

54. A

MINING
TRANSIT BOOK
363

John W. Curo
County Surveyer
Cass County
Walker, Minn

Oct 10-1916

Curo

Alvord

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Platting of
Ed. Parks Tract

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Cross County
133-30

Friday, 20 October 1916

S. B. Horst and K. A. Nussak arrived in Pillager at 12 A.M. Horst calls up Ed. Parks, telling him about our arrival. At 2 P.M. Ed. Parks meets us in the hotel. We walk down the County Road to the Section Corner 16-17-20-21-133-30 and after a $\frac{1}{4}$ mi we find Iron Pipe set by Mr. Curo and Ed. Parks 2-years ago.

As the N. S. County Road had been graded some time ago the top of the I. Pipe was about 4" below the grade.

We then walked down to the M. C.

No 41 on North bank of the Crow Wing River where we then find Iron Pipe about 2 feet above ground below bridge, and auger hole above pipe. We then walk along the River bank road platting by Curo 2-years ago. We walk as far as his Stat (C), the S.W. Corner of Gov't Lot No 2 to which Curo had set bearing trees.

J. P. 10 S 88° 8' E 37.68 feet
J. P. 8 N 52° W 59.13 "

We find the S.E.B.T. but fail to find the N.W.B.T. We then go to Ed. Parks House, readjust cross-hairs which were badly out of adjustment and quit for the day.

133.30

Pillager 3
Cass County.

Saturday, Oct. 21-1916

E. B. Hurst leaves us in the morning for his work. Ed. Parks and A. Murak walk to Sect^o Corner of Sect 16-17-20-21-133-30. I set up transit. After Parks lugs himst after an anger we bore hole into bridge above M.C. No 41 on North Side of Crow Wing River. I sight plumbed pole on said M.C. turn $91^{\circ}22'$ to left and split flagpole behind pipe on $\frac{1}{16}$ corner east of Section corner 16-17-20-21-133-30 on Section Line between 16 and 21. Since Parks Crow is to come after dinner we quit at 11^{am} P.M. Set up transit on Sect. cor. sight flag on $\frac{1}{16}$ cor. chain 33 feet to the east of Sect cor. 16-17-20-21-133-30 and drive spike in ground. Set transit on spike sight flag on $\frac{1}{16}$ cor. E. B. Hurst not having been able to leave town appears on the field and with

133-30 continued

Ed. Parks chains and sets spikes on 300 - 366 - 666. Continues chaining to $\frac{1}{16}$ cor. At 1288.32 he is at center of 1 pipe 1288.32 + 33 equals 1321.32 which checks Curo's figure. Horst leaves us again. I turn $91^{\circ}22'$ to right. Parks and E. N. Strongy now chaining south. at 33 - 333 - 399 - set temporary stakes as Parks has no iron pipes ready yet. At 593.45 we find iron pin on N. W. corner of Jake Gustafson's lot. As Parks and I had planned our townsite from an old plat in possession of Parks we figured a 30.0 foot block north of Gustafson's lot, and therefore we first passed the iron pin, which caused Gustafson to come out and exclaim very emphatically that nobody will move that pin.

5

133-30 continued

as long as he lives. I ask him for the deed and read: Commencing at Sect. Corner between Sections 16-17-20-21 going 2 Rods east then 42 Rods South.

I measure from my pin 599 and find it 94.45 which means 0.45 too far South.

Set up an Iron Pin in the North West Corner of Gustafson's lot - sight flag pole on block corner turn to

Northeast corner of said lot and find $90^{\circ}00'$ which means that we shall have a wedge in the two southern

blocks. We chain along North line of Gustafson's lot to Northeast corner and find it 594 feet = 36 Rods which is correct.

133-30 continued
 Sunday Oct 22-1916

Spent A.M. with figuring
 the lengths of the blocks
 and lots along the river.

P.M. E.N. Group, Ed. Parks
 and I work. Set up on
 spike 333 on road on Section
 line between Sect. 16 and 21
 east of Sect. Cor. right the $\frac{1}{16}$
 corner on the same line
 turn $91^{\circ}22'$ to right and
 chain and set stakes and
 33-333-399-699 - Set
 up on 399 and do the same
 as before. As Hendrickson's
 lot is 660 feet or 40 Rods
 west of $\frac{1}{16}$ corner we chain
 37.68 feet west from our
 699 spike and set spike
 in road. I set up on this
 last spike, right to $\frac{1}{16}$ cor.
 turn $91^{\circ}22'$ to right and
 chain south. at 33 at
 333 set stake. We find
 Center of Street coming

133-30 continued⁷
down from the school-
house and intersecting
Hazelwood in 90°00. Land
Center is 766.62 feet east
of Section corner. We set
spikes into road ^{33 ft} east and
west of this center. Set up
an west spike chain
Luther. At 33-333-399 and
699 set stakes. Quit for the
day.

133-30 continued

Monday Oct. 23-1916.

We cut iron pipes and put them in the places of the already set stakes or block corners. Set up on spike 33 feet east of Center spike of road and chain south. At 33 set stake at 330 nail in corner post of Lockern's fence. At 333-399 iron pipes. Continue south and cut thru brush. Set up on North east corner of Gustafson's lot sight North west corner of same lot turn 90° and cut line through brush.

133-30 continued⁹

Tuesday Oct. 24-1916

Set up on North West Corner
of Gustafson's lot. At
299.91 set pipe, at 365.91 ft.
at 594 ft at 700.43 set
iron pipes, set up on
hub 700.43 east of North
West Corner of Gustafson's
lot and chain south.

At 500 hub at 650 hub
at 720 hub. Set up on
 $\frac{1}{16}$ corner on Sect line bet-
ween Sect. 16 and 21 sight
Sect Corner 16-17-20-21-133-30

Barnes holding the pole.
turn $88^{\circ}38'$ to left and
chain south. At 330 hub
At 1119.85 hub. This is
Curo's station No 6 of his
survey of the Boulevard
5 years ago. We find the
Bearing Trees

J.P. 10 $588^{\circ}8'E$ 37.68 feet
We fail to find the N.W. B.T.

Wednesday Oct. 25-1916

A. Newak, Transit, Ed. Parks and
E. N. Strong, Chain, Ed. Barnes
Flagman.

I set up instrument on Stat.
6 in Center of Lasa boulevard
on north bank of Crow Wing
River, sight $\frac{1}{16}$ corner on Section
line between 16 & 21 and chain
north 38.14 set hub. Light
same $\frac{1}{16}$ corner turn $120^{\circ}06'$ to
left and chain south.

at 38.14 set 1" iron pipe.

" 179.42 " 1" " "

" 255.71 " 1" " "

" 602.47 " 1" " "

Turn $120^{\circ}06'$ to right, sight
 $\frac{1}{16}$ corner and chain north.

at 38.14 set hub

Light $\frac{1}{16}$ corner, turn $120^{\circ}06'$
to left and chain south.

at 38.14 set 1" iron pipe

" 179.42 " 1" " "

" 255.71 " 1" " "

" 602.47 " 1" " "

133.30 cont.

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These last set 8 iron pipes constitute the 8 block corners of the 2 blocks along the river. On the 2 west block corners I have a very nice check of my work. After setting up on the southwestern corner I line in on the Northwest corner of the same block 161.82 feet to north. I split the nail in the corner post of Lockner's fence set Monday Oct. 23. E. N. Stroup and Barnes making stakes. I and Parks are setting them. The North eastern block is 122.7 long and 140 feet deep in right angle to sides. The frontage toward river is 141.38. We subdivide this block into 5 lots by setting a stake in the South and North line every 28.25 ft. The Southwestern block is 300 ft long and 140 feet deep measured on right angles to the sides.

The frontage toward river is 346.76 feet. We subdivide this block into 12 lots by setting a stake on South and North side of block every 28.9 feet. These last lots are 25 wide and 140 feet deep measured in right to sides, therefore contain the same area as an oblong 25×140 . While working on Lasa boulevard I had the Flagpole, the instrument and the chain in the road. Up comes old man Hibler with a team and as the road is very soft and we did not hear him approach and he himself either being sleeping or having a grudge against surveyors drove straight into the pole breaking about 2 feet off the upper end. We could not save the pole being busy to save the tape.

133-30 cont.

~~After a somewhat hot conversation on the side of my partners his legs exeunt. Despite its injury the flag-pole continues to be of good service to us. And even the 2 foot stump did not finish his surveyor career as we made a good hub out of it.~~

Thursday, Oct. 26-1916.

Ed Parks, E. N. Strong and A. Nowak work. Strong making stakes all day. I set up on Southeast corner of block platted the day before on North bank of Crow Wing River sight nail in corner — post turn $104^{\circ}52'$ to left, chain south 68.28 and establish Southeast corner of block on east side of street. set iron pipe. Continue chaining south. At 153.3 feet set hub. Set up our last hub. Backsight. Turn $171^{\circ}00'$ and intersect West line of block and set hub. Parks and I decide to neglect the corner in the block caused by the corner in the boulevard. So I sight north, turn to right to Southeast corner of block and read angle $76^{\circ}15'$. The

distance of the two corners is
111.1 feet. We then set stakes
on Eastline of block from
South to North.

At 33.43 stake

Then 24 lots 25 feet wide

" 1 lot 44.35 "

Westline of same block.

North to south

Starting at Northeast corner
of Gustafson's lot.

At 44.35 set stake

Then 24 lots 25 feet wide

" 1 lot 58⁴³ "

Continue setting stakes the
rest of the day in the blocks
facing River street and Hazel-
road.

Friday Oct. 27, 1916.

Ed. Parks, E.N. Starns and
A. Norwak finish setting
stakes.

Parks having been asked
by Lockrem to establish his
lines wants me to do the
work. As Lockrem had
bought 1 acre land off.

Ed Parks 24 rods = 396 feet
west of $\frac{1}{16}$ corner on Section
line between sect 16 & 21
and this lot is 8 rods = 132 feet
wide \times 18 rods = 297 feet deep.
I set up on $\frac{1}{16}$ corner, sight
Section corner 16-17-20-21-
133-30 and chain West. At
396 and 528 feet set spikes
into road. Set up on east
spike, sight $\frac{1}{16}$ corner, turn
 $91^{\circ}22'$ to right and chain
south. At 33 feet set iron
pipe - at 330' set iron pipe
Set up on West spike, sight $\frac{1}{16}$
corner, turn $91^{\circ}22'$ to right

and chain south, at 33 feet
and 330 feet set iron pipes.
The corners are thus established.
During the whole week I
lived at Parker's. Left Pillager
at 2nd train for Walker.

	A. Newak	Ed. Parks	E. N. Strong	Barnes
Friday 10.20.16	$\frac{1}{2}$	—	—	—
Saturday 10.21.16	S.L. B.D. 1	—	$\frac{1}{2}$	$\frac{1}{2}$
Sunday 10.22.16	S.L. B.D. 1	—	1	—
Monday 10.23.16	S.L. B.D. 1	—	1	—
Tuesday 10.24.16	S.L. B.D. 1	—	1	$\frac{1}{2}$
Wednesday 10.25.16	S.L. B.D. 1	—	1	1
Thursday 10.26.16	S.L. B.D. 1	—	1	—
Friday 10.27.16	B.D. 1	$\frac{1}{2}$	1	—

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139-29 Sect. 30

Field notes of the survey of
3-pieces of road in townships
139 Range 29 W 5th P.M. as
directed and surveyed by
John W. Ciro County Surveyor
Cass County Minn. and Alois
Nowak, surveyor.

November 4. - 1916

Alois Nowak leaves Walker
at 9.40 A.M. with Sully transit
in good adjustment and a
100' Chicago steel-tape and
equipped with the field notes
concerning the survey.

