having been surveyed by ~~me~~ us, and under ~~my~~ our directions; and we do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for South Dakota and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, we will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846. Said field Notes are comprised in 8 books lettered "B" "C" "D" "F" "G" "H" "I" and "J".

Robert Harvey
Alfred W Gunnaes
U. S. Deputy Surveyors

Subscribed and sworn to before me this 21st day of October, 1895

SEAL

W Paul
Notary Public
My Commission Expires Aug. 13, 1897

Approval.

Office of the U. S. Surveyor General,
~~Huron So Dak~~ [illegible], 1896

The foregoing field notes ~~of the survey of~~ contained in one book lettered "—" of the Survey of

executed by

under his Contract No. ....., dated ....., 18 , having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ....., has been correctly copied from the original notes on file in this office.

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U. S. Surveyor General.

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T

(4—679.)

Additional

FIELD NOTES

OF THE SURVEY OF

that portion of

Fractional Section No. 23
of
Township No. 35 North
of
Range No. 20 West

Of the Sixth Principal Meridian,
which is in
South Dakota

AS SURVEYED BY

Robert Hunzy, U. S. Deputy Surveyor,

Under his joint Contract No. 107, dated April 3, 1895

Survey commenced May 8, 1897

Survey completed May 8, 1897

(12503—2,000.)

Names and Duties of Assistants.

John T. Daugherty	Chainman
Peter F. Nelson	Chainman
Wilson Cooper	Axeman and Moundsman
William C. Elliott	Axeman and Moundsman
Daniel Robinson	Flagman

INDEX DIAGRAM.

Township ..... . *Range* .....

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Meanders Page .....

No 299/22

Preliminary Oaths of Assistants.

We, John T. Daugherty and Peter F. Nelson

do solemnly swear that we will well and faithfully execute the duties of chain carriers; that we will level the chain over even and uneven ground, and plumb the tally-pins either by sticking or dropping the same; that we will report the true distance to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us in the survey of the Fractional Section 23 T. 35 N., R. 20 W.

John T. Daugherty, Chainman.
Peter F. Nelson, Chainman.
, Chainman.
, Chainman.
, Chainman.

Subscribed and sworn to before me this 8th day of May, 1897.

Robert Harvey
U.S. Deputy Surveyor

We, Wilson Cooper and William C. Elliott Axemen and Daniel Robinson Flagman

do solemnly swear that we will well and truly perform the duties of axemen and flagman in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the Fractional Section 23 T. 35 N. R. 20 W.

Subscribed and sworn to before me this 8th day of May, 1897.

Wilson Cooper, Axeman and Mounds man
William C. Elliott, Axeman and Mounds man
Daniel Robinson Flagman

Robert Harvey
U.S. Deputy Surveyor
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Subdivision of T. 35 N., R. 20 W.

May 8 1897 pursuant to Special instructions of the Surveyor General of S.D. of date Nov. 3 1896 under joint contract No. 107 dated April 3. 1895, I go to the closing corner of Secs 23 & 24 T. 35 N. R. 20 W. of the 6 P.M. in Nebraska 88 links west of the first mile stone E. on boundary line between Nebraska and South Dakota, which is a sand stone 16×5×4 ins. above ground, marked, C.C. 35 N on S. one groove on E. and 5 grooves on W. faces, with pits E and W. 3 ft and S. of stone 7 feet distant, with mound of earth S. of corner.

I set my Transit, manufactured by Heller & Brightly Philadelphia Pa. No. 6602, with Solar attachment in perfect adjustment over the center of the corner and set off 43° N on Lat. arc. 17° 17′. 30″ N on Decl arc and determine a true meridian with the solar. Thence I run as per notes of retracement. Aug. 1895 N. 0° 05′ E. between Secs 23 and 24. over nearly level ground, through dense brush.

2.18 to the corner of Secs. 13. 14. 23 and 24. which I determine by the character of the deposit in the pits N.E. S.E. S.W. and N.W. in center a low mound of earth, over piece of charred wood.

Set a hard sand stone 18×10×6 ins. 12 ins in the ground for N.E. Cor. of fractional Sec. 23. marked with 3 notches on S edge, dig pit 36×36×12 ins 8 ft distant, in the sec. and raise a mound of earth 4 ft base 2 ft high S.W. of corner.

Land. nearly level
Soil sandy clay loam 2nd rate
No timber
dense undergrowth 2.18 chains.

Thence,

West on a true line along N. Boundary of Fractl Sec. 23 over gently undulating valley through dense undergrowth

21.74 to right bank of Keya Paha River.

