

233

K & E
FIELD BOOK
360-1

Note:

This book belongs to
John W. Curo. Jenkins Minn.
If lost, finder please
return -- for reward.

please return as
quickly as possible as we
may be needing the book
badly.

John W Curo
April 3-1936

2.57 27.35

109
3.33.35.35

07
6 04.55

912 07

08.25

04.55

h

52.51

2

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Township Plat . Pg 9.

Geo O. Farrar 24-140-29

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Time Sheet

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Addresses

SECOR
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Telephones

Ties Farrar - 5-6-8-13-14-17-18-19-20-

28-29-36-37-48-52-61-63-64-66-68-

Pine River - Park Ave.

97-111

Herb Kesselring Sch. Dist. 15 - 136-32 - 103-110

Austin Codwell Sec 16-140-29 - 138-150

John Thompson Acc. 25-140-29 - 124

John E Thompson

2911 - Penn N^e Lot 3 Sec 25-

140-29

Mpls 11 - Minn

2. Apr 1-1936

Farrar Survey

Sec 24-140-29.

G. O. (George) Farrar of
21-9th St NW, Mason City Iowa

Owns Shore Acres Via Pine River

Owns: E $\frac{1}{2}$ SE $\frac{1}{4}$ Sec 23. also
West half of West half of Sec 24
Being SW-SW $\frac{1}{4}$ and Lot 4. Sec 24
Total = 166.65 acres

Lot 4 recorded to Mae L.
Farrar

Shore Acres. Resort
Run by Mr Farrar's Son
Orten J. Farrar and Wife

Note: On May 3-1929 I recd
a telephon call from Mr G. O.
Farrar From Shore Acres
West Side Woman Lake
that he would call at my house
in Jenkins about 3.0 O'clock AM
to-morrow morning

May 4-1929 Mr Farrar called
and arranged to have me take
water levels re.

April 1-1936 Continued

Note: About May 5-1929.

Reed and I drove from Jenkins
to said Shore Acres - Met May L
Farrar -- Took a few levels but
did not go thro with the work

To day -- April 1-1936 Mr Farrar
again calls and wants the lines of
his land established - viz

So Line of Sections 23 and 24
also East Line of Gov't Lot 4
Sec 24 - being the West to Line

I promise to go "Friday" will take
my own assistant and will not
charge the full \$15. a day and Exp
allowed by law". Mr Farrar
leaves me openail drawing

Elmer Ivers Jr and Frank T Salter?
go back to St Paul. Dwight to Bud
Matthi plays with Reed & I in
Jenkins

Jahm M. Curo

4 April 2-1936 Farrar

Dinner at home in Jenkins

PM-1-10 Reed-Maitha and I
Lv for Walker all PM at Court
House Copy Horst notes

Record N^o 390 Field Book 153

Page 4-

Record N^o 209, Moulster Field

Book 49- Copy Plat Pg 512 ^{Book} A

Book C. and other plots

Return to Jenkins. Reed-Maitha
and I alone at Jenkins

April 3-1936 Friday

Look up US Nates. Maitha keeps
house - 10 AM Reed and I Lv

Jenkins. Find MK 44 - Wilcom

9 ft N - pipe on Range Line

N Side Mule Lake. Arr at

Shore accer. room. Lv car in

snow drift walk 100 rods

val on ice - Lunch with Orten

J. Farrar and wife

140-29

5

April 3-1936 Con'd

P.M. Reed-Otton and I dig up 2M
 2x48" pipe @ Cor 1/2 19-24-25-30
 140-28-29. Reed drives 1/2 mil to
 MC on Mule then back to SW Cor
 We drive a mile West to SW Cor 24
 Then E and N to Camp. Then
 S and E to Cor road and so to
 MC 44. Reed and Otton will work
 I drive home to Jenkins MC 44
 To Jenkins. Speedom says 31.29 mil
 One way total 60⁶⁵ miles - plus

At home in Jenkins 3-30

Find Martha alone keeping house

4:16 PM I write up these

notes. Bruno Richard Hauptmann
 executed at Trenton N.J. 8:43 to 8:47.5
 PM - E.T.S. = 7:43 Mpls time Robert H.
 Elliott - official executioner gave him
 first shock @ 8:43 - "at 8.44 Elliott
 threw off current" Mpls Tribune

Martha slays over with Nina
 Bryant

6

140-29

April 4-1936 Sat copy Reeds Notes

Reed runs transit. Sec 24-140-29

Reeds Notes: Apr 3-1936 Reed Curro
and Orton Forrer - 300' steel Tape Beg@ Horst's 2x48" Iron Pipe WC 9 FTN. of
MC. 44- T 140-28 = MC N: 5 T 140-29

North on East edge graded road

2495.5 Ft to 2x48" pipe 19-24-25-30

140-28-29 - 2495.5 + 9 = 2504.5 =

2595.46 Ft OS chain 2595.46

91.11 over length $\frac{2504.50}{90.96 \text{ Long}}$ Short

Beg @ IM @ SECOR Sec 24 Run

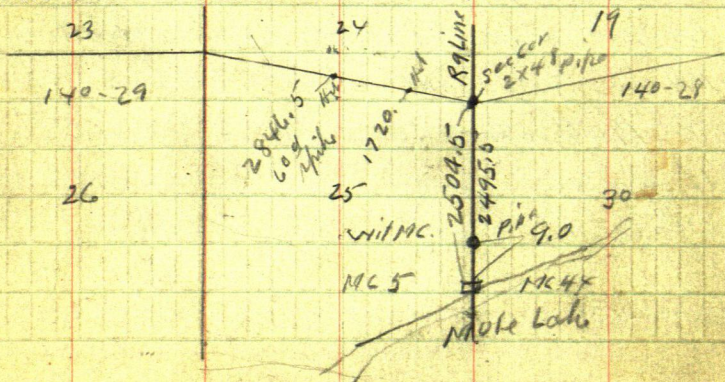
Went (-NW) on graded road 1720 Hub
= 60' of pipe
$$\begin{array}{l} \text{P} \text{ P12 N } 61^{\circ} 08' \text{ E } 71.20 \\ \text{I} \text{ I1 N } 60^{\circ} 00' \text{ W } 71.40 \end{array}$$

Went continue 2846.5 Hub = 60' of pipe

N Half of road Ties to 2846.5

$$\begin{array}{l} \text{N P12 N } 60^{\circ} 00' \text{ E } 17.50 \\ \text{T E1 P1-L S } 11^{\circ} 47' \text{ E } 50.90 \end{array}$$

Home @ 6.00 over rd. with Forrer



Time Sheet: Working For G. O. Farrar

| 1936 April | 1 | 2 | 3 | 4 | 5 | 6 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | SUN |
|--------------------|---|-----|-----|----|---|---|-----|----|-----|-----|----|----|----|----|-----|----|-----|----|-------------------------|
| John W Corro | - | 1/2 | 1/2 | ? | 0 | | 1/2 | OK | 1 | OK | OK | - | - | - | 1/4 | 1 | 1/2 | 26 | 5 days @ 10.50 |
| Car Miles | - | 80 | 65 | 62 | 0 | | 30 | - | 30 | out | 60 | - | - | - | 35 | 10 | 35 | - | 56. car |
| Expense | - | - | - | - | 0 | | - | - | - | - | 0 | - | - | - | - | - | - | - | |
| James Reed Curo | - | 1/2 | 1 | 0 | | | ? | 1 | 1 | 1 | 0 | - | - | - | 1/2 | 7 | 1/2 | - | 6 days @ 18. 5 1/2 days |
| Orten J. Farrar ch | - | 1/2 | 1 | 0 | | | - | 1 | 1 | 1 | 0 | - | - | - | - | 7 | - | - | 4 1/2 days |
| ERIK Wikstrom | - | - | - | 1 | 0 | | - | 1 | - | 1 | 0 | - | - | - | - | 7 | 1/2 | - | 1 1/2 days |
| Geo O. Farrar | - | - | - | - | 0 | | - | - | 1/2 | 1 | 0 | - | - | - | - | - | - | - | 1 1/2 days |
| Geo Farrar Cor | - | - | - | - | 0 | | - | - | 1/2 | 1 | 0 | - | - | - | - | - | - | - | 1 1/2 days |

Continued on Page 43

work 50.00
Car 6.00
Reed 18.00
5 74.00
Apr 25 ch 50.00
Bal Due 24.00

John W Corro

8

April 4-1936 Sat Contd

Copy Reed's Notes viz

" April 4-1936 Sat

" Otten and I walk to SE Cor Sec 24
140-29 where we find Eric Wickstrom
waiting T over IM BS- 500m MG5-44
North on random bet 24-19-140-28-29

Range line all cut line north
at 8-30 Home to dinner 12-30 Hear
Eric cutting line - Olson and I
(Reed) chain

North 1205.8 Hub Ties

00K5 N About 3' W 5.05 ft
B1F 4 N " 80° E 3.40 "

1830.7 Hub = 60th spike

Heller T over 1830.7

3" Basswood brs N 39° 18' E 11.20

10" Oak " S 52° 00' E 9.00

North-continued: Run in 3 more
Hubs - Spikes - Run post iron
pipe set by Horst for 1/4 Cor

Our line cuts 9 or 10 inches

West of 1/4 Pipe - Cut line no No 24

Quit at 5-30 Pack Heller & West over
ice on Woman lake at 6-20 Sapper
at 7 - James Reed Curo"

| | | | | | | | |
|----|---------|---------|---------|---------|---------|--------------|----|
| 36 | 31 | 32 | 33 | 34 | 35 | 36 | 31 |
| 1 | A y | B | C | D | E | F G H | 6 |
| 12 | 7 x | 8 | 9 | 10 | 11 | 12 I | 7 |
| 13 | 18 w | 17 | 16 | 15 | 14 | 13 K | 18 |
| 24 | 19 v | 20 | 21 | 22 | 23 | 24 L | 19 |
| 25 | 30 u | 29 | 28 | 27 | 26 | 25 M | 30 |
| 36 | 31 T | 32 S | 33 R | 34 Q | 35 P | 36 O N | 31 |
| 1 | 6 | 5 | 4 | 3 | 2 | 1 | 6 |

10.

April 4-1936 Sat

I and Mattie L. Jenkins @ 6 PM
Spedon roads 15.363.

At "Shore Acres" @ 7 PM. Reed
just finishing supper I &
Mattie in car - with 80 rods now
get Reed and loads - drive to
Eric Wickstrom's.

I walk half mile round get chain
should & say the At Jenkins
8-45 PM. Reed, Mattie and I
alone in Jenkins.

Dance at Paul Bunyon Club

April 5-1936 Sunday

I copy Reed's notes as above
all day in Jenkins

| Board Sheet - With Orton J. Farrar | | | | | | | | | | | | | Shore Acres | | | | | | |
|------------------------------------|---|---|---|----|---|---|----|----|----|----|----|----|-------------|----|----|----|----|----------|--|
| 1936 April | 1 | 2 | 3 | 4 | 5 | 6 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | SUN - 26 | |
| | | | | | 0 | | SL | SL | DB | DB | 0 | - | - | - | SL | SL | DB | 0 | |
| John W Curo | | | | | | | SL | SL | DB | DB | DB | - | - | - | SL | SL | DB | 0 | |
| Reed Curo | | | | DB | 0 | - | DB | DB | DB | DB | DB | - | - | - | SL | SL | DB | 0 | |
| ERIK Wikstrom | | | | SL | 0 | - | SL | SL | SL | SL | SL | - | - | - | SL | SL | DB | 0 | |
| | | | | - | - | 0 | - | - | - | - | 0 | - | - | - | - | - | - | 0 | |

Continued on Page 43

April 14-1936 Tues

Ilo - Frank Dwight and Mollie come
to Jenkins - Over nite with Reed and I
Mr Geo O. Farrar and wife Lv
Mason City Ia. Drive thro Jenkins in
evening - "See two cars at my house"
do not stop - drive thro to their Resort at
Shore Acres. Lot 4 Sec 24-140-29 So end
Woman Lake

April 15-1936 Wed

Mr Farrar telephones Jenkins thro
Hackensack. Mrs Kemper Collins I
promise to "be up this evening" or tomorrow
morning" 1-P.M. Ilo and Frank

Lv for St Paul - Dwight and
Reed accompany them to Brainerd

Mollie and I follow at 1:30 Reed
and I call at Mr Reg Timber Co office in
Brainerd Lv - Stop 30 mts in Jenkins
at Shore Acres 6-P.M. Supper and over
nite with Orton Farrar Note: nearly
stuck in bad road Cold all nite. N. wind

Jahm H. Cress

April 16-1936 Thurs

Ferris
140-29

13

Orton-Reed and I Lv @ 8-am. pass thro
mud hole - Lv my cor @ Eric
res-pack & N. - Find 60¢ spike Hub all
pulled up - small sq red patch cloths
re-establish Hubs 1205.8 and 1830.7 From

BTS-Page 8. Eric cuts North

$1830.7 + 300 = 2130.7 + 31.20 = 2161.90$ Hat

60¢ spike Note - Walk So and re-set Flag
at IM SE Cor Sec 24-140-29 @ 1830.7

North on Range Line Bet 19-24-

140-28-29. BS on US MCG No 5-44-N.

Side Mule Lake 0.0 = IM SE Cor Sec 24

2161.90 Oak 10 N 43° E 17.10

Oak 45 $57^{\circ}20'$ E 10.02

+ 317.10 = 2479.00 Hat 60¢ spike

3" Pop Stump SE 4.18
3" Birch tree NE 7.45

+ 70.10 = 2549.10 Iron Pipe 2x48

Set by Co Surveyor E.B. Hawk

Sec Co Record No

IM sets East 0.45. Our Hat = 60¢
spike Set 0.45 of a foot West of IM

$2479.0 + 300 = 2779.0 + 140.4$

= 2919.4 Hub 60¢ spike

JP 15 N about 45° E 18.65 } Pop 3 N
Pop 4 N. about 70° W 14.40 } about 80 W
Set 3. 7.45

14 April 16-1936 Continued

Eric brings his lunch - Reed - Orton
and I walk one mile West over ice
to dinner - So Side Woman Lake - some
water - Hard Cold NW wind

North (PM) On Range Line

Walk back over ice - $2919.4 + 300 =$

$3219.4 + 100 = 3319.4$ pin + $239.10 =$

3558.5 Hub 60' spike in E of West
half of green 10" NP Stamp

$3558.5 + 100 = 3658.5 + 229.3 =$

3887.8 Hub = 60' spike

Pop 8 S $55^{\circ}40'W$ 12.75

WP. 7 S $63^{\circ}30'E$ 7.95

All BTS - Spat at base

$3887.8 + 200 = 4087.8 + 163.8 =$

4251.6 Stake in Side Hill over

Revere + $82.9 = 4334.5$ Hub 60'

Spike Pop 5 N about $85^{\circ}E$ 4.40

Pop 4 N " $20^{\circ}W$ 8.45

$4334.5 + 300 = 4634.5$ Stake

+ $103.2 = 4737.7$ Hub On top 60'

^{4050 Foot Hill}
Spike On top 3 Trees

Map 12 10 N $82^{\circ}E$ 6.55 NP 9 N $46^{\circ}50'E$ 22.30

Birch 8 N $52^{\circ}W$ 19.60 Thence Down Hill

At about 350 Hub 60' spike 0.80 of a ft

East of $2 \times 48"$ Pipe - Reed & I walk $2\frac{1}{2}$ miles
Orton goes over Lake Home on ice

Jahn W. Cunn

For Reads 6.4

April 16-1936 continued

Cold NW wind is so severe we cannot chain down the north slope of this big hill - Reed and I walk a mile to with Eric rather than face the wind on the mile of ice to camp.

Evening: I write up these notes and look up US Notes till 11 PM.
Platon Page 9-

13-18-19-24-140-28-29

US Notes call for 'K' 140-29

Maple 5N N 76° E 38 = 25.08

Pine 30N 86° W 53 = 34.98

Maple 6 S 54° E 52 = 34.32

W Birch 6 S 25° W 19 = 12.54

K - $\frac{1}{4}$ Bet 19-24-140-28-29

Aspen 6 N 70° E 13 = 8.58 gone

Aspen 8 S 73° W 7 = 4.62

19-24-25-30 - 140-28-29 = 'L'

R. Maple 10N 51° E 16 = 10.56

" " 7N 3W 46 = 30.36

" " 8S 15° E 57 = 37.62

Basswood 10S 8W 53 = 34.98

gone

16 April 16-1936 cont'd

MC N^o 14-140-29 =

Cedar 8N 70° E 9 = 5.94
" 6S 75° W 8 = 5.28 gone

MC N^o 15-140-29

NP 10S 5W 39 =
WB ch 5N 70° E 23 =

1/4 Bet 24-25-140-29 L to V @ 1

WP 18N 10W 6 = 3.96
Pop 17S 1E 30 = 19.80

L to V @ 2 Bass and Oak - gone
" " 3 in Lake

US MC N^o 6 N Side Black-water Bet 25-26-140-29

N.P 12N 20° W 28 = 18.48
WP 14N 60° E 37 = 24.42

23-24-25-26-140-29

See p 29

NP 14N 42W 20 = 13.20
WP 8N 83E 37 = 24.42
NP 12S 73W 34 = 22.44
NP 8S 35E 32 = 21.12

600 LRS = 396.00 FT N. of MC N^o 6

1/4 Bet 23-24-140-29 O to F @ 3

WB. 10S 50W 44 = 29.04
B. Oak 9S 75E 14 = 9.24 gone?

MC. 16 Bet 23-24-140-29 So Side Woman Lake

NP 8S 55E 10 = 6.60
NP 5N 60W 31 = 20.46

22-23-26-27-140-29

WP 20S 20E 39 =
" 18S 76W 47 =
" 17N 65W 19 =
I Wood 4N 20E 32 =

April 17-1936 Friday

Up @ 6-30 am. Bright Sunshine - Ice frozen
Cold - NW Wind - 7-00 breakfast

8-10 Li Camp. Eric not needed today

Reed - Orton and I walk over ice 1 mi E
North
Beg @ 4737.7 Ch N - Down Steep 100 ft Hi
Hill - New P.B. String - Orton + I ch.

Reed packs Heller down hill

about 4975 Foot Enter swamp

 $300 = 5037.7 \text{ pin} + 59.0 = 5096.7$

IM 2x48" pipe bears West 0.80
of a foot. Wind rising boys build fire
burn brush $5096.7 + 91.7 =$

 5188.40 Hub = 60 ft spike on So

Shore Women Lake 15 to 20 ft

So. of Sea Wall - NE-SW

Note: $5096.7 + \text{about } 75 \text{ Ld}$

Swamp NE SW

Ties to 5188.4

NP 12 S about 45° W 2.15
NPS S " 45° E 4.95

From 5096.7 Ch N 13.0 To 5109.7

T over 5109.7 Old BT 30' w p bar

N 86° W 29.84 Chain from Old BT

S 86° E 34.98 part P.B. String Set spike

Then N 0.30 ft. Fit. & old BT.