Arrive at Backus at about
10.40. Fare is .49 cts. Take
auto delivery car and drive
to Ivan Johnson's place
town-clerk of town 139, range
29 where I receive petitions
of roads that are to be sur-
veyed. I drive to M. Gortens
place, where I stay and
board. Mr. M. Gorten is
member of the town-board.

cont

Autofare is 2.25\$ Dinner at
Garten's. Garten cannot hunt
up a crew but will have
one tomorrow-morning.
I am preparing my notes.
Road Petition reads: lay
out, survey and open up a
four (4) rods road as follows:
Beginning at the Southeast
(SE) corner of the Northeast
(NE) quarter, section 30 Twp
139 range 29 thence running
West on quarter line until
it strikes lake Hattie thence in
a westerly by north direction
following the lake as close as
practical until it strikes the
quarter line thence west on
quarter line until it strikes
lake Hattie, thence in a wes-
terly by north direction fol-
lowing the lake as close as
practical until it strikes
the quarter line thence west
on quarter line to the

Southwest corner of the North
west quarter, section 30
Twp 139 R. 29 and there
terminate.

Mr. Ganten owns the South
west quarter of Section 18
and the Southwest corner of
Section 18 is only 20 Rods
west of Mr. Ganten's house. It
is an $1\frac{1}{2}$ Iron Pipe with Cap
Not having a compass with
me I determine South by
a cut-out in wood and pace
South. At 11 Paces = 33 ft leave
road enter cornfield at 211 Paces
leave cornfield enter Jack-Pine
wood. At 440 I look for Iron
Pipe that is $\frac{1}{4}$ corner of West
line of 19. Fail to find it. Con-
tinue pacing South. At 1100
leave Wood enter hardwood
brush. At 2300 paces enter
open bog. At 2640 paces equals
7920 ft I am on West side
of "Lost Lake" I look for

Iron Pipe set by Curo set as $\frac{1}{4}$ cor.
 on Westside of 30. Fail to find
 it. Walk east to look over the
 ground where proposed road
 is to go as I cannot be very
 much off the East-West $\frac{1}{4}$ line
 of Section 30-139-29. I strike
 Lake Fladdie about 700 ft
 south of the northernmost
 point. I meet Mr. Albert
 Hall who tells me about
 Mr. Upton and Young who
 live on Gr't lot 7 Sect 30-139
 -29 who are very interested
 in the petitioned for road
 and promised to help during
 the survey. I sent word to
 them to be up at Garten's
 as early as possible to mor-
 row morning. Aint for
 night. Supper and lodging
 at Garten's.

amwak

Sunday, Nov. 5-1916

Breakfast at Garton's.

Bob Mountains who is to help me comes early. We wait till 9 o'clock for Upton and Young. As they fail to come I decide to establish the $\frac{1}{4}$ corner on the ^{East} Westside of 30 and walk ^{east} ~~west~~ towards ^{East} ~~West~~ corner 18 and 19. Halfway we meet Upton with a team. He picks us up and drives us to ^{East} ~~West~~ corner 18 and 19 Twp 139-29. We chain south 2641.30 Ft. and set $2\frac{1}{2}$ " hub with tack. I find Curo's bearing trees but as haven't his notes with me I cannot check their courses, the Gov't notes call for

B.P. 4 N 56 W 20

B.P. 4.5 52 $\frac{1}{2}$ E 17

but as the road was cut 33 ft on each side of this

corner the B. & F. were cut
 and I fail to find any
 intimation of them. Drive
 to Upton. Dinner at Upton's.
 P.M. Upton, Young, Mount-
 rains and I walk ~~east~~ ^{west} to
 Lost Lake where the $\frac{1}{4}$ ^W cor
 of Sect. 30-139-29 is. Young
 and Mountmains stay at the
 lake, make stakes and look
 for the corner, while Upton
 and I walk North to get
 instrument and Mr. Garton
 to show us the corner. Must
 wait for Garton who has
 not had dinner yet. I meet
 there Mr. Johnson the
 town-clerk who came to
 tell me that the board
 changed the Petition so, as
 to have the road on the
^{East} West end running along the
 shore of Lake Haddy instead
 of on the $\frac{1}{4}$ line. The petition
 should read, — until at

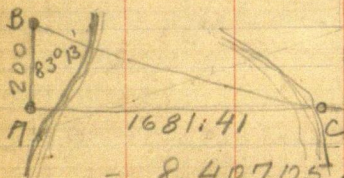
strikes Lake Stettie, thence
 in a ~~westerly~~^{easterly} by ~~north~~^{south}
 direction following the
 lake as close as practical
 to a point 304 ft south
 of ~~west~~^{east} $\frac{1}{4}$ cor. of Sect 30-139-29
 Upton, Garten, Kay Circbride
 and I walk south to $\frac{1}{4}$ cor.

~~west~~^{east} of Sect 30-139-29. Garten
 after searching quite
 a while finds it. It is
 a 2" Iron Pipe set in a 2 ft
 mound of dirt. Garten
 walks back. I run ~~west~~^{east}
 on 8°45' Var. I, Nowak,
 Transman, Upton and
 Nowak chairman, Young
 and Bob Axemen and
 Kay Circbride flagman.
 at 200 hub on steep hill,
 at 500. hub, at 1100 hub,
 at 1320 hub. Quit for
 night as it is rapidly
 getting dark and we have
 3 miles to walk to

Garten. Supper and
Lodging at Garten's
amrock

Monday, Nov. 6 - 1916

Breakfast at Garter's. Ray, Bob and I drive with Tom Lee to Upton's. We walk to hub 1320. Nowak, transit, Upton and Nowak, chain, Young and Bob axemen, Ray flagman. We chain up a high hill at 15 80 set hub "A". At 17 15 enter lake. I triangulate lake. I sight back on hub 1320 turn 90° to right and set hub "B" 200 ft north. Set hub "C" across lake. Set up on hub "B" sight back on "A" and turn $83^\circ 13'$ to hub "C".



hub "A" to "B" is
 $200 \tan 83^\circ 13' =$

$$= \frac{8,407.05}{1681.41} \cdot 200$$

Hub 'C' is 3261.41. Conti-
 nue ~~West~~^{East}, at 3320 hub at
 3420 enter open bog. at
 3860 leave bog. at 3960
 hub. At 4220 hub.

Dinner at Upton's.

P.M. Continue ~~West~~^{East} along
 Northbank of Lake. at
 4720 hub. We have to
 run through very thick
 underbrush. At 5220
 hub. At 5663 the $\frac{1}{4}$ ^{East} west
 corner of Section 30 sets
 south 79.85. To correct
 our line we shall have
 to set south 0.0141 per foot.
 Bob and I rechain $\frac{1}{2}$ mile
 Find it 2" short and
 when I afterward heard
 that Upton had made a
 remark as of setting
 a tack into a hub half
 an inch off line being
 good enough, I'll change
 the men. Quit for night
 Supper and Lodging at Garden
 Grove

Tuesday Nov, 7-1916

Election day.

Bot, Kay and I drive with Tom Lee in Auto to Upton and Grump. Mowak transit Mowak and Bot Mountain chain, Upton and Grump are - men, Kay flagman. I correct the line. Hub 5663 goes south 79.85, hub 5220 goes south 73.60 Ft, hub 4720 goes south 66.55 Ft, hub 4220 goes south 59.50 Ft, hub 3960 goes south 55.84 Ft, hub 3320 goes south 46.71 Ft, hub 1580 goes south 22.28 Ft, hub 1320 goes south 18.61 Ft, hub 1100 goes south 15.51 Ft, hub 500 goes south 7.05 Ft, hub 200 goes south 2.82 Ft. Rest of P.M. we set road centers on corrected $\frac{1}{4}$ line from $\frac{1}{4}$ cor on westside of sect. 30-139-29 as far as hub 1580 on westshore of Lake Kattic.

Dinner at Upton's. Bob
 Mountains goes to Backus to
 the election. Ray stays in
 the field making licks.
 Upton, Young and I drive
 with Albert Hall in Auto
 to the schoolhouse where
 the farmer vote while I talk
 with Mr. Johnson about a
 man to help me as Upton
 Young and Bob won't be
 able to work Thursday. Al-
 bert Hall drives us back.
 Beginning at lurb 1580 on
 westside of Lake Flathe. Lurb
 1580 is station 1. I run a
 line N $43^{\circ}1'E$ for $7^{\circ}30'$ down the
 thickly wooded hillside.
 at 316 Ft set lurb being
 station 2. Thence N $24^{\circ}28'E$
 360 Ft thru thick brush to
 station No 3 Quit for night.
 Ray has supper and lodging
 with Santens. I have supper
 with Upton and lodging
 with Young.

anowak

Wednesday, Nov 8 - 1916.

Wreck Transit, Wreck
and Upton chain, Kay
and Frank Gillety are -
men. Beginning at station
No 3 I run $N 37^{\circ} 47' E$ Var. $7^{\circ} 30'$
300 ft to Station No 4, Thence
 $N 26^{\circ} 55' E$ 105 Ft to Station No 5
on top of old Beaverdam,
Thence $N 72^{\circ} 13' E$ 180 Ft to
station No 6. Thence $N 82^{\circ} 20' E$
355 Ft. to Station No 7. Thence
 $S 71^{\circ} 09' E$ 226 Ft. to Station No 8
Thence $S 46^{\circ} 43' E$ 217 Ft to
station No 9 Thence $S 53^{\circ} 25' E$
325 Ft to Station No 10 Thence
 $S 0^{\circ} 25' W$ 522.20 Ft to Station
No 11 being hub 3320 on
an true $\frac{1}{4}$ line E and W in
Section 30-139-29. ^{Dinner at} Upton

P.M. Beginning at hub
3320 we set road centers
as far as hub 4220 an
true E and W $\frac{1}{4}$ line in Sect.
30-139-29. From hub 4220

being station N^o 12 9 min N $85^{\circ} 16' E$
 Var. $7^{\circ} 30'$ 580 Ft to station N^o 13
 on Northside of Lake Shattie
 Thence N $87^{\circ} 35' E$ 312 Ft to
 station N^o 13 on high bank
 north of Lake. Thence
 S $56^{\circ} 8' E$ 678 Ft to a point
 304.00 Ft South of $\frac{1}{4}$ cor.
 on Eastside of Section 30 -
 139-29. This finishes the
 Survey of the Road de-
 scribed in the Road
 Petition.

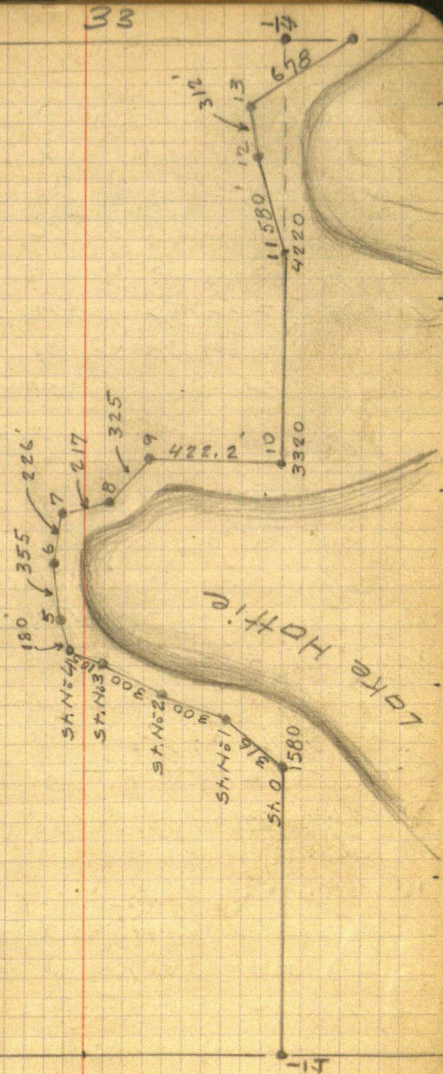
I and Kay have
 supper and lodging
 with Ganten's

M. A. K.

[illegible]

Time-Sheet for the Survey of 1-Mile
Road on E. W. $\frac{1}{4}$ Line - Sect. 30-139-29.