Set a hard sand stone 18×12×6 ins. 12 ins in the ground for M.C. of fractional Sec.

Subdivision of T 35 N., R. 20 W continued

23. marked M.C. on N and 3 grooves on S faces
dig pit 36x36x12 ins. 8ft E of stones and raise
a mound of earth 4ft base 2ft high E. of Cor.
Land Gently undulating
Soil. light sandy clay loam 2nd rate
No timber
Dense underbrush 21.74 chs.
May 8 1897.

Meanders Tp 35 N. R 20 W.

Meanders of the right bank of Keya Paha River
up stream.

May 8. 1897. 10.30 a m.
At the meander Cor. on N. bdy. of fractional Sec 2 on
the right bank of Keya Paha River this day
established. I set off 43° N on Lat arc 17°
18' N on Decl arc, and determine a true
meridian with the polar. Thence I
run with meanders in Sec. 23 up stream
over level ground through dense willow
brush.
S 33° 29' W. 2.55 chs to the meander
Cor. on N boundary of Nebraska
2382 chs. west of the 1st mer. stones
which I find covered with
debris. I uncovered the same
to depth of 11 ins. which is a hard
sandstone 15x4x4 ins above
ground marked M.C. on W.
S.D. on N. and N on S faces.
Land nearly level
Soil Sandy 3rd Rate
No timber
Dense undergrowth 2.55 chs
May 8 1897
Robert Harvey
U.S. Deputy Surveyor

---

and

List of Names.

A list of the names of the individuals employed by Robert Harvey, U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Fractional Sec. 23, T. 35 N., R. 20 W

Sixth principal Meridian, in the State of South Dakota, showing the respective capacities in which they acted:

John T. Daugherty	Chainman
Peter F. Nelson	Chainman
Wilson Cooper	Axeman
William C. Elliott	Axeman
Daniel Robinson	Flagman

Final Oath of Assistants:

We hereby certify that we assisted Robert Harvey, U. S. Deputy Surveyor, in surveying all those parts or portions of the North and East boundary of fractional sec 23 T. 35 N. R. 20. W, also meander lines of the same

Sixth principal Meridian, in the State of South Dakota, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the U. S. Surveyor General for South Dakota

John T. Daugherty	Chainman
Peter F. Nelson	Chainman
Wilson Cooper	Axeman, and ~~Moundsman~~
William C. Elliott	Axeman and Moundsman
Daniel Robinson	Flagman

Subscribed and sworn to before me this 5th day of June, 1897.

My Commission expires March 13, 1901

SEAL

Fred Whitman
Notary Public

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Final Oath of U. S. Deputy Surveyor.

I, Robert Harvey, U. S. Deputy Surveyor, do solemnly swear that, in pursuance of special instructions received from Richard B. Hughes, U. S. Surveyor General for South Dakota, bearing date of the 3rd day of November, 1896, under contract No 107 dated April 3. 1895, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the U. S. Surveyor General for South Dak, the surveying manual, and the laws of the United States, surveyed all those parts or portions of Fractional Secs 23. F. 35 N., R. 20 W

6th principal Meridian, in the State of South Dakota, which are represented in the foregoing field notes as having been surveyed by me, and under my directions; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual, printed instructions, the special written instructions of the U. S. Surveyor General for South Dakota and in the specific manner described in the field notes, and that the foregoing are the true field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Robert Harvey
U. S. Deputy Surveyor.

Subscribed and sworn to before me this 15th day of June, 1897.

SEAL

Paul Anderson
Notary Public
my Commission expires Jan 21 - 1899

Approval.

Office of the U. S. Surveyor General,
Huron So Dakota Sept 15, 1898.

The foregoing field notes ~~of the survey of~~ contained in one book letter "J", of the survey of the subdivision and meander lines of fractional township No. 35 north of range No. 20 west of the sixth principal meridian, in Nebraska and South Dakota,

Robert Harvey and Alfred W. Gumaer, executed by under ~~his~~ joint Contract No. 107, dated April 3, 1895, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank P. Morris
U. S. Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above described surveys in [illegible], has been correctly copied from the original notes on file in this office.~~

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~~U. S. Surveyor General.~~

General Land Office • Original Field Notes

Book Number

758

The images in this file are photographs of the notes of the original surveys of the State of Nebraska on file in the Office of the Nebraska State Surveyor located in Lincoln, Nebraska.

The original surveys in Nebraska began in the mid 1850's and were completed in the mid 1880's. The Nebraska office of the Surveyor General was closed June 30, 1886.