

92

MINING
TRANSIT BOOK
303

92

J W Barman

Property of
John H. Curo
County Surveor
Cass Co. North West Minn.
Apr 23-1914

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19-142-31 Chase Survey-Carmann- 1-7-11

12 To 17 Sec 24-138-30 Carmann

18 To 25 Sec 9-139-30 Carmann

26 To 28-140-30 Carmann

28 To 53 State Land Carmann

54 To 72 Hickensack Levels Carmann

73 to 81. Wilkinson Levels Curo

82 To 95 State Land Sec 2-141-31 Curo

2

①

Sec. 19-142-31 Chase.

Thursday April 23^d 1914

Leave Minneapolis 7.40 P.M. Via
Northern Pacific & Minnesota and
International Railway. Fare \$3.80

Friday April 24th 1914

Arrive Walker 3 A.M. Room 14
Chase Hotel. Reported at John W.
Curo's office at 8.00 A.M.

Adjusted transit and repaired tape.
Received my first assignment
Today. Room 14 Chase Hotel

Weather
Cloudy

Saturday April 25th 1914

We begin subdivision of Sec. 19
Twp. 142 N. Rge. 31 W. 5th P.M. in
survey of the Chase farm which
is a northeast $\frac{1}{4}$ Sec.

We go to the corner of Sec. 19-20-29 &
30. being the S.E. corner of Sec. 19
previously established by Curo
from which we run north
over cutout line. Var. $7^{\circ}50'E$.

JW Bauman

19-142-31 Chase. ②

3

April 25th continued.

@ 300 set stake @ 490.20 set hub & tack
@ 600 set stake @ 839 cross old logging
road which bears E & W. @ 900 stake
@ 1113 hub & tack 1200 stake @ 1290
cross old road grade NW & S.E. @
1320 set hub & tack for temporary
 $\frac{1}{16}$ corner. @ 1500 stake @ 1593-0
@ 1800 stake @ 2100 stake @ 2377-0
@ 2400 stake.

@ 2597.80 the true $\frac{1}{4}$ corner between
Sec. 19 & 20-142-31 bears E. 4.50'

@ This point U.S. notes call for
stake on following bearing trees

Jackpine 12, N 56° E, 15 Lks. = 9.90'

Poplar 5, N 38° W, 10 Lks. = 6.60'

We find the stumps of both trees
from which former County Surveyor
James M. Canfield has established
the corner by proportionate

measurement and courses and
had set a $1\frac{1}{4}$ " by 12" iron for the
true $\frac{1}{4}$ corner from which we
put in the following new
bearing trees S 22° 35' E 35.50 Lks.

S 59° 45' W 57.20 Lks. Pine stumps
and 20 d spikes J. W. Garman

4

③ 19.142.31 Chase

1 Ft. goes E. 0017 April 25 continued

To connect back 2597.80 goes E

4.50'. hub 2377.00 goes E. 0038

1593.00 goes E ~~170~~

1320.00 goes S 21.10 to 1298.90

thence E 2.25' to point true $\frac{1}{16}$ corner

839.00 goes E to true line

490.20 goes E to true line

This entire $\frac{1}{2}$ is over rolling hills,
 chained perfectly by John W. Carr
 and Mitchell Ellis. With 300'
 steel tape and plumb bob
 run with an H & B Transit in
 perfect adjustment double center
 hubs. J. W. Carman Transitman
 Frank Breece and Gene Mohler
 axeman.

From the iron $\frac{1}{16}$ cor. we start
 a picket line N. $8^{\circ} 50'$ Var. E.?
 and another picket line W on a
 9° Var. E.

All get dinner at Chase's cabin
 Chase team with W & Maud
 as driver takes us out and back
 Room 14 at Chase Hotel

J. W. Carman

April 1914 Chase Survey

25 26 27 28 29 30

JW Carman

1

0

0

0

0

1

JW Coro

1

0

0

0

0

1

Frank Breece

1

0

0

0

0

1

Gene Mohler

1

0

0

0

0

1

Michel Ellis

1

0

0

0

0

1

Chase Team

1

0

0

0

0

1

W H Rand

1

0

0

0

0

1

Herman Freaz

1

0

0

0

0

1

Continued on Page 9

6

Weather
Cloudy
Rain

Monday April 27

See page Todd

Cloudy
Rain

Tuesday April 28

Rain

Rain

Wednesday April 29

See page Todd

Weather
Cloudy

Thursday April 30.

Leave Chase Hotel 8.45 go out to
the true $\frac{1}{4}$ corner, North line, sec.
19. 142.31.

Start & chain north setting a
stake every three hundred ft.
and hubs of the following points
1442.00 2108.80 2490.00 0
Set stake at 2640 the preliminary
corner N.E. corner of sec 19.

It is necessary to continue our
line north to the NE corner
of sec 18 on account of our

inability to locate any bearing trees that we could depend on.

We start at the NE corner of Sec 19 and chain to 600 on N line Sec 18. We set a hub at 589. This was perfectly chained by Mitchell, Ellis & Gorman. German De Treazant Gene Mohler as atmen. Line was run by J. W. Gorman using a B. & B. Berger Transit in good adjustment.

We had dinner at the Chase
cabin & were driven by
W. H. Rand (Chase team)
Room 14 Chase Hotel

8

⑦

Friday May 1 1914.

Leave Chase Hotel 6:45 AM
Start at 1500 N Sec 18 set hub
at 1590.

(We chain perfectly) from 600 N.
to 2700 N 18.

Chaining done by Carman and
Mitchell Ellis. Transit work
done by Carman. Gene Mahler
and Herman DeFras as spemen.

Buff and Berger Transit used
in perfect adjustment and
hubs doubled centered.

Had dinner at the Chase cabin
and were driven out and back
by W H Rand during the
Chase Run.

Saturday May 2nd

Leave Chase Hotel at 6:45 set up
at hub 1590 Sect 18 & set hub at
2678.80. Old road at 2668
Hubs are set at the following

continued on P. 10

Brot from Page 5:

MAY Chase Survey

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

JW Carman

1 1 1

GH Todd

1

Michel Ellis

1 1

Gene Mohler

1 1

Herman DeFraz

1 1

WH Rand

1 1

Chase Team

1 1 1

(8)

10

Sec 18

points, 2678.80 - 3012.40

3283.70 - 3609.00 - 4177.00

Chaining to the NE of Sec 18 we found that we were 132.6' ft short from the $\frac{1}{4}$ corner of 19 to the NE corner of 18 and we were 17.50' east of the true NE corner of Sec 18.

Therefore the

$\frac{1}{4}$ of 18 goes south 44.20' East 5.83

NE of 19	"	"	44.20'	" 15.88
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$\frac{1}{16}$ of 19	"	"	22.10'	2.92
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to the true corners of above mentioned points

The above was perfectly chained by Cannon & Mitchell Ellis Transman - Cannon setting double center hubs. Herman DeGrey & Gene Mohler as speman
Had dinner at the Chase cabin
walked in from the NE of 18
Room 19 Chase Hotel

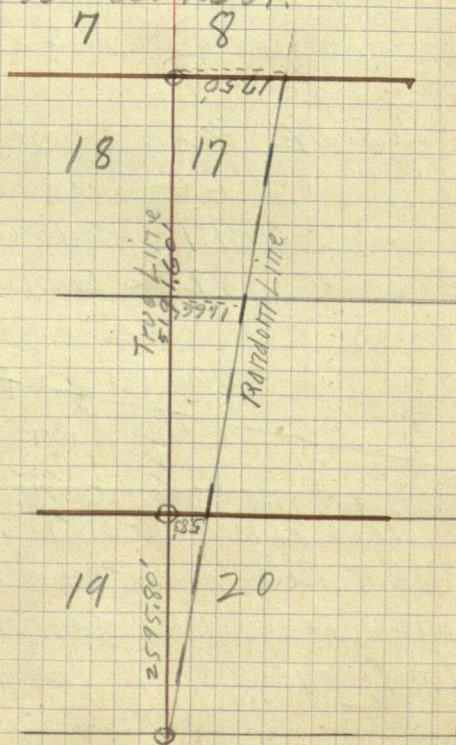
11

Sunday May 3rd

Leave Chase Hotel 7.45

Set an iron monument at the true NE of Sect 19-142.31 & a wooden ~~con~~ stake at the true $\frac{1}{16}$ corner of the $\frac{1}{2}$ of the NW $\frac{1}{4}$ Sec 19.

This was done by G. H. Todd & Cannon, back of Chase Hotel at 1.30 P.M. Chase team used M. H. Rand Transfer.



(2)

13

4-5-1914

JW Carman 1
John Crossman 1
Wm Mueller 1

14

22-23-24-138-30

Carman transitman John Crossman
 chairman & Wm Kivoller Heman &
 A Buff & Berger transit was
 used & chaining done perfectly
 by Carman & Crossman dinner
 at the Blackburn farm. Driven
 by Olsen with his team.
 Fare Walter to Pine River \$62

May 4 1914

24-138,30

Starting at the NW corner of Sec 24
 we run E to ^{N 89° 45' E} 900. Buff & Berger
 transit used. Chaining done perfectly
 by Carman & Crossman
 Wm Kivoller Heman. Arrive
 Blackburn farm 6.30 P.M.
 supper & lodging @ Blackburn
 farm

May 5 1914

See pages 12, 13, 14, Cont

24-138-30

May 6 1914

Beginning @ the iron NE corner
of Sec 24-138-30 run west
between Sec 13 & 24 $N 89^{\circ} 45'$

At 1211.95 0-1320 stake 1622 0
1820.70 0-1975.00 stake 2275.00 stake
2304.40 0-2417.20 0-2575 stake.
+69.90 = 2644.90 the $\frac{1}{4}$ corner between
Sec 13 & 24 bears south $3.60'$

At this point U.S. notes call for
B. Pine 12 $N 24^{\circ} E$ 25 Lks = 16.50'
B Pine 4 S $43^{\circ} 30' W$ 35 Lks = 23.10' We
find both trees standing, plainly
marked & as they are about two feet
off for course we set the corner
by proportionate measurement &
continue Transit line west

Piley & Harmon as Reviewer
Transitman

May 7

See Pps.

Curtis' Notes

24-138-30

May 7 1914

17

See Pps

Gueros' Notes

9-139-30

May 8 1914.

9-139-30 V 11°15'

Leave Pine River 1.57 AM

Arrive Backus 2.17 AM. Lodging
& breakfast Lake View HotelSivery team took me out to the
Borton farm \$1.50 fee charge to
Town Board. V 9°15'Starting @ the true corner 8-9-1617
+ run east @ 230.20 stake 300

stake 600. stake 900. stake 1200

@ 688.20 @ 112180

Chaining was done perfectly by

J/8 Borton & Garman

Elgie Grant & Charles Pringle from
Garman Transitman J/8 Borton
chairman

May 9 1914

9-139-30

Starting @ 1200 run east to 2100

@ 148000 1500-1800-2100

very heavy clearing. worked
until 3 o'clock and back to

MAY 1914
 F S Sun M T W

8 9 10 11 12 13 14

JW Carman	1	1	0	1	0	0	1
Chas Pringle	$\frac{1}{2}$	$\frac{3}{4}$	0	0	0	0	0
Elgie Grant	$\frac{1}{2}$	$\frac{3}{4}$	0	1	0	0	0
JH Horton	$\frac{1}{2}$	$\frac{3}{4}$	0	1	0	0	1
Al Grant	0	0	0	1	0	0	0
Horton Team	0	0	0	0	0	0	1

Board
 5 1/2 days @ 100 per day

9-1 3 9-30

9-139-30

quit for the day on account
of rain.

Chaining done perfectly by
Carman & Horton, barman
Transitman Elgie Grant &
Chas. Pringle the men.
J. H. Horton chairman.

May-11-1914

Starting at 2100 continue East
setting stakes every three
hundred ft. & hubs at the
following points 2629.65-

3250.50 - 3668.95 - 4123.70

4951.40. stake @ 5280.0

We find one bearing true @ the
N. corner & one @ the S. section
corner.

Carman Transitman, Carman
& Horton chairmen, Al & Elgie
Grant Hemen.

21
May 12 1914
Im Walker

May 13
Im Walker

15-94 10 139-30
22

May 14 1914

Leave Horton farm with Horton team & drive over $\frac{1}{2}$ mile of Sec. 10 in order to decide where to run road. Town board decided to let the road as it was & run over from the S.E. of S. 9 along the to the old road.

We find old bearing trees at the N.E. of Sec 9 & set temporary corner.

We then proceed to the $\frac{1}{4}$ of Sec 9 & find old bearing trees which check for bearing & distance. However we set new bearing trees as follows:

J.P. $10 S 12^{\circ} 02' W 20.26$ ft.

JP $8 N 14^{\circ} 47' W 77.75$ ft.

We find that our random line is 48.70' ft north of the true N.E. of Sec 9. The distance of the true line is 5287.60'

The true $\frac{1}{4}$ of Sec 9 goes south

cont. p 24

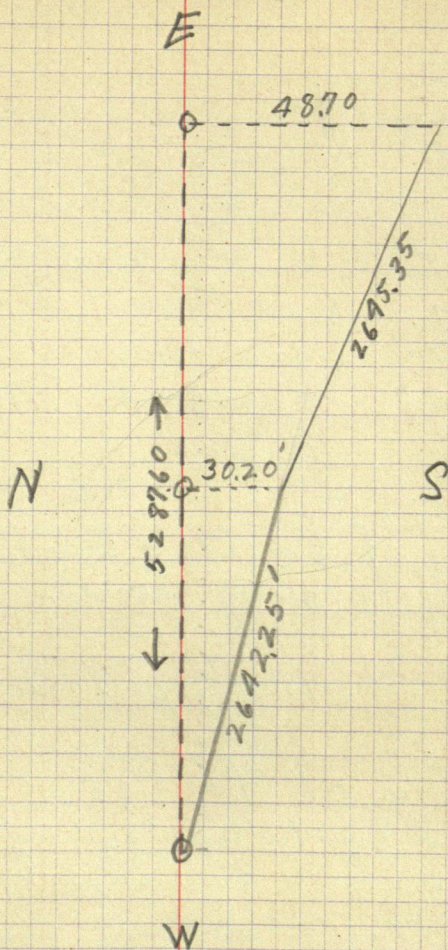
30.20' * goes east to 2642.25
 Some check back as follows:

230.20	goes S. 2.35'	3250.50	goes S 34.40'
688.20	" " 7.85'	3668.95	" " 37.28'
1121.80	" " 12.79'	4113.70	" " 40.35'
1480.00	" " 16.87'	4951.40	" " 46.13'
1926.00	" " 21.96'	5100.00	" " 47.25'
2629.65	" " 29.98'	Sec Cor. 5282.60	" " 48.70'
$\frac{1}{4}$ 2642.25	" " 30.20'		

We check our line over & set hubs with 7ft guards marked "Center of Road" & "Section Line". This was perfectly done by Larnan & Horton. Larnan Transitioner a Chairman Horton German quit at 6.30 PM.

9-139-30

25



140-30

May 15 1914

Leave Horton farm and drive to Bob Stewarts, find he has no facilities for boarding me so go over to Dr Buttons farm to stay. As driven by Horton + Horton team arrive at Dr Buttons c 10 clock P.M. Jimmy \$3.00.

Go out + locate the S.W. + N.W. corners of sec 35-140-30 by myself + quit for the day

May 16 1914.

Starting at the S.W. of 35 chain up to the N.W. of 35 + set $\frac{1}{4}$ + $\frac{1}{16}$ corners.

The town board originally intended that the road was to run on $\frac{1}{16}$ lines thro Sec's 35 + 25 but when they were informed as to the probable cost of the survey, abandoned the

J H Horton Team

15 16 17 18

\$300

J W Gorman

1 1 0 1

Dr Botton

0 1 0 0

Botton Horse + Buggy

0 1 0 1

Board

4 days @ 100 per day

28

project until further discussion
@ the next meeting of the town
board.

The chaining was done by
Dr Button + Caman

May 18

Ran a two compass lines
at the request of the
superintendent on the trap line
starting at the SW of 35 +
the $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Sec 35
in order to give them data
as to which was the best
route for the road.