Section 30
Twp 139 R^o 29



Fieldnotes of the Survey
of the 2nd road between
Sections 28 and 33 east of
Section Cor. 28-29-32-33
as surveyed under the
direction of John W. Curo
County Surveyor, Cass Co.
by Elvis Mroak, sur-
veyor.

Thursday, Nov. 9-1916.
Breakfast at Garters.
Mroak and Ray Cinchide
walk to M.C. No 30 on
East side of Lake Shattie
on Sect. Line betw. Sect. 29-32
139-29 where we meet
Frank Gillity. We walk to
Sect. Cor. 28-29-32-33, a $1\frac{1}{2}$
inch capped galv. iron
pipe. The Road Petition reads
as follows: Lay out and
open up a public cartway
2 rods wide as follows:
Beginning at the Pantoria
Pine River Road where the

section line E and W. betw. Sections 29 and 32 intersects said road, thence running east on sect. line between sect. 29 and 32 and 28 and 33 to a point 13 rods from Meander stake of Lake Ada and there terminate.

I set up transit on Sect Cor. 28-29-32-33 and run East on $8^{\circ}20'$ Var. at 200 hnt on top of hill then level to lake. at 600 hnt. I offset the random line on account of fence. At 1539.25 set hnt on bank of Lake Ada. The Gr't calls for 2388 lks = 1576.08 ft as distance from Sect. Cor. 28-29-32-33-139-29 to M.C. No 2 on Westside of Lake Ada. I look for M.C. No 2 where Gr't calls for
 N. N. P. 20 N 30 W 129
 N. P. 15 S 11 W 243

I find several stumps all of

them badly burnt. A large N. P. Stump in front of Loomis's Cottage shows dim Marks. I don't want to set the M.C. without evidence whether said stump is the B.T. and as there is nobody present in the neighborhood who could testify I shall ask Mr. Hahn after his return from work at 6 o'clock. Mr. Hahn is said to know where the M.C. is. We take dinner outside having taken some lunch along. I set a high flag on Sect. Co. 28-29-32-33-139-29, take instrument to East side of Lake Hattie and high bank near M.C. No 30 and work my instrument in line and set a high flag in line. We walk to Mr. Hahn's farm east of Section Co. 28-29-32-33. Mr. Hahn tells me that the

stump in front of Lornio's
house is the Old Bearing tree
and that he surely saw the
Marks on it before it burnt
down and was chopped after-
ward. I leave instrument
with Mr. Flahn. Supper and
lodging with Garton.

Friday, Nov. 10-1916.

Breakfast with Garton. Kay
Circbide and I walk to
Westside of Lake Ada, meet
Frank Gillety. Nowak Transit
Nowak and Gillety chain.
Kay axeman. I set the M.C.
by measurement and course.
Then I set up on found
corner. Turn my instrument
 $51^{\circ}W$ and find another stump
with very dim marks but
as course and measurement
check with Gov't notes I don't
doubt that the last stump
is the other B.T. I then set
the M.C. No 2 by flat meas-
urement and drive a $2\frac{1}{2} \times 36"$
oak stake into ground $1\frac{1}{2}$ ft
away from the water. The
old B.T.s stand as follows:
N.P. Stump $N 28^{\circ} 14' W 85.14$ ft
N.P. Stump $S 9^{\circ} 11' W 160.38$ ft
I mark two new Bearing
trees as follows:

N.P. 15 $55^{\circ}25'W$ 21.12 ft.

N.P. 12 $N23^{\circ}24'W$ 46.62 ft.

From hut 1539.25 M.C. No 2
sets $S33^{\circ}3'E$ 33.45 ft. I correct
my wandron line. Hut 600
gives $S33^{\circ}3'E$ 13.04 ft. I then
set up an corrected hut 600
sight back on Sect. Cor. 28-29-
32-33-139-29 and set Road
Centres with 3×36 Oak
stakes. Stake 1361.58 marks
termination of road on
the West End. I then set
up transit on 74 ft west
of Section Corner 28-29-32-33
139-29 and work my instru-
ment into line between flags
on Section Corner 28-29-32-33
139-29 and on M.C. No 30 on
West side of Lake Flattie. Then
I set Road Centres with 3×36
Oak stakes. Then I run a
line East on $7^{\circ}45'$ Var. At
1500 cross Centre of Pine River
Pantoria Road. At 1600 hut

40

139-29 cont.

at 2460 lurb. We chain
in the Centre of 2nd road.
at 3960 lurb. At 4190 lurb.
As the boys are hungry it
being 2 o'clock P.M. I post-
pone connecting of this
line. We walk to Mr
Olson who owns a farm
in the Southwest quarter
of Section 32-139-29. Dinner
at Olson's. After dinner Olson
and we walk to Section
Corner 31-32 on the South-
side of Twp 139 Rg 29.
Mark transit, Mark
and Gillety chain Olson
and Kay Exneren. Section
Corner 31-32 on the South
side of 139-29 is a 2" gal-
vanized iron pipe with
cap. On the side of it stands
a 3x3 Oak Post marked on
the 4 sides 31-32-5-6, I
start a random line on
7°45' Var. at 300 lurb. At

900 lmb. At 11320 lmb.
Quit for night. Kay goes
to Santers. I have supper
and lodging with Olson's.

Saturday, Nov. 11-1916

Breakfast with Olson's.

I am surveying now a road running from Center of Southeast quarter of Section 32 south to West $\frac{1}{16}$ Corner on Southside of Section 32.

Hay coming from Gartens brings mail from My. Curo along, with all kinds of good dope in it.

To establish the true $\frac{1}{16}$ Corner West on the Southside of 32 I am running a handline on $7^{\circ}45'$ Var. from Southeast corner of Sect 32 - 139-29 east. at 2640 set hub. at 3960 set hub at 5311.7 set spike in Center of Pine - River - Longville Road. We look for the 3 cornered rock. I walk to My. West - phal's farm where I

borrow a pique and shovel. Mr. Westphal comes out with me. There is an old stump in the road cut pretty near level with the ground. The Gov't notes call for:

B.P. 9 N 54° E 17.82 ft

B.P. 7 N 62° W 12.54 ft

B.P. 5 S 60° W 15.84 ft

B.P. 6 S 47° E 5.28 "

As aforesaid stump sets East of road it can be only the N.E. or S.E. B.P. There are no other stumps around. First I assumed the stump as being N.E. of the corner and had my men digging a hole about S 54° W 17.82 ft from the stump, without result. The digging is very hard as the ground is frozen and hard as rock. Then taking the stump as

being S.E. of the corner
I start digging a hole
N 47° W 5.28 ft away from
stump and strike the
3 cornered rock set as Sect.
Cor. 32-33 on Southside of
139-29 by H.W. Munster
in 1910. At 5313.2 E the
Section Corner 32-33 sets
south 33.68 ft. Dinner at
Olson's. P.M. Munk transit
Munk and Gillety, chain
Olson and Hay Examen.
I connect the corners on
Southside of Sect. 32.
 $\frac{1}{16}$ W sets E 24.9 and South
25.27 ft. $\frac{1}{4}$ corner sets
E 16.6 ft and South 16.85 ft
 $\frac{1}{16}$ Corner E sets East 8.3 ft
and South 8.42 ft. I set a
3 x 24 Oak stake as true
 $\frac{1}{16}$ E Corner on Southside
of 32. I set up on this last
found Corner and run
a random line North on

7°45' Var. At 10.7 ft North
sets a 3" stake set by some
one. Enter swamp. at 400
leave swamp enter brush-
wood brush. at 1300 cross
stake fence enter cornfield
at 1320 ft North set hub.
Quit for night. Ray goes
to Garten's. I stay with
Olson.

Sunday, Nov. 12-1916

Breakfast with Olson's
Norak transit, Norak
and Gillety chain, Kay
and Olson axemen. We
continue our hand-in-
line North. At 1420 leave
cornfield enter hard-
wood brush. At 1700 open
meadow 1952 cross wire-
fence enter brush at
2319 enter wet meadow
cross log bridge 2440 enter
pine timber at 2460 North
set hub. At 2990 tack in
log; at 3180 open meadow
at 3295 enter plowed field
at 3696 enter thick under-
brush.

Dinner at Olson's

P.M. As the brushing goes
very slowly I help as
axeman too. At 3960 N
hub at 5000 hub. The
line goes through very

thick brush. at 5280 N
we are in Center of Road.
Quit for night. Ray and
I have supper and lodging
with Olson's.

Monday, Nov. 13, -1916

Kay and I have breakfast with Ron's, Howard and

Gilletty chainmen, Kay ac-
man. From Herb 4190 West
of Section Cor. 28-29-32-33-139-
-29 to M. C. No 30 I chain 72.85 ft.
Curo's notes call for 4261.50.
that is 1.35 ft less. I re-
chain the whole line. At
2683.39 W of Sect. Cor. 28-29-32-33
-139-29 set spike in road. At
4024.98 ft W. spike. M. C. No 30
is 4262.80 ft proving that
my chaining was correct.
I then divide the overplus
of 1.35 ft proportionally
and correct lub 4024.98 ft
W. by setting it 1.27 ft West
being 4026.25 ft West of Sect. Cor.
28-29-32-33-139-29. This is
the true West $\frac{1}{16}$ Cor. on North-
side of Section 32-139-29. I
place a 2 x 24 lub and
take bearing trees as follows.

40.8' East of I. M. and 45' N 49

J.P. 10 N 60° W 24.75 ft } to tanks
J.P. 7 S 10° W 30 ft } in blazes

Courses are approximately
as I have no compass
with me. Distances were
measured with tape.

From hub 5280 ft North of
true $\frac{1}{16}$ West Corner on South-
side of Sect. 32-139-29 the
true $\frac{1}{16}$ W. Corner on the North
side of Sect 32-139-29 sets
East 9.24 ft. Correcting back:
hub 3960 goes East 6.93 ft;
hub 2640 " " 4.62 "
hub 1320 " " 2.31 "

As corrected hubs I set heavy
3" x 36" Oak stakes with wings
pointing north and marked
true $\frac{1}{16}$ line. I then set
Road Centres between true
 $\frac{1}{16}$ Corner W on Southside of
Section 32-139-29 and hub
1320 North of $\frac{1}{16}$ Corner.

Having obtained a 1" x 24" iron
pin of Mr. Olson I set same

at the time to corner on the
 southside of 32. This
 finishes the entire survey
 for Pinto Lake Trp. Mr.
 Westphal drives me in his
 Ford to Mr. Garten where I
 deliver the time-sheet and
 thence to Backus. Autofare
 \$2. —. Railroadfare — 49cs.
 Arrive in Walker at 5 P.M.
 Morrow

52. Nov. 1921

Rec. 285

Rec. 372

139-29

Book 52

Sec. 30

Book 54A

Survey for Hogan.

534

South Section Line

Set up on Jack Curve Random Line .05 North of tack in birch stump. Set substantial oak hub. Sta. 7481.75. Lined by sighting to Sta. 9575.5, a point 16.2 North of M.C. #32.

Traverse north from

Sta. 7409.25 & 90°08 L from Balcony

Moved to Sta. 9575.5, 16.2 North of M.C. #32 and continued Curve Random line west, backsighting to Sta. 7481.75

Sta 9693.5 tack in 4" Nar. s.p.

Sta 10919.3 Random Hub 39.7 North of Sec. Cor.

S.W.B.T. still plain other trees down and marks obliterated

Drove 2" x 36" Beller Flue and marked New B.T.s as follows.

