

54. B

WILLIAM  
T. W. B. BOOK

363

54. B

Note

If this book is lost  
finder please send it  
to John W Curo Walker  
Please send it immediately  
and I will pay you well  
John W Curo



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3 Tuesday

Jan 25. 1916

Collected notes and outfit in preparation for survey near Sugar Point Twp 143-27 & Twp 143-28.

Jan 26

Leave Walker by M&I at 3<sup>00</sup> A.M. & reach Bemidji at 4<sup>15</sup>. Bed and breakfast MarKham Hotel and leave for Federal Dam on Soo Line at 10<sup>00</sup> A.M. After dinner at Federal Dam walk  $1\frac{1}{2}$  miles to Camp of Mr Swanberg to get his aid in obtaining meals and lodging at some convenient place while at work near Sugar Point. Mr Swanberg returns to town with me and it is decided that it is best for me to go out in morning with tote team driven by Mr Gannon to home of Mr Judy at Sugar Point. We are to leave at 7<sup>50</sup> A.M. Very stormy all day. Meals and bed at Warrens hotel.

J. Johnston



Thursday  
Jan 27 1916.

4

Up early expecting to get away as arranged but after waiting some time Mr Gannon comes in and says the storm is too bad for to make the trip.

All the logging teams stay in for the day

I obtain a copy of the contour map of trups 143-28 & 143-29 made by the War Dept. and make a copy of same which I send by mail to County Surveyor together with data

concerning present level and yearly high water level of Leech Lake which I obtain from the Gov. Attendant at the Dam. Remain at Hotel

J. A. Johnston

5

Friday

Jan 28 1916

Leave Federal Dam at 7<sup>30</sup> AM  
with tote team driven by Mr Gannon.  
Reach home of Mr Judy at 11<sup>00</sup>. Arrange  
to stay with Mr Judy during work at  
Sugar Point.

In P.M. Mr Judy and I walk to post  
marked sec 23-24-25-26 Twp 143 Rg 29  
but find that B.T.<sup>s</sup> here are not those  
called for in original Gov survey.

Scribe marks are comparatively recent.  
We walk East and pass post marking  
 $\frac{1}{6}$  cor &  $\frac{1}{4}$  cor to post marked

Sec. 24-25-19-30 Twp. 143-29-143-28

This is the cor. Mr Judy believed  
was an original cor. on range line.  
However the post as it now stands  
is up in growth of Large Hardwood  
timber while Gov notes show it to be  
out in swamp. It would appear  
that this post is badly out of place.  
I am told that a Surveyor by the  
name of Gardener surveyed out  
allotments in this district and that  
these post were set by him.

From the post marked 24-25-19-30



We walk north along blazed line and  
pass post marking  $\frac{1}{4}$  cor. We continue  
north into open bog but see no more posts.  
Snow fully two feet deep and walking  
both slow and difficult.

Return to Mr. Judy's home <sup>by way of</sup> along old  
Indian Road.

J. H. Johnston

7 Saturday

Jan 29 1916

Storming again and heavy fall of snow during night.

With Mr Judy I walked to Post marked 25-26-35-36 Twp 145-29, Found this corner not that of original survey and probably set by Gardner. This was the last of the corners known by Mr Judy and thought to be on the range line. With over two feet of snow on the ground I decided it would be a hopeless task to look for original corners and so gave up the idea of trying to locate Rq line.

Returned to home of Mr Judy and had him arrange to take me out to Federal Dam next morning (Sunday)

J. Johnston



Sunday

8

Jan 30 1916

Left Sugar Point by team at 9.<sup>00</sup> AM  
Reached Federal Dam at 11.<sup>00</sup> No train  
till Monday

Monday, Jan 31.

Left Federal Dam by Soo Line Train  
at 3.<sup>30</sup> P.M. to Bemidji. Supper at  
Bemidji. Reached Walker by MVI  
at 1.<sup>00</sup> AM. Feb 1<sup>st</sup>. Put up at Chase  
Hotel.

J. G. Johnston

142-31

Saturday February 5. 1916.

I set stakes and flats preparatory to survey of section 16-142-31 knowing said section to be of irregular shape I run compass line on West boundary to save time and expense of running at random with transit & crew.

Beginning at S.W. cor I.H. of sec 16 with compass I run N  $9^{\circ} 30'$

Coming to N.W. cor of sec 16 I am 75 ft to far E. I return to Walker.

Boarding at Chase Hotel

Elmer B. Horst.

Sunday February 6. 1916.

At Chase Hotel.

Bright & sunny weather.  
temperature  $25^{\circ}$  below at night rising to  $12^{\circ}$  below during the day.

Snow 30 inches deep in the woods

Skiing, being the prevailing Sunday sport.

Elmer B. Horst.



142-31.

12

Monday Feb 7 1916

Horst Transit Hansen app &amp; flag.

Beginning at S.W. cor. of Sec 16 Twp 142 Rge 31  
we run transit line N var 10° setting  
Hubs or spikes.

Tuesday Feb 8, 1916.

Horst & Hansen continue line North  
on west boundary of 16. John Hansen  
assisting in P.M.

we reach corner at quitting time

Elmer B. Horst.

Time sheet for sec 16-142-31.

February 1916

	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Elmer B. Horst	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1
Hans Hansen	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
John Hansen	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
E. Blackburn	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Billings																
Frank Stone	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

counting

E. Horst &amp; Hans Hansen work day 16-1916 on sec 16-142-31.

Wednesday Feb-9-1916.

Forst and Hansen

We chain west boundary line  
of sec 16. beginning at S.W.  
corner

at 770.6-ft-N-Hub

" 1496.2 " " "

" 2188.3 " " "

" 2964.8 " " "

" 3517.0 " " "

" 3650.0 enter spruce swamp

" 3768.5 ft-N-Hub

" 3920.6 leave spruce swamp

" 4084.4 ft-N-Hub

" 4498.9 " " - " here I turn

angle  $N 27^{\circ} 14' E$  and sight to cor  
distance being 77.5 ft

at Station 4567.8 ft North, corner  
sets E 35.46 ft east

corner previously established by Curo.  
P.M. John Hansen and Frank Shane  
join us, and Ernest Blackburn  
works on S boundary line.

We cut a random line East on N  
boundary of sec 16 to G.N. Ry.  
angle to true line of W boundary  $90^{\circ} 05'$ .

Edmer B. Forst.



Thursday, Feb-10-1916.

Hoist and Prassen.

We chain N boundary line of sec 16 from N.W. cor going East (Random Line) at 1232.5 ft E Hub

at 2052.0 " " Center of G.N. R.R.

I go to lake shore of Leech Lake and look for B.T. to M.C. but find nothing which I expected and prepared for. I have map of G.N. Ry which shows the North boundary line crossing at a point 116.4 feet N.W. of the crossing of M & S and G.N. Railways

this being the only evidence we can get regarding this M.C. we establish cor from same.

I turn angle from Hub on random line in center of G.N. R.R. to point found by chaining from R.R. crossing back sighting West and reversing telescope and turning S angle being  $63^{\circ}47'$  distance 160.3 ft point on true line in G.N. track sets S 143.8 ft at sta 2122.8 ft E

Chaining back on Random 300 feet I set a Hub on true line and continue true

Feb 10 1916 Continued

line E to Leech Lake

Note W.C. 12 ft from water edge

X → at Station 2351.3 V set Wit corner to  
M.C. and take following B.T.  
double Oak & N 32 W 28.5 ft  
Ash & S 68 W 14.5 ft  
M.C. being out in lake 27.3 ft

P.M. E. Blackburn & John Hansen  
join us and we run S boundary  
line of sec 16 E from S.W. Corner I.M.  
cutting about  $\frac{1}{2}$  mile

Elmer B. Horst.

X → Note June 6. 1916 V pass  
at above W.C. and find water  
has washed shore away within  
a few feet of I.M. so I take  
an additional B.T.  
Black oak 18 N.W. 60 ft  
E.B. Horst.



Friday, Sept 11, 1916.

Hoist transit Hansen asp + flag  
E. Blackburn asp we continue S  
boundary line E and chain  
at 929 ft E Hub.

" 642.7 " " "

" 1344.3 " " "

" 1854.2 " " "

" 2368.0 " " " turn S  $12^{\circ}26'$

and sight to  $\frac{1}{4}$  cor (I.M.) distance 220.5 ft

at Sta 2583.3  $\frac{1}{4}$  cor site S 47.5 ft

at Hub 1854.2 I set Hub on true  
line correction being .018387 per ft.

I set transit on  $\frac{1}{4}$  cor and back sight to  
Hub on true line and chain line E to  
Leech Lake at 463 ft E Road

at 776.5 ft E G. N. Ry.

at 810.2 " " M & O Ry.

at 835. Water edge of lake

I set Witness cor to M.C. at 714.2 ft

E of  $\frac{1}{4}$  corner at W line of R.R. of way

West cor to M.C. = 170.2 ft. M.C. in lake

Eliener B. Horst.

Saturday, February, 12 - 1916.

Horst Transit Hans Hansen ap  
We set W to post on S boundary  
of sec 16 turn angle from random  
line and cut line through to W to  
corner N boundary  
Frank Shane & John Hansen  
assisting in afternoon.  
Elmer B. Horst.

Sunday Feb 13 - 1916.

at Chase Hotel all day  
Clear & cold.

E. B. Horst.



192-31.

18

Monday, February, 14-1916.

Horst, Hansen & Shane go to N to  
cor on W boundary of sec 16 and  
start N to line E. I leave Shane to  
cut brush and Hansen & I chain  
N to line beginning on south side  
at 151.3 ft N Hub

" 1206.1 " " "

" 2355.1 " " "

" 3454.6 " " "

" 4476. " " Intersect N boundary  
W to cor sets E 1.6 feet.

We work an hour or so cutting line  
on N to & go home.

Edmer B Horst

19

Sec 16. 142-31.

Tuesday, Feb. 15-1916.

Horst Hansen &amp; Spence

Continue N to line E at intersection  
 of W to line we miss cor 5.4 ft S  
 1 chain back and set hub on true line  
 set transit on cor back sight and  
 extend line E to Leech Lake setting hubs  
 as follows John Hansen works in P.M.

at 134.0 ft E Hub

" 683.8 " " "

" 1007. " " Wagon road

" 1135. " " Center of M &amp; N R.R.

1137.4 " " Center of E &amp; N R.R.

R.R. Crossing 17 ft south of Intersection

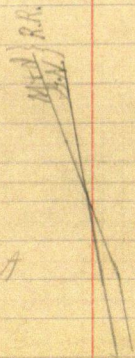
at 1220.4 back in stump

at 1487.4 M.C. at Leech Lake 4" x 4" post

N to line

→ E

Elmer B. Horst





Wednesday, Feb. 16-1916.

Start Hansen & Billings  
go to 4 cor on W boundary line  
turn angle and run 4 line E to intersection  
of W to missing cor on S side 7.2 ft

Return back on random line & set hub on  
true line. set transit over corner and  
backsight to hub on true line continue  
true line E to Leech Lake setting hubs  
as follows.

at 128.6 ft E Hub.

" 1294. road

" 1355.2 Hub W of RR cut.

" 1389.2 G.W. Ry.

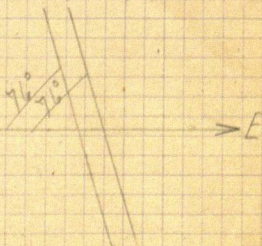
" 1415.8 M & J. Ry.

" 1465.8 ft E Hub.

" 1600.3 ft E M.C. at Leech Lake

John Hansen works in P.M.

E and W 4 line



Edmer B. Hunt

Thursday, Feb. 27 — 1916.

Horst Transit. Hansen & Billings  
and flag — John Hansen works in P.M.  
we set S to cor on west line  
and run S to line E missing cor on  
W to line, N 9.2 feet

I chain back on random and set  
hub on true line I set transit  
over cor. and run true line E  
to lake setting hubs as follows  
& chaining true line

at	600	ft E	wire fence
at	684	" "	Hub
"	1206.7	" "	" "
"	1639.2	" "	S.N. R.R.
"	1664.7	" "	Center of M + S R.R.
"	1735.7	" "	Hub
"	1750.	" "	M.C. on Leech Lake.
"	1759.	" "	to lake

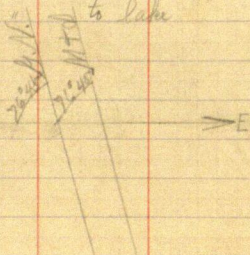


Exhibit 3, Horst



16-142-31.