142-31 May 19

Set the $\frac{1}{4}$ iron corner of
Sec 34-142-31 north side

34-142-31

May 20

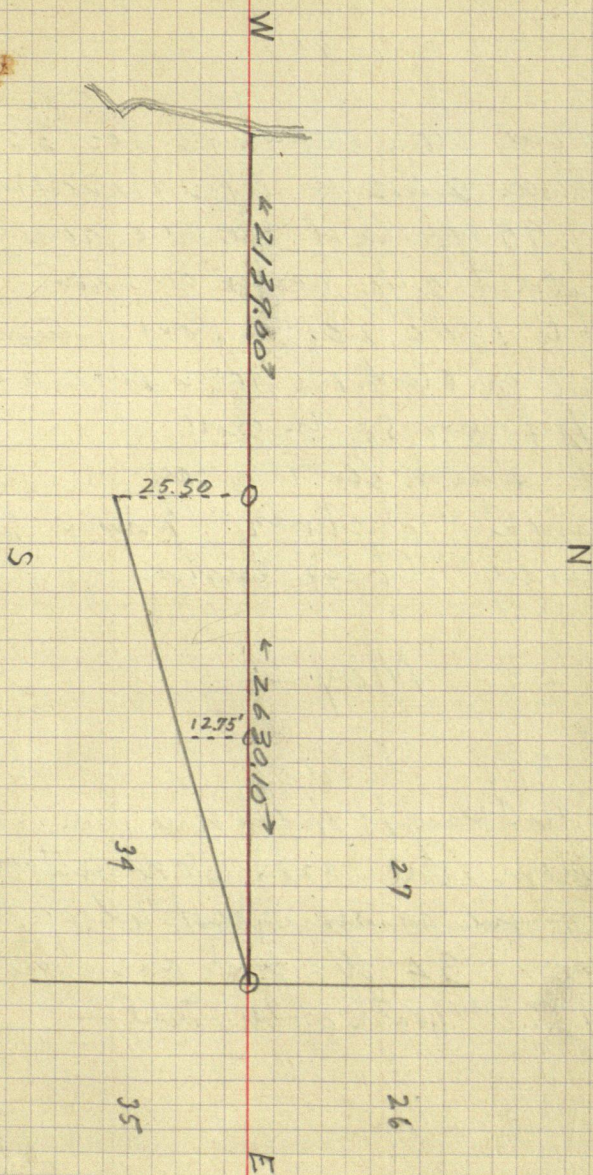
Set the NE of 34. 6 inches north.
 Starting @ the NE of 34. chain west
 to $\frac{1}{4}$ corner. distance 2630.10
 We find our random line is 25.50'
 south of the true $\frac{1}{4}$ corner, there for
 the $\frac{1}{16}$ corner (1315.05) goes north 12.75'
 1' goes north .00969
 This was perfectly chained by CH Watts
 + Cartman. Cartman Transit man
 Chris Austin Axeman

May 21

Set the true $\frac{1}{16}$ corner of the NE $\frac{1}{4}$ sec 34
 Starting at the true $\frac{1}{4}$ corner Sec 34 + 27
 we chain west to the lake & fail
 to find Meander Post #30. so we
 back sight on the true line & set
 a temporary $\frac{1}{16}$ corner @ 1320.
 Quit for dinner

Cont. P. 32.

3)

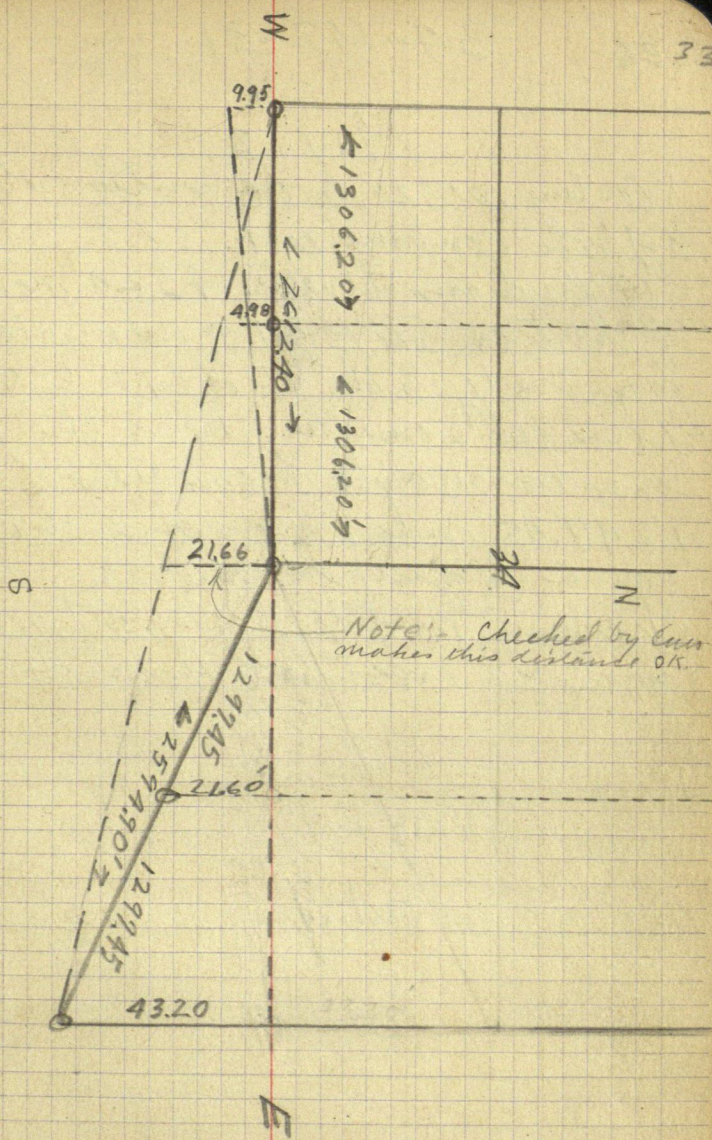


Starting @ the true $\frac{1}{4}$ corner south side Sec 34 We chain west to the true iron corner of Sec. 33-34-34 distance 2612.40. Our random line is 9.95 south of the true iron corner therefore the $\frac{1}{4}$ corner goes north 4.98' & east to 1306.20 (see plot) 1st govt N. 0038. We then start & chain east from the $\frac{1}{4}$ corner south side of sec 34 to 1320 & quit for the day.

Cannan Transitman Cannan & Watts
chainmen Chris Austin Herman

May 22

Starting @ the true $\frac{1}{4}$ corner of 34 south we had Knight on the true line & run a random line east. Starting today @ 1320 we continue east to the true S.E. corner of 34. We find our random line is 43.20' north of the true —



34

34-142-31

May 23

Starting @ 1320 on the south side of
34 we continue east.

We find our line is 43.20' north
of the true S.E. of 34 & the distance
from the $\frac{1}{4}$ to the S.E. of 34 is 2594.90
Therefore connecting back the $\frac{1}{16}$
corner goes south 21.60 & west 22.55 to
1297.45 where we set an iron
corner & quit for the day.

Chaining perfect by Watts & Cannon
Cannon & transterman Austin Herman

May 24

Sunday

142-31

35

May 19/4

T W T F

19 20 21 22 23 24 25 26 27 28 29 30 31

JWCuro

1 0 0 0 0 0 0 0 0 0 0 0 0

JWCarmen

1 1 1 1 0 1 1 1 1 1 0 0 0

CHWatts

0 1 1 1 1 0 1 1 1 1 0 0 0

Chris. Austin

0 1 1 1 1 0 0 1 0 1 0 0 0

36

35-142-31

May 26

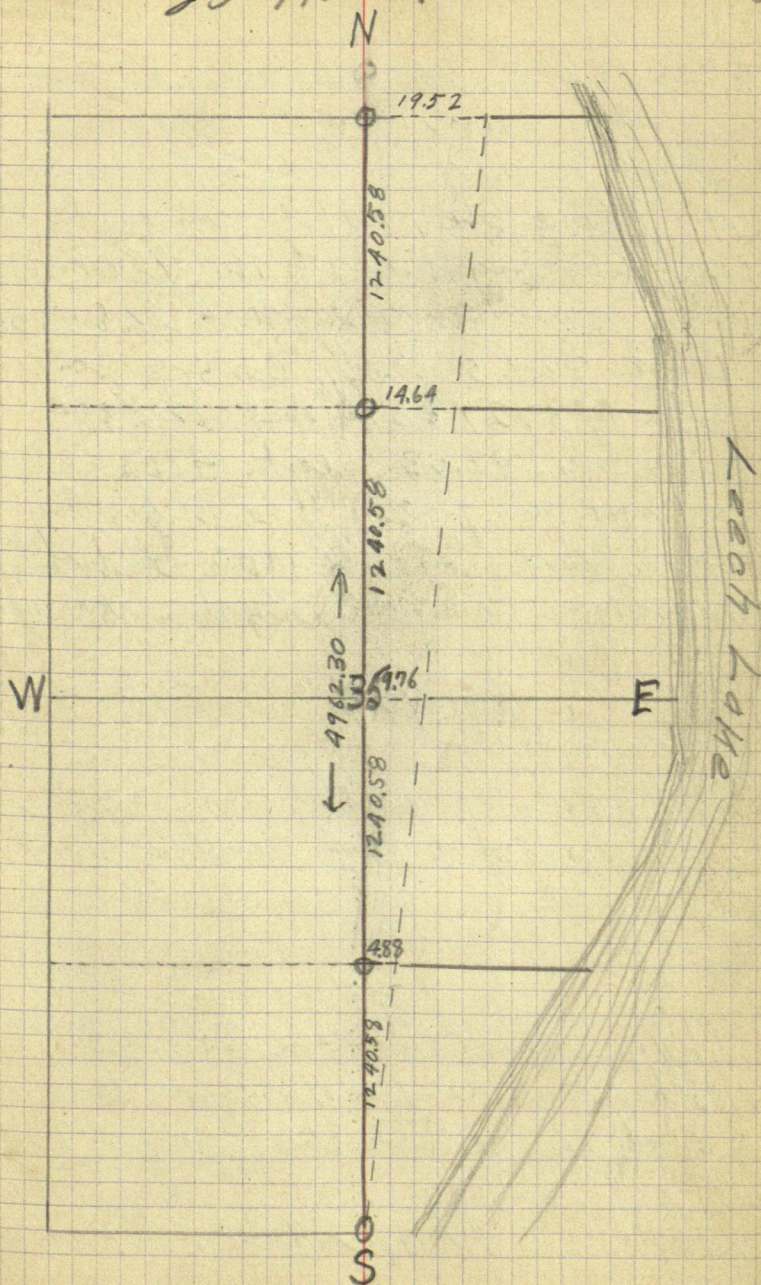
Starting @ the true $\frac{1}{4}$ corner on the south side of 35 we chain north to the true $\frac{1}{4}$ corner of 26-35 distance 4962.30'. We then run a transit line from the true $\frac{1}{4}$ corner south side of 35 to the true $\frac{1}{4}$ of 26-35 (set by Curo) + find our line is 19.52' east of the true corner therefore the $\frac{1}{16}$ goes south to 3721.73 + west 14.64' where we set an iron corner.
 $\frac{1}{4}$ goes south to 2481.15' + west 9.76'
 $\frac{1}{8}$ goes south to 1240.58 + west 9.88'
 $\frac{1}{16}$ This was done by Watts & Carman

May 27

Set an iron corner @ the center of 35 + one iron corner @ the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ Sec 35.
 Starting @ the SE of 34 we chain north between 34 + 35

35-42-31

37



to the NE of 34. distance, 4970.10'.
 We find our random line is
 164.50' west of the true N.E. corner of
 34. Therefore, not being able to
 find hearing trees to the $\frac{1}{4}$ corner
 the $\frac{1}{4}$ corner goes south to 2485.05
 & east 82.25' the $\frac{1}{16}$ corners go
 south to 3727.58 & east 123.38'
 south to 1242.53 & east 41.13 (see
 plat opposite page.) The chaining
 was done by Carman & Watts,
 Transmon Carman, Austin Ataman

May 29

Set $\frac{1}{16}$ & $\frac{1}{4}$ corner between sec 34 & 35
 & repeat rest of day sighting a
 forest fire on the Sandtown land,

May 28

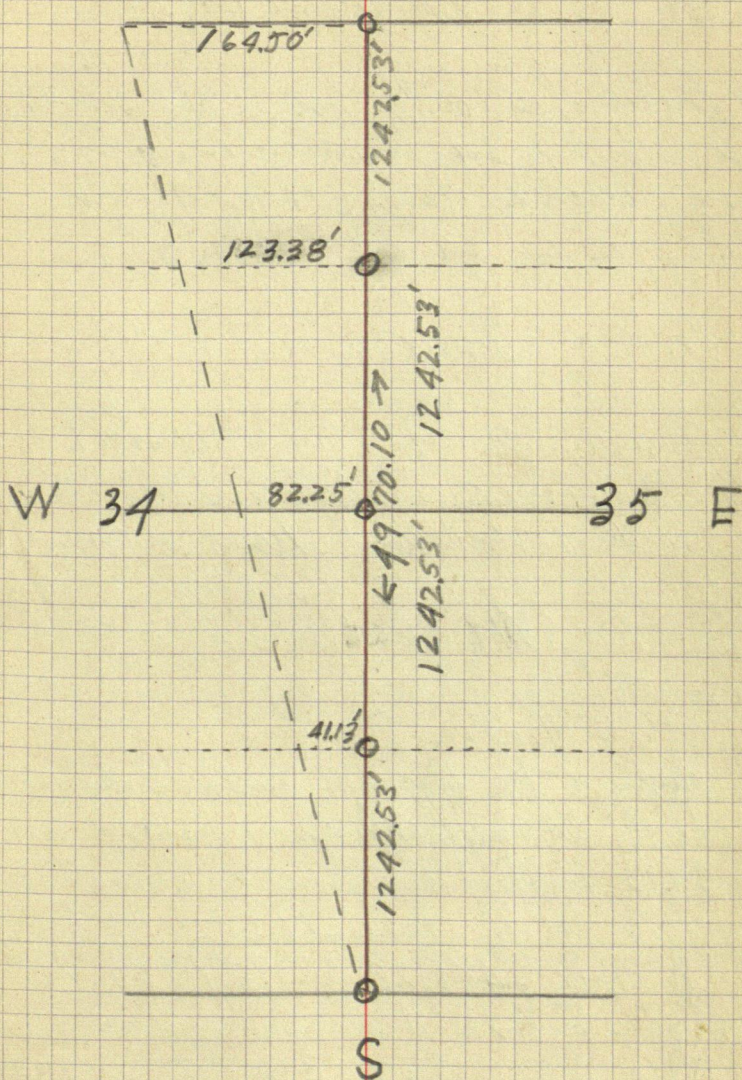
Set $\frac{1}{16}$ corner between Sec 34 & 35
 & chained from the $\frac{1}{4}$ corner south
 side of 34 north to the $\frac{1}{4}$ corner 1320

May 29 30 & 31
 In Minneapolis

34-35-142-31

39

N



40

34-142-31

June 1 1914

Starting @ the $\frac{1}{4}$ post on the south side of Sec 34 we run a Transit line north to the $\frac{1}{4}$ corner north side of Sec 34. Carmen Transducer

June 2

Continued Transit line north to the $\frac{1}{4}$ corner of Sec 34. distance $4870.90 + 21.66$ the distance from the imaginary line running from the true S.W. to the true S.E. corner of Sec 34 (see plat page 33) Carmen Transducer
Watts & Austin Arcmen

Arriving @ the true one fourth corner north side of 34 we find our random line is 39.13 west of the true $\frac{1}{4}$ corner therefore the $\frac{1}{16}$ corner 3669.42 goes E 27.84
the $\frac{1}{4}$ corner 2446.28 goes E 18.56 & the $\frac{1}{16}$ goes E 9.28.