Birch	4	S. 45° W	181'
"	4	N. 70° E	151'
Jack Pine		S. 70° E	117'

8.8 Greene - Transit
 7.8 Marlon - Axe
 9.575.3 Milner - Axe
 76.93.5
 12.26.8
 10.919.3

53

534

7431.75
 72.5
 7409.25

10919.3
 7409.25
 3510.0

118
 1225.8
 1343.8

10919.3
 9575.5
 1343.8

39.7
 16.8
 23.5

23.5 : 1343.8 ::

$\frac{23.5}{1343.8} = \frac{57.183}{10}$

1175
 1688
 1645
 430
 733
 1950
 1680

10919.3
 2287.3
 8632.0
 7409.25
 1222.75

Turn 16" N. 76 E 7
 " 15" N. 30 W. 35
 " 14" S. 27 W. 40
 " 16" S. 50 E 32

1746
 3492
 5080
 3492
 15380
 15714
 6600
 5238

21.4
 1222.75
 114366
 79090
 57183
 219070

1222.75
 2287.3
 3510.05

57.183
 614
 228732
 57183
 343098
 3510.0362

John W. ...

Continued traverse North

from 549 7409.25' N 82° E. Mag.

0°00'	72.6	N. 82° E.	N. 82° E.
90°07'	72.5	N. 82° E.	N. 82° E.
20°08' L	246	N. 8°08' W	N. 8°07' W N. 7° W
43°47'	258.3		
43°46' L	258.4	N. 51°54' W	N. 51°54' W N. 50° W
38°13'	100		
28°14' L	100	N. 80°08' W	N. 80°07' W N. 80° W
17°46'	105.85		
17°47' R	106.2	N. 62°21' W	N. 62°21' W N. 60° W
7°03'	152.2		
7°03' R	152.2	N. 13°42' E	N. 13°42' E N. 15° E
9°53'	139.9		
10°06' L	134	N. 3°42' E	N. 3°43' E N. 5° E
38°28'			
38°27' R	100	N. 42°07' E	N. 42°11' E N. 41° E
22°47'	100		
22°46' R	100	N. 64°55' E	N. 64°58' E N. 65° E
26°00'			
26°01' L	100	N. 38°54' E	N. 38°58' E N. 39° E
14°01'			
14°20' R	70	N. 53°14' E	N. 53°19' E N. 53° E
30°27'	100.1		
30°26' L	100	N. 22°48' E	N. 22°52' E N. 22° E
30°53'	100.1		
30°52' L	100	N. 8°04' W	N. 8°01' W N. 5° W
38°24'	199.9		
33°25' R	200	N. 30°18' E	N. 30°23' E N. 32° E
17°36'	915.0		
17°33' L	916	N. 12°45' E	N. 12°47' E N. 10° E
12°13'	199.95		
12°36' R	200	N. 25°21' E	N. 25°26' E N. 25° E
12°52'	290.1		
12°50' R	290	N. 38°11' E	N. 38°18' E N. 41° E
63°07'	82.1		
63°08' L	82.15	N. 24°57' W	N. 24°49' W
73°07'	939.6		
73°32' L	175.6	N. 8°29' E	N. 8°13' W - from W. Cor.

Figures above are the re-checked
angles and distances.

534

Beginning at hub-3320 on
 good sighting to Hub on true
 Hattie; we prolong line East
 1/4 line.

East

N. 85° 16' E.	Var. 7° 30'	580'	Hv6
N. 87° 35' E.		312'	"
S. 56° 08' E.		678'	"
North ?		304'	"

True E. & W. 1/4 Line
 line on West side of Lake
 to Sta. 4220 on true E. & W.

534

$$\begin{array}{r}
 10919.3 \\
 7409.25 \\
 \hline
 3510.05 \\
 .01745 \\
 \hline
 17550.25 \\
 14040.20 \\
 \hline
 24570.35 \\
 35100.5 \\
 \hline
 612503725 \\
 39.7 \\
 \hline
 21.5
 \end{array}$$

7409.2

$$\begin{array}{r}
 10919.3 \\
 9575.5 \\
 \hline
 23.5 \overline{) 1343.8} \quad 757 = \text{Cot } 1^\circ \\
 1175 \\
 \hline
 1688
 \end{array}$$

$$\begin{array}{r}
 1232 \\
 2150.00 \\
 \hline
 1745 \\
 \hline
 4050 \\
 3490 \\
 \hline
 5600 \\
 5235 \\
 \hline
 3630
 \end{array}$$

Sta 0 = 7409.2 on Curo's Random
Line on South side of Sec. 30

139-29 Pointe Lake Twp., Bearing N. 82° E.

True Line makes an angle of

1° 00' to the North Bearing N. 81° E.

and is 21.4' North of Sta. 7409.2

Sta. 0 to Sta. 1 is 246.2' so I figure that Sta. 0 is moved north

from Sta 0 on T. Line.

29.09 N. $8^{\circ}07'W$ & with R. Line $90^{\circ}07'E$,
th. 214, making distance 224.8'

534

60

Log d's

72.55	N. 81° 00' E	1.850637		
224.8	N. 8° 07' W	2.351796	9.995628	2.142802
258.3	N. 51° 54' W	2.412124	9.790310	9.895959
100	N. 80° 07' W		.17164	.98516
105.9	N. 62° 21' W	2.024846	9.666583	9.947535
152.2	N. 13° 42' E	2.182415	9.987465	9.374456
133.9	N. 3° 43' E	2.126781	9.999086	8.841726
100	N. 42° 11' E		.1.74100	.67151
100.1	N. 64° 58' E	2.000434	9.626440	9.957156
100	N. 38° 58' E		.77751	.62887
70	N. 53° 19' E	1.845092	9.776259	9.984147
100.1	N. 22° 52' E	2.000434	9.964454	9.589489
100.1	N. 8° 01' W	2.000434	9.995735	9.4445
190.5	N. 30° 23' E	2.300813	9.735846	9.703264
915.0	N. 12° 47' E	2.961421	9.989100	9.344916
199.9	N. 25° 26' E	2.300813	9.755729	9.632323
290.1	N. 38° 18' E	2.462545	9.891446	9.792387
82.1	N. 24° 49' W	1.714343	9.957921	9.622950
175.6	S. 81° 40' W	2.244525		

changed 6.6 instead of 9.4

1/4 Line bears N. 81° 40' E

1/16 Line " N. 81° 20' E. N. 30° 23' E

Sec. Line " N. 81° 00' E 50° 57'

July 19-1924 Hogan, Martin Green
compass line between 1/4 Line and
Dis 1310.5 ft Fence

534

61

N	S	E	W	X	X
1987				0.00	0.00
222.5			31.7	222.5	-31.7
159.4	139.85		203.3	381.9	-235.0
17.2	60.4		98.5	399.1	-333.5
49.1	24.96		93.8	448.2	-427.3
147.9	25.27	36.0		596.1	-391.3
133.6	54.17			729.7	-382.6
74.1	279.38	8.7		803.8	-315.4
42.4	314.78	67.2		846.2	-224.7
77.8		90.7		924.0	-161.8
41.8		62.9		965.8	-105.7
92.2		56.1		1058.0	-66.8
99.1		38.9		1157.1	-80.7
164.3		13.9		1321.4	15.6
172.4		96.3		1329.5	+20.4
892.4		101.1		2221.9	+222.8
180.5		202.4		2402.4	+308.6
227.7		85.8		2630.1	+488.4
74.5		179.8		2704.6	+453.9
					423.1
2904.10		929.6	475.7		30.8
62.2		475.7	400.1		
		453.9			

2.5' South - of stated out line.

15.6

2x120' Hub N. 81° 20' E 22.83'
 S. 81° 20' W 60.4'
 Tack in log. 1/10 200.25 408.61'
 Tack in 5th 225.21
 279.38
 314.78
 5 1/2" S. of 1/100
 John M. Greene

62

Sec. 34-14-28 John M. Gree

Computations

X between N. & S. & E. & W.
1/4 Lines.Center established and
generally recognized.

$$337.6 - 200 = 137.6$$

137.6 = side opp. Depot Square

300 = " adj.

$$300 \div 137.6 = 2.18023 = 24^{\circ}38'30''$$

$$674.3 - 543.0 = 131.3 \text{ B1K5}$$

$$300 \div 131.3 = 2.28408 = 23^{\circ}38'40''$$

$$506 - 373 = 133 \text{ B1K4}$$

$$300 \div 133 = 2.25564 = 23^{\circ}54'30''$$

Average X = $24^{\circ}04'$

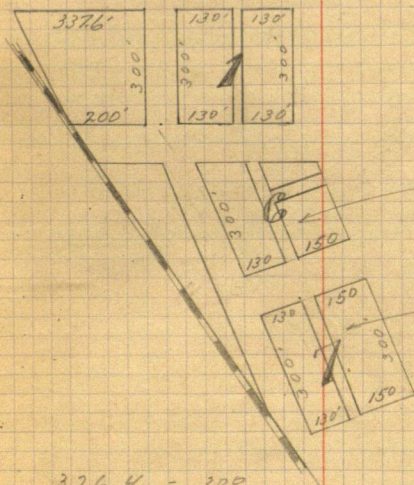
$$1060 \div 1154.3 = .91831 = \cos 23^{\circ}19'$$

$$\text{Av. } X = 23^{\circ}41'$$

NE - Eng.

Longville

65



Not plotted

Not recorded

326.4	-	300
87.0	-	80
142.3	-	130
21.9	-	20
163.2	-	150
87.0	-	80
152.3	-	140
21.9	-	20
152.3	-	140
1154.3	-	1060

E. & W. $\frac{1}{4}$ Line intersects
 S.H. semi-tan S.E. $\angle = 72^{\circ}19'$
 $33+30^2 - 19.54$

Hub on semi-tan 1334+106

X to $\frac{1}{4}$ Line = $72^{\circ}18'$

X to Hub by school House = $20^{\circ}11'R$

303.6'

$20^{\circ}12'R$

X Hub at S.H. = $26^{\circ}12'R$

X to N.W. Cor S.H. $32^{\circ}35'L$ Dis = 56.3'

Sta 0+76' - Rt. As = 2.5'

52' back 30' wide Probably 40'?

X $49^{\circ}06'L$ to stake at N.E. Cor.

840.7' to post Hole

858.0 to Hub.

Recapitulation

Con. Sec. 34 to $\frac{1}{16}$ Cor. East

106.6' to intersection with

semi-tan of State Road X $72^{\circ}18'R$

Turned X to Hub by School - $20^{\circ}11'R$

303.6' to Hub.

X $26^{\circ}12'R$

840.7' to post, cor of cern. (N.W. Cor)

858.0 to Hub X $49^{\circ}09'L$ to stake

at N.E. Cor. 100-13.8 from

N.E. Cor. to fence 215.7' Tot. Dis.

1334+106 on Curve

106.6' to Cor. $\Delta 72^\circ 18'$

23° 07'
6° C.R

P.I. 1335+33.7

P.C. 33+38.3

P.T. 37+23.6

5em 195.4
Curve 385.3

17° 08'
5° C.R

1328+98.1 P.I.

27+25.4 P.C.

30+68.1 P.T.

Tan = 172.7
L = 342.7

44° 16'
20° C.L

P.I. = 1321+34.1

P.C. = 20+17.2

P.T. = 22+38.2

T = 116.7
L = 221.3

24+97 = C Br
L = 20'

517° 40' E

1335+33.7
1334+10.6

123.1

1334+10.6
1333+38.3

72.3

1335+33.7
1333+38.3

195.4

1337+23.6
1335+33.7

189.9

Hub sets 11.9' East of West fence
 Set another Hub 11.9' East
 of West fence & $44^{\circ}10' L$

Ext & = $86^{\circ}40'$ $44^{\circ}10'$

Dis = 132.4 $49^{\circ}09'$

$93^{\circ}19'$

to outside of North post 145°

& $70^{\circ}29' L$ 100' along top

12' from \backslash & $43^{\circ}39' R$ 100'

& $2^{\circ}38'$ or $39' L$ 100'

+ 30' bank juts out about 10'

15' from \backslash & $22^{\circ}39' L$ $68^{\circ}43' R$ to 180'

(10' from \backslash $9^{\circ}20' L$ 50' back 180'

26° from B.S L to 180'

+ 31.4 & $52^{\circ}23' N.W$ to ^{R. from B.S.}

N.E. Cor.