18

At 5109.70N spike for cor set 90°E
5.16

Ties. Old vs BT = 30° Pine N 86°W 34.98 scrubbed

WP 8 N 85°15'E 24.30

old 24" WP stub 12" HI N 67°25'E 41.98

Birch 8 S 27°15'E 15.00

old WP stub 20" diam 25th S 14°E 63.70 scrubbed

2x48" iron pipe S 25°W 14.30 to cen

Walk one mile west on ice to
dinner - take all loads

P.M

Geo Farrar and his car drive us 20 r
East to mud hole. Rock N E

π over iron pipe SE Cor in 24-140-
29 take NW angle of randoms

76°01' - 152°02' - 228°04' to floor

@ Hub 1720 NW Page 6

Ties to SE Cor See 24

Pop 12 N 41°40'E 74.80

Birch 10 N 0°45'E 61.20

Birch 9 N 55°10'W 81.33

To spot

Turned from random line N

Flag @ 1720. π over S to 2846.5 ^{pg 6}

Iron pipe bears SE 24°43'R 50.10

45.60 E and 21.00 S.

At 2800.90W IM bears S to 21.00

West Bet 24-25-140-29 cont'd

April 17-1936 cont'd

140-29

19

Continue N 76° 01' W

$$2846.5 + 3-6-9-1200 = 4046.5 \text{ pin}$$

+ 130.5 = 4177.0 Forrer road runs North by

$$4046.5 + 254.9 = 4301.4 \text{ Hub } 60^\circ$$

spike WP 8 N 57° 23' E 49.23

N 14 S 6° 05' E 32.00

Hub = 60° spike 3 N of E W 2

$$4301.4 + 300-600-900 = 5201.4 + 254.6 =$$

$$5456.0 \text{ Hub } 60^\circ \text{ spike } 6 \text{ N of } 2 \text{ road}$$

NP 11 S 59° 42' W 70.35

NP 10 S 34° 10' E 28.20

Chained down light slope via
ground slope

$$5456.0 + 145.8 = 5601.8 \text{ set}$$

Hub 1 x 12 Birch Hub 10 N of 2

road NP 12 N about 45° E 44.80

NP 11 - about North 19.65

4-45 PM. Forrer and son
Reed and I, look for US BTS

I walk to Blackwater Lake

Mr R. S. Johnson has new cottages on Lot #1

Sec 26-140-29 I meet his brother who
shows me where other surveyors used
a point for US 196 N 26

John W. Cunn

April 17-1936 cont'd

At USMC N-6 on N shore of Black-
-water lake bet Secs 25-26-140-29

US Notes Coll for

NP 12 N 20° W 28' = 18.48
WP 14 N 60° E 37' = 24.42 ft

We find the stump of the old NE WP from
which I set a 2x12 pine Hub and
back for the TRUE N Cor @ 6:00
the old NW NP is gone I take
New BTS. viz

Twin Oaks both 4 white oak USE So. line

N 44° 05' E 22.98 @ 6:00

NP 10 N 32° 40' W 34.22 To new spot above

Note: this NP is one of my old new BTS
and has a spot with a screw in can
nearly overgrown From MC 6 run

North on 6:00 Random bet 25-26

43.6 wood Hub and lock. 300 pin 379.25

Hub 396. ft for ^{400 ft} Sec cor. 418.5 wood Hub

Quit @ 6:15 Mr Farrar drives me

half a mile East and like Reed & Olson
home to camp. I walk half a mile to

my car. Li val. for Eric. Meet the
Saff who says he and Gilbert Norman
helped John Becker survey his place
and mile at home in prison

April 18-1936 Sunday 140-29 21

I am 65 years old today am at home alone in Jenkins - call up Sullivan and drive to PK Region Timber Co Office Get \$35⁰⁰ dinner with Mary & Mattie PM. Buy tire & tube \$4.95⁰⁰ Evening: Ilo and Frank or ^{2d} Mattie and I follow them back to Jenkins

April 19-1936 Sunday

Copypalms in Jenkins Pg 22

Addressees

Theo Albright Pontoria

Cliff Kruckow

Mr Undeen owns land N. End Pithwater

1 PM I drive to Woman Lake. Get Reed and outfit back to Jenkins @ 4-30 PM Reed, Ilo and Frank drive to Reguot in evening

John W. Curo

Geo O. Forrar

Reed's Notes For April 18-1936

Reed-Orton and Eric

Beg @ 400 N. of MC N=6

Chaining From MC N=6 - Als O.O.

continued From Pg 20. 16°

All cut line in OM - PM Reed
and Orton chainNorth bet 23-24-140-29

$$400 + 300 = 700 + 295.7 = 995.7$$

Hub 60° spike Hi hill 20 of Beg

+ about 125 = 1115 ends bet

$$995.7 + \text{about } 550 = 1545 \text{ ends}$$

west Island 3-6-1595.7 fin about

center of Island + about 50 =

1645 L₀ Island Ends someswamp $995.7 + 900 = 1895.7$

about 4 creek 10 ft wide Flow

East 2045 L₀ Swamp

2185 cross Rat Farm Fence

$$2195 \text{ bet fin} + 115.5 = 2311.2$$

$$\text{Hub } 60^\circ \text{ spike} + 179.80 = 2491.0$$

$$\text{Hub } 60^\circ \text{ spike} + 100 \text{ over } \text{dub} \text{ measure}$$

$$= 2591.0 \text{ fin} + 229.8 = 2820.8 \text{ Hub}$$

60° spike on Hi bank to side

Woman Lake. about 50 ft from water

James Reed ends

NOTE
WE FIND 300 FT
EXTRA IN THIS LINE
W.E.C. 11-8-76

9957 23
396
5997

140-28

Wagon Lake

Horst survey

5050.7 Horst

19

note Lake

9957
3847

30

24

4500
384.7
153

400
396
4

384.7
379.25
5.45

N 0° 01' E Random

5.16
80
575

old us
137.
30' W.P.
5106

5096.7

13

5109.7

5109.7

Horsts and Cor
May be 13 ft No and
5.96 W.P.

N 0° 01' E Random

5.16
5 stake
rough
cor

AP. 13
0.80

5109.7 right

25426

pipe

Sec 24-140-29

Cerro Survey

23° 47'

23° 24'

384.7
MC. 6

5432

4177 Random

66°
N 74° W

2841.5 H.H.

pipe set by
Green for
N.S. & 1/2 Sec 23
140-29

75.6

2800.90
sets 21 ft L

Sec 24

1720 H.H. 176.18

76° 01'

5096.7

Random 2549.10

Sec
Cor

See Page 6-24-27-41-51

Random
assumed North

April 20-1936 Monday

Mattie puts out washing Frank and Ilo
fix house Reed around town

I hire Peet Taylor and Bob
to help me tomorrow on 13-137-29

Mattie - Reed - Ilo - Frank and I over
nite in Jenkins

April 21-1936 Tues

Reed and pick up Peet and Bob - all
AM. on bus 13-137-29 For Plk Region Co

Home for dinner. Frank has gone

Left for St Paul @ 11 AM - Mattie

went as far as Brainerd with him

Ilog's dinner for Reed and

PM. back on 13-137-29 Reed Ilo

and I alone overnite at Jenkins

April 22-1936 Wed

Arms crew on 13- For Plk Reg Co
Home @ 6 PM. Find Frank Souther
back from St Paul with Trailer load.
John Babcock (Junior) with him Mattie
still in Brainerd John W Crew

26

April 23-1936 Thurs

Reed - Junior - Ilo and I move my
office stuff out of Mattie's office
dinner at home - Snow storm -

2 PM Reed and Lr Jenkins - Ilo and
Junior alone in Jenkins

Ar Shore Acres 3-30 pm

4-30 PM Reed and I Lr Camp Try to
locate Cor 23-24-25-26-140-29

See Pg 16- Meet Mr R. S. Johnson
Who owns $N\frac{1}{2}$ of $N\frac{1}{2}$ and more

See 26-140-29 He is anxious about
MC N^o 6. I tell him I believe his
East cottage safe from Mr Undeen's
west line Reed and I drive East

to Mr Stoff res- he is in Pine River with
Gilbert Norman. Reed and I return for
5-30 supper- 6 pm Lr again to Cor
23-24-25-26-140-29

Reed walks 80 rods N - gets Tape
reel π over 5456. Pg 19- continue
 $N74^{\circ}W$ 68 ft to 5524.0 intersect
Random 15.3 S of $H00^{\circ}$ - 384.7 N
From MC N^o 6 π over $ZA-BS-S74^{\circ}E$

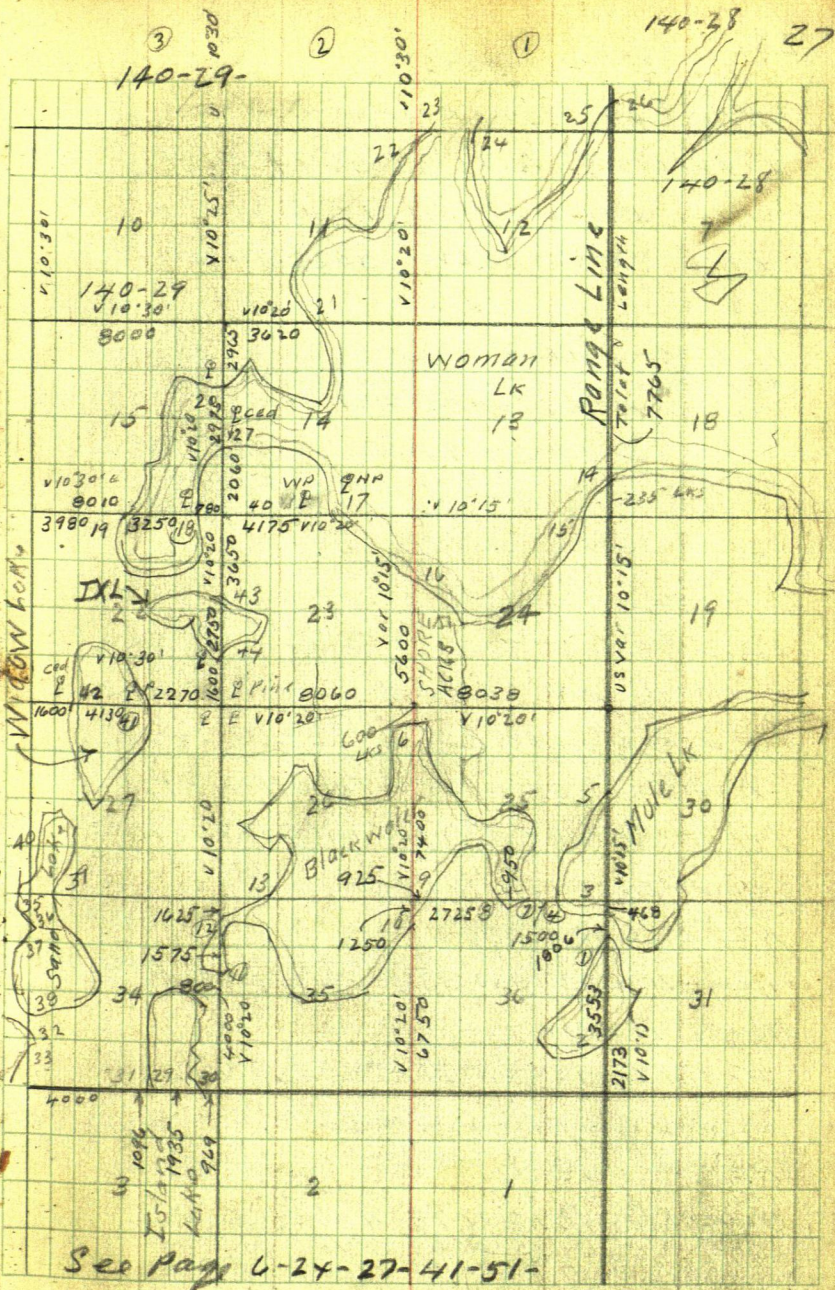
Random runs $N0^{\circ}14'W$ BS on Fly 9
2846.5 Pg 6-18- Drive walk 600 N at 2800.9
Pg 18- Meet Stoff and Gilbert Norman at
Eric's res. Home at dark $2\frac{1}{2}$ hrs. MM. staying
overnite in A23.

John W. Eno

③ 140-29-
P.E.A.

140-38

27



28

23-24 - 140-29

April 24-1936 Friday

Figuring: N 76° W 5524 Feet

Sine $24192 \times 5524 = 1336.37 \text{ Ft N}$ Cosine $97030 \times 5524 = 5359.94 \text{ W}$

N 76° W 2800.9 Feet

Sine $24192 \times 2800.9 = 677.59 \text{ N}$ Cosine $97030 \times 2800.9 = 2717.71 \text{ W}$

| | |
|----------------|----------------|
| 2717.71 | 5359.94 |
| <u>2642.23</u> | <u>2717.71</u> |
| 275.48 | 2642.23 |
| 37.74 | |

Up early - SE wind - warmer but
still cold.

Orton - Reed

and I pick up Eric and his lunch

Drive to Cor 23-24-25-26-140-29

Heller T over I.P. Take New BTS viz

My old New BT screw in spot nearly
grown over Spot of base bear ^{12" NP}

N 52° 26' W 97.80 Ft

New-NP 1053° 10' W 35.9 V 6° Turned

from True E-W

From same I.P. took old stumps
and stump holes viz

NE

Pine Stump 12 N 73° 42' E 55.7 To heart

" " 15 N 69° 52' E 51.3

" " 20 N 61° 27' E 38.5

Stump Hole N 47° 08' E 30.0

NW

Shore Acres 140-29

29

| | | | |
|------------|-----------------|-------|----------|
| Pine Stump | 15 N 9°30' W | 46.75 | To Heart |
| Stump Hole | N 19°10' W | 27.90 | " |
| Pine Stump | 12 N 24°35' W | 53.10 | " |
| " | " 20 N 38°40' W | 54.40 | " |

SW

| | | | |
|-----------------|-----------------|-------|----------------|
| Pine Stump root | 8 S 50°15' W | 28.50 | Same course |
| " | " 15 S 50°15' W | 37.20 | |
| " | " 15 S 45°15' W | 38.70 | |
| " | " 15 S 13°50' W | 20.70 | |
| " | " 15 S 8°55' W | 27.60 | |

SE

| | | |
|------------|-----------------|-------|
| Pine Stump | 12 S 14°00' E | 28.60 |
| " | " 20 S 51°30' E | 36.20 |
| " | " 15 S 65°15' E | 92.40 |
| " | " 15 S 66°30' E | 72.40 |
| " | " 15 S 67°40' E | 73.40 |

To heart of stump all turned from
True North using Range Line as
Meridian New reading of random
runs N 0°13' W carefully taken 106° E

Above IP is 5524.0 NW and 384.70
N of US MC N°6 See Page 24

From IP Focus S 74° E on Flag @
Sta 2846.5 P 24 Run West. Over

Farrar

From TP P₉ 29 = Tamp Cor 10

23-24-25-26-140-29 Run

West bet 23-26-140-29

$300 + 237.6 = 537.6$ set Hub on Hill

-60° spike 2 ft so of E-W & new graded road Ties viz:

Norway Pine 15 inch, S 59° W 51.40 ft

" " 10 S 17° 25' E 23.85

$537.6 + 62.4 = 600$ W - from 900-1200 ft
+ 120 = 1320 Hat 60° spike 20 ft

North of E road.

NP 15" N about 1° E 32.25 spat at base

NP 10" N " 70° W 38.75 spat 8' up

NP Stump-green 15" S about 89° W 36.0

I walk about half a mile West
Reed on Hill at π Orton and Eric cut brush
along N side of road - Set

Hub = 60° spike in E N-S Road. 58 ft

N. of E Road Looking East Ties viz

= Hub 2723.6 ft West near

1/4 Cor Bet 23-26-140-29

Poplar 10 N. about 25° E 119.12 ft

Basswood 12 S " 89° W 83.60 "

To spat at base

All drive home to dinner at 12 m.
Sleet and snow

April 24-1936 continued

P.M.

Reed and I drive Orton and Eric
West and they cut continued line
West bet 23-26-140-29

Reed and I drive East. Pick up
Geo Stoff and drive west Walk
about 600 ft N when Mr Stoff
thinks to find $\frac{1}{4}$ Cor bet Sec
 $\frac{1}{4}$ bet 24-25-140-29

where Mr Stoff says John Green
Co Surveyor 4 years ago that
he found the $\frac{1}{4}$ Cor when Green
and Gilbert Norman helped survey
the Stoff land.

We find an old $4 \times 4 \times 12$ " Hut
or stake about 50 Ft E of old cut
out N-S line but this is Not the
 $\frac{1}{4}$ Cor as there are no pin stumps
near Mr Stoff says he is not sure
what Surveyor Green found here
as he was. not with him
at this $\frac{1}{4}$ Corner. walk so and drive
west to Cor 23-24-25-26-140-29

where Mr Stoff cannot locate the
point where Green put the corner

Ferrer

32. April 24-1936 cont'd M
23-24-25-26-140-29

Mr Staff says the corner stood at the crook of the road "before it was graded" He says Green found the US MC on So Side of Blackwater and ran North to MC N:6 on N shore thence North to E of road

That is about where we have our temporary corner now

I show Mr Staff one of my old bts being the 12' NP with screw in spot bears N 52° 26' W 97.8 From IP Pg 28 he says Green used this and another probably graded out by new road

I tell Mr Staff his 2m pipe at 2800.90 W Pg 24 is about 37 ft to far West and point out about where it will come in E of graded road NW-SE He does not seem to care and says he will still have his lake shore I tell him about the 1/4 Cor that was also found about 600 ft so of the road and that both 1/4 Corners were probably wrong. - He drives him home.

Geo O. Farrer - 23-24-140-29.

April 24-1936 cont'd. Reed and I drive
1 1/2 miles west - pick up Orlon and
Eric in blinding snow storm at
3-30 PM. Drive Eric home and am
in camp about 4-PM.