June 3

We set the iron corners @ the points mention above. Starting @ the

Survey of Mt. San Gabriel grounds. 141-142-51 B. JWC

JUNE 1914

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

John McGro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JW Carman	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CH Watts	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chris Austin	0	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1
Geo. Strain	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CE Nelson	0	0	0	0	0	0	0	0	1	$\frac{1}{2}$	0	0	0	0	0	0	0	0
Joseph Rosecrans									$\frac{1}{2}$	1	1	1	1	0	0	1	1	0

S JUNE

20 21 22

JW Carman 0 0 1

true iron corner of 34-35-2+3 we
chain south to 2640.00 & quit
for the day. Carman & Watts.

JUNE 4

35

Main

Worked in office, chaining & plating 34+35.

JUNE 5

Starting @ the $\frac{1}{16}$ corner between the
the corner of 34+35-2+3 & the $\frac{1}{4}$ corner
of 34 & 35 we run a random line
east to the $\frac{1}{16}$ corner center of 35
finishing there we find the distance
to be 2619.05 & find our random
line is 5.75 north of true $\frac{1}{16}$ corner
therefore we set the $\frac{1}{16}$ corner on the
 $\frac{1}{16}$ line between 34 & 35 @ 1309.53
& 2.88 south of our Random line

Carman Transman Carman &
Watts chairman Geo. Stubb Henman

JUNE 6+7

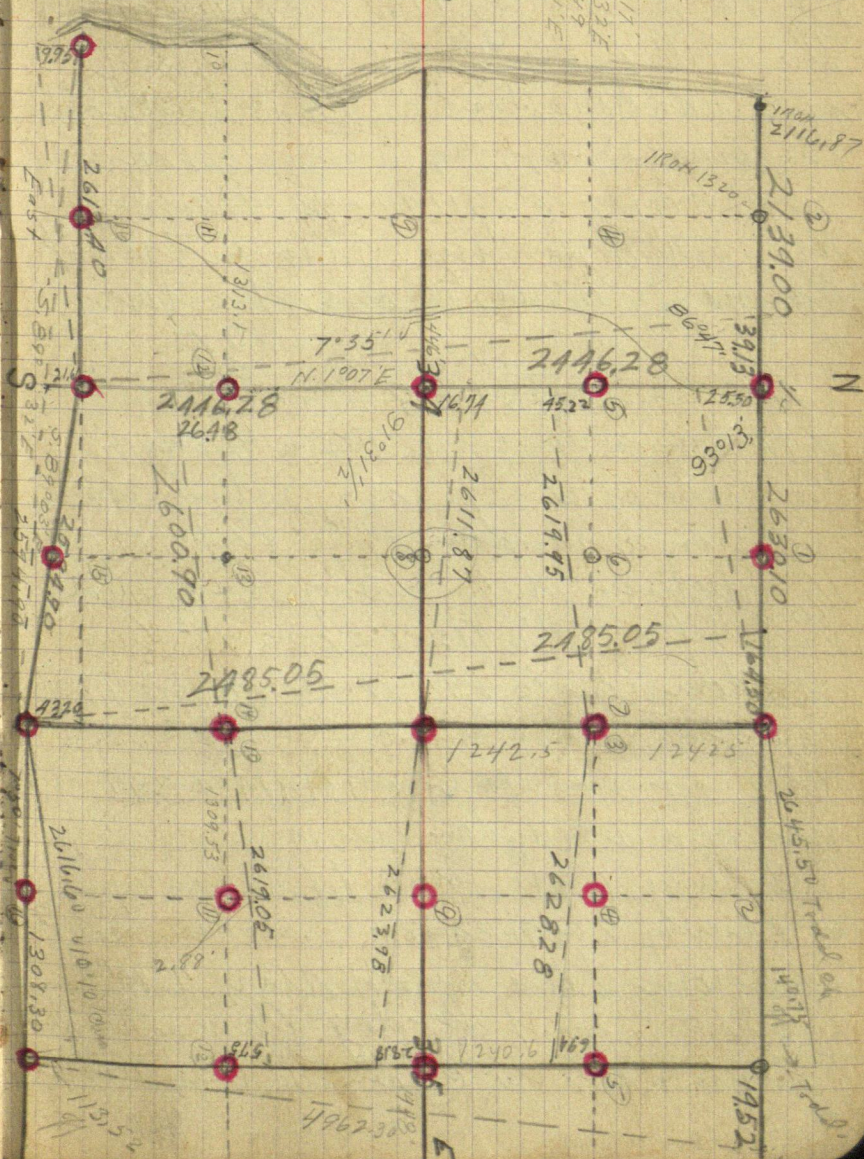
Starting @ the true $\frac{1}{4}$ between 34 & 35
we run east to the true $\frac{1}{4}$ ~~between~~
center of 35 we chain through
first on old cut out of Todds

34435-142-31

$$\begin{array}{r} 1320 \\ 1306 \overline{) 2} \\ \hline 4113.8 \\ 3.5 \end{array}$$

1007 1/2	86047	87051 1/2	1007 1/2	86047	87051 1/2
88028 1/2	89011 1/2	89011 1/2	88028 1/2	89011 1/2	89011 1/2
89011 1/2	89011 1/2	89011 1/2	89011 1/2	89011 1/2	89011 1/2

5.890	32	F
	28	
200	5 1/4	
203	3 1/4	
101	7.	



44

quit Saturday ^{June 6} @ 1800.00

distance. 2623.98

We then run a Transit line through which bears to the South of Todd's line. Arriving @ the true $\frac{1}{16}$ center of 35, we find our random line is 28.18 south of the true corner therefore we set an iron corner @ $1311.99 + 14.09$ North of our random line. Carman Transit Carman & Watts chain.

35

JUNE 8

Starting @ the $\frac{1}{16}$ between the $\frac{1}{4}$ & the corner of 26-27-34-35, between ~~34 & 35~~, we run a random line east to the $\frac{1}{16}$ between the $\frac{1}{4}$ center of 35 & $\frac{1}{4}$ north side of 35. distance 2628.28. Our random line is 6.94' south of true $\frac{1}{16}$ corner mentioned above

We set iron corner @ $1314.14 + 3.47$ north of our random line.

Starting @ the same $\frac{1}{16}$, between $\frac{1}{4}$ & corner of 26-27-34-35, we run a random line west Var. $9^{\circ}10'$ to 600.00 & quit for day. Carman Transit Carman & Watts chain. b line Austin
Heman

39

45

June 9-1914

Continuing West through very heavy underbrush we arrive @ iron $\frac{1}{16}$ corner between $\frac{1}{4}$ center of 34 & $\frac{1}{4}$ north side of 34, we find the distance is 2619.95, & that our random line is 45.22 South of true corner. We then set iron corner @ 1309.98 + 22.61 North of random line. Carman Transit, Carman & Watts Chain, Nelson & Austin Arsen. Hub @ 2438.64 goes N 41.46 to true line.

June 10

Starting @ the $\frac{1}{4}$ between 34 & 35 we run west Var 910' to the $\frac{1}{4}$ center of ³⁴35. distance 2611.87 we find our random line is North of true $\frac{1}{4}$ corner 16.74. Therefore we set $\frac{1}{16}$ corner @ 1305.98 + 8.37 south of our random line which is in swamp 100 x 70, 2' of water. Carman Transit man Carman & Watts Chainman, Austin, Rosecrans & Thomson Arsen.

June 11 1914

Starting @ the $\frac{1}{16}$ between the
 corner of 34-35-2 & 3, & the $\frac{1}{4}$ of 34 & 35
 we run a random line west
 N 90° W which is 26.48 south
 of true $\frac{1}{16}$ corner between the $\frac{1}{4}$
 south side of 34 & the $\frac{1}{4}$ center of 34
 The distance is 2600.90 therefore
 we set an iron corner @ 1300.45 &
 1324 North of our random line
 Carran, Trantman, Carran & Watts
 Chairmen Austin & Rosecrans
 Stemen

June 12

Starting @ the $\frac{1}{16}$ corner between
 the $\frac{1}{4}$ south side of 35 & the $\frac{1}{4}$
 center of 35, we back sight on
 the true line & run east. We
 set an iron @ 1320 which is
 on old lake bank very heavy
 underbrush. Carran, Trantman
 Carran & Watts Chairmen
 Austin & Rosecrans Stemen

1320
1448
1048

47

June 13

Starting @ the $\frac{1}{4}$ center of 35 we
back sight on true line & run
east 1448.00 & set an iron corner
on bank about 150' from railroad
Cannon Transit, Cannon & Watts
chairman Austin & Rosecrans
Spencer

Starting @ the $\frac{1}{16}$ between above
 $\frac{1}{4}$ corner & the $\frac{1}{16}$ north side
of 35 we back sight on true
line & run transit line east
& quit for day

June 14 Sunday

We chain up above line & set
iron corner on bank of swamp
@ 1048 about 190' from R.R.
Cannon & Watts

June 15

We set iron corner @ the $\frac{1}{4}$
north side of 35 this was established
by C. W. We then take the
angle of the north side of 34 &
the $\frac{1}{4}$ line center of 34 which
S $93^{\circ}13'E$ & S $86^{\circ}47'$ We then
see plat next page

48

141-31

set an iron corner @ 1320 &
 a iron corner @ 211687 which
 is on old lake bank = M.C. 30
 Carman Transition Carman & Watts
 Chairman Austin Axeman

JUNE 16

Starting @ the corner of 23-34-35
 we ran south Wai $8^{\circ}35'$ to
 4200. Carman Transition
 Carman & Watts chairman

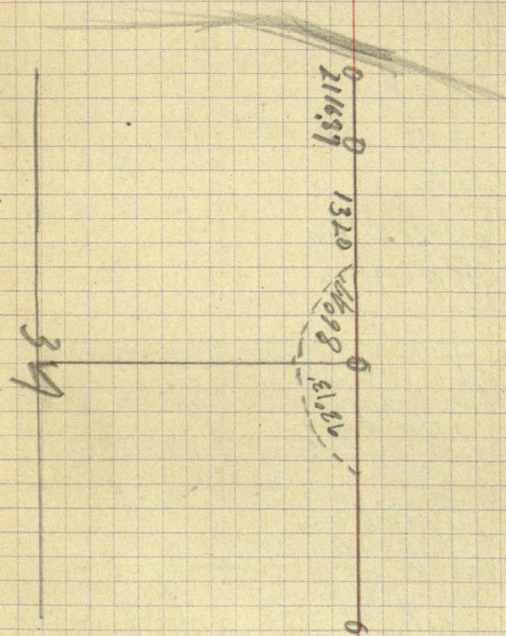
We were unable to find
 any trace of bearing trees @ $\frac{1}{4}$ corner

June 17

Continue south to 5400 could
 not locate any bearing trees with
 in a reasonable distance either side
 of line. This corner must be
 radically out of place.
 Same crew.

June 18

Tape foot and go down the



lope looking for M.C.s
 Started to rain @ 10:00 o'clock
 & rained until 3:30 Carman
 & Watts went dinnerless

June 19

Continued search for old leaning trees
 Carman & Watts

June 20

Rain

June 21

Sunday

June 22

1914

Continued search for leaning trees
 & found @ the $\frac{1}{4}$ of 2+3 what seems
 to be the stumps of old leaning trees
 Watts & Carman Walker on the 4.44
 train

9985B-3

26455-4-3

499290

499290

399432

599148

199716

2641743390

52.5

1005'

50.3 2641.7

2515

1267

1006

2610

2139

1320

8819

278

3003'

0.05320

2645.5 / 140.75000000

132275

84750

79365

53850

52910

9400

54

Minn. + Intntl. RR.

①

Station	- S	H I	+ S	Elev
B M	3.50	1395.09	3.50	1391.5812
0	5.80	1395.09		89.30
1	5.70			89.40
2	5.60			89.50
3	5.40			89.70
4	5.32			89.80
+ 45	5.25			89.90
5	5.08			90.00
6	5.10			90.00
+ 60	3.90			91.20
	2.20			92.90
7	5.05			91.00
	5.50			89.60
8	5.20			89.90
	6.10			89.00
	9.30			85.80
	7.20			87.90
	6.10			89.00
+ 06	5.20			89.90
9	5.40			89.70
	6.20			88.90
	7.70			87.40
	10.00			85.10

Station 0 is a point on RR 500' South of center
Sec 19. - 140-30

over creek

725 E track Center

Section 40' ft to right of Track
Door step of Sec. House

15' to right center of Siding

720

27' to right Siding

50' to left

100' to left

130' to

South line Whipple Ave

40' Rt Siding

50' Lt.

130' Lt

56.

(3)

- S

HI

+ S

Elev

10

5.40

1395.09

1389.70

5.50

89.60

8.20

86.90

TP

5.14

1394.17

4.22

1389.95

+ 50

2.80

91.40

2.00

92.20

11

4.70

89.50

4.70

89.50

7.60

86.60

+ 90

4.80

89.40

12

4.90

89.30

4.80

89.40

7.90

86.30

13

5.00

89.20

5.01

89.20

14.25

79.95

14

5.20

89.00

5.15

89.05

15

5.20

89.00

5.30

88.90

16

4.70

89.50

5.10

89.10

+ 10

5.10

89.10

17

4.50

89.70

4.70

89.50

50' Rt

50' Lt.

Platform of Station
Door " "

50' Rt Siding

50' Lt

Southline Lake Ave

40' Rt Siding

50' Lt

30' Rt Siding

120' Lt top of Water

18' Rt Siding

15' Rt " "

15' Rt " "

15' Rt Callie shoot

58

(5)

- S

HI

+ S

Elev

TP

5.62

1392.46

397

1388.55

18

5.80

86.70

19

5.10

87.40

20

4.30

88.20

21

3.50

89.00

22

2.60

89.90

23

1.60

90.90

60

First Street

⑦

BM	- S	HI	+ S	Elev
		1394.98	3.39	1391.58 92
0	7.80			87.20
1	7.20			87.80
2	7.50			87.50
3	7.40			87.60
4	9.30			85.70
+ 75	10.00			85.00
5	9.30			85.70
6	7.00			88.00
7	4.85			90.15
+ 35	3.03			92.00
8	7.20			87.80
+ 06	7.20			87.80
+ 06	7.40			87.60
	8.40			86.60
	8.60			86.40
+ 86	6.40			88.10
+ 86	9.25			85.80
9	7.90			87.30
	9.00			84.00
	6.60			88.40
+ 80	8.45			86.60
+ 80	6.00			89.00

O = a point in County Road 500' south of center Sec 19-140-30

On fill over creek

Door Jamb Bartlett Store

South line Whipple Ave

Rt 50' on Side Walk
 in line with Front St
 "Center Whipple Ave"
 on Side walk SW Cor Bk 6
 on Ground

32 50' Rt

32 " " on side walk

32 50' Lt Rt

32 60' Rt on Side walk

62

9

- S HI + S Elev

+ 80	5.70	1394.98	1389.30
10	6.80		88.20
	8.20		86.80
	6.00		89.00
	5.90		89.10
+ 70	5.60		89.40
	7.50		87.50
	5.10		89.90
	4.20		90.80
+ 80	4.10		90.90
11	5.40		89.60
	7.00		88.00
	4.50		90.50
TP	5.31	1396.29	6.62 1389.67
+ 80	5.35		91.00
+ 90	5.78		90.50
+ 70	3.39		92.90
+ 90	6.54		89.80
+ 90	3.83		92.50
12	5.56		90.70
	4.91		91.40
+ 70	5.18		91.10
	5.16		91.10
	2.62		93.70
	3.84		92.20

40 40' Rt door jamb Hotel

32 50' Rt Ground

32 55' Rt Side Walk

40 door Warehouse

32 40' Rt Ground

32 50' Rt Side Walk

door Spains Store

door " Warehouse

32 40' Rt Ground

32 40' Rt sidewalk

Top of Seales

Dennis Door jamb

32 30' Rt

32 40' Rt on sidewalk N.W. BK 6

32 40' Rt Ground

32 30' Rt

32 40' Rt Sidewalk

40 Rt ground S.W. Cor BK 7

64

(11)

- S H I + S Elev

13 4.88 1396.29 1391.90

4.83 91.50

2.47 93.80

2.90 93.40

+ 80 0.66 95.60

14 3.38 92.90

3.38 92.90

2.41 93.90

2.39 93.90

15 4.39 91.90

4.39 91.90

2.07 94.20

3.38 92.90

+ 40 1.07 95.20

+ 50 1.25 95.00

+ 70 2.02 94.30

+ 70 3.70 92.60

T.P. 4.85 1400.07 8.63 / 1391.44

16 8.63 91.50

+ 3 7.51 92.60

+ 50 8.52 91.60

6.49 93.60

7.54 92.60

17 7.32 92.80

7.41 92.90

32 30' Rt Ground
 32 40' Rt Sidewalk
 32 40' Rt Ground
 40 doorjamb Landoffice

30 30' Rt ground
 40 40' Rt sidewalk
 40 40' Rt ground

30' Rt ground
 40' Rt sidewalk
 40' Rt ground
 door Waterhouse
 door Woods store
 30' Rt sidewalk K.N.W.B?
 40' Rt ground

40' Rt ground Morray Ave
 36' Rt " "
 40 Rt sidewalk
 ground S.W.B.I.K 8.