86°12'  
90°14'  
1176.26  
88°13'

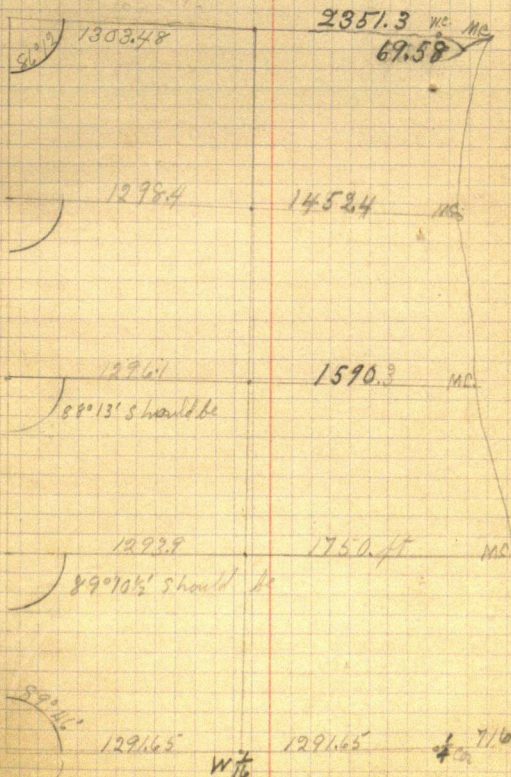
17960  
8946  
9014

8913  
9014  
117827  
99°10'

22

Diagram of Sec. 16-142-31.

N



144-29.

Feb 18-1916

I leave Walker with Kenfel  
and Esser transit and outfit  
for Federal Dam. Markham hotel kindly  
Guro leaves on same train

Feb 19-1916

Reach Federal Dam at 11.30 and  
find Victor M Finseth's lumber  
Camp is at Portage Lake, so I  
return to Portage Lake on 3.30 train  
Guro pays all expenses as far as  
Federal Dam.

I pay for dinner at F. Dam \$.50.  
fare back to Portage Lake 0.19.

Reach camp at 5.00 o'clock  
and find out they want lines  
Run to locate Indian allotments  
and boundaries for V. M. Finseth  
who has purchased timber from U.S.  
then Indian left.

Edwin B. Horst.



144-29.

24

Sunday Feb 20, 1916

Weather fair and warm

I stay at Ginsathe Lumber Camp  
and adjust transit, repair flag  
pole (which was broken by baggage  
men) and prepare for work tomorrow.

Edwin B. Horst.

Monday Feb 21-1916.

Horst. transit, C. Co. One Douglas spr  
 One go from Finseth's logging camp  
 in S.W. cor of Sec 12. to S.E. corner of  
 Sec 14. and look for B.T.s I find 3  
 full sets but none of them the  
 original. Notes call for tan B.T.  
 but I can find none large enough  
 to have been standing at that time  
 the cor as used by everyone is on a  
 Norway Pine knoll and I accept it as  
 the corner and run line accordingly  
 as there is no evidence by which to  
 establish a cor any where else

P.M. we go to S.W. Cor of S. 14 find old  
 B.T. two of them standing one down  
 and stump of another  
 I set true cor and take New B.T.  
 as follows

Maple .10 N 34° E . 21.2 ft

Basswood .10 N 41° W . 21.2 ft

Maple .9 S 63½° W 32.7 ft

Maple .10 S 56½° E 45.3 ft

I then start line E from this cor  
 along S side of sec 14

Elmer B Horst



144.29-

26

Tuesday, Feb. 22-1916.

Forest, Transit. E. E. The Douglas, app.

We continue south line of sec 14.  
land level, heavy hardwood timber  
we enter cedar swamp and quit  
for night 2 1/2 miles to camp.

Wednesday Feb 23-1916.

Forest Transit, The Douglas app.

we continue south line of sec 14.  
heavy cutting in cedar swamp all  
large trees being on line.

P.M. John Ahlin helps on line  
as tageman. We continue E on  
south line

Edmond B. Horst

Thursday Feb 24. 1916.  
Forest, transit. Mc Dougal and  
Ohlin apemen.

Ohlin continues cutting line East  
Mc Dougal & I go to S.W. cor  
of 14 and chain line up as far  
as cut. Make as follows.

at 345. Hub where we <sup>corrected fence</sup> ~~corrected~~ <sup>an old Random</sup>

at 1084.9 ft E Hub.

" 1500. set chain stake.

" 1731.8 ft E Hub

" 2372.5 " " "

" 2755. old logging road N+S.

" 2764.2 Hub enter cedar swamp.

" 3335.8 ft. E. Hub.

" 4019.7 " " "

" 4025. center of new log road <sup>by Grimsath.</sup>

" 4698.4 Hub leave Cedar swamp

Elmer B. Stout.



Friday Feb-25-1916.

Horst, Transit, Mc Dougal & Ohlin are  
we run line and chain setting hubs  
at 4848 ft E Hub

at 5214.2 "

at 5501. back in ced stump.

at 5844.8 Hub here I turn angle of  $37^{\circ}$   
South and sight to cor of 1314-23-24.

distance to cor = 117.3 ft

at Sta 5938.8 ft E cor sets S 70.6 feet

correcting back.

E to cor at Sta 4454.1 ft E cor sets S 53.1 ft

4 cor at sta 2969.4 ft E sets S 35.3 ft

W to cor at sta 1484.7 " " " 17.6 ft

at 4 cor I set transit on random line  
and sighting W I turn  $N 88^{\circ} 3' 0''$  and start  
4 line N then see 14 we cut line  
about 1500 ft and quit for night

Calmer B. Horst

29

144. 29. sec 14.

Sat, Feb - 26 - 1916.

Had Mc Donald &amp; O'Brien

We chain up & continue cutting  
tilline North

at 146.4 N Hub.

" 304. ft N Hub.

" 924.6 " " "

" 1439.5 " " "

" 1750.0 leave cedar swamp

" 1899.6 " " "

" 2220.2 " " "

" 2534.0 " " "

P.M. Andrew

and  
assist as

overmen

Edwin B. Horst



144-29 Sec 24

30

Sunday, Feb, 27-1916.

Forest transit One Douglas and  
axe

We continue North on  $\frac{1}{4}$  line sec  
14 thru heavy brush and cedar  
swamp also large piles of  
slashings progress very slow  
and slow 30 in deep with hard  
crust on top we cut within 2 or  
3 hundred feet of N side and  
quit for night we are missing  
the  $\frac{1}{4}$  post on N side of 14 several  
hundred feet on the West

144-22-8 ec. 14

Monday Feb 28-1916

Horst Transit. Earl McKougal  
and John Chlin arrivedwe finish cutting N+S line  
we then go to  $\frac{1}{4}$  cor on N side 14  
and cut line west to intersectN+S Random angle at P.I.  $83^{\circ}38'$ P.M. we chain line from 2900 N  
to P.I. and E to  $\frac{1}{4}$  cor

at 2960.5 ft N Hub

B.T. at  $\frac{1}{4}$  cor on N side  
of 14-144-29

" 3420.7 " " "

cedar 8 N 20 W 117 ft

" 4684.6 " " "

ced 7 S 11 E 103 ft

" 5045.1 tack on top of large post pile

" 5384.0 P.I. Hub

cor sets E 614.8 ft on random line.

figuring true distances

at Sta 5515.8 ft N  $\frac{1}{4}$  cor sets E 611 ftCorrecting back and setting posts on  
true line at equal distances for  
approximate corners

N to at 4136.9 ft N goes E. 458.3 ft

 $\frac{1}{4}$  at 2757.9 " " " 305.5 ft

Sta 1379. " " " 152.8 ft

these are all the lines they want  
run so I get ready to go to Federal  
Dam Elmer B Horst



143 - 28 - County road 32  
Federal Dam and Sugar Point

Tuesday, Oct. 29 - 1916.

I go to Portage Lake with a logging team and take train to Federal Dam. fare 19 cts. I get dinner at Hotel and make arrangements to board there and survey the Federal Dam and Sugar Pt. Road.

I hire Fred Beaulieu and Ed. Newton as axemen to begin tomorrow morning.

Oliver B. Frost.

Record # 486

Wednesday, March, 1st, 1916.

Ed Newton does not show up.  
Horst and Fred Beaulieu take  
tools and go to cor of sections

34-9-10 find Elm 6 N39W 20 still  
standing and B-Gilead 12 S-7-E 18 a  
15 ft snag remains standing, both  
plainly marked. I establish cor  
from these and start line S at 9° 1/2  
across small field at  
at 490.0 Wire fence bears W  
at 1300.0 ft S Hub enter Thick Pop brake  
at 2196.0 " " "  
" 2500.0 Pass' new shack deserted  
" 3793.0 ft S Hub  
we return to town for supper  
{ We were unable to locate 4 cor  
it is evidently lost

Elmer B Horst.



Time Sheet for Federal Dam and Sugar Point County road survey.

Feb 29<sup>th</sup>. 1916 Elmer B Horst 1 day  
18<sup>th</sup> " " " " "  
March - 1916 1234567890

March - 11/19/16. 12345678910

Elmer B. Horst, 1114 1/2

Fred Beauvoir. 11/11/11 a 1/2

Harold Olson. 11/14 1/2

George White, 1111

Feb 18 Cues required Notes for this survey

Thursday March 2-1916  
Horst transit. Fred Beaulieu  
Harold Olson & George White as men  
we continue line south  
at 4485.2 ft S 1st hub  
" 4800.0 " " enter large bog  
" 5280.0 " " we set 4 ft popple  
stake and look for corner and  
Bt. notes call for 4 turn, no timber  
standing, nearly all trees that are not  
decayed are large cedars down and  
snow 3 ft deep we find no evidence  
sufficient to establish a cor so we go  
W 1 mile and look for a cor that was  
recently established but on acct of  
deep snow and dense growth of small  
spruce we are unable to find it  
before night, we return for supper

Echner & Horst.



143 - 28.

36

Friday, March, 3-1916.

Horst transit. same crew.

We go to  $\frac{1}{4}$  cor between 7 and 18 and find  
Post set by Curo also old bearing trees

I start line E at 99 war

at 2600 ft. E set Hub

at 5000 " " " "

at 5280 set small stake

at 5900 ft E set Hub - war changes to 15°

We quit for night

Edwin B Horst

Saturday March 4th 1916

Host and same crew continue

line E from station 5900 E

at 7400 ft E set hut

" 7800 " " " " from this hut

I sight to Cor of sections 8-9-16-17

deflection angle  $\approx 63^{\circ}12'$  distance 367 ft

by lat & Dep. at Station 7965.4 ft E

Cor sets S 327.6 ft

I set Transit over cor and start new

line East at  $9^{\circ}$  var

at 2600 ft E Hut

We return to Federal Dam

Sunday March 5-1916.

I stay at F. Dam. Hotel all day

I write a few letters and notes

Weather of preceding week has been

fair and cold snow still 3 ft deep

on open tops

Today cloudy and considerably

warmer indications of rain

Edwin B Host.



Monday, March 6, 1916.

Horst. Transit. Fred Beaulieu,  
Harold Olson and George White  
runners.

We go to cord sections 8-9-1477  
143-28 and continue line E as  
begun on Sat.

at 2600 ft E set Hub  
it begins to snow so fast that  
we cannot use the transit so we  
cut line & set pickets to cut by  
we cut to sta 5280 and quit.

Calvin B. Horst

Tuesday, March 7. 1916.

I get up and find that we  
are unable to work in account  
of a N.E. blizzard which stops  
all outside work for the day.  
I write up a few notes and  
check some calculations.  
at Federal Dam Hotel all day  
at 10.30 P.M. I receive a  
telegram from Curo to return  
to Walker.

Edwin B. Horst.



Wednesday, March 8, 1916.

Having left my entire outfit  
in the field I take Fred Beaulieu  
and Harold Olson out to help carry  
in the outfit.

I leave Federal Dam at 3.35<sup>PM</sup> for  
Bennidji fare .83 cts at 11.20 P.M.

I leave Bennidji for Walker  
R.R. fare .67 cts.

I g. to Carlsons Hotel bed .50 cts

Calmer B West

Record No. 786

Rge Line bet. 284-29.-142  
Co. road.

42

Sunday, April, 9th 1916 263

I leave Walker at 4:30 A.M. with outfit and  
ride across Leech Lake with Walter

Haberman eat dinner with W. Haberman  
and go to Olaf Engene to see about board  
they agree to board me while on survey of road  
E.B. Forest.

Time Sheet Brevik Co Road  
Ret Secs 31-4-136  
7142-1128-29

April 1916

9 10 11 12 13

1 1 1 1

F.B. Harst Rep. Co. Survey



283

Monday April 10 - 1916.

Horst. Transit. Alfred Boe, and,  
John K. Berger, axemen.

We go to N.W. Cor of Sec 31 Twp 142.

Range 28 where U.S. notes call for

Pop 18 S 24 E 25 - Pop 6 S 80 W 20

Elm 6 N 4 W 10 - Maple 16 N 80 E 65

I find Pop S 24 E 25 and maple 16 N 80 E 65  
and set sq post for Sec Cor and take  
new Bearing tree

Maple 12 N 72° W 59 ft.

" 10 N 16° E 49.7 ft.

" 16 S 80° E 37.5 ft.

ELM 7 S 51° W 43.5 ft.