Still storming - I write up my notes
Maps on Pg 6-9-23-24-27-

US Notes on Page 15-16-20-33-9-27

Time Sheet Pg 7-

Board Sheet Pg 11-

Addresses Pg

US Notes: Pg 9-27

1/4 Bet 23-26 - L to V of 2

Bossd 5N 45E 25 = 9042
B. Oak 5S 12E 25 = 9042

22-23-26-27 - 140-29

| | | | |
|--------------------|------------|-------|-------|
| WP 20 | 520E 39 = | 25.47 | |
| WP 18 | 576W 47 = | | 31.02 |
| WP 17 | N 65W 19 = | 12.54 | |
| Iron'd 4N 20E 32 = | | | 21.12 |

MCN# 43 - N. Side IXL Bet 22-23-140-29

W. Birch 4N 39W 40 =
Only one

34 • Apr 24-1936 140-29

US Notes: Pg 9-27

MCN^o 44 S. Side Lk Bet 22-23-140-29

WPine 24S 48W 25 = 16.50 ft
only one

14-15-22-23-140-29

Bay Wood? (Box Wood) 15N 50E 10 = 6.60

Mopie 5N 22W 49 =

Mopie 5S 64W 51 =

Mopie 12S 35E 35 =

MC 17-Bel Seer 14-23-140-29

WP 5S 28W 24 =

NP 18N 67W 44 =

MC 18 Bet 15-22 E Side Arm of Woman Lake

EIM 4 FOR CORNER.

WP 30 S 70E 10 = 6.60 only one BT.

MCN^o 19 West Side of same

OAK 10 N 50E 20 =

Mopie 9S 60W 34 =

MCN^o 20 Bet 14-15 N Side of arm of Lk

W BIRCH 5N 80E 20 =

NP 16 N 16W 20 =

MCN^o 27 Bet 14-15 S Side Arm of Woman Lk

Willow 6S 17E 22 =

Cedar = 8S 53W 40 =

$\frac{1}{4}$ Bet 14-23-140-29 K to W at 2

WP 24 N 20E 14 =

Mopie 5S 3E 53 =

140-29

April 25-1936

Time sheet on Page 7-

Board " " " "

Snow and sleet all PM yesterday and half the night. Sun comes out this morning limb of snow-going fast. Out on sick. cannot work

Reed and I pick up Erik Wikstrom and drive West - Erik sets two hubs 80 rods west of Highway and cuts half a mile West bet 23 & 26 to Car 22-23-26-27 - 140-29.

Reed and I drive N & W to Summer home owned by Dr H.W. Kline of Anoka Minn owns over 300 acres - Art Melmo, my old friend in in charge - has worked 4 years for Dr Kline

Melmo shows us a $2\frac{1}{2} \times 48$ " galvanized iron pipe some surveyor (Probably Byron Bartlett of Hatch) has set on the N shore of IXL, LK

Melmo - Reed and I drive E and N to Car and walk West to Corpses
14-15-22-23 - 140-29

36 April 25-1936 cont'd

At 14-15-22-23-140-29

We find 2x48" pipe set for the Sec
Cor. and another pipe about 600 ft
West set for witness MC. N° 18.

Bartlett probably set both

Meet Mr Lambert and his
Son "Ted" or "Fred" Truck driver
Mr Lambert is 80 years old and
strong except a "skin cancer" on his
right eye - 20 years old -- says the
cheery words I told him in 1916 - our
20 years ago has made life worth
living and soon

Reg @ 1320 Pg 30 ch

West bet 23-26-140-29

1320 + 126.9 West corner of big WP stamp
= 1446.9 at 1510 on L^y Creek bottom
mark N-S- @ 1645 ± 3 foot Culvert sets
So @ 1680 L^y Creek bottom 1446.9 +
300 = 1746.9 Stake + 300 = 2046.9 - 0.90
= 2046. peg on log. + 300 = 2346 peg
+ 300 = 2646.0 peg + 77.6 = 2723.6
Hub = 60° spike in @ N-S-Road
Pop 10 N about 25° E 119.12
Bar'd 12 S " 89° W 83.60

58 ft N of road at bend

$$2646.0 + 98.9 = 2744.9 \text{ Hub} = 1 \times 10$$

Birch under Transit

Bass-wood 10 S 88° 51' W 62.30

Oak 12 S 11° 12' W 50.10

To spot at base Turned from Random

$$2744.9 + 166.3 \text{ Hub} = 60 \text{ d Spike}$$

driven Two inches so of heart of green
15 inch Poplar stump on line

$$= 2911.20 \text{ west}$$

Road bears N 1° 30' W over half a
mile, At 11-30 AM. Erik Wikstrom
comes back and we drive him home

Quit survey for a few days

Reed and I take dinner with
Geo O. Farrer and family

I ask Farrer for some money and
he gives me a check for \$50⁰⁰ on
account - my pass is to be \$10. a day
and Reed @ Two or three a day

Copy of Check

N^o 761

First Natl Bk Mason City Ia - \$50.

To John W Coro - for Surveying Geo O. Farrer

P.M. Reed and I drive home to Linton

John W Coro

Farrar - 140-29

38 April 25-1936 cont'd

P.M. Reed and I stop at Pine River
Cash check - Pay Bk \$10.15 on acct
Bal \$31.50 due Bank Get
G.M.-A.C. - Ch \$28.00 Find Ilo
and Junior at Jenkins.

Mail in G.M.-A.C. Ch Payment
due April 10-1936 on my car
Time sheet Pg 7-

Board " 11-

Jack Curo 5 day @ \$10 = 50.00

cor to Walkerton wah 6.00

Reed 6 days @ \$3. 18.00

apr 25-1936 check

\$ 74.00
50.00

Bal Due Curo \$ 24.00

May 17-1936 Sunday

All day in Jenkins work on Kyllingstad Plot

May 18-1936 Monday

Reed and I bring Dwight Currier from
Jenkins to Brainerd - Drive to Kyllingstad Plot
Take Creek bottom

May 19-1936 Tues

Up early and drive alone to Lincoln
Camp for Boys - at 8 AM

8-30 Mr R.F.B. Cote and his car and
man take me to west side Gull Lake
Back at noon - Dinner with Cote

May 20-1936 Wed--

Reed

May 21-1936 Thurs

Reed and I drive to Kyllingstad res then to
Long Lake. Correct one stake then back to
Brainerd. Then to Cote track via W. Gull
Rain - home to Jenkins - PM. out drive to L.L.
See Hannah & Mocha Overnite with Miller
Ray Porter

40 May 22-1936 Friday

Up @ 4:30 am. Breakfast with Miller

Contract to plat his land @ \$150.

Meet Sam Hanske and wife - Drive to
Wye I P HWY #34 with Trunk Hy
Lewis Lieske owns East Half
of Gov't Lot No

Reed and I check chain in rough from
SW Cor, E & find same 205 ft short to
Rg Line E of Wye.

Note: This is NOT Farrar work

Notes: "Black Menorka?" hms

Williams Paint Co employee sent
hms to Young Miller.

Note: Thoms of Emily could not
get posts down on line with
Survey of Prof Reuber tract of this
cc. (Mrs Meyer)

"Cedar Springs Lodge" Mrs Miller

Ray Porter owns land near Hannah
and Mack

Forrar
140-29

41

140-29

Woman Lk

15 14
22 1288.5
23 586°25'W
55 221.64W
52 23.63N

N 6°18'W
1302.5

1003.0
N 1°33'W

Dr. 1250.3
Kline 589°03'W
Anoka

N 1°14'W
3028.5

5353.33V

West 2744.9
P 937

N 0°13'W Random

2419.0

N 76°01'W
5524.0

N 0°13'W
384.7

see Page 6-24-27-41-51

42

May 22-1936 Continued

Geo O. Farrar of 21-9th St ^{NW} Mason
City Iowa Owns Shore Acres

His wife Mae L. Farrar Pine River
P.O. runs the store in Summer

Reed and I arrive 11-AM

Orten and "Boby" Meyers gets dinner
for Reed and I. Mrs Orten is in
Brainard PM

Orten sends his man Donald
J. Farrington 19- single of
Hockensack P.O. with Reed & I

Drive to Cor

14-15-22-23-140-29

At 1-PM our car stuck in mud
hole exactly 900 ft East from
this sec cor at 4 PM we are out

Pack & 900 ft W and cut line
West to So Arm of Woman Lake

To camp at 6 PM. Supper over at
7 PM. I work on notes

Reed and I sleep in Cottage
N^o 3. Shore Acres

Brot From Page 7

Time Sheet Working For G. O. Farrar

May 1936

John W. Curo

Car

Exp

James Reed Curo

Donald J. Farrington

21 22 23
1/2 PM

30 40 0

- - 0

1/2 PM

1/2 PM

25 26
BA - 11

40 40

- -

1

1/2 AM

June 4 5

16 17

1

1

1

Wool For 1/2
Fall

5

35 35

Reed 925

1

50 50

5

135

135

135

Farrar 140-29

43

Brot From Page 11

Board Sheet With Farrar

May 1936

John W. Curo

Reed

21 22 23
D PB

SL -

D PB

25 26
D PB

SL S

D PB

June 4 5

16

D PB

SL

D PB

SL

SL

44 May 23-1936 Saturday

Lv @ 8am Donald-Reed and I

14-15-22-23-140-29

Helly over I Reed and Donald Cut

So on random Orlon lakes -

them there in Malon Boat

I drive Chev 15 IXL

Meet young Melmo-11 car and

walk N-bet 22 & 23-140-29 land

meet Reed and Donald cutting so

Trees too thick - we abandon

the idea of running so bet 22-23

Walk N and @ Cor 15

14-15-22-23-140-29 ch

East along an old graded road

3-6-9-12 Slake Drive S and E

Heller & over Hub 2744.9 West

from Temporary Cor 15

22-23-26-27-140-29 Page 37

this book. Focus East on random Run

N 1'14'W along West of new road

@ 3028.5 short Birch Slake Hub

all at home at 12.01 for

dinner with Farrow B 41

John W. Cress

Farrer - Sec 24-140-29

May 23-1936 continued

P.M.

Reed and I work alone. π over Hub
3028.5 Page 41. BS- $S 1^{\circ} 14' E$ and run
along a new road $S 89^{\circ} 03' W$
1250.3. Hub in line with smaller
road running north

π over 1250.3 BS $N 89^{\circ} 03' E$ Run
 $N 1^{\circ} 53' W$ along road 1003.0 Hub
= 60° spike in a road π over 1003.0
BS- $S 1^{\circ} 53' E$ Run $N 6^{\circ} 18' W$ along a
road 1302.5 Hub in crooked E-W
road at a point 1288.5 East from

Corner to Section 14-15-22-23-140-29

See Pg 41. π over Hub 60° spike BS- $S 6^{\circ} 18' E$ We cannot see the Cor but

14-15-22-23 bears about viz
 $S 86^{\circ} 25' W$ 1288.5 feet N abt; This is
within 0'05' of the line course

Pack outfit and Lve 5 pm.
Home to Jenkins for Supper with
Ilo. Note: The New Road Crew
sleep here tonight for their 2nd mile
Dwight, Mary & Martha come from Bed
with their new 'Ford V8' John W Curo
Frank Sauter comes
late

140-29

46 May 24-1936 Sunday

All day on nolis: Help Dale Ellis
make out his application for Truck
Driver Fort Peck Montana Dam

Frank Soultter and I to drive to
Beaumont - buy a bed from Fitzsimons
Evening: Martha and I to Pine River
Reed and I to Clark all ok.
Reed & I sleep at home

May 25-1936 Monday

Fix blow out - I to and I drive to
Pine River - Get Irene McInnon
Wear and bring her home to Jenkins.
Rains in AM.

I figure Traverse Pg 41. Figure Vizi
N1°14'W 3028.5'

| | | |
|------|--------------------|-----------|
| Sine | 02152 x 3028.5 = | 65.17 W |
| Cos | 99977 x 3028.5 = 3 | 3027.80 N |

S89°03'W 1250.3

| | | |
|------|------------------|-----------|
| Sine | 99986 x 1250.3 = | 1250.12 W |
| Cos | 01658 x 1250.3 = | 20.74 S |

N1°53'W 1003.

| | | |
|------|----------------|-----------|
| Sine | 03286 x 1003 = | 33.93 W |
| Cos | 99946 x 1003 = | 1002.46 N |

May 25-1936 continued

N 6° 18' W 1302.5

SINE 10973 X 1302.5°

COS 98953 X 1302.5°

142.

142.92 W

1288.85 N

S 86° 25' W 1288.5

SINE 99804 X 1288.5° =

COS 06250 X 1288.5° =

1285.97 W

1285.97 W

80.53 S

Reed and I drive N. slip at Y-3x
 East to Pipe Island Drive so pick up
 3 kids who show me 2-US-ims & M-S-Road
 So of Pipe Island Back to "Macks" at
 Whipholt P.O., Mr and Mrs Becker drive
 in from Iowa. Reed and I drive to
 Longville 54 for Paper Bag at Fuller's
 Store. At Shore Acres- Heavy storm.
 3 P.M. at Cabin N° 3. I work on figures
 Supper with Orlan

48 May 26-1936 Tues Ferrar

Breakfast at 8- Don- Reed- and I Pg 37

Beg @ Hub 2911.2 Pop. stump Pg 37 ch

West but 23-26-140-29 Pg 27³⁷ +

300 = 3211.2 - 11.2 = 3200 W. stake

35-38-3896.3 Hub = $1\frac{1}{2} \times 10$ Wood-W.R. root

WP Stump 40 S 11° E 5.42

Birch 45 69° E 18.15

Note: Both SE

4100 - 4400 stake + 158.1 = 4558.1 Hub

$1\frac{1}{2} \times 10$ Wood Made from W.R. root

B. 00K 7N 74° 35' W 44.4

Birch 45 18° W. 33.2

4700 + 172.8 = 4872.8 Hub = 604 spike

One inch 20 of heart of 6" green

Poplar Stumps about 75 ft East

of west bog + 3 = 5172.8 Tall stake

in bog 35 ft East of west shore

Note: I waded the swamps to chain

Reed and Don walk around Reed &

Double center hubs. P.B. Chain-Perfect.

5172.8 + 180.7 = 5353.53 Hub 604 spike

Pop 5 N 79° W 6.45

WP Stump 40 N 39° E 7.20

22-23-26-27-140-29 US Notes Say:

WP 20 S 20° E 39 LKs = 25.74 Ft

WP 18 S 76° W 47 " = 31.02 "

WP 17 N 65° W 19 " = 12.54 "

Ironwood 4 N 20° E 32 = 21.12 "

Melmo arrives and we look for IM

No find seen. Melmo and his lunch-were gone

May 26-1936 continued 140-29

49

We all ride North with Melmo who
drives us to our car @ $\frac{1}{4}$ bet 23-26

Dinner With Orlan

PM

Reed and I work alone.

Note: As Erik Wikstrom told me he found
"the iron monument" at 22-23-26-27 140-29

I decide to ask him again about it
and drive 5 miles S-E + N to East
side of Woman Lake where Erik says
he found only a wood stake at about 20

Reed and I drive back. Car stuck
in mud. Push it and walk E to Cor

Plenty of Big WP Stumps but they are all too
big and none check for position with
each other. Walk West to

ML N341 W87N 10E 17 = 11.22 } OK Both
NP55 2E 19 = 12.54 } new

On E. side of

Lake bet 22-27

140-29: We find a 3x3x36" old cedar stk
on beach leaning against cedar trees

Note: this stake is loose and may
be about East of point. However we use
it temporarily and ch E-N

Forrer

Temp MC 41 - Tight against 3 ft square
sea wall ch

East bet 22-27-140-29

2270 Links US = 1498.2 Ft US survey.

@ 186.2 set 1x16 birch stake on hill 2.0

E of head of 15" pin stump - v on line

486.2 blue chalk mark on wire fence

786.2 same 1086.2 pin 1386.2 - 55.5
= 1330.1 find old 3x3 wood stake

probably set by B. B. Bailett on
old E-W cut out line. $1386.2 + 65.8 =$

1452.0 stake on mound west of
small round swamp + 169 =

1621.0 Old stake at intersection of
old lines cut out North and West

π still at 5353.53 v

Old stake at 1621.0 bears

S 2° 42' E 127.5 In the hole of the
old stake I set a 2x2x12" stake

over which I set π BS N 2° 42' W

Old cut out line - just channel

appears to run S 89° W about, 1621 ft

T. MC N° 41. We re-located ^{W. M.} ~~the~~ ~~stake~~ @ 23-24-25-26

and ch to old stump S 8° 55' W 27.6 ft 29

Supper with Farar

Jahn W. Cuss

52 Farrar- 24-140-29.

May 26-1936 Continued

After Supper Reed and I work

Page 6-19-24

N 76° 01' W

NP 12 N 5° E 17.50

@ 2846.5

TLPI-6-567° E 37.9

WP 8 N 57° 23' E 49.23

@ 4301.4

NP 14 S 6° 05' E 32.00

3' N 4' E Road

We find bath spikes Flag @ 2846.5

Turn 4301.4 Ch E 130.7 to 4170.7 W

Turn 4170.7 Hub 60° spike

BS S 76° 01' E Run on E road

N 2° 05' W about 500 ft set Hub 60° spike

E N-S road From here north Farrar's
road runs about 5' W so that
his road and buildings will be safe

Quit at 8 pm. nearly dark and
drive to Jenkins - no supper

I sleep on shak-down in kitchen

The house is full of new boarder
Road crew. Reed comes in
past midnight. Rec letter from
Gardner

May 27-1936 Wed

I work on these notes till 10 PM

Jahnel Cere

Farrar

140-29

53

Addres: May 27-1936

Garold W. Curo - 2765 Gough St S.F.
San Francisco Calif Post Marked May 23-1936

Geo O. Farrar 21-9th St NW

Mason City Iowa - June 4-1936

54 June 4-1936

140-29
Farrar

I write Geo O. Farrar 21-9th St NW
Mason City Iowa. asking for \$25

June 5-1936

Pat Parker 414-4 ave Beaver arrested
@ 9-PM-

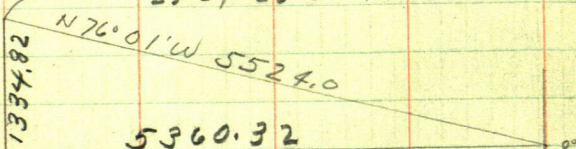
June 6-1936 Sat

Walt Spornitz and I take him to Judge
Sims Requat. \$10 fine
all am- Rain PM.