31' Rt ground

66

(13)

	-S	HI + S	Elev
17	4.39	1400.07	1396.70
+10	3.80		96.30
+50	3.92		96.20
18	4.51		95.60
	2.56		97.50
+60	2.32		97.80
19	4.36		95.70
	1.88		98.20
+50	3.76		96.30
+60		1400.07	1402.07
20	5.55		94.50
21	7.60		92.50
22	4.42		95.70
23	5.47		94.60

40' Rt sidewalk
door Saloon
End of Sidewalk

40' Rt
40' door Pfremet Bldg

40' Rt ground

40' Rt ground

68

Whipple Ave.

⑤

- S HI + S Elev

B.M. 1392.53 00.94 1391.59

O = center of Whipple Ave south side of Front St.

0	5.17			1387.30
	4.42			88.10
	6.35			86.10
	4.81			87.70
	5.54			87.00
	3.37			89.10
1	5.31			87.20
2	3.82			88.70
	3.93			88.60
3	4.57			87.90
	3.88			88.60
	4.82			87.70
+ 80	6.60			85.90
	7.35			85.20
	7.71			84.80
4	7.12			85.40
5	5.02			87.50
TP	4.51	1400.35	12.33	1388.02
6	12.40			88.00
+ 80	11.60			88.80
+ 80	11.60			88.80

40 ft left ground
" " " sidewalk

35' Rt ground
40' Rt sidewalk
100' Rt ground.

70' Rt door of house

40' Lt ground
40' Rt

Lt
40' Rt

40' Rt gr

70

(17)

-S HI + S Elev.

+ 80 11.60 1400.35 1388.80

7 12.42 88.00

+ 60 9.60 90.80

10.30 90.10

9.15 91.20

/ 8 9.34 91.10

9.34 91.10

7.19 93.20

9 3.02 97.40

5.89 99.60

2.73 97.70

10 5.03 95.40

TP 11.23 1389.48 0.36 1389.12

11 9.07 80.40

+ 50 14.00 75.50

40' Lt gr.

40' Lt side

40' Rt ground

40' Lt ground

40' Rt ground

40' Lt

40' Rt

Water level @ swamp

Sept 19-1914

144-31

73

Ogwood

Wilkinson

Saturday Sept 19th 1914

Lv Stali Sanatorium 4.45 P.M.

Ar Walker 5 P.M. R.M. 9°

Catch Buss to G.N. Depot 50°

Lv Walker via G.N. Ry 7 P.M.

Ar Wilkinson 8 P.M.

Alma & I overnight with Mrs. Shafley at Wilkinson

Sunday Sept 20th 1914

H.G. Krough & I

Ran a line of levels from Steamboat River SW to mouth, thence west along mouth to G.N. Ry

B.M. + S	H.I. - S	ELEV	Remarks
A.		100.00	Top of water in River (assumed)
8.18	108.18	486	103.32 - B.M. "B" on Poproot
B. 5.30	108.62	456	104.06 - B.M. "C" on Pop stump
		2.36	106.26 on RR.

74 Sept 20-1914 (2)

144-31 Wilkinson
Can Co road

BM. Sta	+S	HI	-S	Elev
0				106.26

2.36 108.62

0			2.36	106.26
---	--	--	------	--------

1			8.10	.52
---	--	--	------	-----

2			7.80	.82
---	--	--	------	-----

3			8.00	.62
---	--	--	------	-----

4			8.35	.27
---	--	--	------	-----

5			8.30	.32
---	--	--	------	-----

TP. 1.			4.56	104.06	BM.
--------	--	--	------	--------	-----

6			8.10	.52
---	--	--	------	-----

7			8.50	.62
---	--	--	------	-----

8			8.00	.62
---	--	--	------	-----

TP.	4.98	108.30	5.30	103.32
-----	------	--------	------	--------

BM. "B"			4.98	103.32
---------	--	--	------	--------

9			5.00	3.30
---	--	--	------	------

+ 75			8.60	99.70
------	--	--	------	-------

10			8.65	99.65
----	--	--	------	-------

11			8.30	100.00
----	--	--	------	--------

Sept 20-1914

(3)

144-31 Wellman
Concord

75

On G. W. RR. Etes established by running 1/4 mile
westward from Steamboat River (Etes of river
enclosed at 100.00.

On RR. 1500 ft So of Indian groves
In swamp 100' E of RR.

In swamp 500' E of RR

On Pop. stump 100' L at Sta 5

Edge of meadow 800' E of RR. Thence run NE
on B.M. N^o 13"

on pop. root at 8+50

On solid ground NE of Sta 8

Edge of river meadow

in river meadow 200' NE of Sta 8

on top of river flowage 500' S of river

Sept 20-1914

Beg @ intersection of State
road with L.V.R. & Co. at Indian
groves south of RR bridge use
Chain south along RR. Count
30 rails for measurement

@ 12 rails = 360 ft (about) cross
E & W sec line but less

144-31

@ 23 rails = 690 ft Post on RR W side
"the one mile"

@ 46 rails = 1380 ft end of N side of
swamp on E side of RR
from 1380 south 15' the
water in swamp is 2 ft deep

Beg North end of swamp

1380 ft So of Indian groves all lots
Cuebs south along E. end of track

BM Sta	+S	HI	-S	Elev
1	4.16	110.42		106.26

0		9.20	101.22
1		9.20	1.22
1		10.15	1.27
2		10.15	1.27

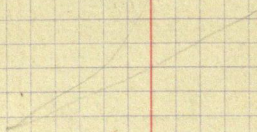
(5)

144-31

Cass Creek
Wilkinson

77

Sept



on RR track

W end of swamp

W end of bog top of water at edge of solid land
top of water

Swamp level

Swamp level

78

6

B.M. Slo	+S	HI	-S	Elev
3		110.42	9.20	101.22
3			10.70	99.72
3			10.15	.27
4			9.75	.67
TP	4.70	111.96	3.16	107.26
6				.76
7			11.20	.76
8			11.20	.76
+50			10.60	1.36
9			11.00	1.96
TP	4.80		4.82	
12			11.00	
15			10.65	
15			11.20	
15			11.40	
TP	5.39		3.37	
18			12.00	
19			12.60	
20			11.70	
21			11.00	
TP	2.55		2.51	
25			11.70	
			13.40	
			13.00	
			12.70	

Top of water

Wood pushed down

Swamp level

General swamp level

On rail at (66 rail) - Sta 6.

about level with Sta 4

Solid ground

66 rails no of ground swamp level

on rail 76 - Sta 12

Swamp level

Top of water

Swamp level

flushed in mud

On rail 106 - Sta 18

Swamp level

low spot Edge of w and w of brick point
solid land.

" " 116 rails

On rail 126 - Sta 24

rail 129 + 10 ft where our road leaves track
and runs N.E.

To chain cutout corners & picket
line for random road running
Gently through & cross 100' chain
no corners

Big @ Sta 0' 83' E of RR
and 1/4 mi S of line
1/4 mi W of line of RR
Sta 0' in ^{dry} swamp Run N 45° 7 E
@ 120' cross old road NW
@ 250' ^{dry} swamp @ 500' cross old
road E & W @ 650' enter wet swp
@ 800' ^{dry} wet swp
@ 1010' cross old road NW @ 1075'
enter "dry ash" swamp 1150' L
1700' cross old road E & W
1772' Make angle point

Thence North 7 W?

1800' Make 1850' enter dry swamp
being narrow between two big
swamps @ 1940' L swamp
@ 2042' AP being big Poplar

Thence N 7 W

2100' Make @ 3078' cross proposed
ditch into 3150' Make

3250' cross old road NW & E

3300 stake 3790 cross old road
NE + SW 3800 stake 4556 SW cor
of Potato patch 4600 stake

Thence west along sand
ridge 33 ft South of grades

47 + 48 to stake set 83' E of RR

+ 39' S of grade 48 + 32 Cen of RR

about 600 ft to of RR bridge across
Steamboat river 144-21

John W. Cress

Note:-

It is 2100 feet from beginning
of road at Wilkinson North of
RR. and 400 ft to first Mc Line

Note: H. G. Knoff has in 6 days to
date this day of Sept 1912
Cress

82 Sam

①

2-141-31

S

Survey of Lot 6 - Sec 2 - 141-31
being land owned by the Minnesota
State Sanatorium

John W. Curo

Saturday Sept 12-1914 PM1.

Curo gives Frank H Donner \$10 and
field notes of T143-144-Rp 25 and
Donner takes 4.45 PM train at State
San for Cohasset via Barnstable.

Walter Garrity, Robert Rostank and
Curo cut brush north from SE cor Sec
2-141-31. Windy, quiet for night.

Over night at State San.

Sunday Sept 13-1914

Rained all day at San. Curo & crew
lay up.

Sept 14-1914 Monday

Curo, Garrity, Rostank work all day
for State San.

Reg @ Cor to 1-2-11-12-145-31 where
US notes call for

NP13 S60°E 90 LRS = 59.40 ft

Pine 8S 31°W 70 " = 46.20 "

NP8 N42°E 60 " = 39.60 "

NP10 N 67°W 13 " = 8.58

We find an old lull cedar
slab well scribed probably set
by James D. Mudgett for the
John W. Curo

84 Sept 14-1914 ③
cont'd

141-81 Sec 2
San

corner to 1-2-11-12-141-81

We find the old bearing trees which check check for course and distance with the old stake and we pull up the stake and put in its place 2 galvanized iron pipe 2" thro by 4 ft long, capped on top - anchor rod thro bottom and set nearly its full length in the ground on steep side hill with mound of dirt and stones around iron post

We mark new bearings as follows -
Pine stump 10 N 37° 16' W 9.77 ft

" " 12 N 51° 20' E 20.40 ft

" " 12 S 42° 18' W 13.28 ft

" " 12 S 45° 57' E 12.20 ft

to nail heads @ 8° 30' over

The SW B.T. has old timber scriber marks on it

At MC N° 40 US males call for a post 42 lbs west of Cor with B.T.S. viz

N 10 N 59° E 27 lbs.

" 14 S 2° E 28 "

We find a tall cedar post
John W Chew

Set for M.C. and the stumps of both
old bearing trees will marked

From the corner to 1-2-11-12

142-31 we run North $\angle 17^{\circ} E$

@ 142.50 enter Luck lake and set
stake then get old boat of Cummin
go by and take end of 300 ft steel
tape across lake and @

442.50 set stake at 742.50 set
stake @ 788.50 stake

at 974 (about) RR track bears
NW $\angle E$ at 1088.50 Hat on hill

@ 1100 stake 1400 stake. 1512 Hat
on highest hill over road $17^{\circ} 10'$

1700 stake 1739.70 Hat. 1935 stake

2133 across road $E \angle W$

2138.50 Hat near road

2224.50 Hat 2235. stake

Quit for night - lunch out all
food at State bar

Robert Rostank - Walter Garrity
& John W Curo work

H & B transit imperfect adj-
ustment - 300 ft Chicago steel
tape and plumb bob

John W Curo

(86)

(5)

State Jan Dec 2-141-31

Sept 15-1914 Tuesday

Continue N bet Decs 1+2-141-31

@2235 slabs. @2358.30 Hole

2500.80 Hole At 2526.30 at

square slabs

Old US $\frac{1}{4}$ cor nts East 24140 ft

90° angle East $U17^{\circ}10'$

At $\frac{1}{4}$ bet 1+2-141-31 US nals

call for JP85 $71^{\circ}E$ 11 lbs = 7.26 ft

JP65 $15^{\circ}W$ 9 lbs = 5.94 ft

We find the roots of old BTS.

also old tall slabs which are
pulled up and put in its place a $2 \times 48''$
galvanized iron pipe. Capped on top
anchored the bottom set its full
length in a large mound of dirt
on NW slope of hill for line to cor

Bet 1+2-141-31 with new BTS

Old Pap BT marked by someone many
Middletown bears VE being

Pap 8 $N40^{\circ}35'E$ 25.80 ft to nail
head near bore

Pap 35 $55^{\circ}E$ 27.10 ft to nail head
@8030' or E

From a point 2440' West of $\frac{1}{4}$

Cor Contd north @ 3335 stake
 @ 2630 enter open wet marsh
 2930 stake in marsh 3050 to top
 3124 Indian trail E + W
 3129.50 Hub 3230 stake

Quit for night. Curo Gravelly
 + Rostank worked lunch out
 over night at Son

Sept 16/1914 Wed.

Beg @ 3230 Continue north on
 line transit line P.B. chain
 3450 stake 3589.70 stake
 3785 trail E + W 3817.40 Hub
 3889.70 stake 3846.30 limp 1/16 Ht
 3889.70 stake 4189.70 stake
 4224.20 Hub 4227.70 an old
 Meander stake set by Middlelton
 sets E out 441.30 feet but this
 may have been moved by some
 one. Bar reads 16° 40' warm
 Correcting to ch. (096584)
 4227.70 gals E 40.83
 John W Curo

at 4227.70 we run East 90° angle
($\cup 16'40''$) 40.83 ft set oak hub for
line N + S see line with new
BTS viz