We set up large pole at this cor and  
follow a fence  $\frac{1}{2}$  mile S to  $\frac{1}{4}$  cor on hill  
where U.S. Notes call for two N.P. B. & a

N.P. 24 S 55° W 47. N.P. 24 S 75 E 20

I find one stump marked and the other  
one is cut below the scrub marks

there are no other trees or stumps near

Set sq post sight from this cor to Sec Cor to mill  
and cut + chain line N to sec cor

at 325 ft N enter marsh

at 430 " " leave "

Twp 142 Between Rgs 28-29

T 142

44

Monday April 10-1916 Continued

at 443.5 set stake for road center  
at 835 ft N enter small pond  
at 870 " " leave " "  
at 1018 " " exit marsh  
" 1100 " " leave " "  
" 1124 " " set stake for Road Center  
" 1200 " " exit small pond  
" 1340 " " leave same  
" 1898 " " set stake for road center  
" 2686 " " post N.W. cor to sec 31

Twp 142 Rge 28

E.B. Horst



45

263

Co road.

142-2829

Tuesday April 11-1916

Forest, transit, Roe + Berger axe  
we go to Twp Cor (I.M.) Cor to trps 141  
+ 142 Rges 28 + 29 and run line N  
at 9°30' Var

at 10 ft N enter marsh

" 250 " " leave "

" 477 " " set Hub

" 780 " " enter marsh

" 1000 " " leave "

" 1133 " " set Hub

" 1533.2 " " "

" 1956.0 " " "

" 2627.6 " "  $\frac{1}{4}$  cor between secs 31 + 36

trps 142 Rges 28 + 29. Set W 20.5 ft

Correcting back sine = .0078

Hub 1956. goes W 15.25 ft

" 1533.2 " " 11.95 "

" 1133. " " 8.84 "

" 477. " " 3.7 "

at twp cor I sight S to Hub on true

see line reverse telescope and sight N  
on true line. line deflects E 10°35'

at  $\frac{1}{4}$  cor I sight S on true line reverse telescope  
and sight N on true line. line N deflects W  
2°20'

263

continued April 11-1916.

46

142-28-29

at N.W. Cor sec 31 Twp 142 Rgc 28  
I set transit over sec cor sight S on  
true sec line thru telescope & continue  
line to Seesh Lake look for BT to M.C.  
but on account of the lake being higher  
everything is washed away  
we chain down hill to lake Govt chain  
to M.C. = 75.9 ft our chain = 950 where  
I set large cedar post for witness cor  
to M.C. M.C. sets in lake 409 feet.  
E.B. Horst



Wednesday, April 12 - 1916.

I hire Walter Haberman to take  
me & outfit of survey instruments  
to Glen & Judy's place at Sugar  
Point. livery \$1.50.

Mrs. Judy says she can't board  
me so I have Tom Bungo  
take me to Federal Dam, route  
across Leech Lake.

the nearest he can get me to  
town is to N side of Leech Lake  
above river from here & pack trail  
2½ miles to town in the rain  
arrive in Federal Dam at 5 o'clock  
Tom Bungo livery \$2.50

I board at E. L. Warner's hotel

Sugar Pt & Federal Dam Co road 52  
143-28

Thursday April 13-1916

I hire Fred Beaulieu as an E flagman  
and we walk from E. L. Marine Hotel  
to S.W. cor of Sec 17 Twp 143-28  
run compass line & place E to where  
 $\frac{1}{4}$  cor on S side of sec 17 should be and  
look for B.T. we find old goat blazes on  
trees and follow them to where we find  
B.T. to  $\frac{1}{4}$  cor where Cus. notice call for  
Tam 5° N 64° W 19 Tam S 64° E 13  
we find B.T. to N and establish  $\frac{1}{4}$  cor from this  
driving a 4 in by 10 foot pole in the swamp  
all but 3 ft and set a (15 foot) sq sight  
behind cor. Soun line N at 18° for as  
this seems to be the direction we should  
go we cut line N chain 1500 ft & set  
stake quit for night.

Record No. 486





Saturday April 15-1916.

Forest transit. Fred Beaulieu exp & chain  
George Constock, exp.

Constock continues cutting to line N and  
Beaulieu & I go to Sta 1500 N of  $\frac{1}{4}$  cor on  
S side of sec 17 & chain N,  
at 2700 leave tangle swamp and  
enter strip of highland hardwood timber  
at 2839.5 ft N set Hub

" 2890. Cross wagon road

" 3051.5 ft N set Hub

" 3380.5 " " "

" 3580. " " " " " " " " " " " "

" 3620. " " " " " " " " " "

" 3950. " " " " " " " " " "

" 4190 " " " " " " " " " "

" 4287.7 " " " " " " " " " "

" 4300. " " " " " " " " " "

" 5608. " " " " " " " " " "

on N side of Sec 17 at Sta 4312.7 ft E  
of  $\frac{1}{4}$  cor between Secs 7 & 18, angle S.E. =  $80^{\circ}45'$

We go N on random sec line and look  
for cor to sec 7-8-17 & 18 we find old stake  
and a small spruce which I accept as U.S. Bt  
as the Blage & white marks are very old  
bears S 3 W 14 links as called for in U.S. notes

Continued

C. B. Horst.



April 15-1916. Continued

See cor sets at sta 2640 on random line and 207 ft S

N.E. cor of sec 17 at sta 7965.4 E sets

S 327.6 ft sine = .02264 =  $10'18''$

True length of N Bdy of sec 17 = 5325.4 ft  
at equal distance from see cor I look  
for  $\frac{1}{4}$  cor N side 17 and find stake  
several years old. and U.S. B.T.

4 N 70, W 17 with B.T. scrib on stump  
only stump remains.

$\frac{1}{4}$  cor sets in line with see corners  
and 2662.7 ft from each

I calculate distance from  $\frac{1}{4}$  cor to N+S  
random  $\frac{1}{4}$  line

at Sta 5268 ft N on random  $\frac{1}{4}$  cor

sets E 9298 ft. sine = .17650 =  $10^{\circ}10'$

angle of true N+S  $\frac{1}{4}$  line + N sec line =  $89^{\circ}37'$

Sunday, April 16, 1916

Rains all day.

I stay at Warrens hotel  
Federal Dam

E. B. Horst.





Tuesday April 18, 1916

Horst and same crew,

Comstock continues cutting E + W line

Beaulieu + I go back to chain up

at 240. ft E int swamp

500 " 480. " " leave " "

515

437 " 499. " " set Hub

175 2 stakes

4. Road. "

2665.7 " 1015. " " " "

" 1020. " " " " "

" 1125. " " " leave " "

" 1340. " " " cross log road

" 1535. " " " " " "

" 1630.4 " " " set Hub

" 2295.3 " " " " "

" 2662.7 " " " set temp  $\frac{1}{4}$  cor bet 16 + 17

from which White Birch 10 S 46° W 36.5 ft

Nov. 9 - 1933

Pop. 3" N 5° E 27.7'

Popple 4 N 19° E 37.7 ft.

Continue line E into sec 16

at 3028.0 ft E set Hub

" 3369.6 " " " "

" 3804.9 " " " "

R.pt. " 4581.0 " " " " on end

of point of highland

bearing trees to this Hub.

Popple 5-S 55-ft

6 N 45° W 77.5 ft

quit for night E.B. Horst.





Wednesday, April. 19-1916.

Horst transit. Fred Beaulieu

axe & chain

at Hub 45-81 E & backsight on line  
W, reverse telescope & turn angle

$37^{\circ}34'$  to N & run line N.E. across  
large spruce bog

at 150.0 ft NE enter large bog

" 1038. " " set stake road center

" 1544. " " " "

" 2029. " " " "

" 2526. " " " "

" 3052. " " " "

" 3812. " " " "

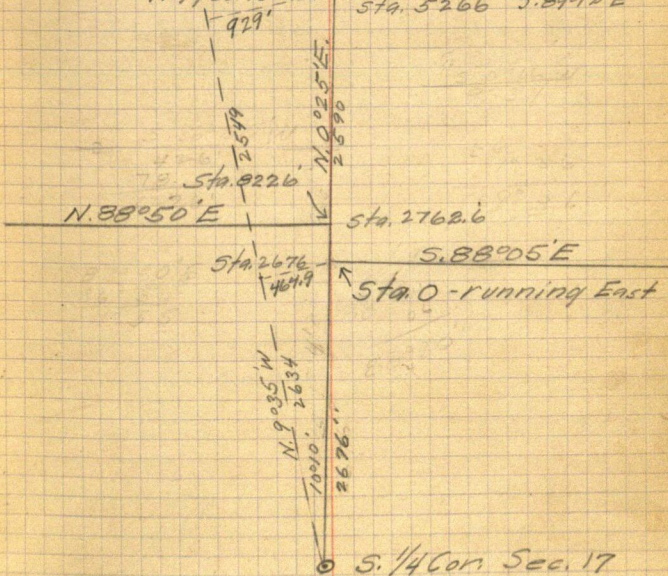
" 4422. " " " Hub "

section cor to 9-10-15-16 being gone,  
we chain E on acut out line along S  
side of section 10 from Hub 5280 ft S  
on random between 9 & 10 to establish  
cor. at 5100 I set stake and look  
for BT to cor of 10-11-14-15 on road.  
I find 22 S. BT. Cedar 6 N. 77 N. 48 (all the  
other trees are gone) from this cedar I  
take course & measure required distance

143-28.

56

April 19-1916. Continued

and drive 4" cedar stake 3 ft long at pt  
for cor and chain to cor from stake 5100 E.distance from random line to cor = 5192 ft  
we quit for nightN.  $\frac{1}{4}$  Cor. Sec. 17  $\circ$  E. B. Horst  
Sta. 5266  $5.89^{\circ}12'E$ 



Thursday. April. 20. 1916.

We are unable to work on  
account of an all day rain.  
Stay at Stanton Hotel all day

E. B. Frost.

Friday April 21 - 1916.

raining and snowing.

Horst, transit. Beauchien up & chain

we chain E from Hub 5280 E on E & W

random between sec 9 & 10 to Hub 5280 ft

S on N & S random bet 9 & 10 distance = 192 ft

$5280 + 5192 + 192 = 10664$  ft = total length

of south boundary line of sections 9 & 10

U.S. chain for sec 9 = 79.86 N & chain = 5299.5 ft

" " " " 10 = 80.84 " " = 5364.52

True cor sets W of Hub 5280 S (on random sec

line bet 9 & 10) 172.5 ft Sine for N & S line

= 0.3267. Correcting back on line bet 9 & 10

Hub at 430 ft S goes W 14.05 ft.

" " 1300 " " " " 42.47 "

" " 2196 " " " " 71.74 "

" 2640 " "  $\frac{1}{4}$  cor sets W of random 86.25 ft

Hub " 2932.7 " " goes W 95.8 ft.

" " 3793. " " 123.92 "

" 4485.2 " " " " 146.53 "

Sec Cor " 5280. " " sets " 172.5 ft.

Note at Sta 3455 road line strikes point of

swamp at 3753 leaves log. which

random line didn't touch

Continued to next page

E. B. Horst.



Friday, April, 21st. continued.

Green see cor to 9-90-155/2

We cut line S to interest line coming  
across bog from Pub 45-81 on E & W  
1/4 line in Sec 16

distance = 310 ft. in angle =  $52^{\circ} 26'$

We bring outfit to Federal Dam  
and I take 3-40 train to Benidji  
via Soo line R.R. fare = \$0.83

at 11:25 I take train on M40 R.R. to  
Walker fare = \$0.69

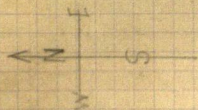
arrive at Walker 12:30 a.m. April 22.

I go to Carlsons Hotel

Bed + breakfast \$0.75

Hot

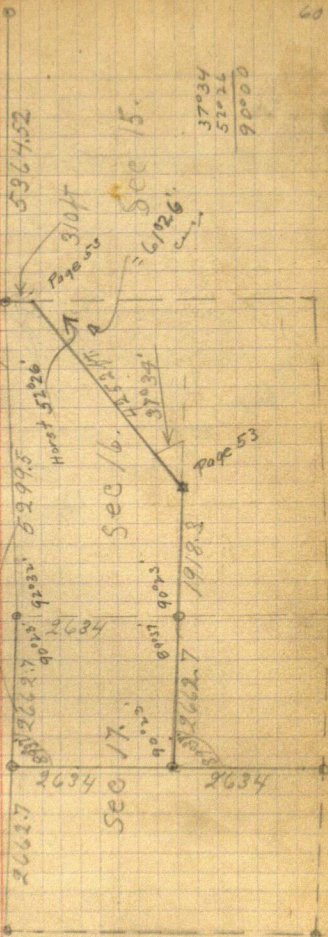
143-28  
 Division of Survey of Federal Dam Co and



Sec. 9.

Sec. 10.

17705'



37°34'  
 52°26'  
 90°00'



Saturday, April. 22. 1916.

Work in office checking  
notes and calculations  
dinner at Curra's. E. B. Horst.

Record 486  
Survey Record No. 486

Sec. 16, Twp 142 Rge 31.

Tuesday, May 16 - 1916.