F 47 to Shore.

374.3'

L. $3^{\circ}10'$ 61.4' to S.E. Cor, thence

L. $124^{\circ}44' N. 90^{\circ} W.$ 451.0' about 12's to Line

and 71.3 down bank to stake
of River Bank. 59.65 to Hub along
bank.

#2 is 180'

Very steep

Sighting back to #2

X L 23°30'

Sight back to #2 and
transiting X 17°22' R to 180'
55°30' L to 180'

+5.0 to water

132.4

145
71.3
216.3

16.3

$$S. 81^{\circ}00' W$$

$$3^{\circ}23'$$

$$S. 77^{\circ}37' W.$$

$$86^{\circ}40' L$$

$$S. 9^{\circ}03' E$$

$$70^{\circ}29' L$$

$$S. 79^{\circ}32' E$$

$$43^{\circ}39' R$$

$$S. 35^{\circ}53' E.$$

$$2^{\circ}39' R$$

$$S. 38^{\circ}32' E$$

$$22^{\circ}39' L$$

$$S. 61^{\circ}11' E$$

$$52^{\circ}23' R$$

$$S. 61^{\circ}11' E$$

$$9^{\circ}20' L$$

$$N. 8^{\circ}48' W.$$

$$93^{\circ}37'$$

$$570^{\circ}31' E$$

$$102.25$$

$$S. 77^{\circ}35' W$$

$$S. 77^{\circ}37' W$$

$$49^{\circ}09'$$

$$126^{\circ}46'$$

$$N. 53^{\circ}14' W$$

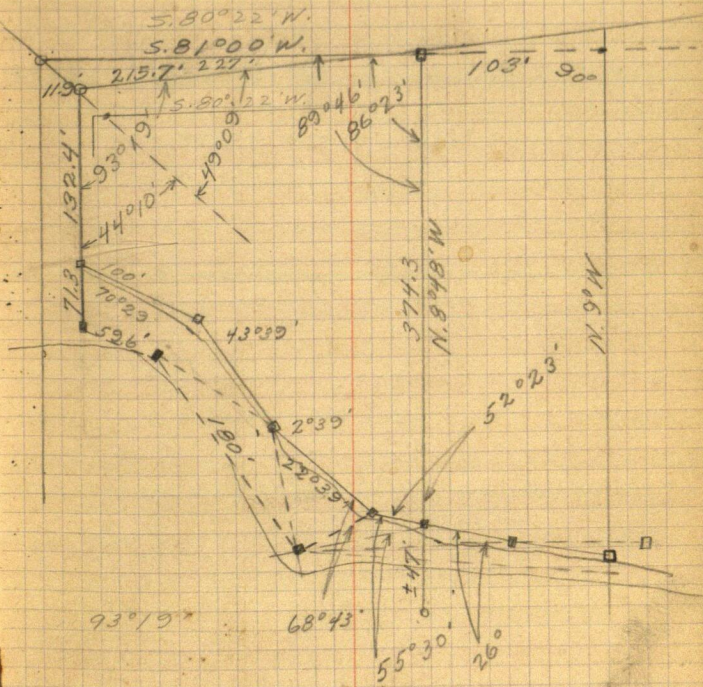
$$26^{\circ}12'$$

$$N. 79^{\circ}26' W$$

$$20^{\circ}12'$$

$$99^{\circ}38'$$

$$S. 80^{\circ}22' W$$



J. M. Green

70711

160,000

141422

.185780

141422

443580

443580

East

S. 69°48'E

26°12'

S 43°36'E

53°14'

9°38'

43°36'

N 81°00'E

9°38'

Beginning at Con. Sec. 34
 N. $80^{\circ}22'$ E 106.6' semi-tan of
 $20^{\circ}12'$ R S.H.
 100° 34'
 S. $79^{\circ}26'$ E 303.6' by school
 $26^{\circ}12'$ R
 5.53° 14' E 840.7' to N.W. Cor

 N. $81^{\circ}00'$ E 227.0' to N.E. Cor.
 S. $8^{\circ}48'$ E 374.3' to 0 on
 East Line

79° 26' 858.0
 East 106.6' 5.9
 $20^{\circ}12'$ R 863.9
 S $69^{\circ}48'$ E 303.6' 22.6
 $26^{\circ}12'$ R 841.3
 S $43^{\circ}36'$ E 841.3'
 $46^{\circ}24'$
 4089 330'
 South 468± to Boy River

thence to a

N. 81°00' E 115.7

4. 73°28' R.

154°28'

S. 23° E. S. 25° 32' E 63.5 N. 67° E

80.0 N. 63° E

115.7

32.3

83.4

63.5 S. 70° W

74.2 S. 65° W

75.2 S. 63° W

74.2 S. 65° W

80.5 S. 69° W

82.6 N. 66° E

91.8 S. 65° W

94.7 N. 70° E.

97.7 N. 59° E

109.3 N. 75° E.

83.4 East of N.W. Cor. 111.7 N. 63° E

81°00'

114.5 N. 69° E

* 76°06' R

132.4 S. 85° W.

S. 20° E. 157°06

146.2 S. 72° W.

S. 22° 54' E.

+ 0.6 S. 70° W.

28.3 S. 85° W.

86.0 N. 63° E

85.0 S. 59° W

90.0 S. 77° W.

97.8 S. 75° W

200
843
1157

12.8 L	small grave	2.5'	Thorson
			Lot 7 Block 3 Sec. A
0 L	Large "	8'	Mrs. G. A. Ford.
			Lot 5. Block 3 Sec. A
14.7 R	small grave	5'	
13.0 R		box 6.5	Thompson
			Lot 9, Block 2; Sec. A.
29.0 R		6.0	
R 48.7 - to fence 47'		4.3	Allen
			Lot 3, Block 1, Sec. A.
9.5 R	with stone	13.5	Ford G. E.
			Lot 9, Block 2, Sec. A.
20.3 L		4.5	Woodley
			Lot 8, Block 3, Sec. A.
12.6 R		6.4	
0 L		8.0	
16.9 L		3.0	
2.8 L		5.7	
19.5 L		5.0	
19.1 L		7.0	
11.5 L		7.0	check this
31.8 L		4.6	
18.2 R	6.5 from N. L.	4.0	
58.0 R		9.0'	
0. R			
11.9 R.	8.5 x 7.1 Fence.		S. E. of Allen
			Lot 3, Block 1, Sec. A
72.4 R		7.0	Spooner
8.8 R		7.9	Lot 2, Block 1, Sec. B.

74

105.6 S. 76° W
110.

110.0 S. 73° W

110.4 N. 73° E

113.7 N. 79° E

124.0 N. 80° E

132.1 S. 75° W

133.4 N. 76° E

137.7 N. 77° E

150.9' N. 75° E

21.5' R

12.5 R

1.6 L

1.4 L

0.1

10.7 R

2.7 L

2.0 L

1.8 L

Craig's Mon 18" X 24"
Lot 2, Blk 1, Sec. A

6.2 + 1.4 Mon 12" X 14"
Lot 2, Blk 1, Sec. A

4

7.6

8.0

4.2

5

5

4.6

38.1 between endpoints

27 graves -

Running East along North Line

X N. $80^{\circ}22'$ E
 S. $79^{\circ}26'$ E.

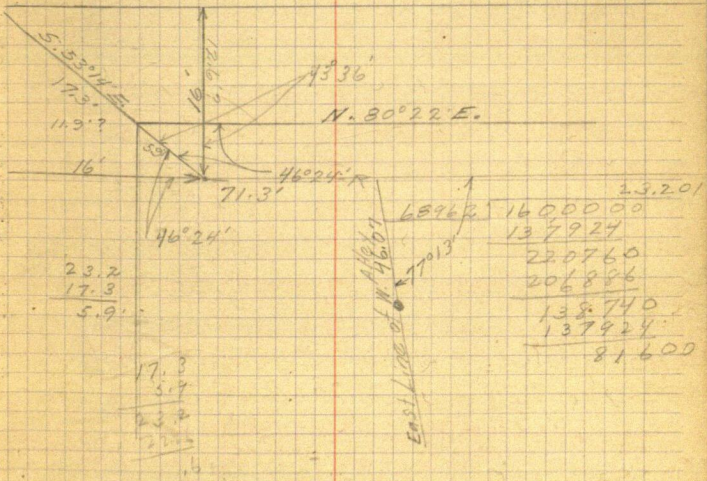
9°38	
<u>1034</u>	
20°12	
S. $53^{\circ}14'$ E	$49^{\circ}09'$
	<u>3°23</u>
36°46	$45^{\circ}46$
<u>9°38</u>	<u>38</u>
46°24	$46^{\circ}24$

Setting up on East line of
 West alley drive stake at

90° to East alley $42.1-8'-8'$
 $\frac{6}{26.1}$

S. 80° 22' W
 S. 53° 14' E
 133° 36'

* 46° 24' R parallel to E & W. 1/4 Line

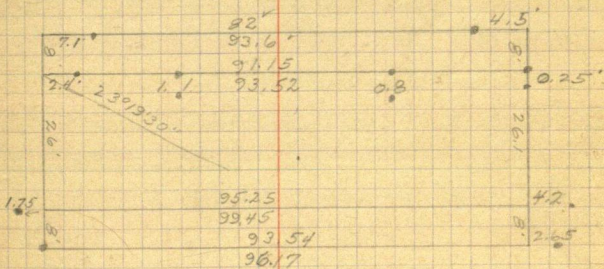


23.2
 17.3
 5.9

17.3
 5.9
 23.2
 22.0
 1.6

23.201
 16000.00
 137.924
 22.0760
 206.886
 138.740
 137.924
 81.600

East Line of 1/4 46.61
 77° 13'



80

54°41'

81597

24.00.00

29.41

16.3.197

768.060

73.4373

336870

326388

1048.20

62°49'

88955

27.0

26.91

88955

2100000

179910

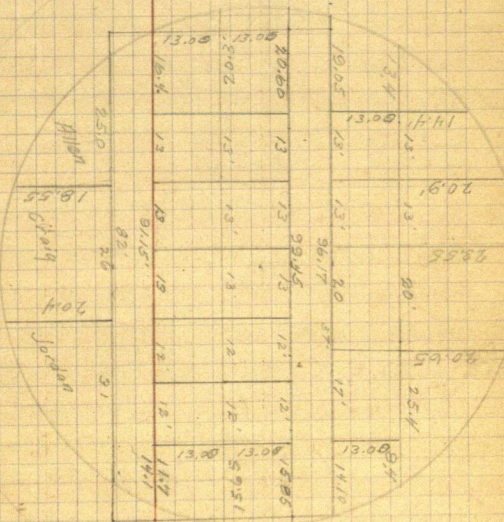
620900

538730

871700

250595

711030



82

Friday

July 19, 1924

Road of Conn Walker
on Town line between
Powers - Porto Lake Twp
139-29-30

from S.W. Cor. Sec. 18 - S.E. Cor.
Sec. 13 north to Porto Lake.
Notes used 139-30

K = S.E. Cor 13 - 1/4 M. in middle of
by grader. Dug down to straight
1 = E. 1/4 Cor. 13

N. Pine 22" S. 21° W. 122 = 80.52

" " 20" S. 6° E. 98 = 64.68

M.G. # 5

N. Pine 20" for Cor.

" " 20" N. 69° E 24 = 14.74

M.G. # 10

Aspen 6" N. 55° W 10

Ash 12" N. 53 1/2° E 30

Went to 1/4 Cor. Found 2 stps check
for bearing and distance - Set gas pipe
1 1/2" x 24" for Corner.