Oak 8 N $45^\circ 33' W$ 12.69 ft

" 9 S $52^\circ 10' W$ 4.66 " to nail
heads @ $8^\circ 30' U$

Old stake sets East 3.47 ft

At 3846.30 we run East
(90° angle to liament line) 37.15 ft
and set 2×48 inch galvanized
iron pipe, capped on top -
anchored thro bottom and
set its full length in a large
mound of dirt for the line $\frac{1}{16}$
cor bend East corner to Govt
lots 3 + 4 of Sec 2-141-31

no bearing trees. Go on East
slope of small hill where we
place a tall red flag

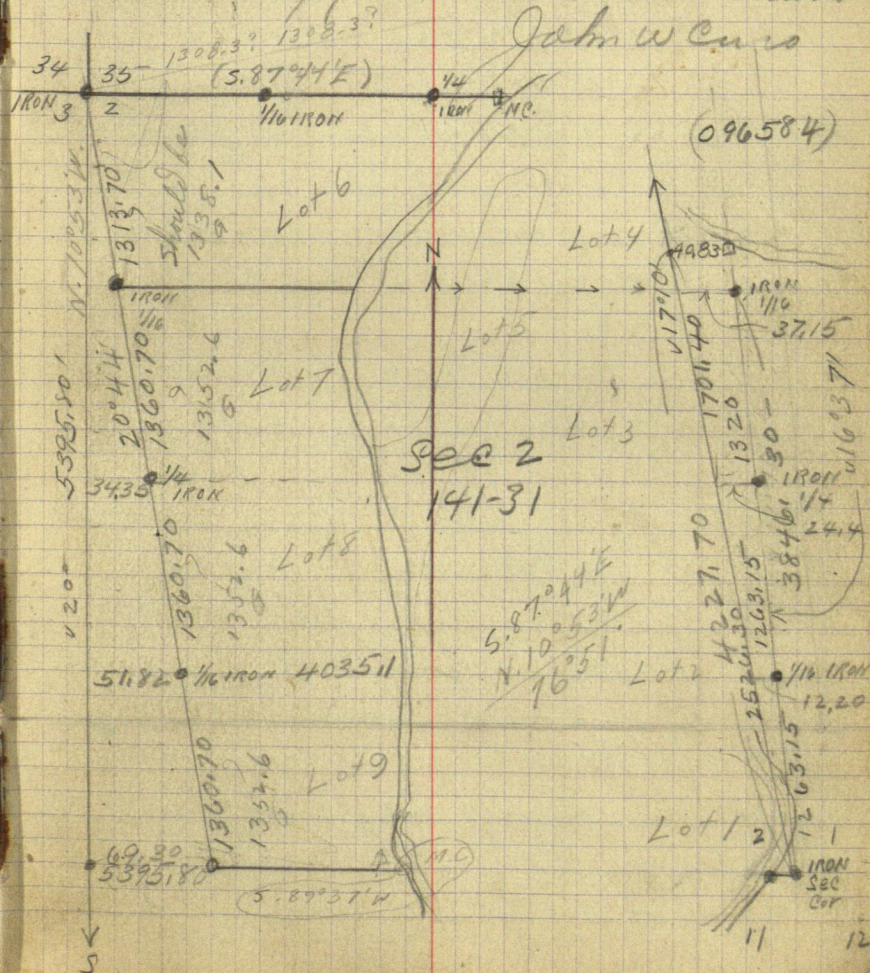
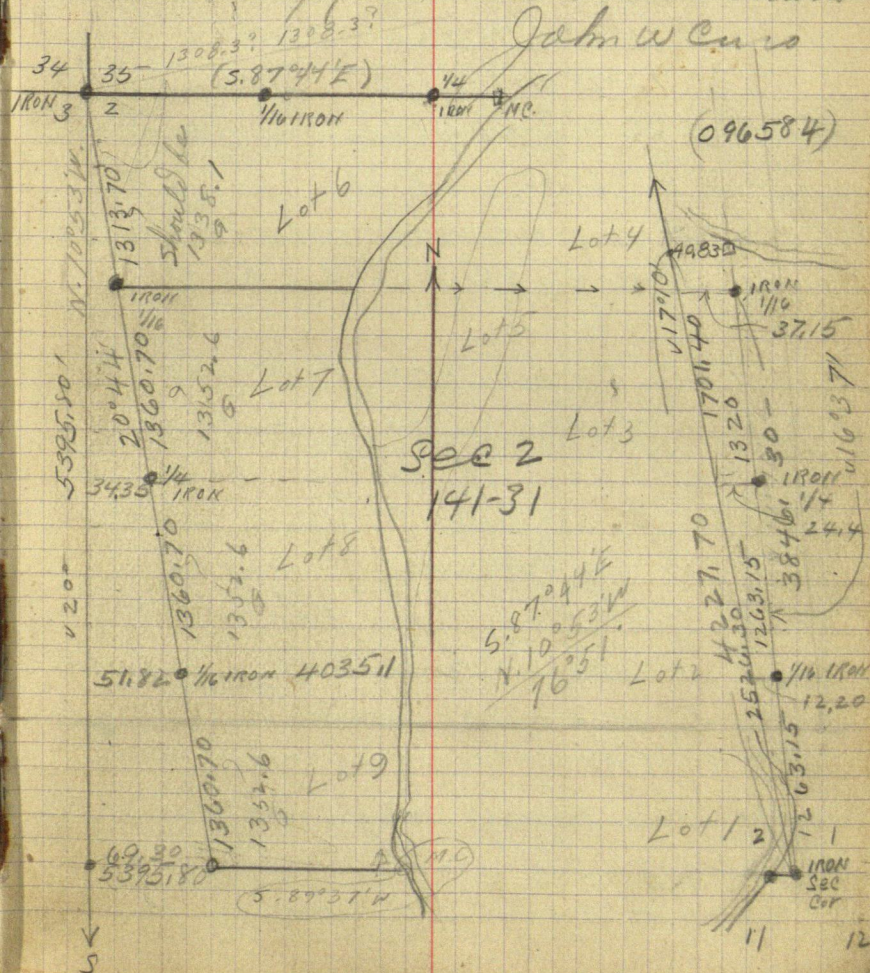
Then walk half a mile South
and set $\frac{1}{16}$ cor on fallow -

at 1263.15 run East 90°
angle ($\cup 17'$) 12.20 feet where
we set a $2 \times 48''$ galvanized iron
pipe capped on top anchor

141-31 Son Luc 2 (8)

89

rod thro bottom set its full
length in a large mound of earth
for the line the cor north of S E cor
of the 2. 141.3' This 1 1/16 sets in
a deep recent creek large hills N. of
of cor. Curo - Gravity - Portland
work all day for State Sanatorium
John W Curo



(90)

(9) Lot 6

State San Sec 2-141-31
Sept 17-1914 Thursday

We walk to Co 2, 3, 10, 11,
141-31 where former County Surveyor
Whitley's notes call for
Bl Oak 8N 19½°E 61½ LKS = 40.59 ft
" " 7S 19¼°E 45 " = 29.70 "
" " 12N 84½°W 117½ " = 77.55 "
" " 14S 77¾°W 129 " = 85.14 "

We find the old NE BT standing plainly
marked but dead and the stump of
the S E tree from which we establish a
small stake for the line Sec Co to
2-3-10-11 -141-31

This corner was lost and the
big Lumber Companies including
T.B. Walker and H.C. Akley decided
to have Co surveyor Whitley estab-
lish it by chaining a mile in
each direction from the lost cor
and re-establishing it by propor-
tionate measurement

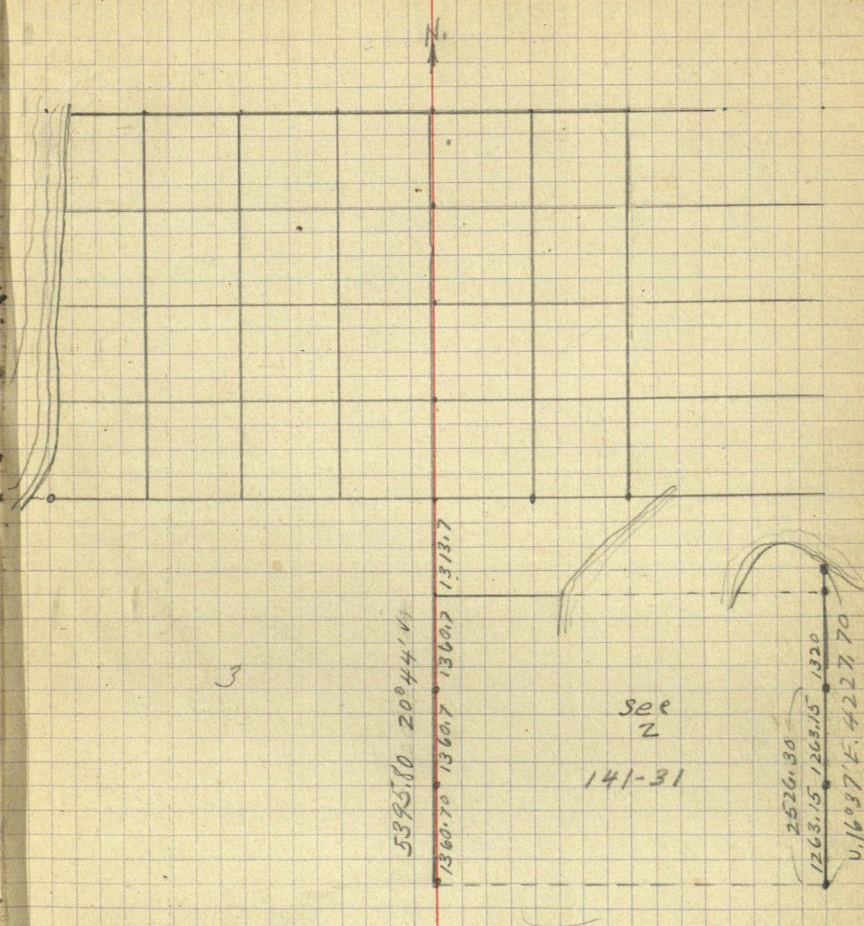
Mr R.K. Whitley was employed to
make this survey and we have
Mr Whitley's full field notes of the
survey is made by him in 1895

and the notes are openly inconsistent as his corner according to his own notes should have been set 3.76 ft North ($20^{\circ}U$) and 30.69 feet East ($9^{\circ}U$) so after establishing the point of Mr. Whiteley's corner from his old BTS. we chain 3.76 ft North ($U 20^{\circ}U$) and 30.69 ft E where we set a 2×48 " gal iron pipe cap & anchor full length in by mound for this corner to 2-3-10-11
141-31

Min. Time	State		Sanatorium		Aug 14/142-3/																
	Sheet	Workon	San	Aug	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Sept	1914																			
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
John W. Caro	1	0	1	1	1	1	1	1	1	1	SUN 0	0	1	1							
Walter Garsely	1	0	1	1	1	1	1	1	1	1	0	0	1	1							
Robert Rostank	1	0	1	1	1	1	1	1	1	1	0	0	0	0	1 ^{1/2}						
John F. Strand	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1						

Sun

Sun Rain



Sec. 21-142-31

Survey of Brickyard property.
set up between G.N. & M.B. 1.in line with 2" pipe set in survey of
at the same time - Dis. between the

41.2' 41'-2" = dist. from East rail

35.7 35'-7" = " " East "

6.7 6'-7" = distance between

56.77' = dis. from outside west

56.77 776.9 = dis. from $\frac{1}{4}$ Cor to E. of

41.2

812.7

811.57 = " " $\frac{1}{4}$ Cor to E. of

97.97

916.88

Mag. Bearing N. 82° E.

814.85

Send Olson out to set picket on

723.7

He falls into an air hole so we

2559.55

Mick sets the picket on

2.7

rail, I move up.

2541.23

1270.00

Line intersects McGarry Dance
at edge of glass.

2587.1 = nail in foundation

of bowling alley on true line.

16-21 extended from M.B. track
east rail.

Feb. 28, 1923 J. M. Greene - Transit
W. W. Olson } Arc & Chain
Micky Jude. }

97

Weather { Warm
cloudy

Transit Buff & Berger
860
100' Chain

Sec. 16 by Curro and the 1/4 Cor. $\frac{16}{21}$ sat
two I. M. s is 716.88 ft.

M. & I. to West rail G.N.	716.88	716.88
	56.77	56.77
	3.25	3.35
M. & I. to East rail G.N.	776.90	777.00
outside of rails.	41.72	41.2
	56.77	56.77
rail G.N. to I. M. west	716.88	716.88
G.N.	814.82	814.75
	3.25	6.7
M. & I.	811.57	821.45
		1723.4
		2544.85

shore of Leech Lake about 400' out in bog,
send him home to change clothes.

line and after making a mark on the

hall on South side of South window



838.93	1926.7
1875.35	1527.7
1914.28	
1/4 Cor sots	1527.7
S. of track	1431.7
	96.0

John M. Greene

Setup over hub^(B) on East side
Sighted to 2" Capped Pipe (D)
I.P. set, think by Horst (C)

X Rt to Hub near Hanson's fence Cor

47.3' West rail M.B.L.

77.3 West " G.N.

150.4' to H.

Moved to point A. offset
from Corner of Hanson's fence
about 16.5' and sighted
back-south to sharp fence
post supposed to be on
line between 21-22

and South of S.P.H. Mag bearing

Turned & L. $68^{\circ}33'$ M.B. = $S.84^{\circ}45'E$

Turned & L. $113^{\circ}50'$ M.B. = $N.50^{\circ}30'E$

" & L. $121^{\circ}00'$ M.B. = $N.43^{\circ}E$

" & L. $142^{\circ}54'$ M.B. = $N.21^{\circ}E$

" & L. $45^{\circ}52'$ M.B. = $S.62^{\circ}15'E$

" & L. $45^{\circ}48'$ to check

Moved to on line A. Water tank
Random Line run North to

checked $134^{\circ}35'$ Mag Bearing

~~176.4'~~ ^{166.4'} N. of Hanson fence

~~358.5'~~ \neq G.N.

258.5

March 1, 1923

Fine day - sun shining - snow melting

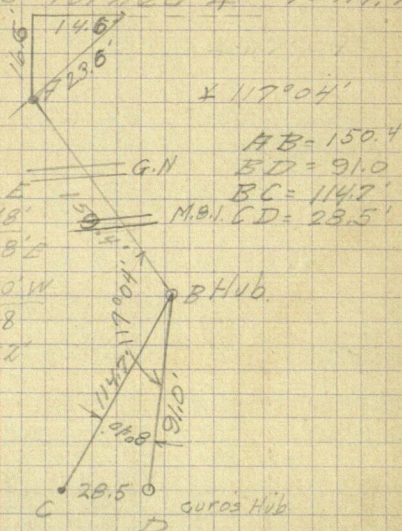
99

continuing work on p. 97.

of Pt. Way

set, I think by Caro, and turned $48^{\circ}40'$ Rt. to

across track (A)



S. 16° E.

to Hub. D.

to Hub B?

To Wafer Tank Walker

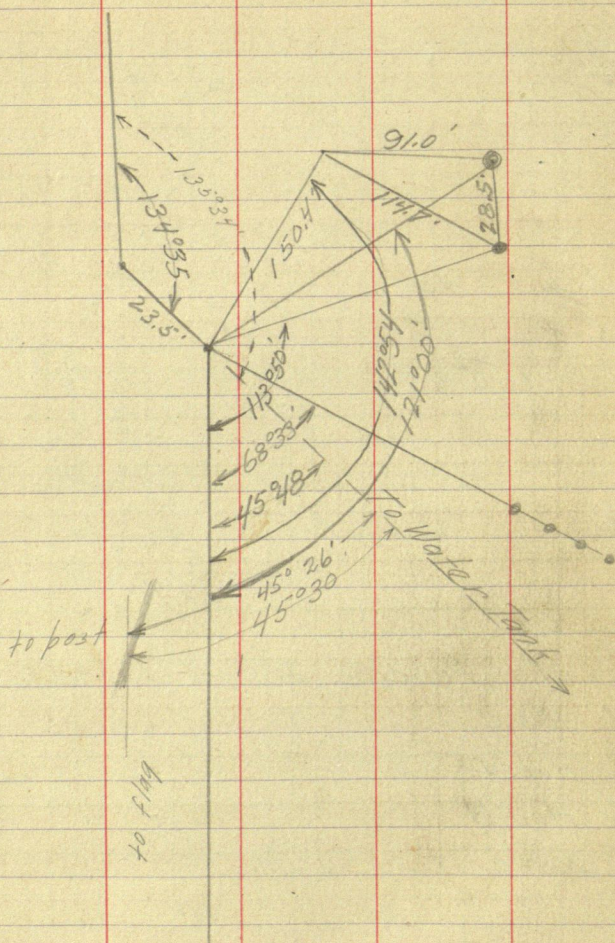
X L. $134^{\circ}34'$ to brushed out
Leech Lake

N. $16^{\circ} 30'$ W.

drove Arb.

John M. Greene

Computations for previous



page

$$\log \sin 0^{\circ}23' + \log 1764$$

7.825451

3.246499

$$1.071950 =$$

1.09 11.30'

16.5

28.3

1664

00029

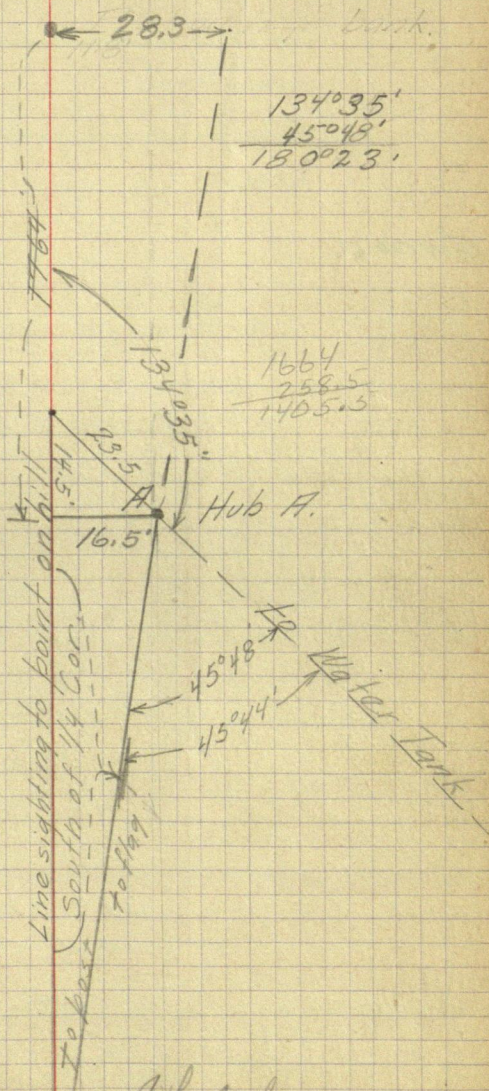
14976

3328

48.256

5

241280



John M. Greene

Set up on A and sighted
X L. $45^{\circ}44'$ to Water Tank.