Horst. transit, Hans Hansen flag  
and chain.We begin at S.E. Cor. of Sec 16 where  
Great Northern R.R. crosses the South  
boundary line of Sec 16

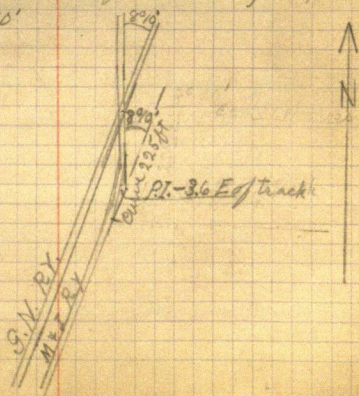
Set transit over spike on S sec line in  
center of Great Northern R.R. sight West  
to I.M. at  $\frac{1}{4}$  cor and read A.W. angle  
=  $57^\circ$  to a Hub 500 ft N and 25 ft W of track  
on R.R. curve. at this Hub set transit  
backsight to T.P. reverse telescope turn  
deflection angle  $20^\circ 35' E$  and sight up the  
straight track. taking chain and chain tied  
at ft. in. track 25 ft E to lake from M.H.

"	200.0	ft N	50	"	"	"	"	"	"
"	300.0	"	100	"	"	"	"	"	"
"	400.0	"	112	"	"	"	"	"	"
"	500.0	"	98	"	"	"	"	"	"
"	600.0	"	62	"	"	"	"	"	"
"	750.0	"	50	"	"	"	"	"	Ref curve
"	900.0	"	54	"	"	"	"	"	"
"	1000.0	"	100	"	"	"	"	"	"
"	1187.0	"	94.5	"	"	"	"	"	"
"	1300.0	"	172	"	"	"	"	"	"
"	1400.0	"	185	"	"	"	"	"	"



at 1600 ft N	160 ft to lake
" 1700 "	130 " " "
" 1800 "	77 " " "
" 2000 "	100 " " "
" 2100 "	154 " " "
" 2200 "	171 " " "
" 2316 "	E + W $\frac{1}{4}$ line. 198 ft to lake
" 2400 "	225 ft E to lake
" 2500 "	245 " " " "
" 2600 "	305 " " " "
" 2700 "	350 " " " "
" 2800 "	365 " " " "
" 2900 "	496 " " " "
" 3000 "	552 " " " "
" 3100 "	568 " " " "
" 3150 "	380 " " " "
" 3300 "	348 " " " "

" 3435 " 353 to lake " Center of P.R. crossing. Departure of tracks =  $8^{\circ}10'$



See 16 142 - 31 - continued

at 8452.4 ft N cross N $\frac{1}{2}$  line. 362 to lake

" 3500. " " 278 ft E to lake from G.N.

railroad following distance taken to lake from G.N. Ry.

" 3600. ft N 160 ft E to lake

" 3700. " " 130. " " "

" 3800 " " 80. " " "

" 3900 " " 50. " " "

" 4010 " " 25. ft of curve G.N.

set transit at P.C. backsight reverse

telescope, sight to pt 300 ft N on track, line deflects W  $3^{\circ}30'$

set transit at this pt and sight to

pt on track where N sec line of 16

crosses track deflection =  $5^{\circ}45'$  to N

I set transit over this pt back sight

to pt on track, I just came from = 297 ft

back and read S.W. angle =  $116^{\circ}08'$

at 4200. 50 ft to lake

" 4300. 160. " " "

" 4400. 226. " " "

" 4597.3 ft N intersect N sec line

at a point on RR curve

E. B. Horst.



We return to R.R. crossing and take the course and distance of M.T.I. Ry. R.R. crossing = Pt. A. we chain from M+L 350 ft from crossings to P.C. I set transit at this point B and backsight to crossing <sup>Pt. A.</sup> reverse telescope, we chain N 500 ft from transit on curve to Pt. C. I sight to Pt. C. deflection to W =  $10^{\circ}$

I set transit at Pt. C. chain from track 500 ft to Pt. D. I backsight to Pt. B reverse telescope sight to Pt. D. deflection to W =  $20^{\circ}$

I set transit at Pt. D. and chain from track 208 ft. to Pt. E where N Sec. line crosses M.T.I. Ry. I sight to Pt. C reverse telescope and sight to Pt. E, deflection to W =  $14^{\circ}11'$

I set transit over Pt. E sight to N.W. cor. of Sec 16 then S.W. angle to Pt. D. on R.R. curve, angle  
=

E-279

143-31

Squaw Point. Oct 8-1916  
 Sunday. As we are on our way  
 to Sugar Point to make a sur-  
 vey of Co road and Mr Fisher  
 is to take us over free of charge  
 we offer to assist him a hour by  
 establishing a corner on our way  
 past Squaw Point at

Sec 13-14-23-24-143-31

We leave launch on the Point  
 and walk to the corner to

Sec. 13-14-23-24-T/143 Rg 31

where US nation. Call for a post  
 and the following bearing lines

Nor. Pm. 10 N 2° W 54' lks = 35.64

" " 12 S 43° E 26 " = 17.16

" " 8 S 6° W 269 " = 177.54

" " 14 N 2° 30' E 617 " = 407.22

We find the NE line standing  
 green & plainly marked and we find  
 the stump of all the other lines  
 plainly marked. From which we  
 set the corner but flat chain  
 from face of B. To mark R.  
 We first set a pin for  
 John W. Carr



Sunday ② Oct 8<sup>th</sup> 1916 70

143-31 Squaw Point continued

temporary corner by flat chain  
from Face of N-W and S-E B.T. stumps.  
Then going to the N.E. B.T. we chain  
to the temp. corner 407.22 ft. then  
going to the S.W. B.T. stump and  
chain in direction of temp. corner  
177.54 ft and find the distance  
between the N.E. and S.W. trees  
to be 1.90 ft. short,  $407.22 + 177.54$   
equals 584.76 U.S. chain =  
582.86 my chain.

being .00325 short per foot

$177.54 \text{ U.S.} = .60 \text{ short and} = 176.94 \text{ My Ch}$

$407.22 \text{ U.S.} = 1.30 \text{ .. ..} = 405.92 \text{ .. ..}$

We drive a 2X48 inch boiler  
tube iron pipe its full length  
in an 18 inch mound of dirt  
after which the old B.T.s stand  
as follows  $08^{\circ}45'$

N Plump N  $4^{\circ}$  E 405.92

N Plump N  $3^{\circ}30'$  W 35.64

" "  $87^{\circ}$  W 176.94

" "  $S 42^{\circ}$  E 17.16

279

NW Corner post of wire fence sets West 1.20 ft  
to center post. Fence bears  $S 2^{\circ}30'$  W  $08^{\circ}45'$

John W Carr

143-31 ③

## Sugar Point

Sunday Oct 8-1916 continued

We start a line South between Secs 24 and 25 and set a stake about 30 rods south and cut a notch in top rail of South fence so that if the stake gets moved Mr Fisher can line the notch in fence with line corner and cut picket line South. John W Curo. Herald J Curo. Alois Nowak. Frank C Fisher help set this corner

Mr Fisher is Goat Farmer and takes us to the Glenn E Judy place on Sugar Point old dock and find Mr & Mrs Judy gone Mr Fisher has key and are so our own cooking

279

John W Curo



143-29

Sugar Point

Monday Oct 9- 1916

As we are to survey the  
Federal Land - Sugar Point road  
on line lines and as they are  
all lost and have been hunted  
for years we begin a thorough  
search. Mr & Mrs Judy arrive from  
Federal Land and we take Judy's boat  
and go to M.C. Between Sers 35 & 36  
143-29 where U.S. notes call for a  
post with the following bearing  
trees: Elm 20 N 21 E 30

S. Maple 10 S 62 W 60

On account of high water the  
bank here is washed away  
but lying in the water is an old  
Elm tree which we believe to  
have been the original bearing  
tree, as it is, the only large tree

at or near this point and as the  
marks may be underneath we get  
a cross-cut saw and saw out a  
5-foot section of the butt but  
are not able to see any iron  
marks made by the original

John A. Chas

Oct 9-1916 Continued

U.S. surveyors - I am sure however that this is the old MS. BT and from this point I run a compass line and pace North on  $18^{\circ}35'$  variation 584 paces being approximately 2338 links called for in the MS notes and look for

Co to sec 25-26-35-36-143-29 where MS notes call for post and N. Oak  $9^{\circ}N 7^{\circ}W 16$  Lks =

Sugar  $13^{\circ}N 22^{\circ}E 50$  " =

Lrim  $9^{\circ}S 30^{\circ}E 15$  " =

Sugar  $12^{\circ}S 14^{\circ}W 43$  " =

We are unable to find any thing and run a line West 185 paces to the flowage of Leech Lake.

The distance west should be 1142 links MS. Chain and the M.C. on E. bank of lake bet 26 and 35 has one B.T. being N. Oak  $10^{\circ}S 33^{\circ}E 115$  Lks but are unable to find any thing.

Mission Judy and Fisher lakes are to a corner about 40 rods NE of which was set 10 or 15 years ago by a cruiser by name of "harder" the land is John H. Curro





75

14329

④

Oct 9-1916

continued

Set a plate  $9 \times 4 \times 72$  inches in size  
and marked two new BTS. viz

Maple stump 20' sets E astutely and  
an 8' aspen about North 3. steps  
but as there are no alid U.S. Bts  
we pass West on spotted line 179 paces  
to edge of Leech Lake but find no  
corner

Quit for night all boarding with  
Helen & E. Judy

John W. Curo



Reco. <sup>V 48</sup> Survey Record No. <sup>486</sup> 76.

Oct 10-1916 Tuesday

143-29. Sugar Point - Federal Dam

Harold Curo and Fisher go back to Walker. John W. Curo Alvis Mook, Glen E. Judy walk to an old stake set by Gardner for the corner to sections 23-24-25-26-143-29- where he has marked up new bearing trees but as he has not found the old B.T's we cannot use this corner. We go to a "random line" run two years ago by Curo near line between 13 and 24. - but find no old bearing trees. Dinner at Judy's at about 2 P.M. Then go to "five-mile point" in Judy's everwide-boat. and from the corner to sections 11-12-13-14-143-29- started picket-line South.  $8^{\circ}35'$  var. Over night at Judy's

John W. Curo

Oct. 11-1916 Wednesday  
143-29 Sugar Point

Federal Dam Co. Rd  
Curo, Ind. and Mowak  
walk to the  $\frac{1}{4}$  corner bet-  
ween sections 18 and 19

143-28 - previously estab-  
lished by Curo from old  
U.S. bearing trees. We  
find Curo's  $\frac{1}{4}$  corner  
under water and put in  
its place a 10 ft. Cedar  
post from which we start  
a picket-line North 83° 5' var.  
The old bearing trees are  
still plainly marked but  
down. We then follow Curo's  
old picket-line  $1\frac{1}{2}$  mile  
West but find no marks  
of the old Range Line  
About 500 ft South of  
Curo's picket-line we  
find old blazes which  
may be the South-Line  
of section 13-143-29.  
near South-West corner.  
Over night at Judy's.



Oct. 12-1916 Thursday

143-29 Sugar Point

Federal Dam Co. Road.

Believing the old 20" elm found on Sugar Point is the bearing tree to the Meander Corner between sections 35 & 36 - 143-29 - We decide to test it out as to location we drive a hub on the high bank 10 ft above the water at a point 7 ft West and 21'50 ft North of the point where the old root of the elm would stand if straightened up. This hub sets 40 ft North of where the M.C. would come, and we mark the hub 40-N. - this hub sets 15 ft North and 10 ft West of sharp edge of bank. We started a picket-line North  $8^{\circ}$ -30' var., chaining from point for true M.C. at 20 leave Leech Lake at 40 hub on bank.

John W. Curran

Oct 12-1916 could  
at 100 set stake  
at 186 notch in stump  
at 470 a pole-fence bears  
N.W. and S.E.  
at 480.70 set lnt. Judy  
has three young Indians  
employed to cut this  
line out for us. We then  
take transit to five-mile  
point where we start a  
line South at  $8^{\circ}30'$  var.  
and run about 600 ft. to  
give old Jumbo a start  
for a picket line South.  
Jumbo is an old Indian  
employed by Mr. Judy  
to cut this line South.  
We get back to Judy's  
for dinner where we  
find Mr. Fisher waiting  
for us with Larrach to  
take us back to Walker.  
after dinner we conti-  
nue line North between  
35-36-143-29 using  
John W. W.



Oct 12-1916 continued  
transit.

at 500 set stake, about  
100 ft West of tumbled-down  
shack. An Indian family  
lives in a house on our  
left in section 35.

at 610 we are 3 ft West of  
North - West corner of tumb-  
led-down barn.

at 637 intersect S.E. cor.  
of dirt-covered stable. Our  
line cuts off 1 foot of some.  
at 1026.40 set link

at 1050 wagon road  
bears N.E. and S.W.