I figure on Farrar survey

Page 27-41-51 Figuring

Temp. Cor. 23-24-25-26-140-29



$$\begin{aligned} 76^{\circ} 01' + 13^{\circ} 59' &= 90^{\circ} \\ \sin 24164 \times 5524.0 &= 1334.82 \text{ N} \\ \cos 97037 \times 5524.0 &= 5360.32 \text{ W} \end{aligned}$$

Page 24-27

June 6 - 1936 continued

Figuring Page 41

Sta

0 = Temporary Cor 23-24-25-26

0 Run West 2744.9 To Sta 1

1 " N1°14'W 3028.5 " " 2

2 " S89°13'W 1250.3 " " 3

3 " N1°53'W 1003.0 " " 4

4 " N6°18'W 1302.5 " " 5

5 " S86°25'W 1288.5 " " 6

6 = Iron Mon @ Cor To 14-15-22-23-140-29

N1°14'W 3028.5

| | | | | | |
|------|--------|----------|---|---------|---|
| Sine | 0.2152 | x 3028.5 | = | 65.17 | W |
| cos | 999.77 | x 3028.5 | = | 3027.80 | N |

56

N

S

O. Run West to Sta 1

1-N 1° 14' W 3028.5 to Sta 2

Sine $02152 \times 3028.5 = 65.17$ WCos $99977 \times 3028.5 = 3027.80$ N

3027.80

Sta 2 Run S 89° 03' W 1250.3 to Sta 3

Sine $99986 \times 1250.3 = 1250.12$ WCos $01658 \times 1250.3 = 20.73$ S
$$\frac{20.73}{3007.07}$$

E

W

N

S

E

57

Total

2744.90

Total

Total

Total

2744.90①

$$\begin{array}{r} 65.17 \\ 2810.07 \end{array}$$

3027.80

2810.07 ②

$$\begin{array}{r} 1250.12 \\ 4060.19 \\ 1250.12 \\ 5310.31 \end{array}$$

3007.07

4060.19 ③

5310.31

58

Sta

Geo O. Farrar

140-29

0 = Temporary Cor 23-24-25-26

Run

Sta

0 West 2744.9 T.

1

1 N1°14'W 3028.50 T. 2

Sine 02152 X 3028.5 =

cos 99977 X 3028.5 =

2 S89°03'W 1250.3 T. 3

Sine 99986 X 1250.30

cos 01658 X 1250.3

3 N1°53'W 1003.0 4

Sine 03286 X 1003.0 =

cos 99946 X 1003.0

4 N6°18'W 1302.5 T. 5

Sine 10973 X 1302.5

cos 99396 X 1302.5

5 S86°25'W - 1288.5

Sine 99804 X 1288.5 =

cor 06.250

N

S

E

W

59

| Sta | | | | Sta |
|-----|---------|---------|---------|-----|
| | | | 2744.90 | 1 |
| (2) | | | 65.17 | (2) |
| (2) | 3027.80 | | | (2) |
| (3) | | | 1250.12 | (3) |
| 3 | | 20.73 | | (3) |
| 4 | | | 32.96 | 4 |
| 4 | 1002.46 | | | 4 |
| 5 | | | 142.92 | 5 |
| 5 | 1294.68 | | | 5 |
| | | | 1285.97 | |
| | | 80.53 | | |
| 53 | 24.89 | 1 01.26 | 5522.04 | |
| | 1 01.26 | | | |
| | 5223.63 | | | |

60 JUNE 7-1936 Sunday

June 8-1936 Monday

JUNE 9-1936 Tues

Recd check \$25⁰⁰ from G. O. Farrow

13th 1936 Sat

Reed and I to Longville. Meet Ben Clark
Dinner with Chas Sanford - Work
for Mississippi Riv Lbr Co

JUNE 14-1936 Sunday

Reed and I alone find I.M. on Ry line
for Mississippi Riv Lbr Co

Evening: Martha and I call
on Bob Schmeltzer

JUNE 15-1936 Monday

Reed and I. Rent rooms over P.R. Bk Bldg
\$2 To Mrs Katis

Select Ford Car from Ben Anderson

June 16-1936 Tues.

Reed and I to Seneca 8-15 or 9 a.m.
Arrange for dinner with Mr. Farrar

Drive to Cor 23-24-25-26-140-29

See Page 54-51-41-29-24-22-20-16

From USMC. N^o 6. at a point N 0° 13' W

396 ft 7 ft N of E. E. Road and

11.3 N of 2nd W. drive a 2x2x7' 396.0

Bunch Hub Hit old 2x20' pipe 11.3

foot below surface TRUE COR TO

23-24-25-26-140-29

New this

NP 14 N 34° 22' E 83.45

NP 12 N 57° 40' W 91.03 To New York base

NP 11 S 48° 40' W 84.40

NP 10 S 2° 35' W 47.15

NP 8 S 54° 01' E 92.85 spot 3' up

Old sq head 1/2 x 7" iron bolt in heart of
old 14" pine stump bear

S 39° 14' W 44.15

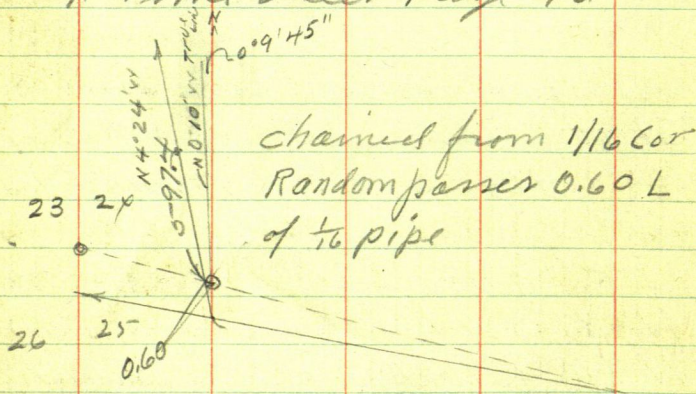
Piece of spring steel 7/8" thick by 1 1/2" wide
by 10 inches long driven in heart of
old 15 inch pine stump bear

N 13° 02' W 34.70 W or 6° 10'

Turned from line line N-S. called North

577 checked June 6-1940
577

64 June 16-1936 continued
 About 5 PM - Mr Geo O. Farrar
 of Mason City Ia arrives with his
 home town sheriff Mr Jack
 Thompson & son Robertson & son
 Saffer and over night in Cottage
 No 9. Time Sheet Page 43.



140-29

Evening: Reed and I check the
 Two recorded measurements
 of 298.7 and 298.7 shown on Page
 63 and it is OK. A blue chalk mark
 on the steel tape at 98.7 shows
 that our 200 ft chain with the 98.7
 is OK. so that that 597.4 is OK
 chained from 1/4 W to Cor
 John W. Curd

June 17-1936 Wed

Up at 7-10 am - Cold NW wind
Reed and I slept in No. 9 - Cattle
20x20 Log. Mosquitoes kept us
awake - Breakfast at 7-40

Cold rain starts - Build fire in
cabin 9-30 check chain 298.7 OK 1-
Hub 597.4 Continue N 200-200-200
-1.4 = 598.6 added to 597.4 = 1196.0
Hub 20th nail on last hill

T over 1196.0 BS on F19 @ 298.7 set
dbl con Hub on Lakeshore North

T still @ 1196.0 BS S on Hub 298.7 Turn
90° L Hub lies and turn 0° 30' L and at
Ely 89.13 set Hub on True W 1/2 Line

The Farror East line Set 2x10° Birch Hub

T still @ ¹¹⁹⁶298.7 BS S 4° 24' E

Take line to Random Hub 1196.0
N P 115 88° 45' E 38.50
N P 10 N 30° 50' E 57.49

To spot at base chained via light slope NE
Sta 1196 is a 30d spike 3 ft W of & of road
on small sharp hill driven down

From 1196.0 ch N 4 T. 1200 @ about
1300 road turns N 14th ^{Road 30 ft W} pm 16 pm
1663.2 Hub small R.R spike 1740 Top
seawall 1760 water

66 June 17-1936 continued

11.30 AM Still sleet & light rain

π over Hub 1663.2 BS $84^{\circ}24'E$

TIES: T.R.R. spike

JP 10 N $30^{\circ}45'E$ 9.55

W OAK 10 S $36^{\circ}40'E$ 18.90

Side of House west N $81^{\circ}30'W$ 7.40 To

N E Cor of cement block under of

Log Petition in center of side of Log House

Turned from True North

π still over 1663.2 BS - So on Random

Turn $90^{\circ}L$ and ch Eodily 123.70 To

point on line Line = East line Farrow

Tract = E side Gov't Lot

The True course is N $85^{\circ}36'E$ 123.70
feet where we set a $2\frac{1}{2} \times 18'$ iron pipe
driven one inch underground for
True East line

π over 123.7 BS. S $85^{\circ}36'W$ on
blue mark on East side of Log House
Run N $0^{\circ}09'45''W$ 51.0 To Hub $1\frac{1}{2} \times$
10' oak on seawall 25 ft from
water - Run S $0^{\circ}09'45''E$

75 or 100 ft set salt stake where

True Line Ties 1/2 in 123.70

WP 12 S $18^{\circ}W$ 5.80 No spot 1 ft up

OAK 12 S $50^{\circ}20'W$ 39.75 Spot at base

WP 8 N $25^{\circ}50'W$ 53.05 7.5 spot 3 ft up

N 4° 24' W - 0° 10'

N 4° 24' W

4° 14' Left of true line

Tang = .07402

298.7 N. goes E

22.11 + .60 =

22.71

597.4 " " E

44.22 + .60 =

44.82

1196.0 " " E

88.53 + .60 =

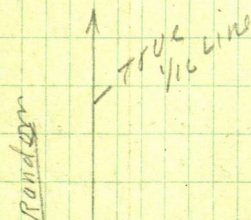
89.13

1663.2 " " E

123.10 + .60 =

123.70

@ 90° to Random



4° 14'

Tang

Sine

Cor 99727 / 1663.2 =

1663.2

123.7

140-29

24

1196.0

90°

597.4

298.7

1667.8 to IN

True line

0° 07'

5524

2742

2642

122

True N 75° 54' W

Random
N 76° 01' W

68

June 17-1936 continued

$$\begin{array}{r} 2820.8 \\ 396 \\ \hline 2424.8 \end{array}$$

Dinner with Farrar P.M.

Reed drives I and Geo O. Farrar
around and I show him I M @ NE
and SE Cor of his land

Other corners not set for a few
hours yet.

At Hut 298.7 wch E 22.71 set Hut
and fall stake - no lies

At Random Hut 597.4 = 20' spike
one foot E of & of road on small
hill driven down no correction
and no lies

1/4 Bt 23-24-140-29

See Page 22-

THIS DIST IS NO GOOD
SEE BK 258/137-139

Hut 2820.8 N = 2424.8 N of Sec Cor

Hut 2424.8 sets 60' 20' of waln

From Hut 2424.8 ch to 5.3 to 2419.5 N

Find My old 2x36" iron pipe badly
rustled My old BT Slump vi

20' from S 48° 40' W 7.70 to Heart

24' .. S 48° 50' E 15.60 to old BT

marks above

10" Birch tree N 18° E 1.55 to Heart

Nat'l: This Birch was gnawed upon

by birds and partly gnawed
an cut it down so it leans on x

2676.76 2723.4
1338.38 2620.2
97.4

53585.3 2724
2676.76 2677

47 2311.2

69

Slab, marked 2491.0 N, 5600
is 2095.0 North of Sec 2723.6
Cor = 60° spike 1361.3
at a point 0.30 of a foot 336
So of this spike I drive a 336
2x15 inch maple Hub and 3696.00
set a tall birch slab, mhd 2491, 2723.4
True Sec Line - "Coro" 1271.20

Hub Mhd 2311.2 N is @ 60° spike
which is 1915.2 N of Sec Cor
at a pt 0.20 N of this spike I
drive a 2x12" maple Hub and
tall slab Mhd. True Sec Line
Note: at a point 12" steps north
of this Hub there is a deeply blozed
old grown over 7" Birch tree which
stands less than a foot E of
of my line line

We drive to

Eggs

West to Bat Sec 23-26-140-29

See Page 30-36

At 1320 W Ch W 15 MI. 1335 W. set
2x36" pipe 20 ft N of road - 5:1 PM
Time Sheet Pg 7 and 143

2820.8

2424.8

396.0

Geo O. Ferror

70 June 17-1936 continued

Figuring Time Sheet Pg 7 and 43

Pg 7 Bal due \$ 24.00

1143

50
5

1350

68.50

25

4350

43.50

Bal 67.50

Interest on the \$25 -

7.50

\$ 60.00

60

Aug 3-1936

Bal 60.00

Rec Ch

20.00

Bal 40.00

Sept 17-36

20.00

Bal 20.00

24-140-29

71

Fowan

NO GOOD
 1276.5 short
 3696. Ftos = 2419.5 MYCH = 0.345373 short
 OK MYCH
 N 0° 13' W 2419.5 to MC
 2485 to water

2 55.2677
 12763.36
 1381.68

25 water
 51

23
 10.95
 26
 25
 24 SWCOR 24-140-29
 TRUE N 75° 54' W 1381.7

5524
 277
 5526.77

552400
 277

5526.77

12763

1381

N 0° 10' W 1667.8
 Hubm. seg. 1718.8

72 April 18^① 1937 Sunday
Lewis Liske 'Y' Survey
141-31 - Sec 1.

East 20 acres of SWSE $\frac{1}{4}$ SESE
Sec 1-141-31 = 60 acres

Martha Reed and I at y.
Meet H. W. Bloom of Remer Oil Co
at y. store. Louis Liske - Bloom
and I drive to Range Line
 $\frac{1}{2}$ mil.; Pick up Walter
Dvoracek who lives 180 Rods E 1
1-6-7-12 - 141-30-31

Walter says he and another man
once found the Brass capped
iron monument set by the
US. Surveyors and that he
found it about a rod South and
two steps west of intersection
of present roads.

After searching 20 minutes
Walter says it may have been
lying loose on the ground.
Louis and his car driver me to SW Cor
Sec 1 = 1-2-11-12-141-29 where we find

Iron set by me years ago almost BTS
Lost also for old 1/2 lot 1-12-
Total 2 Hours. John W. Cur

74 April 18-1937 3 141-31 - cont.
Nato. Field Book N° 229 Nelson Mfg Co
Martha-Reed and I L✓

Jenkins 8 am but drive thru to
see 5-r of Walker then back to
Park Rapids get 8/18⁰⁰ from Homer
Pat Shea-eatour lunch 2 miles
East of Ashley (pd 8/15⁰⁰ for it)
3 PM slip at Y and look for
BTS. as per Pg 72 of this book.

1-2-11-12-141-31

NP13 S 60 E 90 = Lewis and I find
" 8 S 31 W 70 = my non Monks
" 8 N 42 E 60 =
" 10 N 67 W 13 =

H. Y @ 1 = $\frac{1}{4}$ bet 1-12

JP 65 31 W 17 gone

Pap 7 67 E 19

H. = 1-6-7-12-141-30-31 Rg Line

WP 30 N 12 $\frac{1}{2}$ E 71 =

WP 30 N 1° W 32 =

YP 24 S 29 $\frac{1}{2}$ W 166 =

YP 20 S 14° E 82 =

April 18-37 Walter Dvoracek looks
for en on Rg line

Cur

141-31

4 Liske

75

May 21-1937

Reed and I drive from Jenkins
@ 4 10 AM. Lv Cor. Lewis Link sends
his man Arnold G. Wallebeck cut line
Tower line up to bit 1-12-141-31 cut line
E. and W. Work till noon

Eat dinner with Lewis Link

PM.

Arnold G. Wallebeck 23. single,
of Stephen Blinn who is working
for Link cuts line. Lewis Link helps
a short time.

Range line

Reed and I Carefully Inter-
sect @ 4 Roads at Range line
at S.E. Cor Sec 1-141-31

Drive R.R. spike - Set red flag
Drive half a mile West to

1/4 Cor Bit 1-12-141-31 IM

Set by US Surveyor in 1917 survey

= Sta. O.O. Nali. This may
not be the true corner

Focus E on Red flag and run

East @ 154.3 Ht = R.R. Spike @ 202.8

Ht R.R. spike Run West 78.35 Ht R.R.

spike 3:40 PM Calm - Windy - Dark

Quit

John W. Cox

76

5

June 13-1937 Sunday
 Martha-Mary-Dwight-Reed & I
 Jenkins-Reed and I take our
^{call on section 14-31}
 lunch and an "Y" at just
 12-morn. I buy 2 bottles of beer
 for our lunch which we eat.

12-30 PM L.V. Louis Link
 sends his man to help cut out his
 Reed and I find R.R. spike at
 SE cor Sect 1-14-31 where we set red
 flag. X over temp $\frac{1}{2}$ in =
 0.0. in West

West 78.35 Hub R.R. spike 160 ft +
 240 = 400 stake + 200 = 600 ft

@ 336 old road v-3 - 600 + 103.2 =

300.0

196.8

103.2

703.20 Wood Hub

$1\frac{1}{2} \times 12$ inch on Hill Tus

Bur Oak 7S 27° 40' E 18.75 20.75

W. Oak 4S 35° 20' W 20.75 18.75

T. spot 3 feet up on line

Howard T. Phifer - 20, single, of

3848 Wilcome Ave Robbinsdale

Min. helps. Natl Rain starts @ 1:45

PM. Quit at 3:45 PM Reed & I

Lo for him 4 PM Natl Get 10 gals
 gas from Link on acct \$ 2.06

Call on Stills 13 Aug
 13 Aug 7

1-141-31 Liske

"Y"

77

Received From Louis Liske

On account

April 18-1937

Nathaniel

May 21-1937 Dinner for I & Paul @ 35c

.70

June 13-37 - 10 gals gas

2.00

" 16 - 13 gals gas

2.68

" " Lunch for Paul & I

.60

June 22 - 12 gals gas

2.47

" " 1 qt Oil

.25

" 25 $7\frac{1}{4}$ gals Gas

1.54

Feb 1-1938 - 10 gals gas -

2.00

12.36

66.50

12.36

10.30

Bal 56.20

66.50

12.36

54.14

Time Sheet Pg 73-

June 14-1937 Monday

8-30 AM. Dwight and Mary
Lv for California - Martha goes
with them as far as Minneapolis

Reed and I take Martha furs
Brainerd - They Lv Brd about 11 AM
Reed stays at Ridley's I call
Peter Mogenson - he is in Brainerd
I meet Pect at Skaug's Drug Store
and take him home - eat dinner
with Pect and bring Luella back
to Brd where they sign plat of

First Addition to Mogensen's Shore

About 3 PM. I Lv for Senheim
where I stay overnight at home
alone

June 15-1937 Tues

Reed did not at home last night
and I drive to Brd to find he just
left Ridley's with Dep Sheriff

I return home - I get \$10 at Pequot
bank pay 75¢ to Viola Anderson

Reed comes on 3-PM Bus

Liske
1-141-31

⑧

June 15-1937 continued PM.