Found an error in chaining of
changing dist. to Q to 258.5
Chaining to Sec. Line on Lake
M.B.I.

Page 126-D

$$1723.4 + 0.3 = \text{dis. to } \odot + = 1723.7$$

Set up at Int. of East and North
Sight west on North, turn &
" " " " " "

Dist. from \odot on hill at sta.

Total distance = 1834.

200 = 6'
175 = 6'
100 = 25'
75 = 30'
50 = 25'
25 = 14'
N. 17° E

$$1664 - 258.5 = 1405.5$$

1431.7	1527.9	
1405.5	26.2	258.5
26.2	1501.7	163.7
N. & S. Line	1664.	94.8

Meander of High 163.7 Bank

291.75-3' Set up on 1664 and X R $110^{\circ}22'$

-10 = 15' 93.9' = 12' X L $28^{\circ}53'$
75 = 7' 112.6' = 7' X L $12^{\circ}33'$
100 = 15' 48.9' = 3' X R $29^{\circ}46'$
80 = 12 30 = 3'

ragged = 7' 129.9' = 8' X L $10^{\circ}17'$

105 = 20' 100 = 10' 45.8' = 7' X R $22^{\circ}42'$
-5 = 20' 70 = 2' 84.8' = 2' X L $51^{\circ}44'$
35 = 2' 182.4' = 14' X R $44^{\circ}47'$
10 = 12' 54.4' = 2' X L $38^{\circ}27'$

25-10 30 = 5'

25 = 6' 150 = 12' 182.4' = 14' X R $44^{\circ}47'$
75 = 2' 100 = 2'

33.8' 54.4' = 2' X L $38^{\circ}27'$

March 2, 1923

103

Same crew.
Weather fine.

South to O R.P. { N.W. 28.6' - measured from hole
N.E. 30.4' where post formerly
stood.

Mag. Bearing

100' between Hub R and track

and total dist. to bank to 1664'

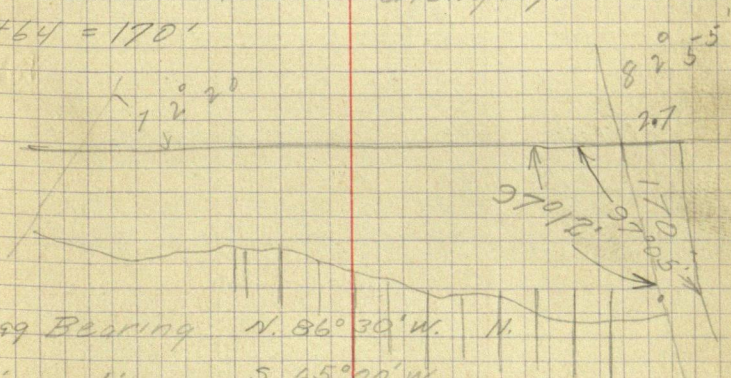
= 170' at 1723.4' from O on sec. Line E. rail of

Line Sec. 21 Δ 97°08' 97°12'

N.W. 70°49' to tank Morris pt.

S.E. 162°55' to tank Glengary.

16+64 = 170'



Mag. Bearing N. 86°30' W. N.

" " S. 65°20' W.

" " S. 52°15' W.

S. 81°30' W.

S. 72°00' W.

N. 85°30' W.

S. 43°00' W.

S. 87°45' W. on E. side of camp

(See sketch next page) ground.

S. 42°30' W.

John W. Greene

104

about 6' from Bank $\angle R 3.7'$ $\angle R 42^{\circ}35'$

$73^{\circ}20'R$, $5.68^{\circ}30'E$, $R.R.$, $\angle L 86^{\circ}29'$

~~184.0~~ $\angle R-L 00^{\circ}00'$

~~208.9~~ $\angle R 96^{\circ}21'$

~~1138.2~~ ~~585.5~~ $\angle L 107^{\circ}40'$

910' Nat. Hanson's Cor. cross brick yard
road.

0 sight East

Platting the preceding notes

170'

Mag bearing N. $88^{\circ}30'W$.

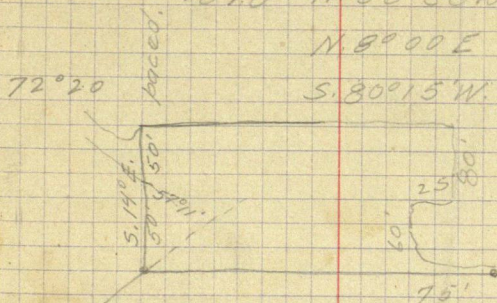
" " 262.9 S. $5^{\circ}00'W$ to R.R. Track

184.0 N $88^{\circ}30'W$

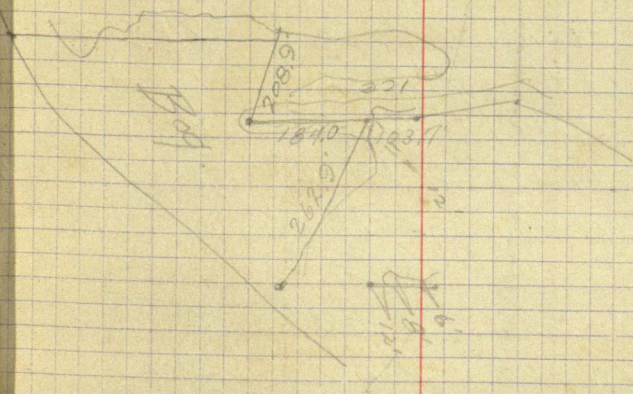
N. $8^{\circ}00'E$

S. $80^{\circ}15'W$.

X R $72^{\circ}20'$



on section line & L. $99^{\circ}12'$ N. $18^{\circ}30'W$.
to Morris Fork



Note:- Survey continued Book 75.

John M. Greene

106

Survey of South line

Survey Notes of

Sta. R.P. Sta. 66+83.1

Pop. 6" 46.9

" 6" 38.4

102+51.9 = 102+62.3 = P.T. $\Delta = 40^{\circ}00'$

101+46.9 = P.I.

D = 1800

T = 116.3

100+29.7 = P.C.

L = 222.2'

96+79.7 = 96+99.2' = P.T. $\Delta = 49^{\circ}20'$

95+52.4 = P.I.

D = 1800

T = 146.8

94+05.6 = P.C.

L = 274.1

93+97.7 = 93+99.0' $\Delta = 14^{\circ}55'$

92+91.8 = P.I.

D = 7

91+84.6 = P.C.

T = 107.2

L = 213.1

91+57.4 = 91+67.3 = P.T.

90+28.8 = P.I.

 $\Delta = 65^{\circ}00'$

88+61.9 = P.C.

D = 220

Sta. 88+50 = H.B.

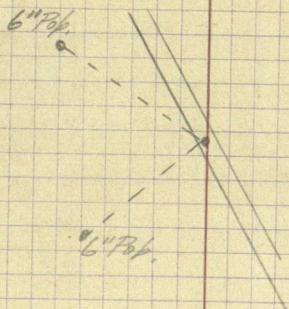
T = 166.9

L = 295.5

500, 35-142-31

107

San-Bridge survey - copied -



Survey of Sec. 35-142-31
South line

Setup at Sta. 93 nearly 95
48.9' and center of stump hole 6" pop

Sighted to 1st 40 Walker Farmer
^{48°}
N. 48° W. and set hub at edge of grade

X to 1st post on bridge East of
continued traverse toward depot

in line with West rail

335.4' = dis. between M. & I. bridge
and Overpass

30 29 + 33.4 = E.B. M. & I.

30 49 + 10.4 = E.B. " & I.

1977.0

30 25 + 98.8

30 29 + 33.4

30 24 + 96.8

30 25 + 47.8

102.0

385.6

30 25 + 47.8

Slow sign 2062 + 40

J. M. Greene
Micky Lida

May 7

I could relocate it from R.R. 6" pop.

38.4 - measured 38.8"

extension and took $\Delta 27^{\circ}58'$ to road
in opposite direction.

pole in Road center = $3^{\circ}00'$ R.

$\Delta 11^{\circ}45' L$, $5.58^{\circ} E$.

$\Delta 79^{\circ}22' L$ $N 44^{\circ} E$ to \odot on railroad track

$\Delta 41^{\circ}31' L$ $N. 1^{\circ} E$.

P.C. 2450+72.8 +7600
P.T. 2458+23.3 +7600

2463+85 $\Delta 72^{\circ}10' - 1447'$

P.C. 2475+43.9 +7600
P.T. 2481+68.9 +7600

2450+72.8 P.C.

3029+33.4

576

2753+33.4 B.H.

2458+23.3 P.T.

2463+85.0 T.L.

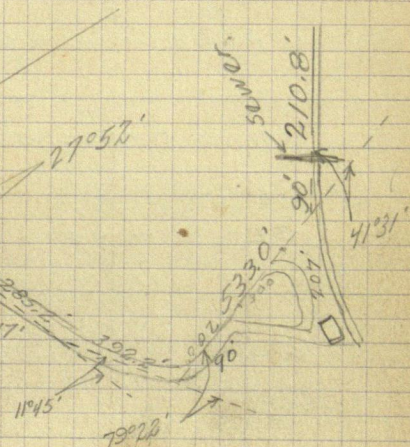
3049+104

576+00

2473+104 B.H.

2475+43.9 P.C.

2481+68.9 P.T.



John M. Greene

3109+97 = 2553+97
57600 = diff

2926+10 = 2350+00
576+10

3054+20

576

2478+20

2481+68.9

3+47.9

Survey of Sec. 35-142-31
South line

Set up on Cor 2-3-34-35 and
South to @ between Cor. and 1/16 l.

X U.S. Resurvey S.E. $76^{\circ}51'$

Actual X $76^{\circ}03'$ sight to 1/16 l. M. 19
1/16 l. M. sets in truck garden

and Town Line runs S. of Water tank
and Building

X to W. Tank $79^{\circ}40'$

X to S. stack $103^{\circ}38'$ (old stack)

X to E. Pole on Hill $94^{\circ}21'$

X to W. wedge bottom of post in line
W. blowing = $169^{\circ}30'$

Set @ on road in line with 1/16 l. M. North
Sighted south-transit - X R. $14^{\circ}27'$ $165^{\circ}33'$
lines just East of line fence and
big pine tree.

X = $165^{\circ}33'$

B.T. & R. Oak 6" N. $65^{\circ}W.$ from N. line 24.8'

R. " 7" S. $38^{\circ}56'E.$ " " " 59.4'

R. " 3" S. $18^{\circ}24'W.$ " " " 20.7'

R. " 8" N. $44^{\circ}20'E.$ " " " 700.0

262' Chaining south from 1/16 Cor = wire fence

+ 31 = E road

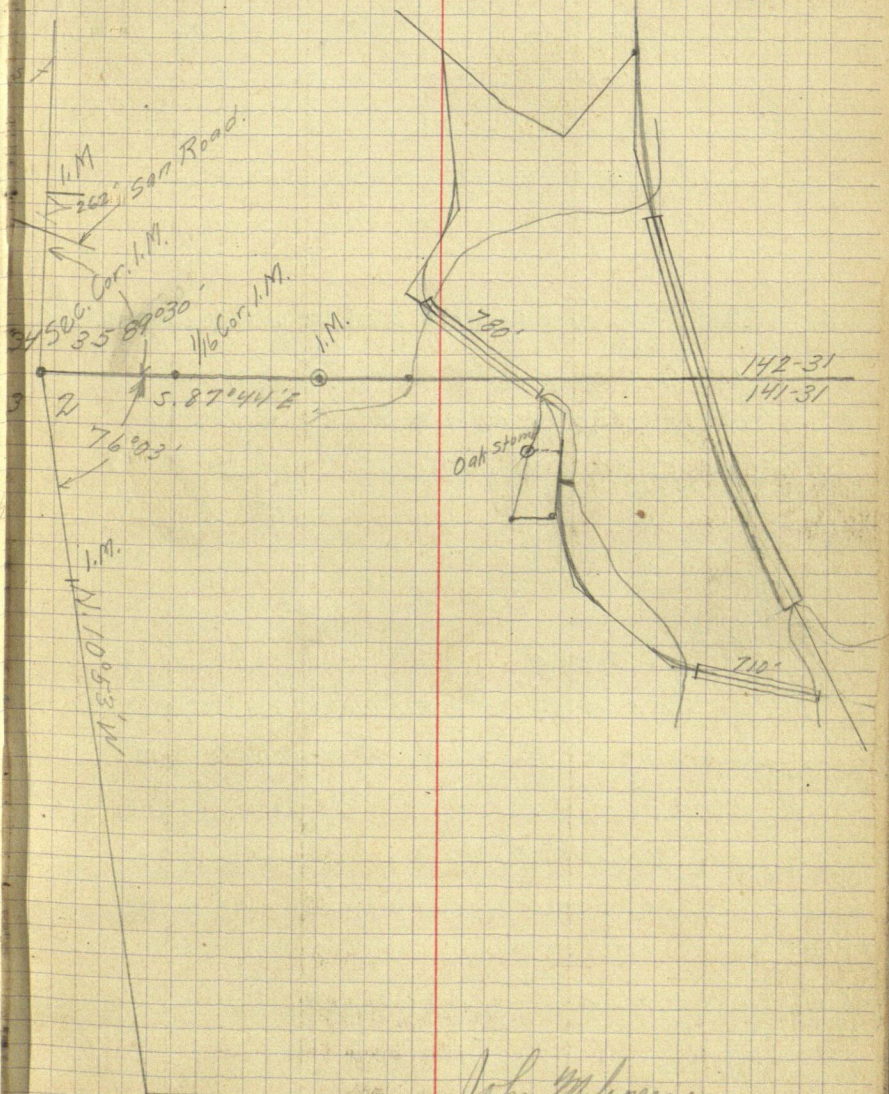
+ 66 = Fence

Greene, J. M.
Jude

May 9, 1923

sighted

M.



John M. Greene

Ran east to $\frac{1}{4}$ Cor. by lining
bent over a couple inches. Missed
and A.P. 1 1 foot south. Set
cap 1.56 ch. east of A.P. 1 = 102.96'

#38 U.S. B.T.s call for
B. Ash 8" N. $62\frac{1}{2}^{\circ}$ W. 81 = 53.5'
B. " 8" S. 74° W. 20 13.2

any marks.

OC. Setup on @ 1 ft. south and sighted

OB rail and took angle to point

X to Oak stb = $19^{\circ}42'$ R

X to S. end bridge S. Rail $5^{\circ}45'$

N. Rail $4^{\circ}37'$

N. end " S. " $66^{\circ}21'$

N. " $65^{\circ}06'$

R.R. Bridge $43^{\circ}48'$

Set up on OB - sighted to M.C. 380 A

Sighting to C. X to N. end Bridge R.R.