M. Garton New B.T.

Fred Doerr B. Oak 5 N. 62° 13' W. 41.9

A. J. Reuck B. Oak 7 N. 25° 6' W 40.9

Witnesses

1/20/24

Went to M.C. #5 - Found
tree for Cor. Stp. B.T. plain and
old scribe marks

14.9 E. of Sec line prolonged
14.9 ^{1.83} 287.6 $\rightarrow 2^{\circ} 58'$ Cotan

199
1386
1341
450
447

536

Did not chain $\frac{1}{2}$ mile to $\frac{1}{4}$ Cor.
but kicked into line and set
center pickets. Will set monument
later. Set picket $\pm 93^{\circ}$ East from sec line.

John M. Grame

1 day for Cass County

mileage 60

Time \$ 1.00

mileage \$ 6.00

Total \$ 13.00

for Derris road

Culhane-Kego Add

July 22, 1924 July 23, 1924

Monday, rain - stay home

Tuesday on Miss Culhane's

platform, C.W. Woolburt

goes to work about 2:30

X along old brushed out
E. & W. 1/4 Line as follows:-

East 187.5 + 126 + 494 = 807.5

X 0°50'R S. 89°10'E = 0°50' = 244.4'

X 1°26'L N. 89°24'E = 0°36' = 245.0'

X 0°56'R S. 89°40'E = 0°20' = 184'

Corr. using 1st Course as base = 1480.9'

True Line S. 89°55'E

Along shore Kego Lake

G.M.C. to Hub # 54 N. 89°55'W 118'

S¹-S² X L. 13°58' - 203.3' 103°53' = 576.07 WS²-S³ X L. 44°12' - 261.7' = 331°56' WS³-S⁴ X R. 32°22' - 259.9' = 364°18' WS⁴-S⁵ X L. 20°27' - 155.2' or 3' = 542°51' WS⁵-S⁶ X L. 14°00' - 171.2' = 529°51' WS⁶-S⁷ X R. 42°18' - 291.5' = 572°39' WS⁷-S⁸ X R. 27°06' - 254.0' N 80°46' W. = 99°15' WS⁸-S⁹ X L. 31°53' - 205.2' N 80°46' W. = 99°15' WS⁹-S¹⁰ X L. 14°14' - 121' = 553°09' WS¹⁰-S¹¹ X R. 56°06' - 181.9' N. 70°46' W = 109°14' WS¹¹-S¹² X L. 74°00' - 74' = 544°09' ES¹²-R² X L. 74°00' - 74' = 544°09' ES¹³-R³ X L. 74°00' - 74' = 544°09' ES¹⁴-R⁴ X L. 74°00' - 74' = 544°09' ES¹⁵-R⁵ X L. 74°00' - 74' = 544°09' ES¹⁶-R⁶ X L. 74°00' - 74' = 544°09' E

Computations

87

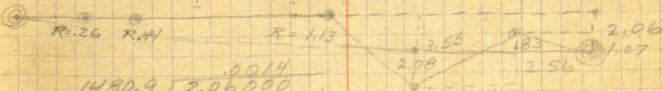
00.0 M.C. on Mega L.

3.55	187.5	Hub	187.5	3.55
1.07	126.0		126.0	2.56
4.62	313.5	Hub	494.1	0.99
2.56	494.0			
2.06	807.5	Hub	807.5	
	244.4			80046
	1051.9	Hub		11°38'
	245.0			89.15
	1296.9	Hub		
	184.0			

1480.9 M.C. on Long L.

01454.5	01047.3	00582.6
244.4.5	245.2	184.4-6
581.6	523.5	232.8
581.6	4188	165.6
581.6	2094	582
2908	256315	107088
3.553576		

M.L.



1480.9	2.06000	0014
	14807	
	57930	
	59236	= tan 0°5'
		L=3.55
		R=1.47
		L=2.08

1875	313.5	807.5	L=3.55
0014.5-6	14	14	R=2.56
7560	12540	32300	L=0.99
1875	3135	8075	R=1.82
26250	43890	113050	R=0.83

1051.9	1296.9
14	14
42076	51876
1051.9	1296.9
147766	181566
3.55	99
2.08	0.83

57.58	R=11°30'	N. 69°13' W. to 1/4 Cor.
	R. 67°47'	N. 17°08' W. to N.M.C.
50.610	R. 68°37'	N. 58°45' W. to 1/4 Cor.
	R. 127°41'	N. 4°55' W. to N.M.C.

57908	53003
68137	122042
12145	17855
3715	403

	Dist		N.	S.
N 89°55' W.	118	7.162616	10.000000	
195.7	195.6	2.071832	2.071832	0.2
S 76°07' W	203.3	8.234578	2.071832	
261.1	261.2	9.380118	4.334124	1.9
S 31°56' W	264.7	2.308157	2.308157	40.3
259.9	259.7	1.658350	2.225267	-7.7
S 67°18' W	259.9	9.928736	9.723400	.2
155.4	155.6	2.217804	2.417804	-0.5
S 43°51' W	152.0	2.346540	2.141204	222.1
		4.637148	4.754762	.2
		2.414806	2.417806	-0.2
		2.051954	2.369568	112.7
		2.858029	9.840591	2.7
		2.128273	2.182415	
		2.041044	2.023006	+3.7
		7.938183	4.658009	109.7
		2.233504	2.233504	
S 29°51' W	171.2	2.171689	1.930499	148.4
		9.486467	9.778551	
		2.464639	2.464639	89.3
S 72°09' W	291.5	1.951106	2.443213	
253.0		9.206131	9.994376	40.7
N 80°45' W	254.0	2.403121	2.403121	40.8
		1.603252	2.397437	
		9.585272	9.765195	
		1.814248	1.814248	25.1
S 67°22' W	65.2	1.399520	1.779443	
		9.778119	9.903108	
		2.082756	2.280785	72.6
S 53°08' W	121.0	1.860904	1.985893	
		4.517745	9.752357	
		2.259833	2.259833	59.3
N 70°46' W	181.3	1.777378	2.334890	100.8
				828.7

5^e is 641.3 South and 760.5 West of 5^e

From Sta. 187.5 East of G.M.C. angle

40°08' L = S. 49°57' W 232.3 pin, 845.4 R
1000 pin 1213.3 stake & L. 94°06'

Beal's N. 44°09' W 193' & R. 74° N. 29°31' E

S. 49°57' W & R. 21°27' S 71°24' W 358.6

230.5 & R. 28°48' 100°12' N. 79°48' W

147.8 & L. 79°45' N 0°03' W

1581 & L. 99°18' 99°15' 3.8045 E

S. 72°09' W

S 17°51' E

89°06'

S 71°13' W

28°48'

100°03'

N 79°57' W

79°45' W

N 0°12' W

79°18'

99°06' 80°54'

W.

Lat. Dep

118	+0.2	-118.0	51
7.5			
197.3	-48.6	-315.3	52
.4			
138.4	-270.7	-453.7	53
.1			
234.2	-383.4	-687.9	54
2.6			
105.4	-493.1	-793.3	55
85.2	-641.5	-878.5	56
277.5	-730.8	-1156.0	57
249.7			
250.7	-690.1	-1405.7	58
60.2	-715.2	-1466.9	59
96.8	-787.8	-1562.7	60
171.7	-727.9	-1734.4	54
1734.4			

4.12046° R

N

22.6 to 1370

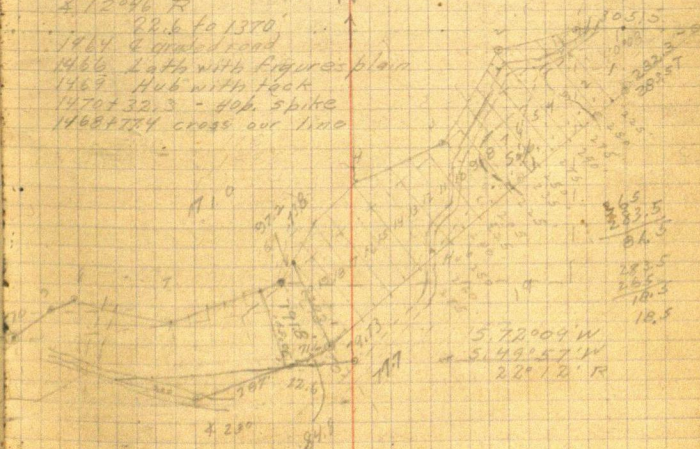
1964 4 graded road

1966 Lat with figures plain

1969 Hub with tack

1970 132.3 - 40p. spike

1968+774 cross our line



5.49°52' W

5.89°55' E

137.47

40°13

U.S.G.I.O.

1/4 Cor.

64568

305.5

32.2849

32.284

1937040

1940591240

76361

3055

381805

381805

3290330

233282853

5.44°09' E

1918.

193

N.49°57' E.

1211.3.

1213.3

N.89°55' W

107.1

107.5

2.842946

2.280578

2.123624

2.081936

3.083968

2.967904

2.855833

2.280578

2.136411

2.080519

3.083968

2.892487

2.162696

2.273001

2.435697

N

5

136.9

138.4

1.5

179.4

780.7

0.3

781.0

779.7

136.9

136.2

644.1

648.8

641.5

1.1

49°57

64346

128693

76548

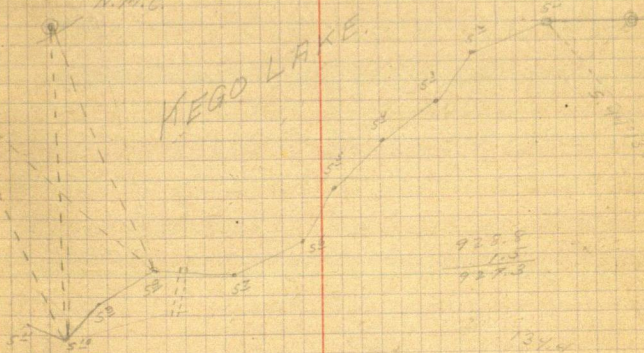
153536

Sec. 23-141-28

U.S.G.I.D.
N.M.C.

U.S.G.I.D.
C.M.C.

KEGO LAKE.



928.8
1.5
927.3

134.4
138.7

927.8
719.7

878.5

W

132.9
134.4
928.8
927.3
187.5
187.5
1061.7
1063.2
187.5
875.7
878.5
2.8

E

132.9
927.3
1060.2
187.5
872.7

780.7
13
799.4

1061.7
187.1
874.6

283.57
850.00
77.7
1211.27

79.73

Comp

49° 57'

64346

76548

193038

229644

64346

76548

64346

76548

128692

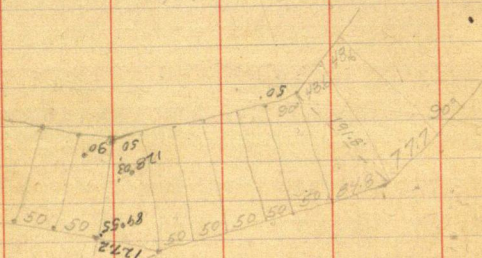
153096

64346

76548

77942309

92732592



76° 00

W

5

76° 07'

7.7

7.47

1.86

32°00

5.

