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Region west of Iron River, Michigan: [specimens] 15263-15292. No. 104 1890

King, F. P.

[s.l.]: [s.n.], 1890

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U. S. GEOLOGICAL SURVEY
FIELD SECTION BOOK

No 104

August and September, 1890

Region west of Iron River,
Mich.

J. P. King

15263-15292.

SURVEY OF THE PRE-CAMBRIAN ROCKS OF THE N.W. STATES.

INSTRUCTIONS.

1. Ordinarily at least two pages of this book will be devoted to one section. On the left hand page place a map of as much of the section as has *actually been seen*. Denote rivers, lakes, marshes, etc., by the usual topographical signs. Denote the ledges of rock, when no structure is made out, by cross-hatching, making the cross-hatching cover as nearly as possible the areas occupied by the exposures. If the rock is a massive one, but still more or less plainly bedded, use the same sign with a dip arrow and figure attached, showing the amount and inclination of the dip. Denote slaty or other very plainly bedded rocks by lines running in the direction of the strike, with figures and a dip arrow attached as before. In all cases where there is the least doubt about the true bedding directions, indicate it by a query. To each exposure on the face of the map attach the number of the specimen representing it. In mapping the section count each of the spaces between the blue lines as 100 paces, and twenty of these spaces as one mile, or 2,000 paces. Usually the southeast corner will be placed at the bottom of the page, or at the first black line above the bottom of the page, and at the right hand side. If, however, for any reason, it is desirable to show portions of an adjoining section, the southeast corner may be shifted up, or the map may be turned around and the north placed at the left hand side of the page.

2. On the right hand page place the notes descriptive of the exposures. Begin in each case with the number of the specimen, placing the number on the left hand side of the red line, after which give in order on the right of the same red line the position of the ledges as reckoned in paces from the southeast corner of the section, and the dip and strike when observable, for instance: 4025 250 N., 300 W., *Strike, N. 6° E., Dip, 50° E.* Then follow with as full a description of the ledge as possible.

3. The ruling of the left hand page is also arranged so that a smaller scale can be used. Each one of the black lines may represent a section line and the red lines quarter sections and "forties." The scale of the maps may thus be reduced, if desirable, to two inches to the mile (the ordinary town plat scale.)

4. Collect a specimen from each separate ledge of rock, or wherever there is a change of rock on any one ledge. In case of trips made on foot or in canoes, for long distances, neighboring ledges, unquestionably of one kind of rock, need not be sampled, the position and extent of the ledge being marked on the map, with a note that it is of a rock identical with specimen so-and-so. Under the same conditions small sized samples, trimmed to a uniform size of $2 \times 2\frac{1}{2} \times \frac{3}{4}$ inches will be allowed, but in all other cases *large sized specimens*, trimmed to a size of $3 \times 4 \times 1$ inches, must be selected, in accordance with § 3, chapter IV, p. 44, Regulations of the U. S. Geological Survey. In all cases collect chips for slicing. All specimens are to have numbers painted on them, in white on a black background, in the field.

5. On the last twenty-five pages of the book give, as may seem desirable, a general account of the examination of the region mapped in the previous pages, correlation of observations, sketches, cross sections, etc., etc.

15263 - 15292

Book 104

Region

West of Iowa River, Mich

Aug - Sept 1890

F. P. King

Specimens 15263 - 15292

Book II.

Maps 1-

Town

Range

41

12-13-14 E

42

12 E 37-36 W

43

38-37-36 W.