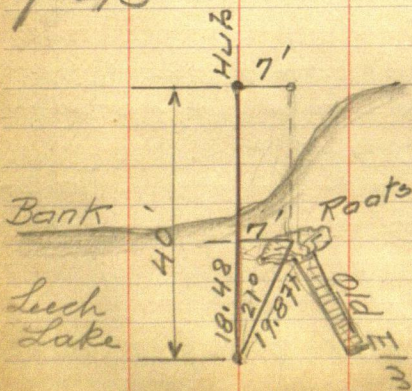
at 1070.70 pencil-mark  
in 5 inch ash-stump.

at 1543'28 set link for  
temp. cor. to sect. 25-26-  
35-36-143-29 where we  
start a picket-line East  
and another West at  $90^\circ$   
to our handrun and  
continue North.

Jahm & Co

Oct 12-1916

at 1879.40 pencil mark  
 in big old oak log  
 at 1900 set stake and  
 enter big open marsh.  
 Judy and two Indians  
 try to get a picket line  
 North across marsh  
 but find it too soft.  
 Mr. Fisher works with  
 us during P.M. and  
 it is too dark to cross  
 Leech Lake before we  
 notice it. With transit  
 at hub 1543.28 the  
 variation changes to  
 $7^{\circ}45'$



John W. Carr



Oct 12-1916 continued

The three young Indians  
that assisted us in P.M.  
were: Fred Johnson

John Cloud

John White

John Johnson worked on  
five-mile point.

Mr and Mrs George White  
say the only corner found  
by Surveyor Gardner here  
15 years ago or more  
was the one at sections  
11-12-13-14-143-29.

George White was with  
him there when he cut  
out the old B.T. White  
worked one day with  
Gardner. They say other  
men who worked with  
Gardner were Ed. Wilson  
Doc Tibbitts and Robert  
Aitkin all half-breeds  
of this locality. One night  
with Judy

John A. Curo

Friday Oct 13- 1916  
143-29- Sugar Point- Fed deer  
road & sawney. As it is  
blowing hard we cannot start  
back to Walker as early as we  
had planned but get breakfast  
with Judy and as the wind  
bells start in A.M. and get  
back to Walker in time for late  
dinner. Mr Fisher eats at  
restaurant. I eat at home  
and Nowak eats at Hotel Chase

John W Carr



143-29, Federal Dam - Sugar Point 84

Nov. 16 - 1916 (Thursday)

Field notes of the continuation of the survey of the Federal - Dam - Sugar Point Co. Road which was begun by John W. Curo on Oct. 9. - 1916 to Oct. 12. - 1916 and is continued by Alvin Newark as noted on this and the following pages. As aforementioned Co. Road is to run on true lines and as the same are lost and were hunted for for years Mr. John W. Curo County - Surveyor of Cass Co. Minn. sends me, Alvin Newark, to Sugar Point to survey the range-line between 143-29 and 143-28 and also the section - lines and to establish the location of the corners set by Surveyor Gardner in respect to my lines.

I leave Walker for Cass Lake via Great-Northern at 6 o'clock P.M. Fare 49cs. Arrive in Cass - Lake at 7.14 P.M. Supper and Lodging at Hotel Indian.

A. Newark.

Nov. 17, 1916 - (Friday)  
 143-29. Federal Dam - Sugar Point  
 County Road.

Breakfast at Hotel Endison.  
 Hotel - Bill 1.50\$. Leave Cass  
 Lake for Federal Dam at 10 A.M.  
 R.R. Fare \$0.51. Express Co. Charge  
 for flagpole \$0.25. Arrive  
 at Federal Dam at 11 A.M.  
 I meet Mr. Glenn E. Judy.  
 We load transit and the rest  
 of the survey outfit onto a  
 wagon, driven by an Indian  
 named Jimbo, who takes  
 them to Sugar Point. Judy  
 and I have dinner in Hotel.  
 Bill is 0.50\$. As Judy has  
 to attend to some business  
 I wait for him. We leave  
 Federal Dam at 5 P.M. and  
 walk to Sugar Point where  
 we arrive at 8 P.M. Supper  
 and Lodging with Judy

A. Nowak



143-29 - Federal. Dam. Sugar Point <sup>26</sup>

Nov. 18. 1916. (Saturday)

Breakfast with Judy. After Breakfast Judy and I try to get some Indians to help me during the survey. But in vain as they all refuse to work except John White who is working on the picket line started by Curo on Oct 10-1916 running South from Section Corner 11-12-13-14-143-29.

Judy, I and John White walk to this line. Judy tells me that the line running South from Section Cor. 11-12-13-14-143-29 is about 300 Paces east of the line running north from the M. C. temporarily established by Curo from the old Elm tree which he found in the water on Oct. 12-1916 and which he assumed to be the B. T. of the M. C. on Sect. Line between Sections 35 and 36 and that by reason of this he had discontinued

8743-29

Nov. 18-1916

The latter line and continued the former. We then arrive at this line and find John Weaver, another Indian cutting trees and brush. They are still about a mile from the lake.

Judy and I walk to Gardner's Sect. Corner between Sections 23-24-25-26-143-29 which we find to be 126 Paces east of our line. We then walk north  $\frac{1}{2}$  mile and find Gardner's  $\frac{1}{4}$  corner 112 Paces east of our line. We continue walking north another  $\frac{1}{2}$  mile and find Gardner's Sect. Cor. between Sections 13-14-23-24-143-29 - 115 Paces east of our line. This latter corner of Gardner was shown to us by John Moose an old Indian. It is a limb about  $2\frac{1}{2}$  inches diameters



Nov. 18-1911

and standing at this hut,  
we can plainly see that there  
was a line run through the  
brush North and South and  
another East and West. These  
two lines intersect precisely  
at the hut. Thinking that  
these lines were Gardner's  
random lines I search for  
his true corner but vainly.  
John Morse tells us that  
he had worked for Gardner  
and that he had never seen  
Gardner establishing a cor-  
ner from Bearing Trees,  
except the Sect. Corner 11-12-13  
-14-143-29. Dinner at Judy's.  
As it is very difficult to  
obtain help amongst the  
Indians and I can see only  
Mr. Judy as being able to  
help me as chairman  
and since Judy is at present  
very busy to sack and ship  
his potatoes, I decide to

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Nov. 18-1916

help him with his  
work and then obtain his  
help in return. And so  
I sacked potatoes till  
11 P.M. Supper and lodging  
at Judy's

A. Wrook.



143-29

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Nov. 19-1916 (Sunday)

Breakfast at Judy's. Judy  
and I sacked potatoes  
all day until 12 P.M.

Dinner, supper and  
lodging at Judy's

A. Nozok

Nov. 20, 1916 (Monday)  
143-29 Federal Dam -  
Sugar Point Co. Road

Breakfast at Indy's. I skate across the bay to get John White lined up for to-day. Then I skate over to Bear Island to see John Cloud and Robert Tailor about working for me. Both refuse. Indy, I, and John White take the survey outfit and walk to Jumbo's place near 5-mile point. There we load it all on the wagon and have Jumbo take it to Federal Dam. As John White will be unable to work the next two days owing to his going to Cass Lake Indy decides to obtain some help for me in Federal Dam. On



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Nov. 20-1916

the walk to town we decide to search for the corner to Sections 3-4 in Twp 143-28 and Sections 33-34 in Twp 144-28.

We walk on the ice of Leech Lake. Remembering Gus's saying that I would have open sight from the corner to the lake except for a small island which lies to the west of it, I walk north until I have open swamp to the east of me except for an island which appears to be about  $1\frac{1}{2}$  off shore. We walk north until the compass shows me the center of the island exactly east on  $8^{\circ}30'$  Var. We then walk east, counting the paces. At 300 east we blaze tamarac trees. At 2300 east we are just about 200 paces west of the island. We then walk around island and

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Nov. 20-1916

after a somewhat extended search we find the section Corner 4-5-32-33. As I will be unable to work to-day - owing to it being a cloudy day and it getting rapidly dark and as Judy wants to leave on the 3.30 P.M. train for Walker where he is summoned as witness we walk to town along township-line between 143-29 and 144-29. On the Section Corner between Sections 3-4-33-34 we find a 2" capped galvanized iron pipe well driven into the ground.

Dinner at Hotel. I meet Ed. Ralley, a half-breed, who is willing to help for \$2.60 a day. Judy is going to pray



143-29

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Nov. 20-1916

\$1.60 out of the Indian -  
Fund while the Community  
will have to pay \$1.00  
per day. I sent word to  
Curo about this with Judy  
who leaves Federal Dam  
at 3.30 P.M. I spent the  
rest of the afternoon  
with writing notes.  
Supper and Lodging  
at hotel in Federal -  
Dam.

A. Noroak

95

143-29

Nov. 21-1916 (Tuesday)

Federal Dam - Sugar Point  
Co. Road

6.30 Breakfast at hotel  
in Federal Dam. Take  
Lunch with me. I and  
Ed. Ralley with Survey  
transit and 100 ft Chicago  
steel tape leave Federal  
dam at 7 A.M. and walk  
to Sect. Cor. 3-4-33-34. I  
set a tall red flag plumb  
into the ground. We then  
walk to Section Corner  
4-5-32-33. This corner is  
marked by the stump of  
a small spruce squared  
up and showing dim  
marks. This corner was  
found by John W. Curo  
on March 15<sup>th</sup> 1914 and from  
which he marked the follo-  
wing new bearing trees.

Dead tamarac	5, 5° 54' E	120 ft
"	4, 5° 23' W	85.35
"	5, N 57° W	65.35



Nov. 21-1916

1. Dead Tamarac 3- N.  $11^{\circ}40'E$  57.40 ft  
all distances given to tacks  
in flat spots at bases of trees.  
I find the bearing trees standing with the tacks at the bases except the S.E. Bearing tree which has broken off; in the stumps, however, I find the tack. All courses and distances check exactly.
2. I then backsight red flag on Sect. Corner between Sect. 3-4-33-34 and start cutting brush through island about 400 ft. west of corner. I then start careful and exact transitline west from Sect. Corner 4-5-32-33 on true line between Sect. 5-143-29 and Section 32-144-29.
- Needle shows  $8^{\circ}15'$  Var.  
at 100 ft at 200, 300 ft. W. set pins  
at 376 enter island grown with poplars and cedar;  
at 400, 500, 600 ft W set pins.

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Nov. 21-1916

At 636 ft W leave island  
enter swamp with tall grass  
and scattered dead tamaracs.  
At 700 ft W set up. I use  
double centres. Ed Ralley  
and I chain correctly  
by using axes for plumbing.  
Continue West. At 800, 900, 1000,  
1100, 1200, 1300, 1400, 1500, 1600 ft  
West set pins. At 1602 ft W. set  
up. At 1610 enter open bog,  
being very soft yet. At  
1700, 1800, 1900, 2000, 2100, 2200 ft  
West set pins. At 2201.50 ft W  
set up. At 2300, 2400, 2500,  
2600, 2700 ft W set pins.  
At 2798 ft W set up. At 2800  
2900, 3000, 3100, 3200, 3300,  
3400 ft W set pins. At 3402.3  
ft West set up. At 3500, 3600  
3700, 3800, 3900, 4000, 4100,  
4200, 4300, 4400, ft W. set  
pins. At 4400.8 ft W. set  
up. At 4500, 4600, 4700  
4800, 4900, 5000, 5100, 5200



143-29.

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Nov. 21-1916

5300 ft. W. set pins. This entire mile runs through very soft ground. Ed. Ralley and I chained perfect. Each chainlength we set a spike into the ground and placed a wooden pin on the side of it, marked with the proper number. Each set up was produced by using the double center method.

Quit for night. We ate lunch in the field. Supper and lodging at Hotel in Federal Dam. Mr. Judy gets back from Walker at 11.30 P.M. He hands me two letters from John W. Curo.

Overwak

99/43-29

Nov. 22-1916 (Wednesday)  
143-29 Federal Dam - Sugar-  
Point Co. Road.