W

31°56

-0.5

0.4

0.2

64°15'

44

5

64° 18'

-0.2

0.2

0.1

43045

5

W

43°51'

+ 3.1

2.7

2.6

$S. 89^{\circ} 55' E.$
 $40^{\circ} 08' L$
 $130^{\circ} 03'$
 $S. 49^{\circ} 57' W$
 $54^{\circ} 06' L$
 $N. 49^{\circ} 09' W$
 74
 $N. 29^{\circ} 51' E.$

$72^{\circ} 09'$
 $72^{\circ} 09'$
 72

$72^{\circ} 09'$
 $S. 49^{\circ} 57' W$
 $72^{\circ} 12'$

7.47	1.86	
.2	.4	
.2	.1	
<hr/>	<hr/>	
7.87	2.36	
2.6	2.6	
<hr/>	<hr/>	
S. 5.27	W. 2	

641.5
 5.3
 646.8

$S. 72^{\circ} 09' W.$

$29^{\circ} 51'$
 74

$N. 80^{\circ} 45' W$
 $79^{\circ} 48'$
 $0^{\circ} 57'$

$N. 79^{\circ} 48' W.$
 $151^{\circ} 57'$
 $28^{\circ} 03'$

$27^{\circ} 06'$
 $0^{\circ} 57'$
 $28^{\circ} 03'$
 $118^{\circ} 03'$

55.7

3

167.1

28.6

195.7

5.76°07'W

5.49°57'W

26°10'

89752-4-1

28.6-7

50.00

25.67

24.33

49°57'

31°56'

18°01'

538512

718016

179504

25.669072

52.6

4

210.4

25.6

25.2

261.2

50.00

23.96

26.04

25.2

93097

252

190194

475485

190194

2396444

26.9

9688

26.04

19376

66640

58128

9688-4

85120

266.5

99434

24.23

198868

434320

397736

365840

24.4

51.6

4

206.4

26.9

26.6

259.9

58128

58128

19376

2577008

50

24.23

99434

306

596604

2983020

30426804

50.0

19.57

93909

19.57

187818

788200

751272

367280

50.3

100.6

24.4

30.6

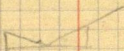
155.6

49°57'

29°51'

20°06'

20.84



$$\begin{array}{r} 20.84 \\ 53.4 \\ \hline 74.24 \end{array}$$

98

Town line Byron-Bocker

135 - 134

TR-32

Aug. 15-1924

Lv. Walker for Longs Tiviks
place in Byron Twp. Laren Polil
goes with me as head chain.

At noon we arr. at Tiviks Not at home.

Go to ^{house} Myking place. Wait an hour
for him. Go to ^{Sec 28} Knottens in Sec. 34 and
have dinner.

Aug. 26-1924

At cross roads S.E. Cor. Sec

Make a chain point by walking

Sta. 0 Chain west along road

18+70' cross Lot #4, Co. Ditch

25+70.7 459.6 Opp. Bean's 1/4 Cor.

52+30.3 Bean's Hub

52+41 N. & S. Fence line

52+62 Line of N. & S. Road

5280

78+36 Opp. Fence Cor. on South

104+83 Line old road

105+60

104+83
73

104+99 Line 24" Culvert

105+17 Fence running North

105+60 105+32 Road running South

130+10 Bridge

-1.5'

732 Temp. 1/4 Cor.

132+60 Bridge

40 158+29.5 " Supposed to be Sec

184+45 Fence line

184+79.9 Hub in C-grade

185+7.5 Fence at end of road

5 105+32.7
 25+70.7
 79+51.3
 263
 25+70.7
 20

1237
6600 ✓
7837

101

36-135-32 no find no corner.
the fence distance.

center, south side of Sec. 36
which runs North to E. B. W. Line of 36

2649
71124+79.9 12634.5 18480

14
44
42
27
24
69

25+70.7
2651.5
52 2.2
53 23.1
105+25.3

184+79.9
25+70.7
159 09.2
53 03.1
2651.5

158+29.5
158+40
10.5

18479.9
2570.7
15909.2
5303.1

2651.5

Cor.

25+70.7
79 54.5
105+25.2

18476
2639.4
2570.7
68.7

104+83
52+46

102

Aug 26

Sta

+5	H.I.	-5	Elev	Bottom of
7.6	107.6	5.1	102.5	0
		5.3	102.3	1 North
		5.6	102.0	3
		5.7	101.9	4
		5.8	101.8	5
		5.9	101.7	6
		5.65	101.95	7 T.P. Center

5.35 107.30

5.1	102.2	8
4.8	102.5	9
5.0	102.3	10
5.3	102.0	11
5.6	101.7	12
5.9	101.4	13
6.7	100.6	14
6.7	100.6	15
6.5	100.8	16
5.9	101.4	Bridge floor
	28.0	Elev. Bottom
	100.2	Elev. water
5.85	101.4	Water opp.

3.4 to bot.

Culvert Assumed elev. 100'

Water 101.85

Elev. bridge floor = 101.4

Water level 100.2

Bottom Creek 98.0

1.2 to water 15+25

Sta. 7 divide

104

Aug. 26

H.1

107.6

Bottom culvert = 100' 00"

6.9 100.7

6.8 100.8 Ditch

6.0 101.6 5 ft 1 south

5.9 101.7 2

4.5 103.1 3

1.5 106.1 4

1.05

107.15

2.3 104.85 5

4.8 102.35 6

6.0 101.15 7

5.6 101.55 8

6.3 100.85 9

101.15

6.0 Ditch Bottom 9 + 30

7.8 99.35 ditch

6.6 100.95 10

6.65 100.50 11

3.7 103.45 12

5.2 101.95 T.P.

101.00

4.6

106.55

5.55 3.5 water 97.5

6.1 100.45 99.65 point about

8.15 98.40 11 11

1.3 T.P. 105.25

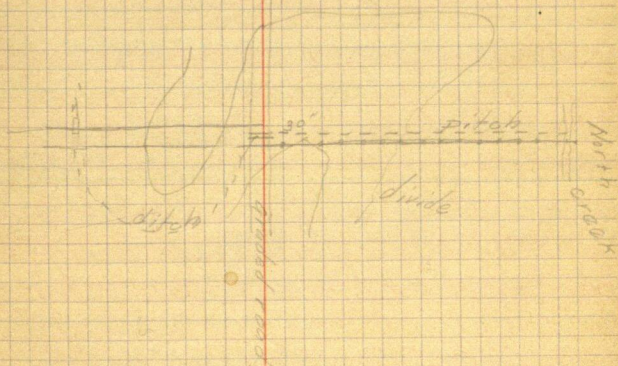
1.7

106.95

7.2 99.75

Wm. Stanner
Jacob Knutson
Kaute Miking

105



100' west Rapid water
250' S.W.

106

$$\begin{array}{r} 2640 \\ 392.8 \\ \hline 3232.8 \end{array}$$

$$\begin{array}{r} 5278.8 \\ 697.2 \\ \hline 5976.0 \end{array}$$

$$\begin{array}{r} 9240 \\ 581.5 \\ \hline 9821.5 \end{array}$$

Set up on hill

about Sta. 30 and kicked into line
between S.W. Cor. 36 and Sta. 52+30.3Line S. 0°W 13.6' from Bean's 1/4 Cor.
grubbed out. No sign of grubbing where

Set hub on line at 2639.4

" " " " 3232.8 offset 3.4

Set " " " " 5278.8 5.1

5230.3

48.5 W. of Bean's Cor.

" " " " 9821.5 - 10.3

Set upon Hub near school house 5976.

Set hub at 7918.2

" " " 10255.6 - 10.8

" " " 10557.6

10517.0

40.6 W. of fence,

At Sta. 105+57.6 X 0°20' R.

" 11616.8 - 5.8'

11.1 at 2 00291

16.6 " 3 5280

19.5 " 3 1/2 2328

1455

2 153648

16.6

22.0

7.68

3

23.04

19.5

23.1

3.1

45.7

404.1

3232.8

5278.8

659.85

5.55

4041

555

20205

20205

20205

2242755

198

262

3.4

107

True West = $S. 88^{\circ} 32' E.$

$$\begin{array}{r} 5. 88^{\circ} 16' L \\ \quad \quad 20' \\ \hline 88^{\circ} 36' \end{array}$$

The claim is made that the B.T.stb's were
stb's are called for. $950 = 4'$

are called for.

$311' = 0^{\circ}10'$

$3.4 \overline{) 1056.8}$

102

36

34

19.45

18475.8

17502

9708

9725

5.8

9.2

3.4

$950 = 4'$

182.5020

$5.8 \overline{) 1056.8}$

58

476

464

118

Hand-drawn sketch of a geological profile. The profile is represented by a dashed line with several points marked. Above the profile, there are several labels: $6.3'$ at the top left, 3.7 at the top center, and $4.9'$ at the top right. Below the profile, there are several labels: $1.5.88^{\circ}36'E$ at the top left, $1.11^{\circ}28'$ and $5.88^{\circ}32'E$ in the middle left, $5.88^{\circ}16'E$ in the middle right, $1.11^{\circ}38'$ and $5.88^{\circ}22'E$ in the bottom right, and $1.11^{\circ}42'$ and $5.88^{\circ}18'E$ at the bottom right. At the bottom left, there is a label $7918.2-$. At the bottom center, there is a label 2639.4 . At the bottom right, there is a label $4000 = 2'$.

$$\sin 0^{\circ} 20' = \frac{7918.2 - 8000}{8000} = -0.010175$$

2639.4

 $4008 = 8$

158364

46.1

184758

633456

5910

4608392

0557.6

10557.6

00233

316728
16728

11152

245992 0 0

$$\sin 0^\circ 10' = 0.029173$$

5170047 00116-8

9182.

712638

138367

23071760

3.61

46.59
46.1

19.45

7) 19.45

$$\frac{19}{54}$$

44

三

2.77 2.77

$$\begin{array}{r} 9 \\ 14.08 \end{array}$$

16.62

B.Ts' at S. 1/4 Cor. Sec. 36

J.P. 6" N. 60° W

J.P. 6" S. 65° E

Time Sheet

	Aug. 25 S.B.B	Aug. 26 B.D.1	Aug. 27	
Greene				8 meals @ L-2
Stammer	1	1		
Pohl	1	1		
				B.D.S
	Sept 10	11	12	13 15
				D.S. B D.D. S B D.D. S
Greene	$\frac{1}{2}$	1	$\frac{3}{4}$	1 $\frac{1}{2}$ $\frac{1}{2}$
Stammer		$\frac{3}{4}$	$\frac{3}{4}$	1 $\frac{1}{2}$
2400				

Byron-Becker Joint Food

$$\begin{array}{r}
 95.1 = 0.04' \\
 11.1 \overline{) 10560} \\
 \underline{999} \\
 570 \\
 \underline{555} \\
 150
 \end{array}$$

$$\begin{array}{r}
 2640 \\
 .00058 = \sin 2' \\
 \underline{2112} \\
 1320 \\
 \underline{143.120}
 \end{array}$$

4L - 10m - 6L - 18m - 6 days -

$$\begin{array}{r}
 0.300 \times 4 = \$12.00 \\
 \underline{6.00} \\
 \$18.00 -
 \end{array}$$

$$\begin{array}{r}
 41.75 \\
 8.00 \\
 24.00 \\
 3.80 \\
 \underline{77.55} \\
 10.50 - \\
 88.05
 \end{array}$$

$$\begin{array}{r}
 43.75 \\
 24.00 \\
 51.00 \\
 3.80 \\
 \underline{72.55} \\
 4 \\
 76.55 \\
 8 \\
 84.55 \\
 8.50 \\
 \underline{85.35} \\
 3.50 \\
 \underline{88.85}
 \end{array}$$

$$\begin{array}{r}
 2 \\
 7 \\
 6 \frac{1}{4} \text{ days} \\
 \underline{42} \\
 1.75 \\
 \underline{41.75} \\
 8.00 \\
 14.80 \\
 \underline{23.80} \\
 2.10
 \end{array}$$

$$\begin{array}{r}
 \$88.46 \quad 12.40 \\
 24.80
 \end{array}$$

Feb. 18-1925

North line Sec. 20-141-26

Greene-Transit

Verne Ohmstead

Frank Mishaw

Peter Frosheland.

N.E. Cor. No B.T.s

Int. of road South and East

16.5' East of post.

Continued road line north side

Sec. 21 for R. Line.

K-W at 5

Tarn 5" S. 50° E 14 - 9.24

" 4" N. 68° W 18 - 11.88

Cor. 17-18-19-20

Tarn 5 S. 47 W. 69

" 5 N. 50 W 67

" 8 S. 89 E 354

Spruce Pine 12" N. 89° E. 419

N.W. B.T - marks on stp. plain.

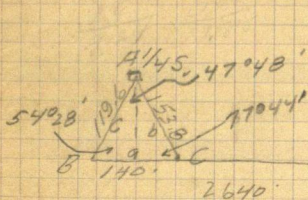
Set stake 11.88' S. 68° E. from stp.