79

Martha does not come on either Bus
and @ 9 PM, I call at Kemper's
res to wait for tel from Martha after
9-40 Bus arrives in Bearsted

Change my mind and tell
Mrs Kemper to watch telephone

Pick up Reed and we ride
out for Bearsted 9-30 PM to
Jenkins 9-55 PM. Pull in at
Bus Depot just as passengers
start to get off. Martha is about
the last one off and we go
home - Stop at Ridley Res. to

Reed for ten minutes while we go
back down town for Tea-Milk &
bun Pick up Reed and as

Jenkins 11 PM - Reed - Martha
and I alone

80 June 16-1937 Wed.

9 am Martha-Reed and I
L. for "Y" at 10 am. Pick up Howard
Phifer axman chain

West bet 1-12-141-31 From Huel
703.20 W ch East 3.2 Set pin
700 W + 300 = 1000 stake 102.7 =
1102.7 INT = $W \frac{1}{2}$ Cor US Brass Cap
sets N 1.65 @ 10 + 150 = 1150 pin + stake
300 = 1450 stake + 3 = 1750 stake

12-25 PM. Heavy thunder downpour
halts us for dinner

Heavy rain holds Martha in
car till 12-45 All three get
Sandwich dinner with Liske
I pay 15⁰⁰ bal for Martha's dinner
after which Reed and I owe 60⁰⁰
Chg to Liske Thro me P 77

1-30 PM din. to Walker Hazel
has no US plat of 1917

Meet Harry Paddock and
E. G. Larson of Walker %

Shingobee Island
Larson has description viz

Com @ SW Cor Lot 10 Bk 1.
N along W side of lot, 40 Ft

1-141-31

10 Like

81

then East parallel to so line 50 ft

then South " " W " 40 "

" West to place of beg - 50 "

Note: Mac LaBarge on Lot 10

Russell Grear bot Lot 11

Shingobee Island

Lot 11 Bk1 occupied by Earnest

Miller. Note: 50 Ft of Lot 10

to Gust Goldberg

This "50 feet" will go into

Lot 11 - I tell them -- they say

OK. who cares I may look

it over and "may" try to

survey "all the lots"

Will see E.G. Larson later

Call on Forestry Div

meet Sixmen - treated fine

No one has any record of

1917 US survey - may send to

Washington if necessary.

Call on Dan Delury

7.

Back to Y. Pick up Howard and a

3 PM Continue

From Hubon Hill ch E 346.7 to
1750. W 2096.7 Hubon hill = R.R. spike

Thence down hill + 67.0 =

West 2163.7 Hub R.R. Spike in e-
old main road N10°E S10°W

2096.7 + 102.7 = 2199.4 Hub R.R.
Spike on West slope of Sid of hill

π over 2199.4

167.32 167.85

133.49

28°30'

π 2199.4 v

151.9

38.5

190.4

151.9

39.1

191.0

151.9 down Hill

191.0

39.1

190.4

2199.4 Chain from Top of π

down hill Ver arc reader 28°30'

1.25 S

@ 151.9 R.R. spike Hub 9 ft W of & M.F.

Ry + 38.5 = 190.4 Brass IM Set 50 1.25

+ 39.1 = 191.0 Galv IM " S. 1.25

The two IM Set 0.50 apart - both on
line E-W

28°30'

Sine = 4772

Cor 8788 x 151.9 = 133.49 OK

Cor 8788 x 190.4 167.32

Cor 8788 x 191.0 = 167.85

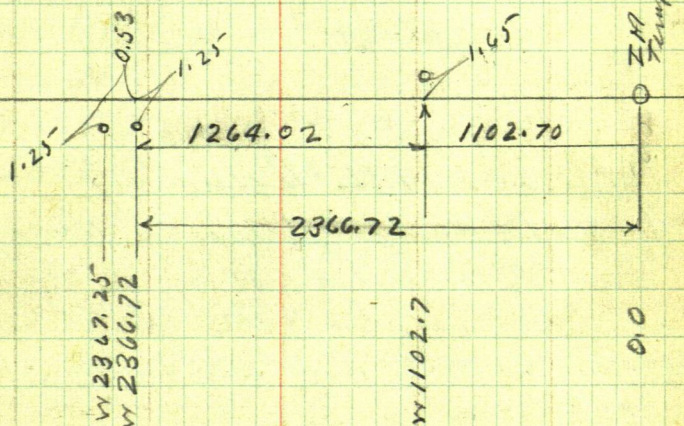
$2199.4 + 133.49 = 2332.89$ Hub
 R.R. spike 9 ft W of E.R.R. Track
 - 9 = 2324 W = E.R.R. Track

$$2199.4 + 167.32 = 2366.72$$

The Bear cap IM set in
 1917 sets South 1.25

$$2199.4 + 167.85 = 2367.25$$

Galvanized Capped $2\frac{1}{2} \times 48''$
 IM bears South 1.25



$$\begin{array}{r}
 1264.02 \\
 1102.70 \\
 \hline
 161.32
 \end{array}$$

84 June 16-1937 continued 13. Liske

Back to the 'Y.' and 'Z' mine
pull up on flag - back to Y.
get 13. gals of gas from Louis Liske

| | |
|-------------|-------------------|
| = | 2.68 |
| Two dinners | $\frac{60}{3.28}$ |

5.50 pm L for Jenkins @ 60-70-75
and 80 miles per hour

June 20-1936 Sunday
Red and I survey Horege
and Hank land

June 21-1937 Monday
Martha & I to Red

1-14131 14

1 Liske

85

June 22-1937 Tues

9-30 AM. Read Clarence
Hodge and L. Jenkins
Find mark-up 1 mi
S of Becker Ed Lulen's
wife and others

Call on Chas Wood
Hochensack 75¢ for lunch
to take along

Arr. at 11-AM go to Car

1-6-7-12-141-30-31

US Nalis call for (See p 74)

WP 30 N $12\frac{1}{2}$ E 71 = 46.86

WP 30 N 1° W 32 = 21.12

YP 24 S $29\frac{1}{2}$ W 166 = 109.57

YP 20 S 14° E 82 = 54.12

We do not take time to check
these BTS. but tie in the
RR spike set in E of 4 Noods
old 20 r p stump SW 123.3+
Fence on NW 47.4
Tul pl SW 38.51
Cut 10 SE 53.18 To bark
of hole at base

86 June 22-37 ¹⁵ Continued
 Eat our own lunch in
 Liske's yard 2 bottles beer
 for us 1 pop for Reed
 PM

How many pipes helps Clarence
 cut brush π over
 O.O. Turns $1/4$ @
 East (see pg 75)

Hub 202.8 = 202.70
 1/2 day

East on Random but
 1-12-141-30

220 Hub R.P. Spike 300 ft
 $+ 230.2 = 530.2$ Hub R.P. Spike
 $+ 154.10 = 684.3$

Hub R.P. Spike .30 E and
 under guard rail Cabal
 on W side Plat Highway

π over 530.2 E
 IM beam Left N 86' 43' E

3° 17' L 50.67 ft

$1/4 \times 530.2$
 50.67
 50.59
 $\tan 0.5737 \times 50.6 = 2.90$
 $\sin 0.5727 \times 50.59$
 $\cos 99.836 \times 50.67 = 50.59$
 580.80

1026.5
 26.8
 1053.3

1-14-31

IL LISKE

87

From the Iron 20 inch
Elm tree bears N W 40.8
ft to bark at base of tree on
foot above ground

Tree leans heavily
to East

From Hub 530.2 E same
point at base of Elm tree
N 36° 06' E 19.2

42.15

530.20

From Hub 684.35

154.15

Ch E 42.10 = 726.5

684.35

Hub RR. Spik on E

42.15

726.50

Side Highway 0.35 E of

guard rail cable on E
shoulder of highway

From 726.50 ch

East 307. 1026.50 ft
in above + 26.81053.30 23 in Pap East edge
of Park 1026.5 + 53.5

53.5

1080.0 Spik. Xaton

on line 1/2 foot west of edge
of grass on roadway curve

88

Lewie Liske

(17)

1080.0

1200.0

1280.60

2280

8065

2360.65

Eck 1080 + 3 = 1380 - 1680

1980 - 2280 - 2280

8065

2360.65

1080 + 1280.65 =

1280.65

2360.65

Check Chain back west
under Klumb - bob fish
up .15

1280.50 + 1080.0 =

1080.00

2360.50

Back to 7 Alms

4-30 P.M.

12 gals 2.47

4.55^{pm} gal 12 gals per 2.47
1 gal at 25

1/4 gal 1-2

18
JUNE 25-1937 Friday

LISKE

89

Up @ 4-15 AM. Reed returns
from Brainerd and calls me.
We call Clarence Hodge to
Lake Geo Smith to Seetel's

Drive to Boak's 6 mi
E - stay till 9 AM and
drive to Walker for milk.

Stop at Y store see Louis
Liske and on to Walker

Back to Liske's store 12
noon. Get 7 1/2 gals for
Home to Johnson 12-30
PM for dinner

Rain in AM.

Back sleep a little
3 PM L for Cross Lake
See Field Book 34

90

January 24-1938 Monday

Up at 5-30 am. It has been warm for the past week or more. Today not colder but wind has got in the North and is a howling gale.

Reed still under quarantine upstairs for Scarlet fever - will be out in a few days. Eunice was up a few hours yesterday and talked to Reed from the window but went back to Brainerd last night.

Martha and I go to Brainerd Lv @ 9-30 am. back at 12-15 PM Reed stayed alone.

PM.

I write Link for money

1-141-31

20

91

January 29-1938 Sat

Up @ 10.35 AM. Martha and I eat
Breakfast @ 12. noon - warm cloudy
light snow 12-45 PM. Reed and
Erinice still in bed. No word from
Lewis Link. I make small plat
20° below last nil.

Jan 30-1938 Sunday

All day in Jenkins 20° below
light north wind
All four still lying alone
Breakfast at noon

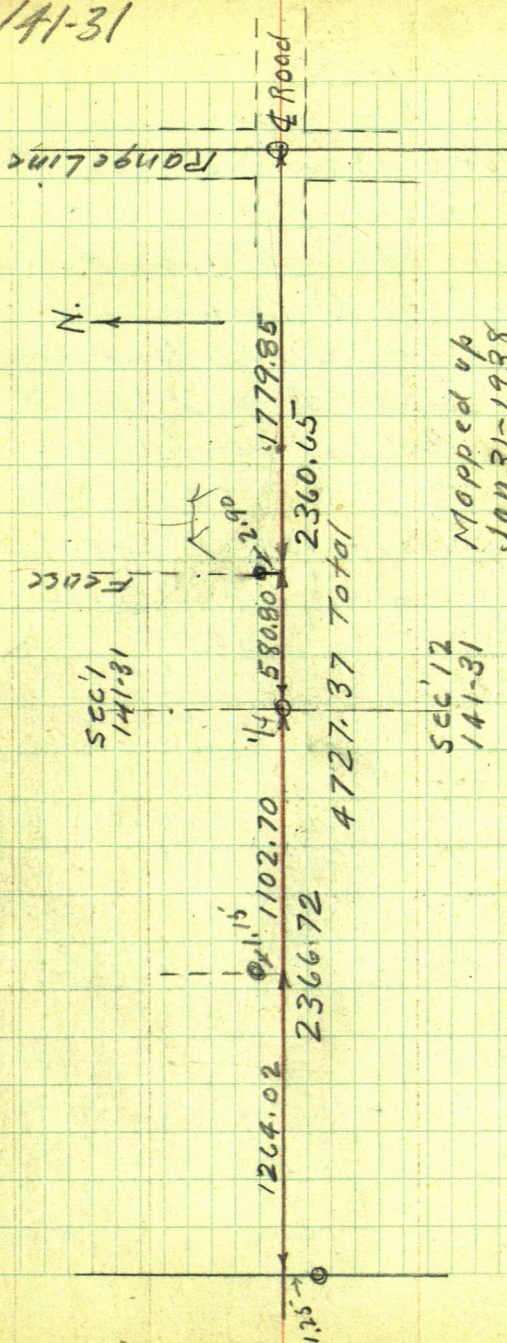
January 31-1938 Monday

Up @ 9-30 still about 20-25°
below Reed and Erinice eat
breakfast 1-7. 1-30 PM.

I work on Link plat

1-141-31

93



Mapped up
Jan 31-1938

Jahn W. Curo

SEC 1
141-31

SEC 12
141-31

94

Feb 1-1938

Liske

Morthe and I Lu Jenkins Drive
to Y" Store. Lewiske says Mr
H.W. Bloom of Remer Oil Co is
away for the winter and it is
no use to go to Remer

I show Liske Bal due
for survey work and flat of my
survey Bal due: Plat P₉ 93.

Time P₉ 73. Bill P₉ 77. Bal \$ 50

Lewis gives me 10 gal gas making
a total paid by Liske \$12.36

| | |
|---------|----------|
| | 50.00 |
| | 12.36 |
| Bal due | <hr/> |
| today | \$ 37.64 |

1-141-31

95

Liste

See Page 118^x

05281 = 0°02'

1264.07 1102.7
2366.72
2007

1.25

580.8 2.6
114 2.90 .30

96

LISTA

1

Pine River Village

Sept 15-1938 THURS

Ted Hill calls from Pine River. about 9-30 AM - Martha and I drive up -

Vane Jones - WPA Foreman wants "just a straight line" on SE side of Block 5 - 2nd Add on NW line of Park Avenue

He already has the work finished on Block 6

I try to locate a plat of the village
Find a wall map at the bank.

Call on Bert Wideman who shows me "about" where his line is
Look for a starting point all AM
Home to Jenkins for dinner
PM

3 PM Back at Pine River

Jones gives me two PW Armen
1st Bill McAlister 2nd Cliff Thorpe
He chain all PM.

SE Cor Ted Hill's place appears to be 2.80 100 ft E x $1\frac{1}{2}$ S?

Pine River Village

Sept 15-1938 continued

Out at 5pm and drive home to
Jenkins - Continue to Beamed

Order Martha's shoes @ MWR Co

Get Trailer of Reed

Drive back to Jenkins then
on to Walker - ^{get plant from Abe White} Call on Ilo and

drive back home to Jenkins Sea

Camp Iowa - to 12-midnight

Sept 16-1938 Friday

Up @ 8-50 - Bill King on 9-15 and

I work to-day on Midewin

Road - Meet WPA, Manager Forest

Find Ilo - Come home
to Jenkins via Iowa Camp

on Camp Iowa

at Jenkins 12-midnight

③

99

Pine River Village

Sept 18-1938 Friday

up @ 8-50 Bill King calls at
9-15 and I take him East to
meet Town Board on Midway
Park Road - Meet Mr Forest

3pm Bill and I eat lunch with
Ed Hauge Home 5-30 pm

Sept 19-1938 Sat

Martha and I to Brainerd
about 7-PM Call on Bill
Moulton

Sept 20-1938

100

PINE RIVER VILLAGE

Nat:

As Pine River Village
owes me \$50 back pay for
plattin Cemetery 5 to
7 years ago - I only
charge them \$15 for sheet
work -- add it to the
\$50 making \$65 bal in
full and they pay me
Get Village warrant
cashed at Pine River
Bank

Date? see records

See Field Book N^o
for 1939 Survey

2nd

3rd

4th and

5th Survey

Book N^o

Cass Co Minn Sch Dist 15
Poplar Twp. 136-32
Herb Kesselring Survey

Jan 27-1938 Friday

Dan DeLury-lawyer- Calls at
my office in walker - I am out
and call on Dan

It appears that Herb Kessel-
-ring has been tried in court
for not sending his children
to school DeLury is his lawyer
and contends that the schools
are more than two miles
away Dan gives me a letter
to Kesselring and I am to
make the survey. to 3es

Noon: Too late to Lv to-day

Martha-Harold & I
still in the Paddock Bldg
at Walker I put 210 on
the St Paul Bus at 9-am
this morning

John W. Cull
Co Surveyor Cass Co Minn

Dec 28-1938 Sat

Harald and I in my '38"
V. 8. Lv Walker @ 9-30 AM

Martha stays alone

Spedom set at 0.0.

11. am. ar at Poplar Sch Ho
Dist N=25, Call on C. A.

Stone and his wife "Claudie
wood" They direct us $\frac{1}{2}$ N
and 1 mi W to Kesselring res

11-40 AM ar and hand

Kesselring DeLury's letter

Spedom reads 51.6

300 foot new Chi Steel

Topc Aloe π - Land level

P. Bob not necessary - 8 Long
heavy iron pins - red flags in top

Only Harald and I chain

-- perfect: Herb carries flat
2x 16 inch sticks to mark 300 ft

station set in snow N Bank
of road Beg @ E 3 Roads E

W-N = Cor to Secs

15-16-21-22-136-32

Fred and Jim
own SW 1/4 20

Cal Witherell

263553
5271.06/105-

At 15-16-21-22-136-32 =

Q graded road. Well plowed
free from snow E-W. Graded
North but now snow plowed
No road So. Chain

East bet 15-22. It is 30 feet
to E of bridge over creek run-
ning So.

Back at Cor 15-16-21-22 with
West on E road 158 feet to a
point exactly in line with E
of bldg. then North 54 feet
to door on So side of Kesselring
res. (the only door in the bldg)

From Cor 15-16-21-22 - ch
West 158 feet and drive
pin in E-W road and call it
Sto O.O. Sto O.O. is 158 West
from Sec Cor and 54 So from
Kesselring house door

O.O. ch West setting pin
every 300 ft in E N half of
triangled road

O.O. West 1-2-3-4-5-6-7
 8-9-10-11-12-13-14-15-16-
 17-18-19-20-21-22-23-24-

24 X 30 = 7200 feet

From 7200 W we chain 150
 ft West to pt in E-W road
 where a snow filled road
 runs SW = 7350 West
 and 54 ft so from Kesselring
 door =

| | |
|-----------------|------------|
| | 7200 |
| | <u>150</u> |
| Angle point N=1 | 7350 |
| is 7404 feet | <u>54</u> |
| from door | 7404 |

At AP N=1 at about 1-P.M.
 Mr Martin Granby comes
 out on the road says his
 P.O. address is Stapler N. Rt
 and that he is on of the
 School Board of Dist N=15
 Mr Granby says the SW road
 to the Oakland Sch H is
 blocked with snow and
 that we will have to leave
 our car the balance of the
 way

he says he believes we will find the distance slightly over the two mil. limit however.

Mr Granby draws me a rough pencil sketch showing about where the Oakland School sits and where the road runs.

He says they graded the road lately but that it would have to be plowed out before school children could travel it.

We Begin at Angle pt N=1 Chain.