Breakfast in hotel.  
Ed. Ralley and I walk to  
Pin 5300 West, of Section  
Corner 4-5-32-33. I set  
up transit at 4400.80 ft  
West and produce double  
centres at 5303.5 ft West.  
I then set up at 5303.5 ft  
West chain back 20 ft from  
pin 5300 ft W to 5280 ft  
West, and set a 4 x 120 inch  
oak post into swamp. We  
drive the same about 6 ft.  
Ed then squares the rest  
up so that the 4 edges  
point N & S and E & W. I  
then mark the four sides  
corresponding to the section  
they are facing. We drive  
a nail into top of post  
which marks the true  
Section Corner between Sect.  
5-6-31-32 As there are no



143-29

6825  
5250  
1575 100  
1700  
1545  
155

Nov. 22-1916

trees around I am unable to mark B. To. This post sets about 1000 ft south of the center of a channel between two islands which bear east and west. The west island extends to the lake. The channel between the two islands is about 500 ft wide. We then continue west. Compass Needle reads  $70^{\circ}45'$  E Var. At 5400, 5500, 5600, 5700, 5800, 5900, 6000, 6100 ft W. set pins. At 6101 ft W. set up. At 6200, 6300, 6400, 6500, 6700, 6800 ft West set pins. At 6834 ft West enter lake. At 6900 ft West set pin. At 6899.5 ft West set up. From Pin 6900 ft West we chain back 75 ft to 6825 ft West where we drive a  $5 \times 2$ " cedar post solidly into the ground which I mark Witness

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Nov. 22-1916

Corner " on true line  
between Sections 6 and  
31. We then continue  
West on true line between  
Sections 6 and 31. Var.  $7^{\circ}30'$   
at 7000, 7100, 7200 ft West  
set pins. At 7208 ft West  
we find a 5 ft wide gap  
in ice. We walk back  
to land and fetch a few  
posts to the gap and lay  
a bridge. At 7300, 7400,  
7500, 7600 ft West set  
pins. At 7600.35 ft West set  
up. At 7650 ft W the lake  
is open and there is no chance  
for me to get any further  
west. Not having my  
trigonometrical tables  
with me and as I don't  
want to work in the  
wet swamp on account  
of the low temperature  
I decide to run south  
as far as the shore and then



turn West. It having been  
a cloudy day, it grows  
rapidly dark and as we  
have to turn about 5  
miles we quit at four.  
Rolley wants to make  
a shortcut and takes me  
over Leech Lake River. We  
get lost on the very unsafe  
ice and after 3 hours of  
hard work and all kinds  
of excitements we arrive  
in town at 7 P.M. Dinner  
in field. Supper and  
lodging in hotel.

anv oak

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Nov. 23-1916 (Thursday)  
Federal Dam - Sugar Point  
County Road  
Breakfast in hotel.

Ed Rolley and I walk to  
pin 7600 and I set up on  
7600. 35 ft W of Section Cor.  
4-5-32-33-143-29 established  
yesterday. I backsight  
onto flag on Westside of  
the small island 600 ft  
west of Sect. Corner 4-5-32-33  
-143-29 which has served  
me as backsight along  
the entire true township  
line. Then I turn  $90^\circ$  to  
right and run south. At  
100, 200, 300, 400, 500, 600, 700  
800, 900, 1000 ft South set  
wooden pins marked  
with the proper number  
of feet. At 1002.3 ft South  
set up. Ed and I chain  
correctly using our  
axes as plumb bobs. Con-  
tinue South. At 1100, 1200,



143-29

104

Nov. 23-1916

1300, 1400, 1500, 1600, 1700, 1800  
1900 ft South set pins. At  
1900.50 ft South set up  
using double centres. This  
set up is on the shore. I  
turn  $90^\circ$  to left and run  
west. At 7700, 7800, 7900  
8000, 8100, 8200, 8300, 8400  
8500, 8600, 8700, 8800, 8900  
ft West set pins. At 8901.40  
ft West and 1900.50 ft South  
of Section Corner 4-5-32-33  
143-29 set up on ice on  
edge of open lake. I turn  
 $90^\circ$  to right and run South.  
At 2000, 2100, 2200, 2300,  
2400, 2500, 2600, 2700,  
2800, 2900, 3000, 3100 ft  
South set wooden pins.  
at 3102 ft South set up.  
Continue South, At 3200  
3300, 3400, 3500, 3600,  
3700, 3800, 3900, 4000,  
4100, 4200, 4300 ft South  
set pins. At 4400 ft South

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Nov. 23-1916

set pin on shore of lake.  
at 4399.85 ft South set  
up using double centres.  
As I want to find the  
rangeline between twp.  
143-28 and 143-29 I must  
go 10560 ft West of Section  
Corner 4-5-32-33. I have  
gone so far 8901.40 ft West.  
That leaves me still  
1658.60 ft to go West to get  
to the rangeline. I decide  
to turn  $45^\circ$  and to go South  
west.

$$1658.60^2 = 2750953.96$$

$$2 \cdot 1658.60^2 = 5501907.92$$

$$\sqrt{5501907.92} = 2345.61$$

I set up on 8901.40 ft West  
and 4399.85 ft South of Section  
Corner 4-5-32-33. I back-  
sight onto flag north on  
edge of ice. Turn  $135^\circ$  to  
left and run Southwest  
at 100, 200, 300, 400, 500  
600, 700, 800, 900, 1000,



143-29

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Nov. 23-1916

1100, 1200 ft set pins. At  
1202 ft set up. Continue  
Southwest. At 1300, 1400, 1500  
1600, 1700, 1800, 1900, 2000, 2100  
2200, 2300, 2400 ft set pins.  
at 2345.61 ft Southwest  
of point which is 8901.40 ft  
West and 4399.85 ft South  
of Section Corner 4-5-32-33  
-143-29 set up. This last  
found point is then a  
point on the rangeline  
being 10560 ft West and  
 $4399.85 \text{ ft} + 1658.60 \text{ ft}$  equals  
6058.45 ft South of Section  
Corner 4-5-32-33-143-29  
Quit for night. Lunch in  
field. Supper & Lodging  
in hotel at Federal Dam.

amwark

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Nov. 24. - 1916 (Friday)  
Federal Dam - Sugar Point  
County Road.

Breakfast in hotel. Ed  
Ralley and I walk to the  
point 10560 West and 6058.45  
ft South of Sec. Cor. 4-5-32-33. I  
sight onto flap setting at  
point 8901.40 ft West and  
4399.85 ft South of Section  
Corner 4-5-32-33. Turn  
 $135^{\circ}$  to right and run South  
on range line between  
traps 143-28 and 143-29.  
Var  $8^{\circ}30'$ . At 6100, 6200, 6300  
ft South set pins. At 6310  
leave lake enter swamp.  
Ed and I, we both having  
fallen into the water  
and a snowstorm coming  
from the west compel  
to discontinue work.  
Build fire and wait  
till 12 A.M. In P.M. it  
clears up and we con-  
tinue South. At 6400,



143-29

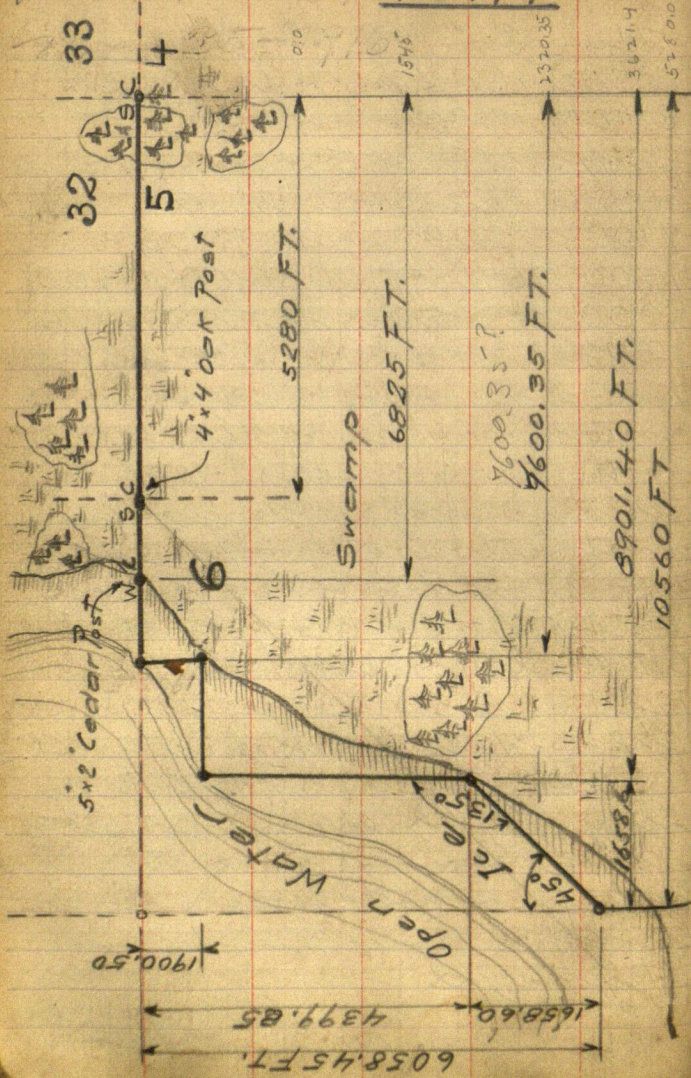
102

Nov. 24-1916

6500, 6600, 6700, 6800  
6900, 7000 ft South set  
pins. At 7001.5 ft South set  
up. Continue South, at  
7100, 7200, 7300, 7400,  
7500, 7600, 7700, 7800, 7900  
8000 ft South set pins.  
At 7820 ft South set hub  
This line ran through  
swamps grown thickly  
with tamaracks. I then  
set two high flags for  
a start for a picketline  
We then take the survey  
outfit to 5 mile point.  
Ed Ralley walks back to  
Federal Dam where he is  
engaged to work next week.  
I walk to Sugar Point to  
Judy. Mr. Judy is not at  
home, having gone to  
Federal Dam. Lunch in  
field. Supper & Lodging  
at Judy's.

Amos

PLAT





143-29

110

Nov. 25-1916 (Saturday)  
Federal Dam - Sugar Point  
County Road

Breakfast at Judy's. After  
breakfast I skate across the  
bay to see some Indians  
about cutting the Range-  
line. Find none at home  
probably asleep. Stay at  
Judy's writing notes and  
preparing notes for Section  
line between 13-14-143-29.

Dinner and Supper at  
Judy's. After supper I  
walk to the dance hall  
to see the Indians dance  
and at the same time to  
get some <sup>me</sup> for work. Find  
them all deadly drunk,  
hopping around in a  
dirty hall and it is of  
no avail to talk to  
them. Lodging at  
Judy's.

Mowak

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Nov. 26-1916 (Sunday)  
Federal Dam - Sugar Point  
County Road

Breakfast at Judy's. Judy  
not having come home, I  
decide to go to town after  
I had vainly tried once  
more to get some Indians  
to work. On the way to town  
I go over the line I run and  
find all pins properly marked.  
Arrive in town at 3 P.M. and  
see Judy. Judy calls up Mr.  
Mayer of Oquinn who gives  
him permission to hire white  
men which may be paid  
\$1.60 a day. As there are no  
white men around, who  
are willing to work for 1.60  
a day I call Mr. Ciro of  
Walker who agrees to pay  
the men an additional  
dollar. On this basis we  
hire 2 men in the evening.  
Supper and lodging in  
hotel.

Almarok



143-29

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Nov. 27-1916 (Monday)  
Federal Dam - Sugar Point  
County Road.

Breakfast in hotel. I with  
Albert W. Merrick and Ed. L  
Wiley walk from Federal  
Dam to 5-mile point. Take  
survey outfit which I had  
left with Jimbo and then  
go to Sect. Corney 11-12-13-14-  
143-29. Lunch in field.

I set up instrument on  
Sect. Corney 11-12-13-14-143-29  
established by Curo. It is a  
3" wooden limb with tack  
driven into the ground  
level with the surface. We  
chain North between Sect.  
11-12. at 100, 200, 300, 400, 500  
600, 700 ft N set pins at 780  
ft North set pin on edge of  
Lake. Gov't notes call for Post  
for M. C. with W. Oak stub 24  
514 W 70 lks. As distance betw.  
Sect. Corney 11-12-13-14-143-29  
and M. C. on line 11-12-

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Nov. 27-1916

Gov't notes call for 14.08 lks =  
= 929.28 ft. As my chain  
equals only 780 ft. the post  
and B.T. must have been  
washed out by the water.  
Return to Section Cor. 11-  
12-13-14 - 143-29 and run  
South on  $8^{\circ}30'$  Var. At 100, 200  
300, 400, 500, 600 ft S set pins.  
Merrick works as bear -  
chairman, I work as  
head chairman and transit  
Wiley axeman. Merrick and  
I chain correctly using  
plumb-bob and setting  
each chain-length (-100 ft)  
a wooden pin marked  
with the proper number  
of feet. At 602.85 ft South  
set hub with tack. Continue  
South between Sections 13  
and 14. At 700 ft S set pin  
at 791 ft S. path leading  
from Jimbo's Cottage to  
lake bears E and W. At



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Mar. 27-1916

800-900-1000, 1100, 1200, 1300 ft  
S set pins. At 1300 ft S leave  
tall timber (elm and oak)  
enter pine and cedar. At  
1311.40 tack in log. At 1320  
ft S. hub with tack. At  
1400, 1500, 1600 set pins. At 1620  
ft S enter hardwood timber.  
At 1700, 1800, 1900, 2000 ft S set  
pins. At 1990 ft S. set hub with  
tack. At 2100, 2200, 2300, 2400 ft  
S set pins. At 2404.30 ft S.  
tack in log. At 2640 ft S hub  
with tack. Out for night.  
Supper and lodging with  
Judy

Amosak

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Nov. 28-1916 (Tuesday)  
Federal Dam - Sugar Point  
County Road.