N.W. B.T.s Tarn. 5" N. 35° W. 67'

" 4" S. 15° W. 18'

1/16 Cor Bal. 6" West 2.5 Iron Pin

" 8" S. 35° E. 9.8



$$\begin{array}{r}
 153.8 - 8 - 1 \\
 119.6 - 8 - 1 \\
 9228 \\
 13842 \\
 1538 \\
 1538 \\
 \hline
 18394.48 = 6c
 \end{array}$$

$$\begin{array}{r}
 119.6 \\
 153.8 \\
 140.0 \\
 \hline
 21413.4 \\
 2067 - 5
 \end{array}$$

$$\begin{array}{r}
 206.7 \\
 153.8 \checkmark \\
 42.9 - 5 - 6 \\
 87.1 \\
 429 \\
 3003 \\
 3432
 \end{array}$$

$$\begin{array}{r}
 206.7 \\
 119.6 \\
 87.1 - 5 - 6
 \end{array}$$

$$3736.59 = (3-6)(5-6)$$

$$\begin{array}{r}
 18394.48 \quad 3736.59000 \\
 3678896 \\
 5769400 \\
 5518344 \\
 2510560 \\
 1839448 \\
 \hline
 6711120
 \end{array}$$

$$\begin{array}{r}
 20314 \\
 \sin \frac{1}{2} A = .4053 = 23^{\circ}54' \\
 20314
 \end{array}$$

$$\begin{array}{r}
 800 \quad 4314 \\
 8100 \quad 4025 \\
 28900
 \end{array}$$

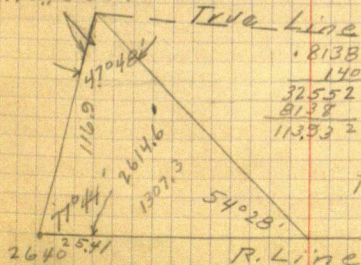
$$47^{\circ}48' = A.$$

$$\begin{array}{r}
 1- 74080 = \sin A \cdot 140 \\
 8 \quad 153.8 \\
 592640 \\
 22224 \\
 37040 \\
 7408 \\
 \hline
 113.935140
 \end{array}$$

$$\begin{array}{r}
 .8138 = \sin B = 54^{\circ}28' \\
 113.93504 \\
 154
 \end{array}$$

$$\begin{array}{r}
 592640 \\
 22224 \\
 37040 \\
 7408 \\
 \hline
 113.935140
 \end{array}$$

$$\begin{array}{r}
 1120 \quad 7408 \quad 113.93 \\
 193 \quad 1408 \\
 140 \quad 39850 \\
 535 \quad 37040 \\
 420 \quad 28100 \\
 1150 \quad 90000 \\
 17044 \\
 \hline
 12016
 \end{array}$$



$$\begin{array}{r}
 .8138 \\
 140 \\
 32552 \\
 8138 \\
 113.9320 \\
 97717 \\
 119.6 \\
 586302 \\
 879453 \\
 97717 \\
 97717 \\
 11626953 \\
 25410216
 \end{array}$$

$$\begin{array}{r}
 113.93 \\
 1408 \\
 39850 \\
 37040 \\
 28100 \\
 90000 \\
 17044 \\
 \hline
 12016
 \end{array}$$

R. Line

91°34'

88°26'

$$\begin{array}{r}
 22.366 \\
 116.3 \overline{) 2614.6} \\
 \underline{2338} \\
 2766 \\
 \underline{2338} \\
 4280 \\
 \underline{3507} \\
 7730 \\
 \underline{7014} \\
 7160
 \end{array}$$

$$\begin{array}{r}
 84^{\circ}55' \\
 88^{\circ}26' \\
 \hline
 173^{\circ}21' \\
 6^{\circ}37'
 \end{array}$$

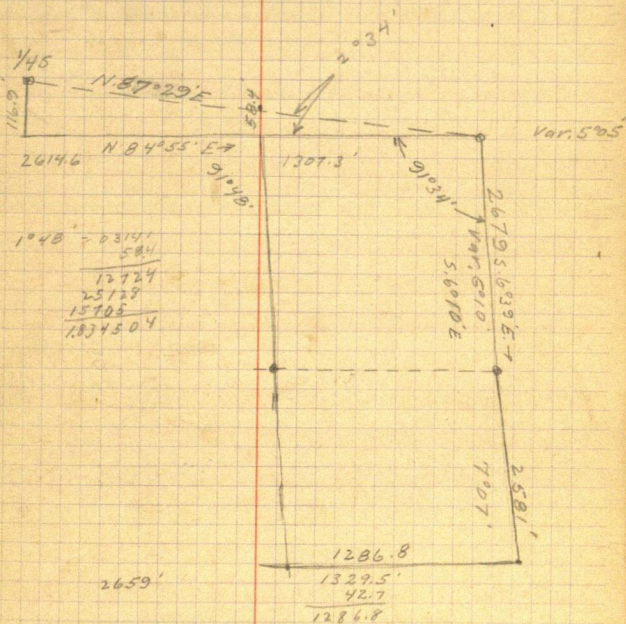
$$\begin{array}{r}
 84^{\circ}55' \\
 2034' \\
 \hline
 87^{\circ}29'
 \end{array}$$

0°57'

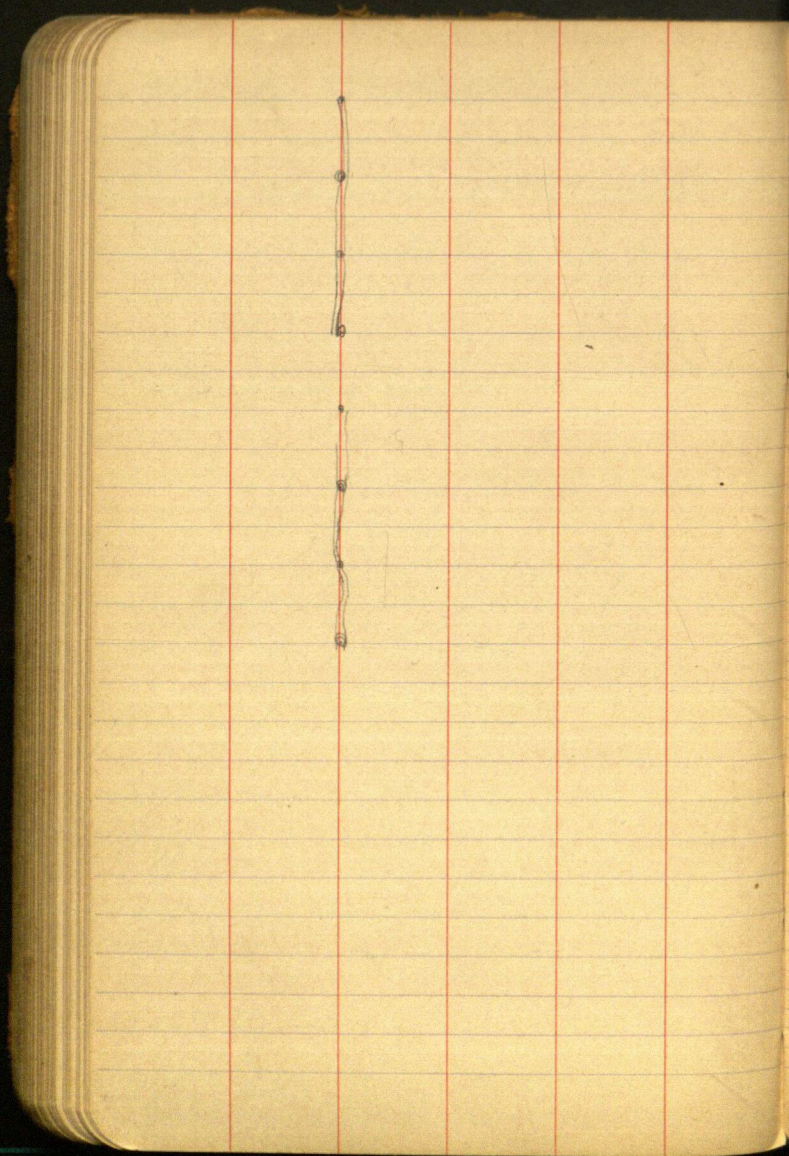
$$\begin{array}{r}
 01658 \\
 \underline{2581} \\
 1658 \\
 13264 \\
 8290 \\
 \underline{3316} \\
 42.79298
 \end{array}$$

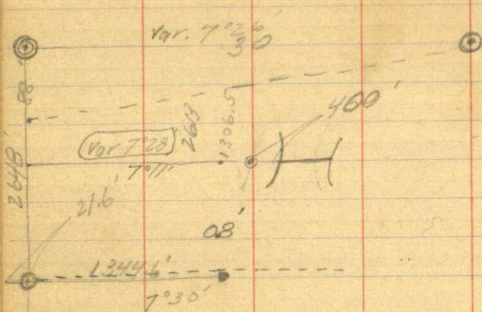
$$\begin{array}{r}
 1307.3 \\
 1286.8 \\
 \hline
 1.5 \quad 20.5 \quad 14'' \\
 \underline{15} \\
 55
 \end{array}$$

$$\begin{array}{r}
 91^{\circ}34' \\
 \underline{14'} \\
 91^{\circ}48'
 \end{array}$$



J. M. Greene





$$\begin{array}{r}
 1324 \\
 1306.5 \\
 \hline
 18
 \end{array}$$

33
108
21.75

27.12
32.97

60.09

$$1056.8 : 5280 :$$

$$\underline{1056.8}$$

$$4223.2$$

$$5280 : 4223.2 : 9.6 : X$$

$$9.6$$

$$\underline{253392}$$

$$380088$$

$$528 \quad \underline{4054272} \quad 7.7'$$

$$\underline{3696}$$

$$3582$$

$$7.7 + 1.5 = 9.2$$

$$1.9$$

$$11.1$$

$$\underline{1.9}$$

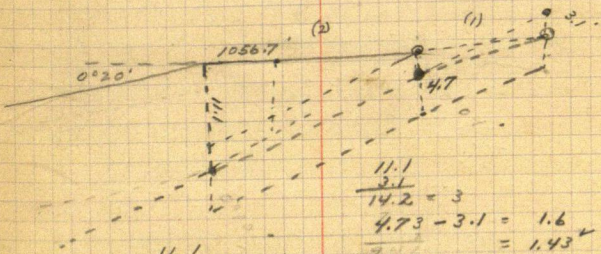
$$\underline{\underline{9.2}}$$

$$\frac{5976}{10560} = \frac{x}{11.1}$$

$$\begin{array}{r} 5976 \\ 5976 \\ 1056 \overline{) 663336} \quad 6.28 \quad 6.3' \\ \underline{6336} \\ 2973 \\ \underline{2112} \\ 8616 \end{array}$$

$$\begin{array}{r} 9821.5 \\ 98215 \\ 98215 \\ 1056 \overline{) 10901865} \quad 10.3 \\ \underline{1056} \\ 3418 \end{array}$$

$$\begin{array}{r} 102556 \\ 102556 \\ 102556 \\ 1056 \overline{) 11383716} \quad 10.8 \\ \underline{1056} \\ 8237 \\ \underline{8448} \end{array}$$



$$\begin{array}{r} 11.1 \\ 3.1 \\ \hline 14.2 = 3 \\ 4.73 - 3.1 = 1.6 \\ \hline = 1.43 \leftarrow 1.5 \end{array}$$

$$\begin{array}{r} 11.1 \\ 1.43 \\ 1.5 \overline{) 9.67} \quad 6.4 \\ \underline{9.0} \\ 67 \end{array}$$

180

59-44

120-16'

J.P. 10 N 60° W 24.85'

J.P. 7 S 10° W 30.

V. 11° 28'

V. 11° 29'

V. 11° 38'

V. 11° 42'

20' R.

First National Bank of St. Louis