So about $24^{\circ}W$ 1200 ft to AP H 2
From AP N=2 ch

So about $35^{\circ}W$ 1260 ft to AP N=3 . then

S. about $20^{\circ}W$ 240 ft to AP 4
AP 4 ch S. about $52^{\circ}W$ 65 ft to AP 5
AP 5 ch S. about $72^{\circ}W$ 64 ft to
AP 6 in E-W Road AP 6 ch
North 67 ft to Door of School
Oakland School.

Oakland Schoal in Dist 15
appears to be in SENEW

Sec 20-136-32 and also in
the SE Cor of this Forty are
evidenced by a line of
old fence posts which
produced would intersect
at a point 43 ft East and
90 ft So from the door of
the Oakland Sch. Hs

Adding the total distance
from door to door viz

54
73.50

1200

1260

240

65

649

67

10885

10560

325 feet over two

1. Mile = 5280 ft

2 " 10560

Door to Door.
Vio E of road.

136-32
 Poplar Twp
 136-32

crescent Sch Ho
 District No 15

10.948
 10 560
 388 ft

over Two Miles

10617 airline
 Door to door

Door

4 Road

81

65

10.948 ft via 4 Road

10590 Feet

4 Road

Res Herb
 Hesselrup

Chained
 From the
 Door

4 Road

7350 FEET

4 Road

10.885 ft via
 4 Road

Oakland

Door

67

572'W

649 ft

4 Road

4

1200

36W

1260

520'W 240

552'W

65 ft

20

10.885
 10 560

325 ft over 2
 miles via 4 roads

21

22

15

Bridge

158

30

109

3

10

16

17

110

Herb Kesselring

1-141-31

From Pg 96

Miller ① "Y" Survey 111

Nov 4 1939 Sat

We are living on the Bob
Norton - Toby Farm Cass Co
Iankins Welfred Miller
of Iankins Lv @ 11-30 AM &
meet Louie Irish and Son
at West Gull Lake

See Field Book

Evening

Martha and I drive one
mile to town and find

Arthur R. Miller and
Ruth F. Miller his wife of
"Y" Store 5 miles from
Walker I promise
to come "Monday" to make
their survey

Nov 5-1939 Sunday

All day in Iankins
fixing up my office
Harald and Martha
fixing up house on Norton
Farm John W Cure
Harald brings
Gertrude Miller for supper

112

②

Nov 6-1939 Monday

Up @ 7-30 Lals:

9-AM. Harald - Martha &
I to Walker - 11 AM. Meet the
Millers at "Y" and they follow
us to Walker 11-30 at et Ho
Millers want description drawn
I will charge them \$10 for
same and for \$10 more will
make partial survey

OK. they want survey
Dinner at home in Walker

1-20 P.M. Harald
and I to Walker - Meet Arthur
Miller going to $\frac{1}{4}$ Cor
See Plat Liske Survey Pg 93.

Buff π over $\frac{1}{4}$ Cor
Bet Sec 1-12-141-31.
Focus West on my old Back
Shot Turn 90° R. Then 0° 02'
L and run

North on E Sec 1-141-31
Set Back Shot 500 ft to
on hill

1-141-31

113

(3)

North on random @ Sect 1-
141-31- 90° to True Line
Looking West

North @ 76.5 Hat @ 185.10

Hub. + 50.5 = 235.6 Hat

on N Brink. + 132.4 =

368.0 Hat 368.0

5 ft. sand 0.40 E of pass line
Cut off by sign boards
and 6 ft so of shoulder
of cut bank 368.0 + 63.8 =

431.8 @ Trunk Highway
on yellow line

368.0 + 80 = 448.0 pin
in N. Shoulder of Road +
224.05 Called 224. =

672.0 Hat on So Brink Big
Hill + 316.6 = 988.6 Hat

Quit @ 5.10 PM Too dark
to see Note: At 3-PM.

Wm A. Miller - (Bill 22) Son
works in place of his
father Art Miller

Harold and I and Martha
home over rail in Walker

John W. Cus

114

(4)

Miller

"Y" Survey

Nov 7-1939. Tues

W. @ 7-20 - 9-10 At "Y"
Harald and I work alone

Buff and Berger

Cass Co. Minn Transit
Perfect adjustment 300

ft. Chicago Steel Tape

Plumb-bob Chained

R.R. Spik Hub. Coal

Cloudy NW wind

π over Hub. 988.6 N

Var reads 4°. Continue

North 90° 15' S. Line

of SW 1/4 Sec. 14-1-31

N. on 2 988.6 + 226.3 =

1214.90 Hub

1/16 Cor S. to N 63° 06' W

140.70

Var still 4° 0'

At 11:05 Bill Arrives
Harald and I ch

East along Fence

2 Barb wire small

posts

1-141-31

115

East on Fence 300 pin 600
pin + 10.8 = 610.8. Another
Capped 15 Min

South Ranch C

3-6-9 - set stake 9-10

3 ft for long ch

9.00 + 130 = 1030

Line Big Park E-W

N side S.H. 34

1000 Pin + 115 = 1115 Q

J.H. Yellow &

+ 50 = 1165 Pin on So

slope + 118 =

1283 FM

in So side of Marsh

Bill and I bring in

A - Cold NW Wind 12-25

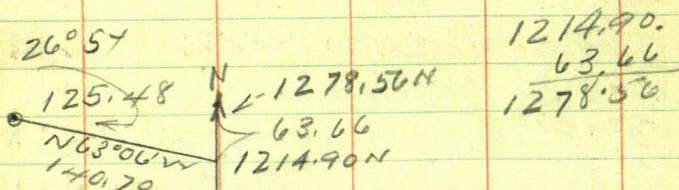
PM book in Walker for dinner

116

NOV 7-1939 continued

P.M.

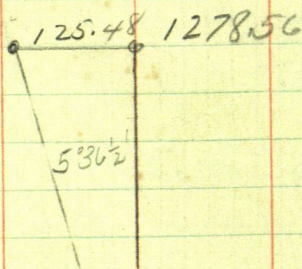
Figuring



63° 06'

$$\sin 8918 \times 140.7 = 125.48 W$$

$$\cos 45244 \times 140.7 = 63.66 N$$



$$1278.56 / 125.48 (.098142)$$

$$\text{Tang} = 5^{\circ} 36 \frac{1}{2}'$$

1-141-31

117

Correction
 098142 West
 Hub

| | | | | | |
|---------|----|------|------|------------|------|
| 76.5 | N. | goes | West | 7.51 | ✓ |
| 185.1 | " | " | " | 7.18 | 17 ✓ |
| 235.6 | " | " | " | 13.23 | 12 ✓ |
| 368.0 | " | " | " | 28.36 | 12 ✓ |
| 431.8 | " | " | " | = 4. | |
| 448.0 | " | " | " | N shoulder | |
| 672.0 | " | " | " | 65.95 | ✓ |
| 988.6 | " | " | " | 97.02 | ✓ |
| 1214.9 | " | " | " | 119.23 | ✓ |
| 1278.56 | " | " | " | 125.48 | ✓ |

118

PM- 2-15 back in office
no time to go make correction

Call Millers Store 9F22

See Page 93 and 95

Figurink

5°36' Cosin = 9932

in 1278.56 =

1287.31

1278.56

8.75

Addressee

Millers Resort called

"Cedar Springs Resort"

Tel 11F22 - Walker Minn

Millers Store 9F22 Walker

610.80

1-141-31

119

125.49

1278.56 N

90

1214.9

988.6

12.3 A

5°36'1/2

672

Total 17 $\frac{3}{10}$ A

1287.31 Via Line True Line

431.8

2

0368

100

1 $\frac{1}{2}$ A

2357.6

185.1

3 $\frac{1}{2}$ A

90°

76.5

5°00'

2366.72

14

580.8

2.6

1-141-31

121

Dec 3-1939- Sunday

10-30 AM. Harold-Markku
and J.W. at Ct Ho
Bill

Mr and Mrs Art Miller To John W
Curro Dr

Nov 6 & 7-1939 Drawing two
^{Certified Descriptions}
descriptions @ \$10 each \$20.00

Recd pt this day of Dec 1939

Note: This was never paid

Curro July 31-1942

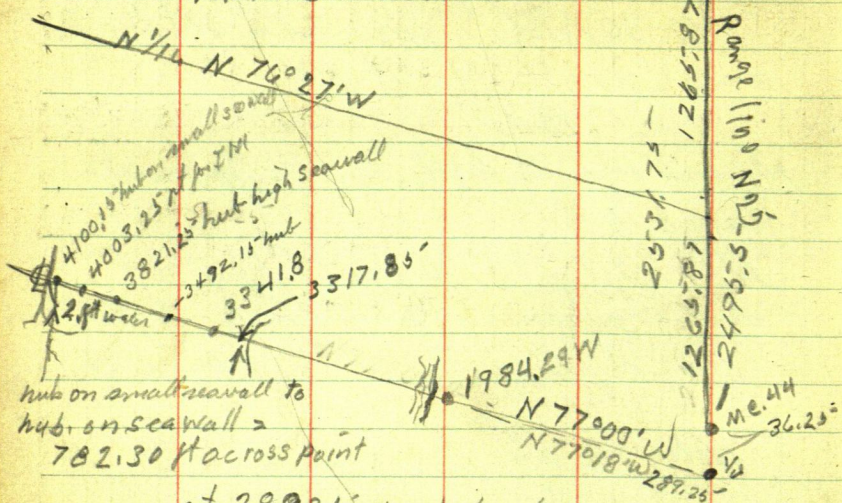
122

John E Thompson

Send Bill for \$320.

Mar. 30-1960

Seccor



hub on small seawall to
hub on seawall =
782.30 ft across point

at 289.25 my hub sets

W 49.17 S 2 ft

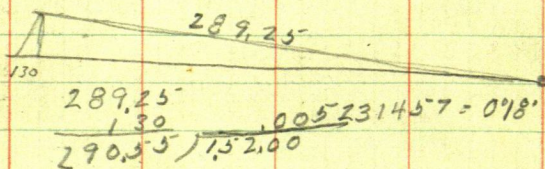
Sine $75.7946 \times 2 \text{ ft} = 1.52 \text{ S}$
Cosine $652319 \times 2 = 1.30 \text{ W}$

2495.3

36.25

1253175

126587



N 77° 00 is what my figures show

John Greene ran this line or started a
course from pt for 1/4 in Mule lake to IM

289.25 the IM on shore does not line up

Greene IM at 1/4 center of E 1/2 sec 25

1284.35 W sets 0.30 N of line and IM MC
on Black Water on E W E set by Greene at 1984.29 W
My ch sets N. 1.77 ft.

50

66

180

123

20

60

140

25

100

25

136

20

140

25

80

2

3

4

5

6

7

8

9

10

11

7

6

5

4

3

2

1

Hold

25

100

25

136

20

140

25

80

2

3

4

5

6

7

8

9

10

11

12

Barclay Ave

Front

First

Bank

Drop

90

2

90

90

1

90

Norway

Ave

60

80

20

80

5

5

5

5

80

2

5

60

St

Sec, 25-140-29

124

John Thompson.

Ed - Bob & I to Mule lake met
Bill Spain who shows us IM on S
line of Sec. 25 wind and cold,
Back to Walker.

Mar. 16th 1960

Bob - Ed - I to mule lake

Found MC wind mule lake on S line
Sec 25 site won't run
E on mule lake set a row of stick
near intersection of S line with
west line Sec. 25 on ice

move T to MC on range line N side
Mule lake site Non spk on road
set by Spain for true Range line N
MC on Range line S of Mule lake
bear $50^{\circ}06'E$

T still on MC N of Mule lake
Site on MC S of Mule lake on
Range and set pt for sec cor
SE cor sec. 25-140-29

at intersection of Range line and
S line Sec. 25-

distance 1415.8 from MC to
intersection

NW angle $90^{\circ}59'$

2173

6706

6337

125

2198

13038

13038

34'

143

Fig. old Notes page 6 this

Book from MCN=44 to corner

to Sec. 24-25-140-29 & 19-30-140-28

13 2504.5 ft my ch = 2587.86 U.S.

2504.5

83.36 short

1406.8 X 79 Lks =

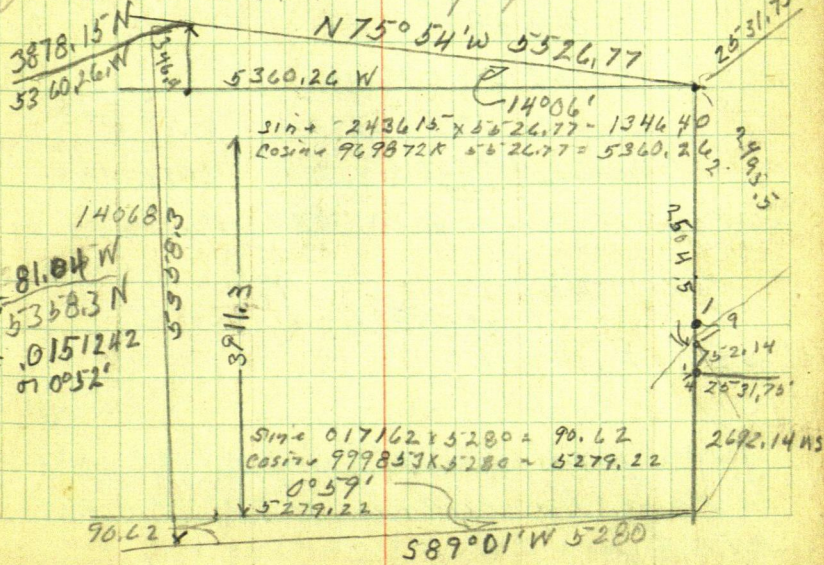
1406.8 X 52.14 = 73350552 ÷ 2692.14 =

27.25 + 9 = 36.25 ft south of MCN=44

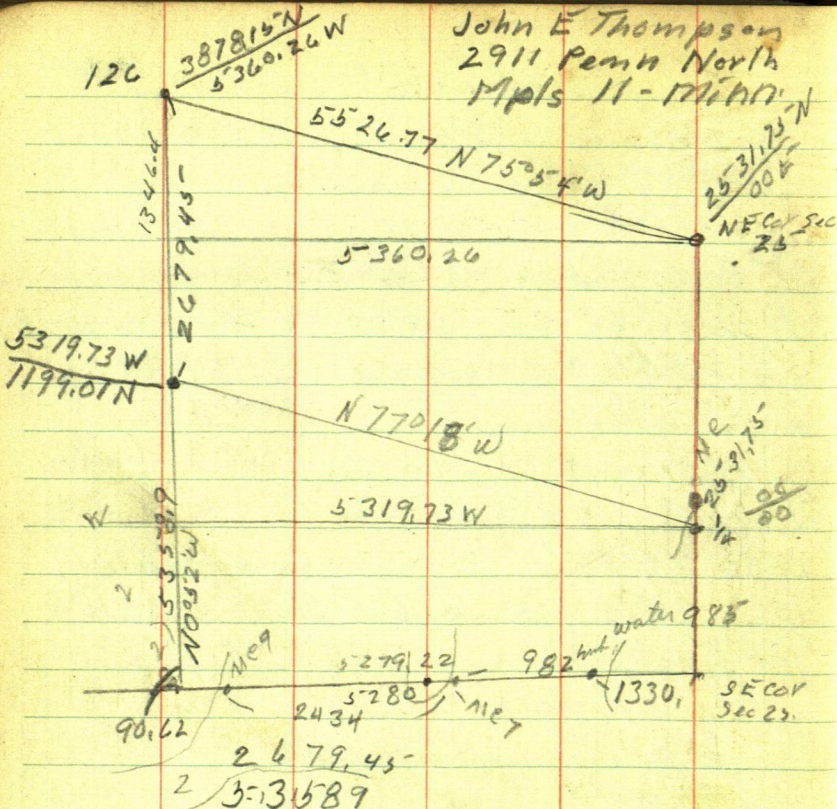
at for 1/4

E side Sec 25 page 6

for W side sec 25 see page 20



John E Thompson
2911 Penn North
Mpls 11-Minn



$$\begin{aligned}
 & 50^\circ 52' E \ 2679.45 \\
 & \sin \times 015726 \times 2679.45 = 40.53 E \\
 & \cos \times 999886 \times 2679.45 = 2679.14 S \\
 & \begin{array}{r}
 5360.26 W \\
 40.53 E \\
 \hline
 531973 W
 \end{array}
 \quad
 \begin{array}{r}
 3878.15 N \\
 2679.14 \\
 \hline
 1199.01
 \end{array}
 \end{aligned}$$

$$531973 / 1199.01 N$$

from point 36.25 at S of wit MC into N
on Range line and run N 77° 18' W on
E & W sec 25

290.1 - 6

Mon
March - 27 1960260
2925
127

Ed & I to Mule Lake from MC
on E side of lake on N line Sec. 36
chain E 1330 ft to pt of intersection
of N line sec 36 and Range line

Tower MC 44 Site. Nor. Range line runs
South 36.25' at pt for $\frac{1}{4}$ Tower $\frac{1}{4}$ site
N and runs N $77^{\circ}18'W$ as we run an
iron on our road about 2' and as I want to see
cut out line NW I set on IM and into
SE to flag at $\frac{1}{4}$ from $\frac{1}{4}$ chain NW
at 39.35 IM fine post set for W. $\frac{1}{4}$ by Green
at 250 E. on road @ 289.25 IM under
X at 589.25 pins

Tot at 289.25 - my line hub at N $49^{\circ}17'W$ 2 ft
589.25

411

1000.25 hub

284.1

1284.35 hub IM $\frac{1}{4}$ Center E $\frac{1}{2}$ Sec 25-141-29 cut

E 0.35' - .4 E of corner fence post E edge of road

@ 1300.25 pin

276.3

1576.55 hub on top of

400.25

1976.80 hub on bank water 15'

Tower 1976.80 on E + W E sec 25 IM at $13^{\circ}19'N$
N 7.70°

13019'
Sine $230333 \times 7.7 = 177N$
Cosine $973112 \times 7.7 = 749W$

1976.8

749

1984.29 W $1.77N$

Fig. Continued 180.3
128 Continued Page 172 of this Book 3492.15
174.3
Ashtill at 1976.8 3317.85

+ 136.5
21 ft N of water 3341.8 hub on point
3341.8 + 15.03 = 3356.83 30 ft W of water
3317.85
3317.85
3492.15 hub - 174.3 = 3317.85 hub
on new wall

March Tuesday 1960 foggy P.M.
Ed & I to Thompson's point on Blackwater

Over hub. 3492.15 old foundation of cabin
Tat 90° bears SW cor N77°53'E 6.25 ft
SE cor N74°15'E 15.30' Lake South 64 ft.