Hawkins cupola $91^{\circ}36'$

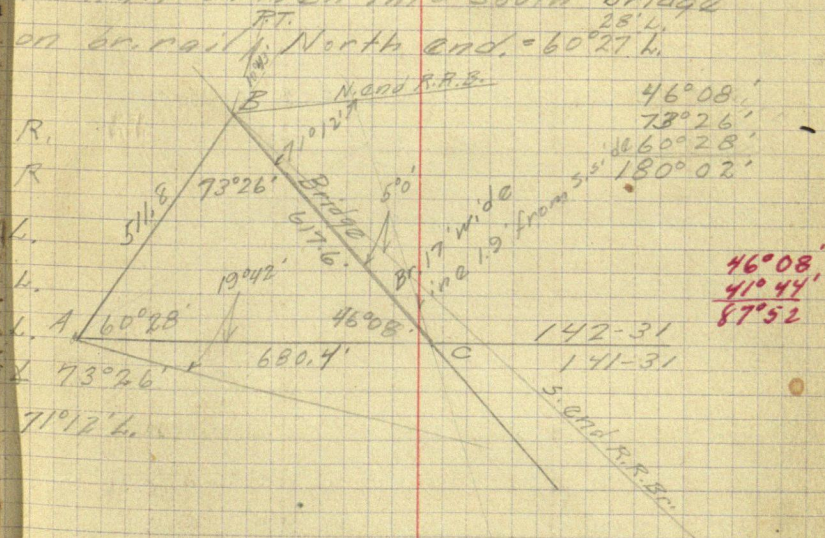
S. end R.R. Br. X 5°

Set up on OC sighted to OA X $53^{\circ}52'$

Hankins

up with the $\frac{1}{16}$ Cor. I.M. which was
 the $\frac{1}{4}$ I.M. 1.2' South
 a M.C. 2" X 36" Hub. I.M. with
 3 sticks up about 3". Piled a couple
 rocks around it. 1 ft. North of R.L.
 Note: Plenty of Ash but all so
 far gone, that we could not find

to nail driven into south bridge
 on br. rail North end. = $60^{\circ}27' L$



June 3, 1927
Survey for John E. Andrus.
In Sec. 34-142-31

John M. Greene - Transit
B. B. Bartlett - Chain

Setup on West $\frac{1}{2}$ of South line and
and W. $\frac{1}{16}$ Cor. l.M. and extended line
Set Flag at Center l.M. & N.W. = 30

June 4, 1927

Set up at Center l.M. ran true line
S.E. & at Center = $91^{\circ}31\frac{1}{2}'$

S. $89^{\circ}32'E$ = N. $90^{\circ}28'E$

N. $1^{\circ}07\frac{1}{2}'E$

N. $89^{\circ}36'E$

$88^{\circ}28\frac{1}{2}'$

$0^{\circ}52'$

N $89^{\circ}36'E$

$88^{\circ}44'$

N. $1^{\circ}07\frac{1}{2}'E$

$86^{\circ}47'$

N $87^{\circ}54'E$.

Chained west computed dis = 1313.1
drove l.M. Cut out true line
 $\frac{1}{16}$ S. and measured dis. = 2413.6
At. 1206.8 drove l.M. in plowing.
B.T.s as follows:

Pop. 7 S. $14^{\circ}40'E$ 35'

Oak 5" S. 37° W. 37.5'

Finis.

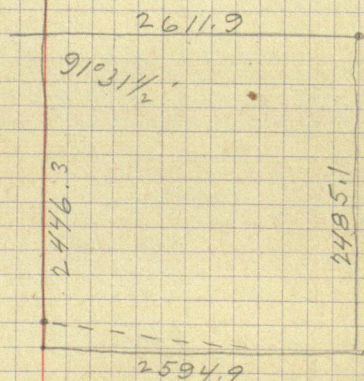
J. E. Andrus furnished 2 men for
brush cutting.

kicked into line between S. 1/4 Cor. (1. M.)
west to S.W. Cor. 1. M.

$91^{\circ}07\frac{1}{2}'$

East to 1/4 1. M - 34-35

$$\begin{array}{r} 2485.1 \\ 43.2 \\ \hline \end{array}$$



and

44D-171

47D-202-203-148

Melander's Cor on Lot 5-sec 2-141-26

15' North of a blown down tree 10-15' high
stake and brick in hole, and thence
due east to lake.

47D - P. 148 Knudson to Melander.

Starting at the Rt. of Way - Highway
No. 34 at the east end of the west
bridge on the east side of said
bridge and following the line
of said road in a southerly direction
300'; thence due east to lake
shore etc. $\frac{1}{2}$ acre ±

47D-202 Knudson to Melling

Starting from an oak stump
about 200' from North point of
island and running in a northerly
direction along the lake shore
to the boundary of S.H. 34, thence
in a southerly direction along
the boundary of said Highway
to a point due east from the
Oak stump, thence ^{22.5 feet} in a southerly
direction to a point 75' from the
waters edge.

47D-203 Melling to Balfour.

41D-171

Jenson to Belford.

Starting at an oak stump about
200 feet from North point of island
and running due east 75' to a
rock marked N.E. Cor., thence
in a southerly direction
225' to a rock marked S.E. Cor.
thence due west 75' to the
waters edge etc 1/2 acre ±

13/188

17/150

same as Jenson to Belford
Torsbaugen to Graves

24/354-519

30/289

McGarry-McPherson-Morical

March 29-1928

Survey of Lot 1 & N.E. of
N.W. of Sec. 35-142-31

Setup at $\odot 14.64$ E. of $\frac{1}{16}$ Cor. & $1003'$
on the N. & S. $\frac{1}{4}$ Line

Run north $0^{\circ}29'E$ to $\odot 15.5'E$ of N. $\frac{1}{4}$
Cor. Run west $\frac{1}{2}$ mile - $5013'S$ of
N.W. Cor. (Cor. $1^{\circ}05'$)

Set up over N. $\frac{1}{4}$ Cor. ran true
line: N. $89^{\circ}56'W$. - S. $89^{\circ}56'E$ to

& R.R. follow old brushed line.

Set 1 pin in R.R. ^{W. Edge of tie} (Dis. = 781.4

$730.6'$ to fence

& R.R. $65^{\circ}52'$

Chain along track $575'$ - Highland

864.5 sb. + Line

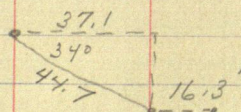
& N.W. $89^{\circ}30'$

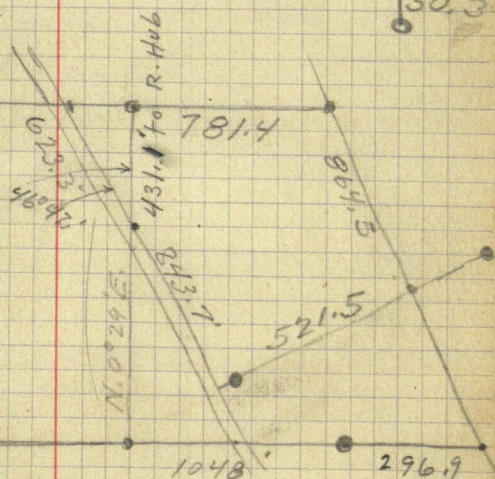
$1352.9'$ South Line

& N.W. 66° - $296.9'$ to I.M.

check this
 $30 + 355.2'$ I.M. + 53 to Hub

623.3 Hub 4 to 5 Creek





$$\begin{array}{r} 101+46.0 \\ 101+36.7 \\ \hline 9.3 \end{array}$$

$$\begin{array}{r} 118.4 \\ 127.7 \\ \hline 126.4 \end{array}$$

$$100 + 09.9$$

$$100 + 26.4$$

$$101 + 36.3$$

$$P.C. \quad 100 + 19.7$$

$$P.I. = 101 + 36.7$$

$$P.T. = 102 + 59.7 \quad B.H. \quad 102 + 64.4$$

$$P.I. \text{ to approx } B.H. = 130.7 \text{ to } 131.5$$

$$101 + 36.7$$

$$130.7$$

$$102 + 77.4$$

$$126.4$$

$$4.7$$

$$131.1$$

$$126.4$$

$$2.1$$

$$128.5$$

$$43.0$$

$$126.4$$

$$240$$

$$R = 319.6$$

$$\frac{8}{100} = \frac{1}{60}$$

$$101 + 36.7$$

$$\underline{1 \quad 26.4}$$

$$100 + 09.3$$

$$102 + 59.7$$

$$\underline{26.4}$$

$$101 + 33.3$$

$$17^{\circ}05'$$

$$102 + 59.7$$

$$\underline{2 \quad 40}$$

$$100 + 09.7$$

$$101 + 36.7$$

$$\underline{11 \quad 17.0}$$

$$102 + 51.9$$

$$101 + 36.7$$

$$\underline{11 \quad 15.2}$$

$$102 + 59.7$$

$$\underline{1 \quad 36.7}$$

$$1 + 23.0$$

$$102 + 64.4$$

$$102 + 59.7$$

$$\underline{4.7}$$

$$100 + 19.7$$

$$\underline{1 \quad 26.3}$$

$$101 + 46.0$$

$$43^{\circ}L$$

$$238.8$$

$$18 \overline{) 43}$$

$$\underline{36}$$

$$70$$

$$240$$

$$\underline{54}$$

$$18$$

$$160$$

$$192$$

$$\underline{144}$$

$$24$$

$$160$$

$$43.2$$

$$17.08$$

$$24 \overline{) 43}$$

$$\underline{24}$$

$$190$$

$$\underline{188}$$

$$200$$

$$102 + 64.4$$

$$100 + 19.7$$

$$\underline{2 \quad 40}$$

$$102 + 59.7$$

$$102 + 64.4$$

$$\underline{4.7}$$

Final alignment

Beginning of San Bridge.

Sta. 66+83.1 Ref:- Pop. 6" N.E. 46.9'

S. 9°13'E.

Pop. 6" N.W. 38.4'

72+77.5 = P.C.

74+34.0 = P.I Ref:- Spike in log at P.I.

of San Bridge Survey

bridge survey - Job 2002

$$262.553 = 0.13'$$

	9.95	2612.4	
		1990	
4870.9'		6224	39.13
21.66		5970	4892.56
4892.56		2540	
		1990	
		5500	
		4975	
		5250	
		4975	
		2750	

East

South

5.3°11'E

S.1°36'E

5.14°22'E

S.3°26'E

1°36'

S.7°05'E

1°50'

S.10°44'E

3°26'

S.10°49'E

1°36'

1°36'

S.1°36'E

1°50'

3°26'

S.5°02'E

1°36'

3°39'

S.8°41'E

3°26'

3°39'

S.12°20'E

1°50'

1°50'

S.14°15'E

14°15'

3°26'

05'

S.14°20'

3°39'

14°20'

291.4 S.14°20'

288.7 S.21°19'

2.7 S.31°19'

57'

S.41°19'

168.5

S.51°19'

17.0

S.61°19'

S.63°31'

1°50'

1°54'

1°06'

5°59'

1°06'

23°26'
66°34'

4050
4024
4051

35' (104.7')

38.2

11.8

5.8

44.8' 3°11'

3039'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

3°39'

50.5

119' 339'

129' 339'

139' 339'

149' 339'

159' 339'

169' 339'

179' 339'

189' 339'

199' 339'

49°07'
14°22'
63°29'

12'0
9.5
60
108
140

$$P.C. \quad 92 + 72.0$$

$$\Delta = 13^\circ 17' L. D = 24^\circ T = 28.21$$

$$P.T. = 93 + 27.3 = 93 + 28.0$$

$$P.C. = 95 + 11.7$$

$$\Delta = 12^\circ 30' T = 156.7$$

$$D = 4^\circ L_c = 312.5$$

$$P.T. = 98 + 24.2 = 98 + 25.5$$

$$\Delta = 24^\circ 31' T = 89.1$$

$$D = 14^\circ L_c = 175.1$$

$$P.T. = 100 + 09.1 = 100 + 12.2$$

$$P.C. = 101 + 25.0$$

$$\Delta = 36^\circ 17' R. D = 24^\circ$$

$$T = 78.8 L = 151.2$$

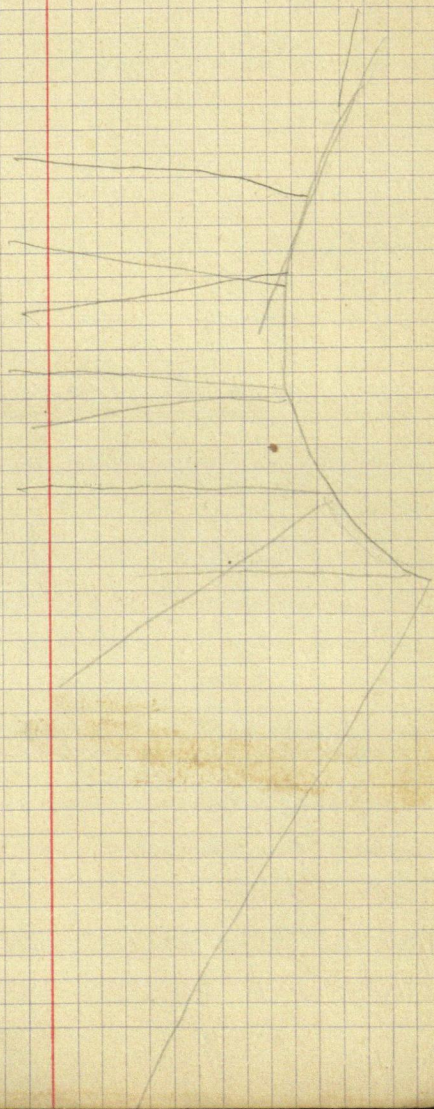
$$P.T. = 102 + 76.2 = 102 + 82.6$$

90+28.8

168.5
17.0
103.2
288.7

103.2
12.9
145.3
261.6

168.5
19.7
103.2
291.4



$$\begin{array}{r} 142.7 \\ 77^{\circ}30' - 82.5' \end{array}$$

$$\begin{array}{r} 230.5' \\ 9763 \overline{) 22500} \\ \underline{19526} \\ 29740 \\ \underline{29229} \\ 51100 \end{array}$$

$$\begin{array}{r} 44.9 \\ 32.4 \end{array}$$

$$33.15$$

$$31.$$

$$16.0$$

$$138$$

$$170.25$$

$$179.35$$

$$15.8$$

$$142.7$$

$$16.1$$

$$158.8$$

$$99744$$

$$142.7$$

$$49.9$$

$$92.8$$

$$32.4$$

$$24.1$$

$$56.5$$

$$.14767$$

$$225$$

$$142 \overline{) 73835}$$

$$29534$$

$$29534$$

$$3222575$$

$$1273$$

$$158.8$$

$$33.4$$

$$33.1$$

$$31.0$$

$$16.0$$

$$13.8$$

$$127.3$$

$$49.9$$

$$177.2$$

$$225.7$$

$$2254.000$$

$$1947.34$$

$$2566.60$$

$$1987.34$$

$$569.260$$

$$49.9325$$

$$699.350$$

$$9986.7$$

22169
 225
 110845
 44338
 44338
 49880.25

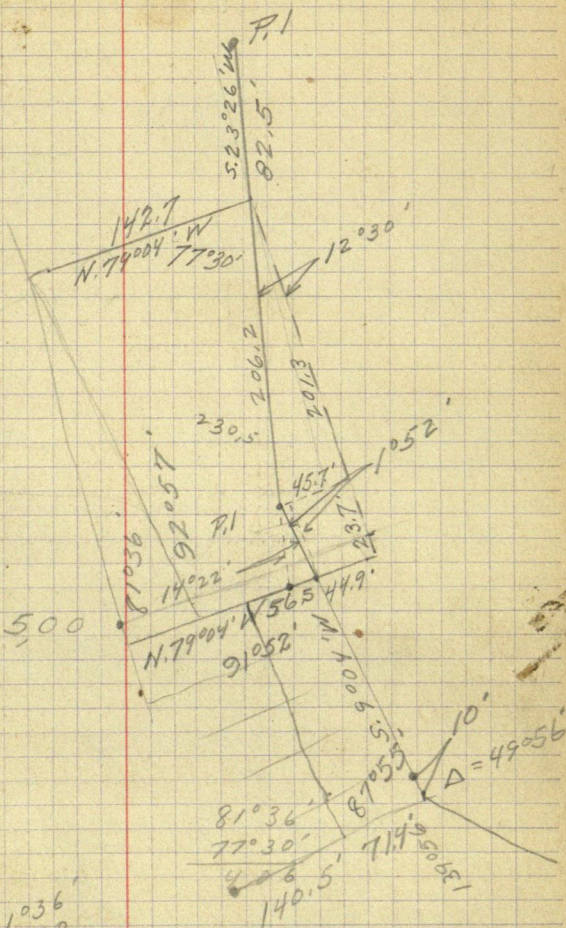
107168
 225
 35840
 14336
 14336
 16128 00

98927 22500

13.8
 16.0
 31.
 93.17
 93.9
 7.