Breakfast at Judy's. We go  
to hut 2640 ft S of Section  
Corney 11-12-13-14-143-29  
between Sections 13 and 14  
where Geo't notes call for  
Post and B.T.s as follows:

Tank 4 N 37° E 47

" 4 N 19½° W 64

We fail to find any trace  
of these B.T.s. About 28 paces  
West of our hut 2640 are  
two trees blazed and marked  
¼ S which are apparently  
Sandner's B.T.s for his ¼  
Corney. We fail to find his  
post.

We continue South on our  
Random line. At 2610 ft S.  
enter swamp. At 2700, 2800  
2900, 3000, 3100, 3200, 3300  
3400, ft S set pins. At 3390 ft  
S set hut with tank. At  
3500, 3600, 3700, 3800, 3900,



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Nov. 28-1916

4000 ft S set pins at 3960 ft  
S set link with tack. at  
4100, 4200, 4300, 4400 ft S. set  
pins. At 4410 enter thick  
brush. At 4500, 4600, 4700 ft  
S set pins. At 4690 ft South  
set link with tack. At 4800  
4900, 5000, 5100, 5200, 5300 ft  
South set pins. At 5280 ft S  
set link with pin. Geo't  
notes at Section Corner 13-14-  
23-24-143-29 call for post  
and Bearing Trees as follows:

Tank 5 N20W16

Tank 4 S15W27

Tank 7 S41E40

Willow 3 N27E10

We are unable to find any  
trace of these B. T.

From air link 5280 ft S  
Gardner's post set as Sect Corner  
13-14-23-24-143-29 sets

275.35 ft E and 28.35 ft South  
Quit for night. Supper and  
lodging with Judy.

Macrae

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Nov. 29-1916 (Wednesday)  
Federal Dam - Sugar Point  
County Road.

Breakfast with Judy. Go to  
hub 5280 ft S of Section Corner  
11-12-13-14-143-29 on an  
Random line and continue  
South between Sections 23-  
24. At 5400, 5500, 5600, 5700,  
5800, 5900 ft S set pins. At  
5850 ft S leave swamp enter  
hardwood timber. At 5907.25  
ft S drive tack in log. At  
6000, 6100, 6200, 6300, 6400, 6500,  
6600 set pins. At 6600 ft S  
set hub with tack. At 6600 ft  
S =  $1\frac{1}{4}$  mile South of Sect Cor-  
11-12-13-14-143-29 a find a  
plainly on all 4 sides blazed  
old oak exactly 9.80 ft East.  
As the Indians who cut out  
this line failed to chop down  
a somewhat larger oak  
who stood exactly in line  
and tried to continue the  
picket line by blazing



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Nov. 29-1916

both sides of the tree, they made a bent in the line which compels me to offset my line 1.60 ft E. I made this offset very carefully and then I continue South at 6700, 6800, 6900, 7000, 7100, 7200, 7300 ft S set pins. At 7291 ft S set hub with tack. At 7400, 7500, 7600, 7700, 7800, 7900, 8000 ft S set pins. At 7920 ft S set hub with tack. At this point we look for the  $\frac{1}{4}$  corner between Sect's 23 and 24 where Gov't notes call for post with B. T. as follows:

Sugar 20 N  $23^{\circ}$  E 63Bl Ash 6 S  $15^{\circ}$  W 40

We find a great many blazed trees but none which would correspond with notes. We find Gardner's post which sets 255.20 ft E and 4.89 ft S of any hub 7920 ft S

11<sup>a</sup> 143-29

Nov. 29-1916

Continue South between Sections 23 and 24. Compass needle reads  $9^{\circ}$  Var. East. at 8078 ft S cross trail which bears East and West. at 8100, 8200, 8300, 8400, 8500, 8600 ft S set pins. at 8590 ft S set hub with tack. at 8700, 8800, 8900, 9000, 9100, 9200, 9300 ft S set pins. at 9240 ft S set hub with tack. at 9400, 9500 ft S set pins. At 9525 cross trail which bears SW and NE. at 9600, 9700, 9800, 9900 ft S set pins. At 9890 ft S set hub with tack. At 10000, 10100, 10200, 10300 ft S set pins. At 10388 ft S cross trail, bears E and W. At 10400, 10500, 10600 ft S set pins. At 10560 ft S set hub with tack. At this point we look for Sect. Corner 23-24-25-26-143-29 where Geo't notes call for post and Bearing Trees as follows:



143-29

120

Nov. 29-1966

Sugar-Maple 12 S19W 22

Sugar 12 S27E 13

Elm 5 N40W 18

Ash 7 S22W 34

Again we fail to find any trace of the post and the B. T<sub>5</sub> set by the Gov't surveyors. We find Gardner's Section Corner which is a 4x4 wooden post squared up and marked. Set post sets 193.45 ft East and 42.40 ft South of our last 10560 ft S. As can be seen by foregoing notes Gardner's Section line runs West of my line for  $\frac{1}{2}$  mile and then suddenly jumps over about 300 ft east of my line. I find the explanation of this while talking with an old Indian namely George White who claims to have worked with Gardner. From what he says I gather that Gardner, when setting his post on the Section

143-29

Nov. 29-1916

Corney 13-14-23-24-143-29  
never entered the swamps  
but went around instead  
what might have produced  
that sudden break in his  
line. I also hear that Gardney  
did not use a transit but  
a compass only. We had  
lunch in field. Supper  
and lodging at Judy's  
Judy and 3 Indians have  
been cutting brush on the  
mangeline. The Indians were

Jumbo  
George White  
John Moose

A. Nowak



143-29

122

Nov. 30-1916 (Thursday)

Thanks going  
Federal Dam - Sugar Point  
County Road

Breakfast at Judy's. We go to  
the hub 10560 ft South of Sect.  
Corney 11-12-13-14-143-29 an  
any random line and con-  
tinue South between Sections  
25 and 26. At 10700, 10800, 10900,  
11000, 11100, 11200 ft S. set  
pins. At 11205.80 ft S tack in  
log. This line runs thru soft  
shaking bog grown with  
pine and Cedar. At 11300, 11400  
11500 ft S set pins. At 11560 ft  
South enter thick cedar swamp.  
From here on we have to cut  
our own line as the Indians  
had quit the work here. At  
11600, 11700, 11800, 11900 set pins.  
At 11880 ft S set hub with tack  
At 12000, 12100, 12200, 12300, 12400  
12500, 12600, 12700 ft S set pins.  
At 12682 ft S tack in log.  
At 12700 enter open swamp

123/43-29

Nov. 30-1916

At 12800, 12900, 13000, 13100,  
13200 ft 5 set pins. At 13200 ft  
5 set hub with tack. At this  
point we search for the  $\frac{1}{4}$  cor.  
between Sect. 25 and 26 where  
Gov't notes call for post with  
bearing trees as follows:

Sugar 20 S20W34

Sugar 14 N57W25

We again cannot find  
the B. Tg. We find Gardner's  
 $\frac{1}{4}$  corner in the swamps  
130.85 ft East and 48.40 ft  
South of our hub 13200 ft S.  
Indy and Jumbo were  
cutting brush on the range-  
line.

We had dinner at Indy's  
supper and lodging at  
Indy's

Mowak



143-29

124

Dec 1-1916 (Friday)  
Federal Dam - Sugar Point  
County Road.

Breakfast at Judy's. Judy helped us all day cutting brush. We walk to hub 13200 ft South of Sect. Corner 11-12-13-14-143-29 on any random line. I pace straight west to picket-line started by Curo. Said picket-line starts from the old Elm tree which Curo found in the water and which he believed to be the 20 inch elm tree which the Gov't notes call for as B. T. for the M. C. I count 197 paces west. Then we continue South. At 13300, 13400, 13500, 13600, 13700, 13800, 13900, 14000, 14100, 14200, 14300, 14400, 14500, 14600 ft S set pins. At 14520 ft S set hub with tack. At 14700, 14800, 14900, 15000, 15100 ft South set pins. At 15090 ft S set hub with tack. At 15200

125143-29

Dec. 1-1916

H.S. set pin on shore of swamp. At 15210 ft S leave swamp enter highland with tall hardwood timber and thick underbrush. At 15300, 15400, 15500, 15600, 15700, 15800, 15900 ft S set pins. At 15840 ft S. set hub with tack. At this point we search for Section Corney 25-26-35-36-143-29 where Gov't notes call for post and bearing trees as follows:

W. Oak 9 N 7° W 16

Sugar 13 N 22° E 50

Lime 9 S 30° E 15

Sugar 12 S 14° W 43

Again we are unable to find anything of the post and bearing trees, but find Gardner's post which sets 83.80 ft East and 55.60 ft South of our hub 15840 ft South. We then continue South



143-29

126

Dec. 1-1916

between Sections 35 and 36  
at 16000, 16100 ft South set  
pins. At 16167 ft South cross  
Road bearing NE and SW.  
At 16200, 16300, 16400 ft S. set  
pins. At 16435 ft South hub.  
On account of my line  
running squarely into  
very tall trees I offset  
my line very carefully  
4 ft West and then continue  
South. At 16500, 16600, 16700  
16800, 16900, 1700, 17100, 17200  
17300 ft S set pins on offset  
line. At 17260 ft South  
set hub with tack on offset  
line and 4 ft East a hub  
with tack on Random line.  
At 17270 ft S cross Path.  
At 17303 ft S cross wooden  
fence. At 17400, 17500 ft S.  
set pins on offset line. At  
17557 ft south set hub on  
offset line on edge of lake  
and another hub with tack

127/43-29

Dec. 1-1916

4 ft east on our Random line. I search the shore of the lake for the M. C. where Gro't notes call for post and bearing trees as follows:

Elm 20 N 21° E 30

Sugar 10 S 62° W 60

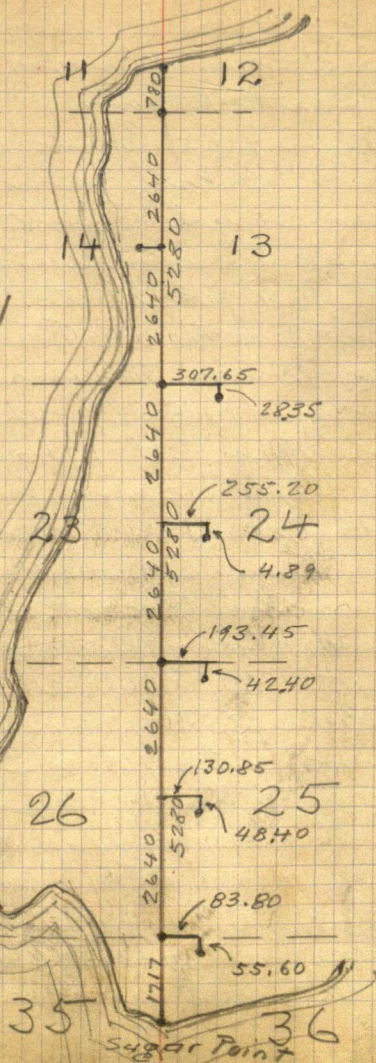
I fail to find the same. The big elm tree which Curo assumed as a B. T. is about 130 paces west of our line 17557 ft South. We had dinner at Judy's Supper and lodging at Judy's.

Mowat



Plot. 143-29 128

Leech Lake



129 143-29

Dec. 2-1916 (Saturday)  
Federal Dam - Sugar Point  
County Road

Breakfast at Judy's.  
Merrick, Wiley, Judy and  
I leave Sugar Point at  
5 A.M. with entire survey  
outfit and walk to hub  
7820 ft South on Range-  
line between townships  
143-28 and 143-29 set by  
me on Nov. 24-1916 with  
Ed Ralley. We run South  
on  $7^{\circ}45'$  Var. Judy head-  
chainman, Merrick rear  
end of chain. Mowk trans-  
it and Wiley flag and  
axe. At 7900, 8000, 8100, 8200,  
8300, 8400, 8500, 8600, 8700  
set pins. At 8700 ft S set  
hub with tack. This line  
runs thru swamp grown  
thickly with tamaracks.  
At 8800, 8900, 9000, 9100, 9200,  
9300 ft S, set pins. At  
9240 ft S set hub with



143-29

130

Dec. 2-1916

tack. There is a small lake about 350 ft north of our line. At 9400, 9500, 9600, 9700, 9800, 9900, 10000 set pins. At 10000 set hub with tack. At 10100, 10200, 10300, 10400, 10500, 10600 ft S. set pins. At 10560 ft S set hub with tack. At 10700, 10800, 10900, 11000 ft S set pins. At 11060 leave swamp enter birch and poplar ridge. At 11100, 11200 set pins. At 11200 ft S drive tack into lug.

Lunch in field.

P.M. We go to hub 10560 ft S on our range line. I turn  $90^{\circ}$  to the range line to left and run west. Jody and Wiley cutting brush. Merrick and Nowak chaining. Nowak transitman. At 800 leave swamp enter lake. At 1250 ft West

131 143-29

Dec 2-1916

leave lake enter open swamps. Set up an ice. At 1700 leave swamp enter poplar and birch brush. At 2100 ft West enter thick cedar swamp. At 2201.50 ft W tack in exp. on foot of hill. Enter highland with hardwood timber. At 2640 ft West hut with tack. Quit for night somewhat earlier as we have to walk to Federal Dams. There I receive a letter of Mr. Ciro who asks me urgently to get back to Walker. Mr. Judy promises to take care of the survey - instruments.