NE cor N20°31'E 25.00'

NW cor N0°21'E 20.85'

Ashtill at 3492.15 continues Early
+ 210.00

3492.15
174.3
3317.85
3702.15 yph in 8' Basswood
stump
+ 119.1

3821.25 hub on high new wall

Over 3821.25 take side of shore line

220 S55°E - 165 S41°45'E

60 S36°W by of my armoire lake shore

95' S69°W - 180 S72°W

260 S82°20'W 280 west

from 3821.25 + 70 up 10 ft S

at 130 up 6 ft S at 182 - hub edge of ramp IN

at 278.9 hub on small new wall
edge of water + 2 ft

July 5, 1947

33418
3217
25.0

129

Walt Miller and I in my Car
Lv Walker @ 10-30 drive to
Hackensack I get a cup of Coffee
drive to SW cor sec 19-140-28
where we eat our lunch @ 12-15
at this cor J.W. Curo notes
call for.

Birch 10 N $0^{\circ}45'E$ 41.20

" 9 N $55^{\circ}10'W$ 81.33

Pop 12 N $41^{\circ}40'E$ 74.80

We set a 60^d spike from the
two Birch stumps.

We walk E to $\frac{1}{4}$ cor bet 19-30
140-28 where we find I.M. cut
by J.W. Curo years ago. and
cut line W to the road.

Where we work T on line
between the SW cor and the $\frac{1}{4}$
cor on S side sec. 19.

T over SW cor sec 19-140-28

Walt hold flag @ Wit. MC
on lake W side of 30 I sit on
flag and read the SE angle

of the two lines

107° 11'

From SW cor sec. 19 We chain
E on True sec. line bet.
19-30 - 140-28

@ 60 edge of Tar road in curve

@ 300 pin @ 600 pin + 96.1 = 596.1 hnt

60' spik in Tar. 2 ft S of E

@ 900 pin + 150.7 = 1050.7 pt for

W 1/4 cor. @ 1131.8 spik hnt

1 ft S of E Tar road. @ 1200 pin

1500 pin - 1623.8 spik hnt

3 ft S of E of tar road @ 1800

pin L of Tar road in curve

@ 2100 pin @ 2400 pin @ 2428.35

I.M. V4. quit for night
home about 730

July 6 1947

131

Walt & I drive To SW cor sec
19-140-28

Tower 60' spike check on old
stamps B.T.
They set

Birch 10 N $0^{\circ}45'$ E 61.20

9. N $55^{\circ}13'$ W 81.33

Pop 12 N $41^{\circ}40'$ E 74.50

From hub 696.1 chain E
354.6 To 1050.70 and set 60' spike
in Tar road for W $\frac{1}{4}$ cor
Tower 1050.70 site E and Turn
R. $107^{\circ}11'$ and run south

Parallel with Windy sec. 30
@ 35' set 60' spike

Old I.M. site N 20.2 ft and .55' E
of our line

continues S @ 149.8 hub @ 280.3
hub 494.3 hub @ 614.6 hub 670.2 hub
T.P. for I.M. 696 water edge.

J.W.C. arrives

Town $\frac{1}{4}$ S side 19-140-28
site E Turn R $107^{\circ}11'$ and run S
Parallel to Windy sec 30

132

@ 497 spik 60^d @ 183.3 hub
60^d spik @ 351.6 spik hub 60^d
Pt. for. I. M.

July 7 - 1947

133

J.W.C. Walt and I drive to
SW cor Sec 19. from 60' spike
we chain S-E-W 4 ft each way
and drive 60' spike well into
the ground. We drive $\frac{1}{4}$ mile
E and @ 1050.70 we drive a
R.R. spike hub .5' E of my 60' spike
for line @ 955 we chain
.50 E and drive a 2'X30" I.M.
for R. of W. of road @ 149.8 we set
a R.R. spike .5' E of my 60' spike for
True Line @ 280.3 we set a R.R.
spike .50 E for line @ 499.6 we set
a R.R. spike .5' E of my 60' spike for
True Line @ my 60' spike @
614.6 we chain E .50 and drive a
2'X30" pipe @ 670.2 we chain E .50
and drive @ 2'X30" Pipe for COR M.C.
set hole sec 30-140-28

Walt and I go to $\frac{1}{4}$ cor S and 19
and walk S on our N & S @
spike hub 183.3 we pull up our
60' spike and replace it with a R.R. spike
@ 351.6 we set a 2'X30" I.M. for
cor to

134

We Then drive back just
up S.W.C. drive to Jenkins
work a while for Dwight
drive to Pelecan look thing
over drive back to Jenkins
and finish setting I.M. for
Dwight.

Home late

Sept. 18-1947

135

Glen & I in my car
drive to Mule Lake
Lo Walker around 3 P.M.
Elworth goes along.

We are to reset the $\frac{1}{4}$ cor
on S side sec 19-140-28
and reestablish the E end of
the sec line between sec. 19-30
where the old road has been
reopened.

T over 60% spike in Tar road
@ 1623.8. BS won spike 60%
in Tar road @ 1050.7 and
run sec line East and set
spikes with Tall stakes in E
of old road @ the $\frac{1}{4}$ we set
two spikes 3 ft apart one each
side of bent I.M.

T over R.R. spike 183.3 S of $\frac{1}{4}$
on True property line BS South on
I.M. on lake shore and run
N. to @ string intersection of the
two True lines and set @ 2X30"
I.M. for True $\frac{1}{4}$ cor bet sec 19-
30-140-28

We pull up the old 4 ft
Gal. pipe as it is bent

Tower True $\frac{1}{4}$ Cor.

B.S. Won true see line Var. @

90° and take ties To $\frac{1}{4}$.

R.O. 12 N 55° 14' W 42.55-

Brick 6 S 53° 47' W 43.30

W Oak. 14 S 21° 13' E 30.70

R. Oak 10 N 63° 29' E 21.80

(The old road)

S edge of fill in curving N
crosses Sec. Line 6 ft W of $\frac{1}{4}$ I.M.

The S edge of foot of fill
bears N 29° E 25- To as far as
we can see in the brush

This fill is about 4 ft high
on this side of road,
which is on a ridge hill

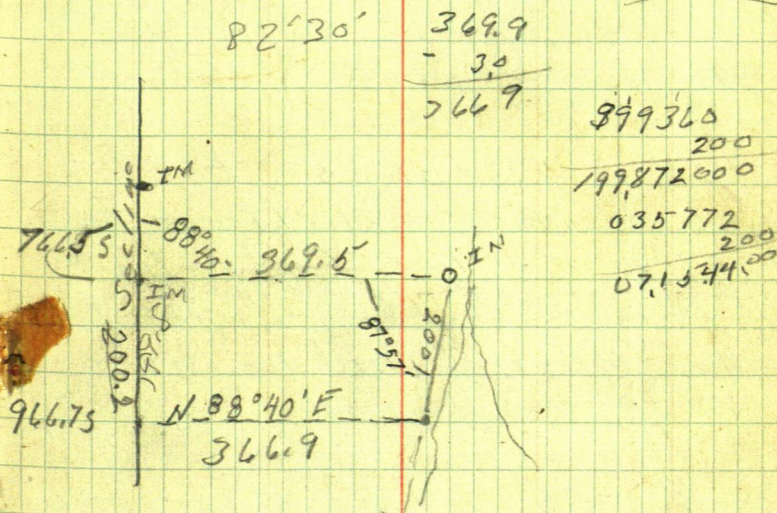
I get check for 35⁰⁰ for
this work made out to J.W.C.
From ()

Shore Acres

140-29

137

Work from line bet I.M.s
on lot sold I.M.s set by Spain
Tower I.M. on Sec line set by
Spain for SW cor of Tract
Site on I.M. on shore line Turn
NE angle to I.M. set on Sec line
by Spain $88^{\circ}40'$



Tower 200 on Lakeshore Turn S W angle
and run West parallel with Spanish line

Sec. 16-140-29

138

Sat Sept. 1950

Austin Cadwell Hackensack

Phone 11 F 4 ^{Hackensack} Comes to my
office in Court House at Walker
He has sold gravel to the County
gravel from the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$

Sec 16-140-29.

State Boys say gravel is not
in NW $\frac{1}{4}$ of NW $\frac{1}{4}$ but on State
land.

I tell him I will be out
Monday Sept 25th 1950

Monday Sept 25th 1950

I do not get time to
go to Sec. 16 - Cadwells

He calls after supper I
tell him I will be there
in the morning

Austin Cadwell Sec. 16
140-29

139

Tues Sept 26th 1950

Lv Walker drive to Cadwells
We go to $\frac{1}{4}$ Corner N. side Sec. 16
go $\frac{1}{2}$ mile look for $\frac{1}{4}$ Center of Sec
16. Again says it is in
says it never was set. We drive
to $\frac{1}{4}$ on W. side of Sec. 16. Cadwell
shows me a $\frac{1}{2}$ iron pipe says it is
the $\frac{1}{4}$ cor. We go pick up George
A Johnson drive to field near NW $\frac{1}{4}$
N side Sec. 16. Walk W. on cut out
line. Set π on hill E of Sec. Cor NW $\frac{1}{4}$
Cor Sec. 16. open up line and
run E. dinner with
Cadwells.

P.M. set hubs + cut line
until we got to heavy cutting then
Geo. cuts line. Cadwell + I go
back + chain line
beg at hub on top Chain W @ 176.16' W
hub 209' up @ 300 pin + 119 = 419' on
oak tree edge of bog. 419. + 286.20 =
705.2 IM NW Cor Sec 16 - 140-29

1005.2 1005.2
52 3-1.8
57.0

705
238
963

101.4
1492.1
2506.3

140 Sec. 16 - 140 - 29

beg @ hub on top - 60' spike

00 - W. is 705.20 E of NW cor

Sec. 16. chain E + 258.3 =

963.5 hub, ^{1005.2}+ 52 = 1055 SW

Cor. field. 705.20 + 300 = 1005.2

+ 300 = 1305.2 pin in center of road

at end entering field. + 51.8 = pin

1357 hub 60' spike

cat line E 1/4 set S

2.8

Austin Cadwell
Sept 27 1950

3014
286.85
58825

141

L & Walker drive to Cadwells
rain Cadwell + I beg at Hub
on top chain E down hill

@ 101.4 hub wood, + 149.25 = 250.65
hub, 60 ft spike off set S. 1 ft.

101.4 + 200 = 301.4 min + 286.85 =
588.25 I.M. $\frac{1}{4}$ Car Walk back to hub

on top of chain W. @ 125 min +
179.8 = 304.8 hub, 125 + 300 = 425
min 30 ft E of old road.

425 + 228.93 W to hub 1357 E

58825
25065
33760

1174

2601
2263.3
338
286
52

142 Austin Cadwell 140-29

Sept 29-195 rain
drive to $\frac{1}{4}$ Cor bet sec 16-17
140-29 - where I meet
Cadwell - Bill Spain &
Jim Hines with his helper
Cadwell + I walk $\frac{1}{2}$ mile
N. Tower NW Cor sec 16
Site E on random
Take Ties

Tan. 10 N $23^{\circ}22'W$ 69.86
Birch 12 S $7^{\circ}12'W$ 88.82

No other Trees NE or SE
run. South bet sec 16-17
Take SE angle of N Bld line
and W line random sec 16
 $90^{\circ}05'$

Run South @ 195 h v up
@ 300 pin + 263.7 = 563.7
hub + 278.7 = 842.4 hub + 260 + 521 =
= 1154.5 hub, edge of Tank ramp
+ 420. pin 20 ft E of E edge
of ramp foot of hill + 113.3 =
1687.8 hub on tip + 226.45 =
1914.25 hub. + 150 = 2064.25
pin + 300 = 2364.25 pin on side
of fill of road. + 143 = 2507.25

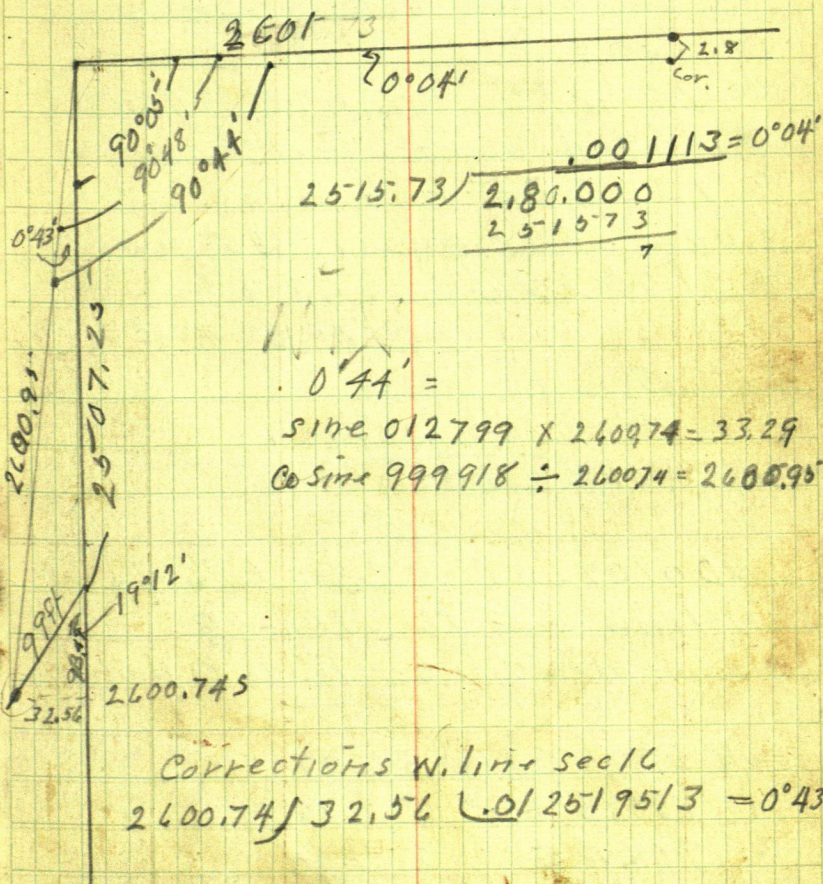
Sec. 16 = 140-29

143

Hub Town Hub 2507.25 cor IM
 1/4 cor bet Sec. 16-17-140-29 sets
 S 19°12' E 99 ft.

$$\text{Sine } 328867 \times 99 = 32.56$$

$$\text{Cosine } 944376 \times 99 = 93.49$$



Ruelin Cadwell

144 Tues. Oct 3rd 1950

Lo Walker @ noon drive
to Sec 16. - 140-29

PM

re chain W $\frac{1}{2}$ mile
on N side Sec 16

@ 300 E stake E edge of swamp

@ 530.4 hub @ 600 stake

@ 706.75 hub @ 900 stake

@ 964.4 hub @ 1200 stake

@ 1357.85 hub @ 1500 stake

@ 1800 stake @ 2012.35 hub

@ 2100 stake @ 2263.3 hub

@ 2400 stake @ 2601 E I M $\frac{1}{4}$ Cor
Sets S 2.8

$$\begin{array}{r} .00107651 \\ 2601 \overline{) 2.800} \end{array}$$

-.00107651 = Correction for
N line Sec 16 - 140-29
from NW Cor Sec 16 to $\frac{1}{4}$ N side

hub 530.4 E goes S .57

" 706.75 E " S .76

" 964.4 E " S 1.04

- 1300.5 E " S 1.4 to W $\frac{1}{4}$ on N side

1357.85 E " S 1.46

172 145

738

29 60

$$\text{CoTang} = 7.461536 \times 294.5 = 2197.42 \text{ over lake}$$

Austin Cadwell Sec 16-140-29
146 Wed Oct 4 1950

Continued T over hub over

lake continue our line E
Triangle pt over lake, chain E @ 44.9 hub @
@ 244.70 E intersect E line

To string into section of
the N Line & E line of Sec 16

T over string intersection hub
take S W angle $90^{\circ}22'$

from string intersection hub
the NE corner I.M. Sec. 16-140-29
sets N 37.04 ft.

Ties to NE Cor Sec 16-140-29

Ash 8 N $42^{\circ}38'E$ 28.00

Elm 12 S $56^{\circ}E$ 19.20

Birch 10 N $64^{\circ}14'W$ 18.4

Elm 14 S $36^{\circ}28'W$ 33.15

quit @ 5-30

drive it to walker

Heater not setup yet.

Heater in but did not get
the oil until late so
it will not be connected
until to morrow

147

A hand-drawn survey map on grid paper, showing a rectangular plot with various measurements and annotations. The map includes several lines, angles, and distances, with some areas labeled as "True Line" and "V₄ line".

Key Measurements and Annotations:

- Top Left:** "N.W. Cor", "E & W", "16", "MC", "90°22'", "89°38'", "V₄ 52 23.38", "N.E. Cor".
- Left Side:** "0°44'", "200.95", "33.29", "0°43'", "52 40.4", "True", "Ram A", "V₄ line", "2072.6".
- Bottom Left:** "90°05'", "90°48'", "90°44'", "True", "V₄ line", "2072.6".
- Bottom Center:** "V₄ line", "5273.98", "2663.0", "5.53", "2627.91", "90° to N line".
- Bottom Right:** "2742", "2742", "104", "35.09", "90°22'", "89°38'", "N.E. Cor", "35.09", "37.04", "2704.909", "2705", "0°22'".
- Right Side:** "2704.909", "2705", "0°22'", "97.31", "35.09", "N.E. Cor", "37.04", "90°22'", "89°38'".
- Center:** "True Line", "26 22.38", "26 52.35", "90°", "90°38'".

[illegible]

Oct 5 1950
figure connections and
angles To late to go to
Cadwells - get oil-treater
connected

1313.32
987.05
406.27

299.10
263
2737

149

Oct 6, 1950 duck season
opens to day L. Walker
around 9 drive to Cadwells
where I pick up Austin Cadwell
drive to hub 1357.85 E on N line
Sec. 16. - 140-29

From hub 1357.85 chain W
57.35 to point 1300.50 E of NW
Cor Sec 16 set hub on random.
@ 1300.5 then correct this hub by setting
it 1.46 S to point for True W $\frac{1}{16}$ Cor
N side Section 16 - 140-29

go to hub 964.4 E correct it by
setting a hub 1.04 S on true line

From True W $\frac{1}{16}$ Cor just at
site W on corrected hub 964.4
and run S $0^{\circ}22'W$ on true W $\frac{1}{16}$
line

Ties to W $\frac{1}{16}$ Cor N. side Sec. 16
Jack P. 12 S $15^{\circ}20'E$ 23.40
W. P. 14 N $75^{\circ}10'E$ 35.27

Course N line Sec. 16 as E + W

Run S $0^{\circ}22'W$ @ 273.7 hub @ 300
min + 332.45 = 632.45 hub on top
+ 60 = 692.45 run + 214.6 = 907.05
S. hub

150

@ 1313.3 - S set IM for center NW $\frac{1}{4}$ Sec 16
Town 1313.3 S 4th West. N $89^{\circ}26'W$
set picket line West across gravel pit

Oct 7th 1960

Don - Ed - & I drive to $\frac{1}{4}$ cor on the
West side Sec. 16-140-29 where
We meet Austin Caldwell we
walk $\frac{1}{4}$ mile N and at 1300.44 S
we set on random we chain W 16.44
and set IM in bog for NW $\frac{1}{4}$ cor between
Sec 16-17-140-29.