81036
 77030
 4006

230.5



226' 18 4066
36
 36
 36
 06

29.1

2008

201

20.1

2008

40160

403608

21648

2008

40

32.4

8032

4016

6021

651592

309542

6031

2001

7002

10002

10002

8017

3016

40040

130.7

118.0

12.7

32.4

45.1

318.3 : 285.3 : 225.9 : X

2259

25677

14265

5706

5701

318.3

16144927

6366

1892

6366

15267

202.5

170.4

32.4

20.9

5

July 17, 1930

Greene
Ole Larson
B.B. Bartlett

mag. Var $8^{\circ}00'$ Offset North

61.8	61.8	0.1
134.8	196.6	.4
78.5	275.1	.6
73.8	348.9	.7
140.0	488.9	.9
210.5	699.4	1.4
182.7	882.1	1.7
<u>194.0</u>	1076.1	2.0

1076.1 Total to Steedes fence $\frac{1}{2}$ North 160.6

105.5 Fence Cor. $2'$ North 938.0

$40^{\circ}33'$ 100.8 Hub $40^{\circ}33' = 206.3$ 832.5

131.7 short picket 731.7

100.5 picket 100.5 206.3 731.7 700.7

192.1 192 938.0 600.2

100.5 100.5 408.1

89.4 89.4 307.6

85.4 85.4 218.2

132.8 132.8 132.8

731.7 549.0

0 - 1076.1

2486 Pence Cor.

4486 R.C.

5440.3' to M.C.

Survey for Ed. I. P. Staede
Lots 2 & 3, Sec. 27-142-31.

A.P. #1-2

A.P. #2 - M.C. = 1076.1 + 540.3

July 15

Greene - Tony Setter. $\frac{1}{4}$ day

Harry Whiteberg $\frac{1}{2}$ day

July 16 -

Greene - Harry Whiteberg - $\frac{1}{2}$ day

B.B. Bartlett - Ole Larson

July 17

Greene -

Offset East

2.00 - 1.M. in place

1.70 1.70 - 1 = 0.70

1.5 Hub 1.5

1.4

1.2

.9

.6

.4

.3

.0

1076.1 2000

61.8

134.8

196.6

78.5

275.1

73.8

348.9

140.0

488.9

210.5

699.4

182.7

882.1

194.0

1076.1

2. Sec. Line bet. Sec. 22 & 27

True Line $S. 87^{\circ} 25' W$

$\frac{1}{16}$ Line North in Sec. 22 = $N. E. 4.85^{\circ} 54'$

$\frac{1}{16}$ Line South in Sec. 27 =

10 X 0.8' North of 1: Pin.

Mag. bearing $S. 4^{\circ} 15' E.$

True bearing computed $S. 5^{\circ} 10' W.$

June 18, 1930, Continue brushing S.

B. B. Bartlett - Ole Larson.

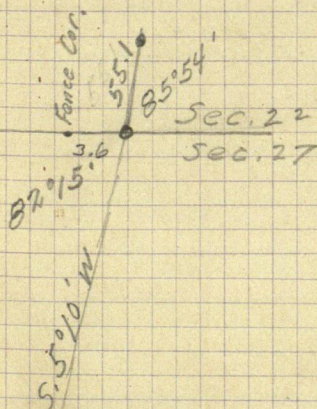
John M. Greene, Transit.

1. Sec. 22

2. Sec. 27

3. Sec. 22 & 27

$87^{\circ}25'$
 $94^{\circ}06'$
 $181^{\circ}31' = N. 1^{\circ}31' E$



39.88 2632.1
 39.31 2594.5
 $.57$ $37.6'$

66
 342
 342
 $37.62'$

$124.2 = 0^{\circ}28'$

$.57 | 70.80$
 57
 138
 114
 240
 228
 120

$S. 4^{\circ}56' W$ $S. 4^{\circ}56' W$
 $0^{\circ}28'$ $14'$

$S. 5^{\circ}24' W.$ $S. 5^{\circ}10' W$

$S. 4^{\circ}56' W$

$2110^{\circ}20'$

$S. 5^{\circ}10' W$

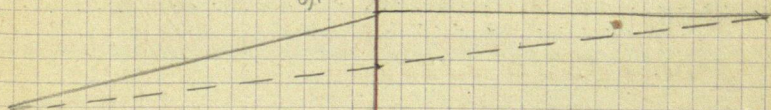
$87^{\circ}25'$

$82^{\circ}15'$

1306.2
1320.0

212626.2
1313.1

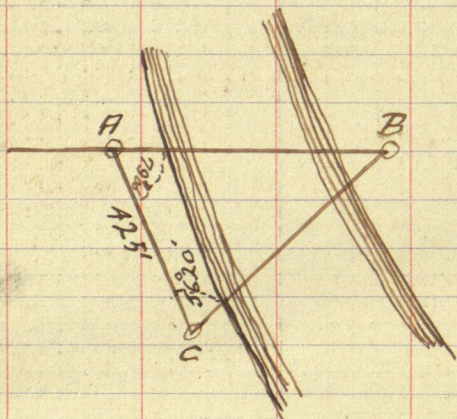
91°07'14"



$$\begin{array}{r} 171.9 \\ 114.6 \\ \hline 57.3 \end{array}$$

$$\begin{array}{r} 124.2 \\ 114.6 \\ \hline 9.6 \end{array}$$

$$\begin{array}{r} 116 \\ 87 \\ \hline 29 \end{array}$$



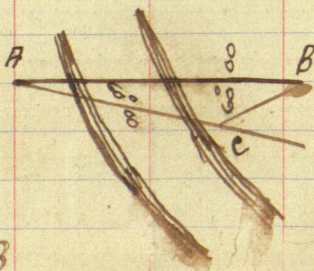
$$79^{\circ}00' + 56^{\circ}20' = 135^{\circ}20'$$

$$180^{\circ}00' - 135^{\circ}20' = 44^{\circ}40'$$

$$\sin 44^{\circ}40' : \sin 56^{\circ}20' = 425'$$

$$\sin 56^{\circ}20' = .83228 \quad .83228 \times 425 = 353.719$$

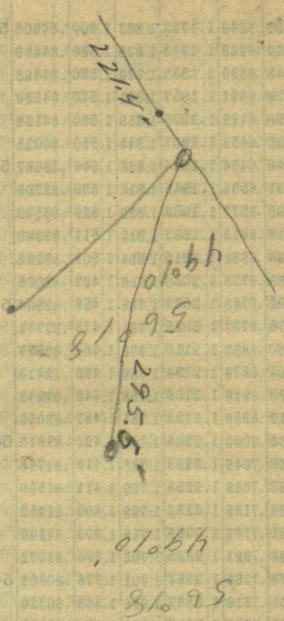
$$\sin 44.40 = .7298 \quad 353.719 \div 7298 = 503.17 = AB$$



$$B.C. = AB$$

Natural Trigonometrical Tables

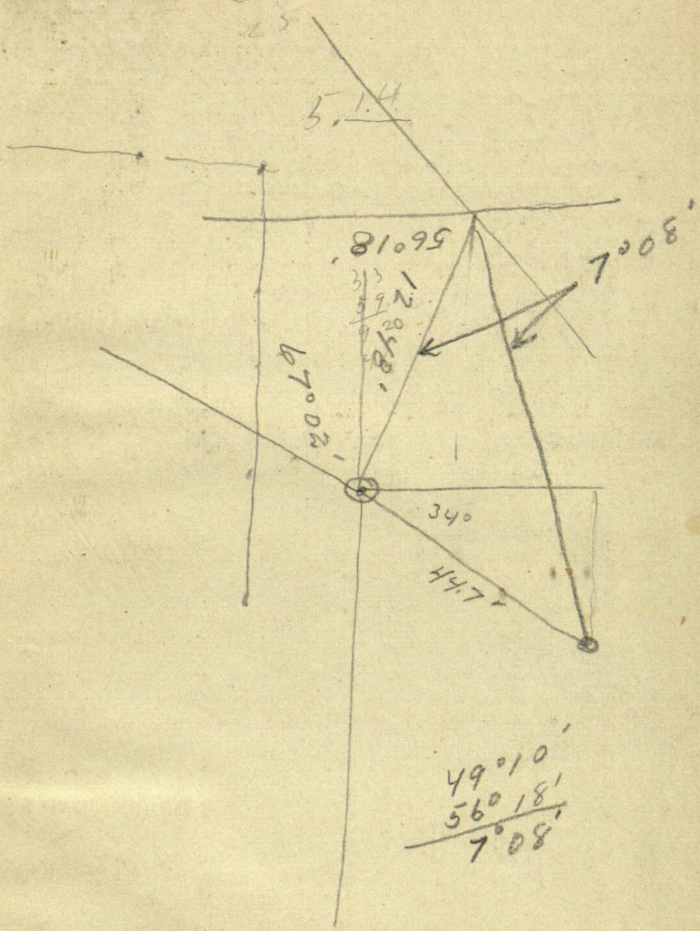
Angle	Sine	Verse	Tangent	Cotangent	Secant	Cosecant
0	0.0000	0.0000	0.0000	∞	1.0000	∞
1	0.0174	0.0003	0.0175	57.29	1.0003	57.29
2	0.0349	0.0012	0.0350	28.65	1.0012	28.65
3	0.0523	0.0021	0.0524	19.10	1.0021	19.10
4	0.0698	0.0030	0.0699	14.30	1.0030	14.30
5	0.0872	0.0039	0.0873	11.43	1.0039	11.43
6	0.1047	0.0048	0.1047	9.51	1.0048	9.51
7	0.1222	0.0057	0.1223	8.09	1.0057	8.09
8	0.1396	0.0066	0.1397	7.11	1.0066	7.11
9	0.1571	0.0075	0.1572	6.31	1.0075	6.31
10	0.1745	0.0084	0.1746	5.67	1.0084	5.67
11	0.1920	0.0093	0.1921	5.14	1.0093	5.14
12	0.2094	0.0102	0.2095	4.70	1.0102	4.70
13	0.2269	0.0111	0.2270	4.34	1.0111	4.34
14	0.2443	0.0120	0.2444	4.03	1.0120	4.03
15	0.2618	0.0129	0.2619	3.76	1.0129	3.76
16	0.2792	0.0138	0.2793	3.53	1.0138	3.53
17	0.2967	0.0147	0.2968	3.33	1.0147	3.33
18	0.3141	0.0156	0.3142	3.15	1.0156	3.15
19	0.3316	0.0165	0.3317	2.99	1.0165	2.99
20	0.3490	0.0174	0.3491	2.85	1.0174	2.85
21	0.3665	0.0183	0.3666	2.73	1.0183	2.73
22	0.3839	0.0192	0.3840	2.62	1.0192	2.62
23	0.4014	0.0201	0.4015	2.52	1.0201	2.52
24	0.4188	0.0210	0.4189	2.43	1.0210	2.43
25	0.4363	0.0219	0.4364	2.35	1.0219	2.35
26	0.4537	0.0228	0.4538	2.27	1.0228	2.27
27	0.4712	0.0237	0.4713	2.20	1.0237	2.20
28	0.4886	0.0246	0.4887	2.13	1.0246	2.13
29	0.5061	0.0255	0.5062	2.07	1.0255	2.07
30	0.5235	0.0264	0.5236	2.01	1.0264	2.01
31	0.5410	0.0273	0.5411	1.96	1.0273	1.96
32	0.5584	0.0282	0.5585	1.91	1.0282	1.91
33	0.5759	0.0291	0.5760	1.86	1.0291	1.86
34	0.5933	0.0300	0.5934	1.82	1.0300	1.82
35	0.6108	0.0309	0.6109	1.78	1.0309	1.78
36	0.6282	0.0318	0.6283	1.74	1.0318	1.74
37	0.6457	0.0327	0.6458	1.70	1.0327	1.70
38	0.6631	0.0336	0.6632	1.67	1.0336	1.67
39	0.6806	0.0345	0.6807	1.64	1.0345	1.64
40	0.6980	0.0354	0.6981	1.61	1.0354	1.61
41	0.7155	0.0363	0.7156	1.58	1.0363	1.58
42	0.7329	0.0372	0.7330	1.55	1.0372	1.55
43	0.7504	0.0381	0.7505	1.52	1.0381	1.52
44	0.7678	0.0390	0.7679	1.50	1.0390	1.50
45	0.7853	0.0399	0.7854	1.47	1.0399	1.47
46	0.8027	0.0408	0.8028	1.45	1.0408	1.45
47	0.8202	0.0417	0.8203	1.42	1.0417	1.42
48	0.8376	0.0426	0.8377	1.40	1.0426	1.40
49	0.8551	0.0435	0.8552	1.37	1.0435	1.37
50	0.8725	0.0444	0.8726	1.35	1.0444	1.35
51	0.8900	0.0453	0.8901	1.33	1.0453	1.33
52	0.9074	0.0462	0.9075	1.30	1.0462	1.30
53	0.9249	0.0471	0.9250	1.28	1.0471	1.28
54	0.9423	0.0480	0.9424	1.26	1.0480	1.26
55	0.9598	0.0489	0.9599	1.24	1.0489	1.24
56	0.9772	0.0498	0.9773	1.21	1.0498	1.21
57	0.9947	0.0507	0.9948	1.19	1.0507	1.19
58	1.0121	0.0516	1.0122	1.17	1.0516	1.17
59	1.0296	0.0525	1.0297	1.15	1.0525	1.15
60	1.0470	0.0534	1.0471	1.13	1.0534	1.13
61	1.0645	0.0543	1.0646	1.11	1.0543	1.11
62	1.0819	0.0552	1.0820	1.09	1.0552	1.09
63	1.0994	0.0561	1.0995	1.07	1.0561	1.07
64	1.1168	0.0570	1.1169	1.05	1.0570	1.05
65	1.1343	0.0579	1.1344	1.03	1.0579	1.03
66	1.1517	0.0588	1.1518	1.01	1.0588	1.01
67	1.1692	0.0597	1.1693	0.99	1.0597	0.99
68	1.1866	0.0606	1.1867	0.97	1.0606	0.97
69	1.2041	0.0615	1.2042	0.95	1.0615	0.95
70	1.2215	0.0624	1.2216	0.93	1.0624	0.93
71	1.2390	0.0633	1.2391	0.91	1.0633	0.91
72	1.2564	0.0642	1.2565	0.89	1.0642	0.89
73	1.2739	0.0651	1.2740	0.87	1.0651	0.87
74	1.2913	0.0660	1.2914	0.85	1.0660	0.85
75	1.3088	0.0669	1.3089	0.83	1.0669	0.83
76	1.3262	0.0678	1.3263	0.81	1.0678	0.81
77	1.3437	0.0687	1.3438	0.79	1.0687	0.79
78	1.3611	0.0696	1.3612	0.77	1.0696	0.77
79	1.3786	0.0705	1.3787	0.75	1.0705	0.75
80	1.3960	0.0714	1.3961	0.73	1.0714	0.73
81	1.4135	0.0723	1.4136	0.71	1.0723	0.71
82	1.4309	0.0732	1.4310	0.69	1.0732	0.69
83	1.4484	0.0741	1.4485	0.67	1.0741	0.67
84	1.4658	0.0750	1.4659	0.65	1.0750	0.65
85	1.4833	0.0759	1.4834	0.63	1.0759	0.63
86	1.5007	0.0768	1.5008	0.61	1.0768	0.61
87	1.5182	0.0777	1.5183	0.59	1.0777	0.59
88	1.5356	0.0786	1.5357	0.57	1.0786	0.57
89	1.5531	0.0795	1.5532	0.55	1.0795	0.55
90	1.5705	0.0804	1.5706	0.53	1.0804	0.53



131
125

60
25

5.14



49° 10'
56° 18'
7° 08'