Merrick and Wiley are to get from the County \$1.00 a day for 6-days = \$6.00 each  
Supper and lodging in



143-29

132

Dec. 2-1916

Hotel in Federal Dam.  
Merrick and Wiley are  
each to pay their board  
to Mr. Indy that is  
\$5.00 a week each.

Maccoak

133 143-29

Dec. 3-1916 (Sunday)  
Federal Dam - Sugar Point  
County Road.

Leave Federal Dam at  
5 A.M. Walk to Jumbo  
an 5-mile point, who  
takes me in his sleigh  
to George White where  
I have breakfast. Charge  
30cts. Then we drive to  
Onigum where we  
arrive at 4 P.M. Cloud  
Johnson who drove the  
sleigh charges 2\$.  
I walk across the lake  
to Walkey. Arrive at  
5 P.M.

Record No. 48

Muskrat



Time-Sheet  
on

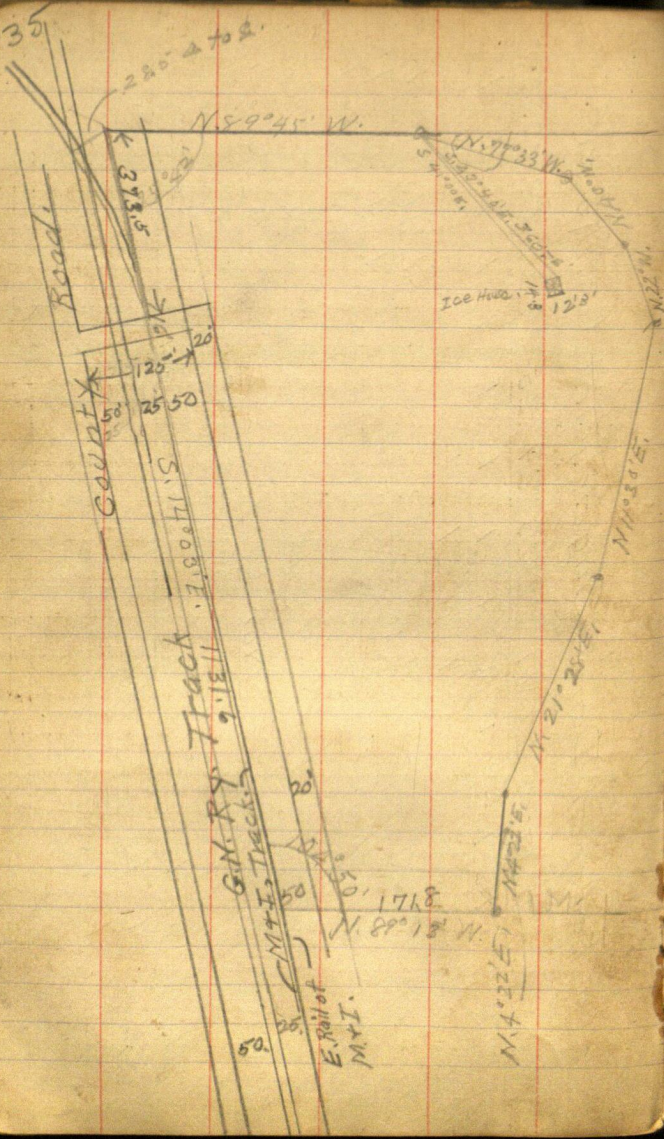
# Federal Dam-Sugar Point Co. Road

Nov.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Norwak	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Balley						1	1	1	1						
Merrick												1	1	1	1
Wiley												1	1	1	1
Judy														1	1

## Board in Hotel in Fed. Dam

Dec.	1.	2.	3.	Nov.	20	21	22	23	24	26	Dec.	2
Norwak	1	1	1	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Supper	
Merrick	1	1	1	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Supper	
Wiley	1	1	1	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Supper	
Indy	1	1	1	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Breakf	Supper	

(35)





Course	Dist.	Lat.	Long.	Depart.	N.
N. 89° 45' W.	285.0	00436	.99999		
S. 14° 03' E.	1131.6	.97008	.24277		
S. 89° 13' E.	171.8	.01867	.99991		
N. 4° 22' E.	125.7	.99710	.07614		
N. 21° 28' E.	321.2	.93063	.36596		
N. 11° 30' E.	415.4	.97992	.19937		
N. 22° W.	120.0	.92718	.37461		
N. 40° W.	135.8	.76604	.64279		
N. 77° 33' W.	246.5	.21559	.97648		

S. Bdry Lot 1 = N. 70° 10' E.

S.

E.

W.



139

John M. Greene

Sugar Point Road Survey for  
Indian Service.

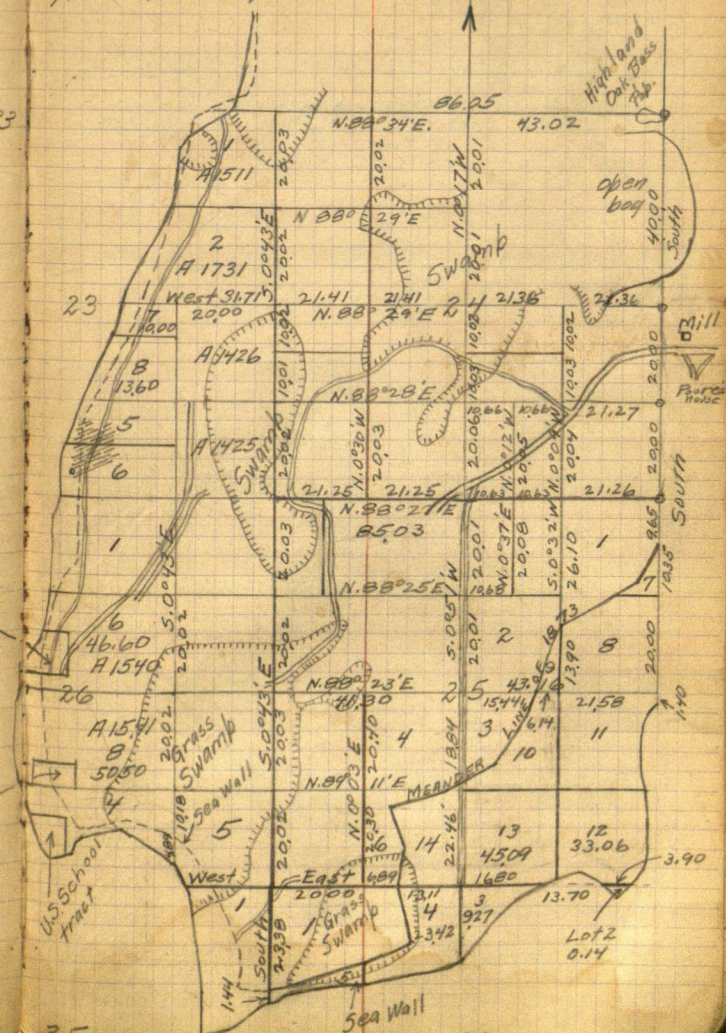
Arrive at Everett Fairbanks  
place on Sugar Point @ 3 P.M. Nov. 1, 1933  
Road almost impassable. Prepare my  
notes for the field. Fairbanks has  
the Indians lined up to start work  
Nov. 2.

7 880  
A 1563

A 1545  
3 500

Sec. 13  
Next Page

140





141

 $\frac{1}{4}$  Cor. bet. 18-13

0 - East

850 enter swp. Grass

1000 In same

1500 starts gradual down grade

1800 enter highland swp. Cedar-balsampop.

2350 In same enter High land

3500 slope 1

3760 enter swp.

2821.5 + 2.55

4150 enter highland swp

4300 enter swp.

4510 enter High land

5890 X graded road

6500 enter swp. 8056

Fractional dis 80.36 - 80.46

W. $\frac{1}{4}$ Cor. Sec. 18		2617.6	-112.6
S. $\frac{1}{4}$ Cor.	17	22.5	8093.3
N. $\frac{1}{4}$ Cor.	17	5294.3	8143.
N. $\frac{1}{4}$ Cor	18	5514.6	2847.0
N.E Cor	18	5330.4	5480.3
Ran Cen	17	2698.5	8112.7

2847'

-112.6

2734.4

2656.5

2785.1 8113.7 X

2617.6

3167.5 5473.7

56

2793' - 29.4' West of BT + 191.5' = 220.9  
Facing East.

2693





143

Original Corners  
143-28

New B.T.

<u>7</u>	Tam 5" N.78E	36	Tam 5" 5.11°W 89.5
<u>18</u>	" 4" S.32W	24	" 6" N.89°W 191.5
<u>18</u>	Cedar 8" S.48E	28 = 18.5	
<u>19</u>	Tam - N.64E	26 = 17.2.	
18   17	Fir 6" S.78E	11	
	Maple 7" N.85W	9	
<u>18   17</u>	Tam 5" N.60E	50	Tam 6" N.79E 100.3
<u>19   20</u>	" 5" N.50E	41	" 3" S.30E 44.25
	" 5" S.50E	43	" 3" S.51W 141.85
	" 5" S.50E	50	" 4" N.45W 50.4
19	Tam 5" S.78E	28	
	" 4" N.62W	29	

2732.7 Ran. N + S. 1/4 Line.

Ran North - true bearing

2793 X E + W. R. Line

Corsets East 220.9'

Ran. South - true bearing.

2609.0'

2605.6 X E + W. R. Line.

198.5 E. to Mon. 2627.5 East to Sec. Cor.

47' North X E + W. R. to S. 1/4 Cor. 17

2670.8 " to E + W. 1/4 Line Ran. at 5579

S. 89° 37' W 1402.4 + 1427.6 = 2830.0

2624

2617.6

2942.7

-112.6

152.2

2605.4

18.6

2830.1

18.6

186

970

37.2

930

24

400

37.2

280

171.9

114.6

57.3

171.9

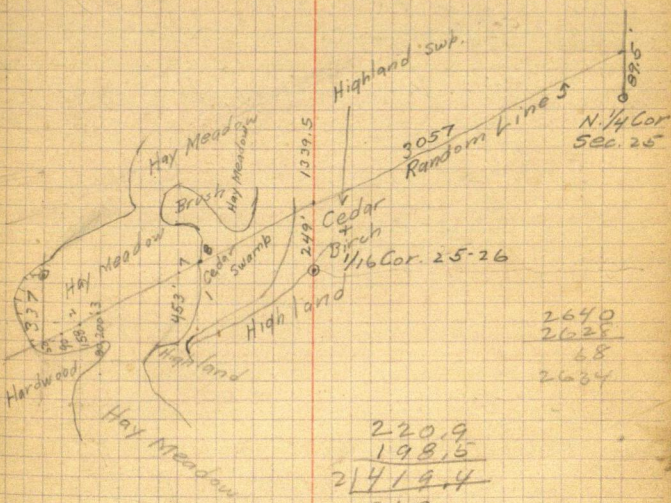
114.6

57.3

$$\begin{array}{r}
 2732.7 \\
 - 210 \\
 \hline
 2942.7
 \end{array}$$

143-29  
Sec 25  
Nov. 3-1933

144

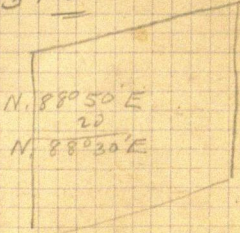


2640  
2628  
68  
2634

220.9  
198.5  
21419.4  
210.  
2132.7  
2942.7  
2634.0  
5576.7

5700  
121  
579

2020  
2020  
2609  
2015  
2015





145

From W.C. to M.C. bet 11+12

N.  $44^{\circ}$ E 13,068 ft to W.C. to M.C. on Town Line

N.  $44^{\circ}$ E 6666' to  $\odot$  S.  $46^{\circ}$ E 1518' to R. Line.

6402'

2583<sup>✓</sup> - 22.3 East

N. 0° 26' E. R. Line

$$\begin{array}{r} 2670.8 \\ 2583.0 \\ 2 \overline{) 52538} \\ 2626.9 - 2627 \text{ at } 5579 + 1.0 = 5580 \end{array}$$

$$\begin{array}{r} 2670.8 \\ 2626.9 \\ \hline 43.9 \end{array} 5 + 11.1 E. \quad \checkmark$$

$$\begin{array}{r} 93864 \overline{) 52800} \\ 469340 \\ \hline 586550 \end{array}$$



259.5 - changed to 00.0

155.7 + 5800

135 W of N.C.V.

245.5095 + 7

2653.8

2615.8

5.6 W

20.06

5.62000 W

5230

2670

2060

7542

15

7537

14.05

8448

8448

929.28

1516

8940

7557

1403

86.16

51696

51696

56860.6

29.20

29.20

.32

6666

76662

929.310626

57188

104000

14003

90.47

90052

000000

250

7500

5300

740

51040

51130

250

125

60

184

740