XXXXXX

W $\frac{1}{4}$ Cor bet 24-25-140-29

2 X 20' iron pipe in N-shoulder of road

8ft N of ϕ Ties Page 63 this book

NP 12 N $51^{\circ}10'E$ 36.35

W.P. 10. S $17^{\circ}47'E$ 54.82

WP 8 - N $48^{\circ}10'W$ 94.65

152 Friday Sept 12-1952

Fred & I Lr Walker at 9-30
drive to Sec. 25-140-29Tower hub on True W 1/4
line run. South on W 1/4 line
650. hub. ^{sta ①} angle point W side of
road, run S 13° E 226.1 sta ②
S 13° E 226.1

Sine $224951 \times 226.1 = 5086 E$

Cosine $974370 \times 226.1 = 220.31 S.$

Tang. 230868

Sta ② is 870.315 + 5086 E of 1/4 Cor in HighwayTower Sta ② Bs N 13° W on sta 1 run
S 39° 46' E 130 ft to sta ③

S 39° 46' E 130

Sine $639663 \times 130 = 83.16 E$

Cosine $768656 \times 130 = 99.93 S$

Tang. 832183

Sta 3 is 970.24 S and 133.02 ETower Sta 3 BS N 39° 46' W on Sta 2 run
S 15° 58' E 300 + 103.3 = 403.3 to Sta 4

S 15° 58' E 403.3

Sine $275078 \times 403.3 = 1127.44$
~~1127.44~~ 1127.34 E

Cosine $961422 \times 403.3 = 445.43 S$

Tang. 286116

Sta ④ is 261.46 ft E + 1415.67 S

J E Thompson
Paynesville Minn Box 752 153

Tower No 4 BS N $15^{\circ}58'W$ on No 3 + run
S $21^{\circ}30'E$

$$\text{Sine } 366501 \times 281.01 = 102.99 \cdot S$$

$$\text{Cosine } 930418 \text{ into } 261.46 = 281.01 E$$

$$\text{Tang. } 393910$$

S $22^{\circ}E$

$$\text{Sine } 374607 \times 281.99 = 104.51$$

$$\text{Cosine } 927184 \text{ into } 261.46 = 281.99$$

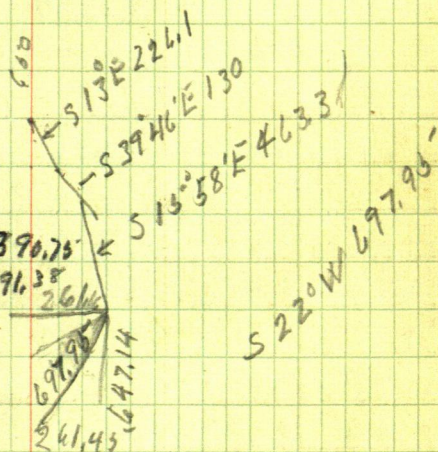
$$\text{Tang. } 404026$$

S $42^{\circ}W$

$$\text{Sine } 669131 \div 261.45 = 390.75 \times$$

$$\text{Cosine } 743145 \times 390.75 = 291.38$$

$$\text{Tang } 900404 \times$$



S $42^{\circ}W$

$$\text{Sine } 669131 \times 357.83 = 235.42$$

$$\text{Cosine } 743145 \text{ into } 261.45 = 351.83$$

$$\text{Tang } 900404 \times 261.45 = 235.42$$

154

from Sta 4 run $S 42^{\circ} W 351.83$
to Sta 5 on $W \frac{1}{4}$ line 88 //

Then 351.83 run South on $W \frac{1}{4}$ line
88 ft to Sta 6

Then Sta 6 run $S 25^{\circ} 42' E$
parallel to lake shore 350 ft E,

@ 90° to shore line 846 ft to
Sta 7

Then Sta 7 run $S 41^{\circ} 18' E 110.5 \pm$
to bend of old road to cabin

receive \$100⁰⁰ for this work

40' 35"
5

160' 35"
35'
19'

Geo. Farror. See page 137 this book

July 20 1954

get a call from Farror. wants another tract run out.

Tower NE cor of Tract shown on page 137 site $S 88^{\circ} 40' W$ on NW cor

SE cor. bears $S 0^{\circ} 42' W$ 200 ft

Tower SE cor BS $N 0^{\circ} 42' E$ run. $S 8^{\circ} 02'$ E 87 ft pt for IM

Tower 87 BS $N 8^{\circ} 02' W$ and run $S 74^{\circ} 45' W$ to Sec line

@ 160 ft pin + 35.35 - 195.35 + 65 - 196 ft

Note: Spains description to the to the tract 110 ft along lake shore and 109.5 along section line just North of the 200 foot tract on page 137 this book.

From point 946.5 South of ME between Secs 23 and 24

156

Sept 4- 1957 To Shore Acres

Lot 4 Sec. 24-140-29

Roy Johnson has E 22 ft

Now RR spike on old Random site N

N 85° 36' E on I Mon true line

chain S 85° 36' W 22.07 set pt.

Now 22.07 BS - S 85° 36' W run N 0° 09 $\frac{3}{4}$ ' W
set spike on seawall on true line

It still at 22.07 site. Now true line

stake set for W line of new tract

bears W 3° 22' N or S 86° 38' W 95'

as Farmer wants to deed 95 ft and as
there are trees in the way beg W.P.

Now spike on true $\frac{1}{16}$ line. Turn 95° 20'

So we run W 5° 20' N 95'

5° 20'

Sine = $0.92950 \times 95.41 = 8.87$

Cosine = 9.95671 into $95' = 95.41$

chain S 360'

Fanan +

July 20-1959

157

| | |
|------------|-----|
| 80+ | 500 |
| 271 | 351 |
| <u>351</u> | 149 |

Ed + I to Shore Acres

Town NW Cor of E 22 St. Sec 4 Lot 4
Sec. 24-140-29 ran S to IM. 351 ft
at 500 ft net hub.

Tstall at NW Cor of E 22 St. ran
SW angle, reads 100° - $N 80^{\circ} W$

300 + 90.7

$N 68^{\circ} 48' W$ 384

| |
|--------------|
| 138.84 |
| <u>67.84</u> |
| 206.70 |

f.g.

$N 80^{\circ} W$ 390.7

Sine $984808 \times 390.7 = 383.72$

Cosine $173648 \times 390.7 = 67.84 N$

$N 68^{\circ} 48' W$ 384 387.57

Sine $932324 \times 384 = 358.01$ 346.34

Cosine $361625 \times 384 = 138.86 N$ 140.16N

383.76 95

358.01 65.0

741.77 245

741.77 741.77

3.33

9323.24 3.57
333

| |
|---------------|
| 650 |
| <u>95</u> |
| 745 |
| <u>741.77</u> |

158

$$\begin{array}{r} 939.75 \quad 190.2 \\ 280 \\ \hline 1219.75 \end{array}$$

$$\begin{array}{r} 340 \\ 187.2 \\ \hline 529.2 \end{array}$$

at pt 767 ft W of E line lot 4 we run
N set spike on seawall ran S set spike
at edge of ramp go into longwall.

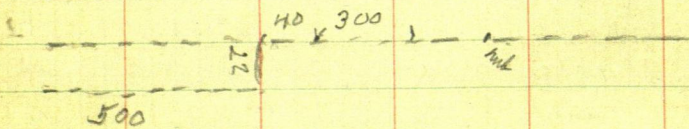
for Lunch 1.70 P.M.

Tower hub on line 22 ft W of E line
500 ft S of NW cor Johnsons 22 ft strip
Site N. turn 90° run E 22 ft X pt
on E line said lot 4.

Tower hub on E line site W on hub
turn 90° run S. along E line lot 4
to SE cor in road.

July 21 -

John Beatt. + I to Shore Acres
Edrick



at 340 min + 187.2 = 529.2 hub + 100 =

629.2 min + 300 = 929.2 min 18.75 = 939.95

hub + 280 = 1219.75 pt in road.

Tower spike in road Site N & run
N 75° 45' W

since 969231 into 767 = 791.35

cosine 244153

33 ft = 34.05

767.

$$\begin{array}{r} 650 \\ 95 \\ \hline 749 \end{array}$$

159

Tower 891.75

$$\begin{array}{r} 767 \text{ E} \\ 293.35 \\ \hline 749 \end{array}$$

$$\begin{array}{r} 767 \text{ E} \\ 1513.105 \\ 1981 \text{ N} \\ \hline 159 \end{array}$$

$$\begin{array}{r} 2067 \text{ N} \\ 749 \text{ E} \\ \hline 2067 \end{array}$$

$$\begin{array}{r} 293.35 \\ 749 \text{ E} \\ \hline 293.35 \end{array}$$

N 75° 45' W 891.35

$$\begin{array}{r} 219.41 \text{ N} \\ 863.92 \text{ S} \\ \hline 40 \end{array}$$

$$\begin{array}{r} 500 \\ 2067 \\ \hline 2933 \end{array}$$

Tower IM, 12 ft W of North that line the
IM, set by JWC bear S 20° 45' E 62.1

S 75° 45' W 891.35

Sine 969231 x 891.35 = 863.92 W

Cosine 246153 x 891.35 = 219.41 N

$$\begin{array}{r} 1219.75 \\ 293.35 \\ \hline 1513.10 \end{array}$$

Lot 4 Sec 24

Commencing at the M.C. bet Sec 23
 24 - 140 - 29 run South 657 ft.
 hereinafter called pt of beg.
 running N 82° 30' E 382 ft ± to shore
 line of Woman Lake thence Southerly
 along said shore line of Woman
 Lake a distance of 110 ft to a point
 running thence S 82° 30' W 369.5
 ft ± to the west line of said sec.
 24 thence Northerly along sec.
 line a distance of 109.5 ft ±
 to pt of beg.

657
 109.5

 766.5

Sept 1-1959 220 2

Ed - John + 966.7 I to Lot 4 sec.
 24 - Tower IM 22 ft W of E line of Lot 4, sec.
 west on IM 95 ft W, & run West 95 - 95

Sept 2-1959 Tower NW cor 22 ft strip S. to N + run
 N 84° 40' W 95 ft to NW cor 95 ft strip Tower NW
 cor 95 ft strip run N 79° 51' W 95 + 95
 N 79° 51' W 95 - 95 -

$\sin \theta 176226 \times 95 = 16.74 \times 190 = 3348$
 $\cos \theta 984350 \times 95 = 93.51$ 787.03

99.4
3

505353

48728

140.73

535-3, 5-3

202

473

53 53 53

3530
26004-
35

27.53.53

1345

1010

1000

3-3 5-3 5-3

800

800
4353 57

104

22

179

35

392!

7

235-24

23524

2376
247784
24-98

24-9 84
1240 To

12
16 63 2

780

28/10

37

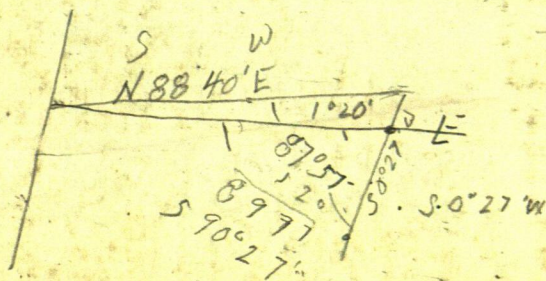
763

2100

8966

8840

1.26



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 $\frac{1}{2}$ TO 1.

FOR SINGLE TRACK EMBANKMENT.

| | 0 | .1 | .2 | .3 | .4 | .5 | .6 | .7 | .8 | .9 | |
|----|------|------|------|------|------|------|------|------|------|------|----|
| 0 | 7.0 | 7.2 | 7.3 | 7.5 | 7.6 | 7.8 | 7.9 | 8.1 | 8.2 | 8.4 | 0 |
| 1 | 8.5 | 8.7 | 8.8 | 9.0 | 9.1 | 9.3 | 9.4 | 9.6 | 9.7 | 9.9 | 1 |
| 2 | 10.0 | 10.2 | 10.3 | 10.5 | 10.6 | 10.8 | 10.9 | 11.1 | 11.2 | 11.4 | 2 |
| 3 | 11.5 | 11.7 | 11.8 | 12.0 | 12.1 | 12.3 | 12.4 | 12.6 | 12.7 | 12.9 | 3 |
| 4 | 13.0 | 13.2 | 13.3 | 13.5 | 13.6 | 13.8 | 13.9 | 14.1 | 14.2 | 14.4 | 4 |
| 5 | 14.5 | 14.7 | 14.8 | 15.0 | 15.1 | 15.3 | 15.4 | 15.6 | 15.7 | 15.9 | 5 |
| 6 | 16.0 | 16.2 | 16.3 | 16.5 | 16.6 | 16.8 | 16.9 | 17.1 | 17.2 | 17.4 | 6 |
| 7 | 17.5 | 17.7 | 17.8 | 18.0 | 18.1 | 18.3 | 18.4 | 18.6 | 18.7 | 18.9 | 7 |
| 8 | 19.0 | 19.2 | 19.3 | 19.5 | 19.6 | 19.8 | 19.9 | 20.1 | 20.2 | 20.4 | 8 |
| 9 | 20.5 | 20.7 | 20.8 | 21.0 | 21.1 | 21.3 | 21.4 | 21.6 | 21.7 | 21.9 | 9 |
| 10 | 22.0 | 22.2 | 22.3 | 22.5 | 22.6 | 22.8 | 22.9 | 23.1 | 23.2 | 23.4 | 10 |
| 11 | 23.5 | 23.7 | 23.8 | 24.0 | 24.1 | 24.3 | 24.4 | 24.6 | 24.7 | 24.9 | 11 |
| 12 | 25.0 | 25.2 | 25.3 | 25.5 | 25.6 | 25.8 | 25.9 | 26.1 | 26.2 | 26.4 | 12 |
| 13 | 26.5 | 26.7 | 26.8 | 27.0 | 27.1 | 27.3 | 27.4 | 27.6 | 27.7 | 27.9 | 13 |
| 14 | 28.0 | 28.2 | 28.3 | 28.5 | 28.6 | 28.8 | 28.9 | 29.1 | 29.2 | 29.4 | 14 |
| 15 | 29.5 | 29.7 | 29.8 | 30.0 | 30.1 | 30.3 | 30.4 | 30.6 | 30.7 | 30.9 | 15 |
| 16 | 31.0 | 31.2 | 31.3 | 31.5 | 31.6 | 31.8 | 31.9 | 32.1 | 32.2 | 32.4 | 16 |
| 17 | 32.5 | 32.7 | 32.8 | 33.0 | 33.1 | 33.3 | 33.4 | 33.6 | 33.7 | 33.9 | 17 |
| 18 | 34.0 | 34.2 | 34.3 | 34.5 | 34.6 | 34.8 | 34.9 | 35.1 | 35.2 | 35.4 | 18 |
| 19 | 35.5 | 35.7 | 35.8 | 36.0 | 36.1 | 36.3 | 36.4 | 36.6 | 36.7 | 36.9 | 19 |
| 20 | 37.0 | 37.2 | 37.3 | 37.5 | 37.6 | 37.8 | 37.9 | 38.1 | 38.2 | 38.4 | 20 |
| 21 | 38.5 | 38.7 | 38.8 | 39.0 | 39.1 | 39.3 | 39.4 | 39.6 | 39.7 | 39.9 | 21 |
| 22 | 40.0 | 40.2 | 40.3 | 40.5 | 40.6 | 40.8 | 40.9 | 41.1 | 41.2 | 41.4 | 22 |
| 23 | 41.5 | 41.7 | 41.8 | 42.0 | 42.1 | 42.3 | 42.4 | 42.6 | 42.7 | 42.9 | 23 |
| 24 | 43.0 | 43.2 | 43.3 | 43.5 | 43.6 | 43.8 | 43.9 | 44.1 | 44.2 | 44.4 | 24 |
| 25 | 44.5 | 44.7 | 44.8 | 45.0 | 45.1 | 45.3 | 45.4 | 45.6 | 45.7 | 45.9 | 25 |
| 26 | 46.0 | 46.2 | 46.3 | 46.5 | 46.6 | 46.8 | 46.9 | 47.1 | 47.2 | 47.4 | 26 |
| 27 | 47.5 | 47.7 | 47.8 | 48.0 | 48.1 | 48.3 | 48.4 | 48.6 | 48.7 | 48.9 | 27 |
| 28 | 49.0 | 49.2 | 49.3 | 49.5 | 49.6 | 49.8 | 49.9 | 50.1 | 50.2 | 50.4 | 28 |
| 29 | 50.5 | 50.7 | 50.8 | 51.0 | 51.1 | 51.3 | 51.4 | 51.6 | 51.7 | 51.9 | 29 |
| 30 | 52.0 | 52.2 | 52.3 | 52.5 | 52.6 | 52.8 | 52.9 | 53.1 | 53.2 | 53.4 | 30 |
| 31 | 53.5 | 53.7 | 53.8 | 54.0 | 54.1 | 54.3 | 54.4 | 54.6 | 54.7 | 54.9 | 31 |
| 32 | 55.0 | 55.2 | 55.3 | 55.5 | 55.6 | 55.8 | 55.9 | 56.1 | 56.2 | 56.4 | 32 |
| 33 | 56.5 | 56.7 | 56.8 | 57.0 | 57.1 | 57.3 | 57.4 | 57.6 | 57.7 | 57.9 | 33 |
| 34 | 58.0 | 58.2 | 58.3 | 58.5 | 58.6 | 58.8 | 58.9 | 59.1 | 59.2 | 59.4 | 34 |
| 35 | 59.5 | 59.7 | 59.8 | 60.0 | 60.1 | 60.3 | 60.4 | 60.6 | 60.7 | 60.9 | 35 |
| 36 | 61.0 | 61.2 | 61.3 | 61.5 | 61.6 | 61.8 | 61.9 | 62.1 | 62.2 | 62.4 | 36 |

Calculated by Julien A. Hall, M. Am. Soc. C. E.

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