44

36-35 W

45

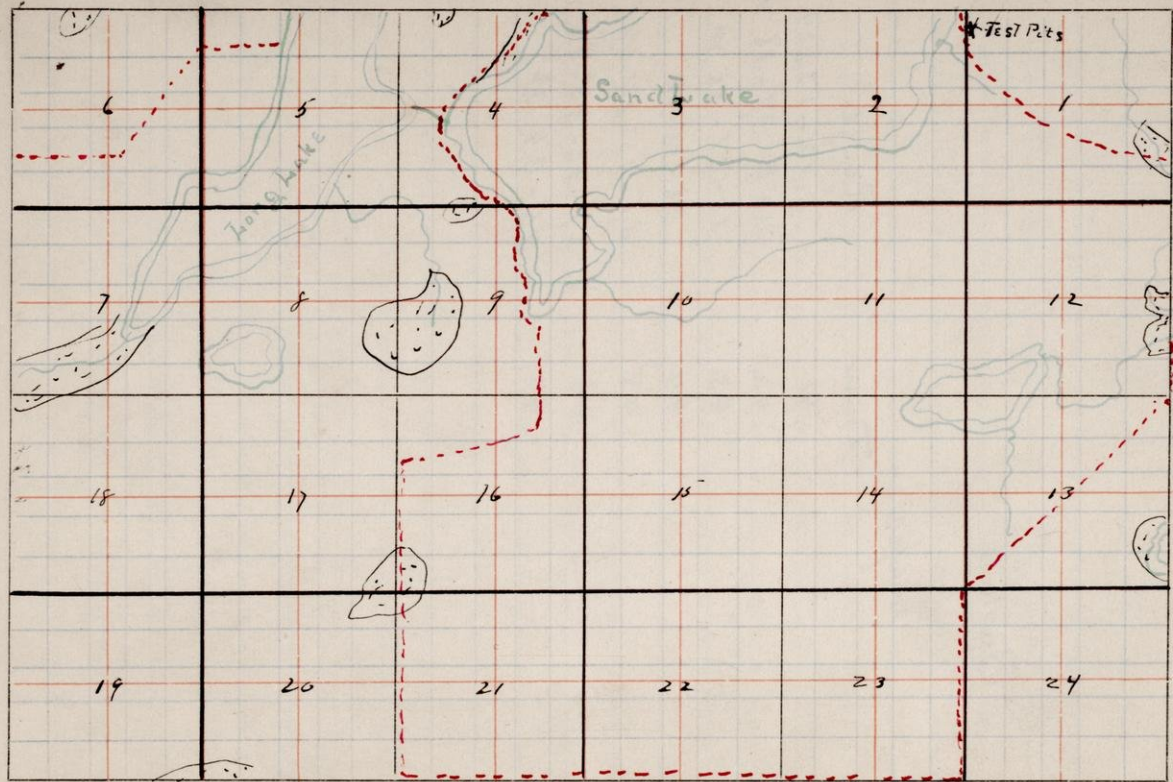
36-35-34 W

46

37-36-35-34 W

47

35-34 W.



R. 12E

1
Run into R 38 W to south-
west corner of Sec 12 T43 R38 W
East $\frac{3}{4}$ mile tamarack
swamp

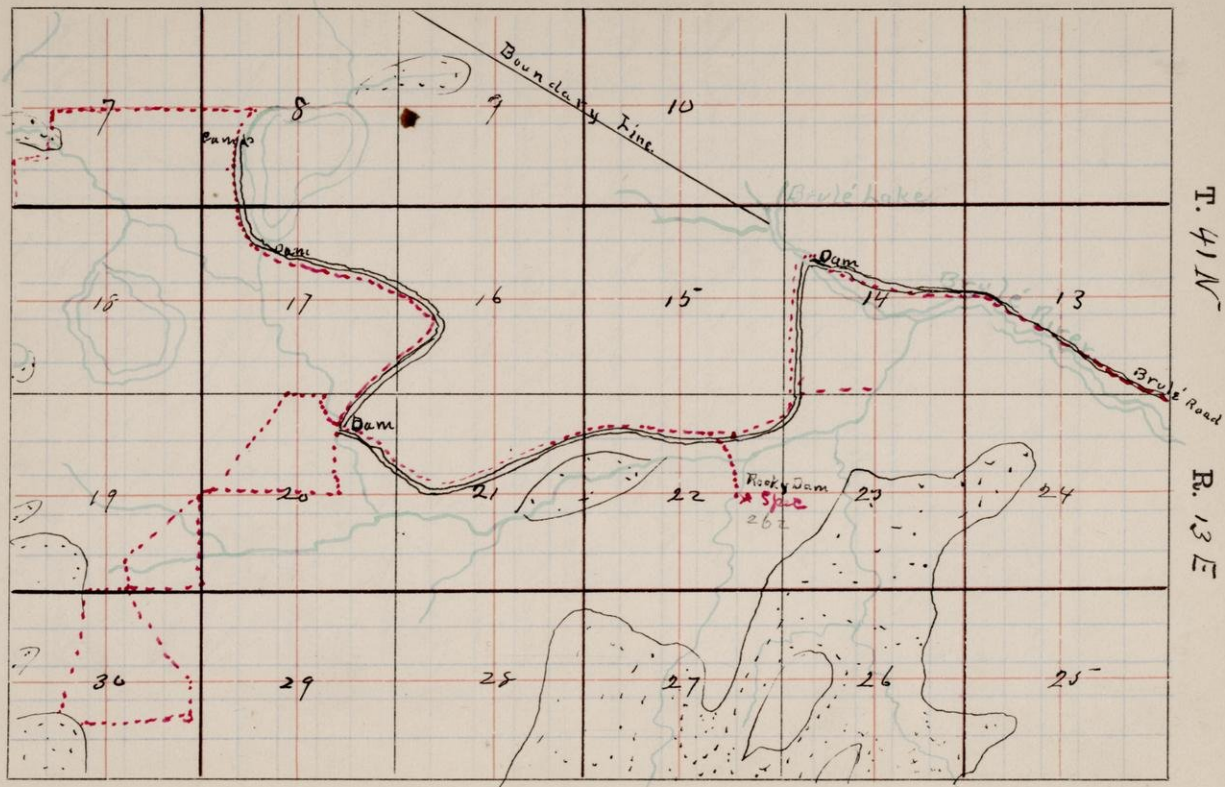
Run north to north west
corner of Sec 12 T43 R38 W

First quarter swamp
next two " rough and
broken country and last
quarter high level country
with hard wood growth.

Having met an Indian
trail about 300 paces
south of north west corner
of Sec 12 T43 R38 W we run
south west and picking
it up went to "Gue
Vieux Desert"

Country high and fairly
level with hard wood growth

Run back from lake on
trail to west line of Sec
10 T43 R38 W and run south



T. 41 N

R. 13 E

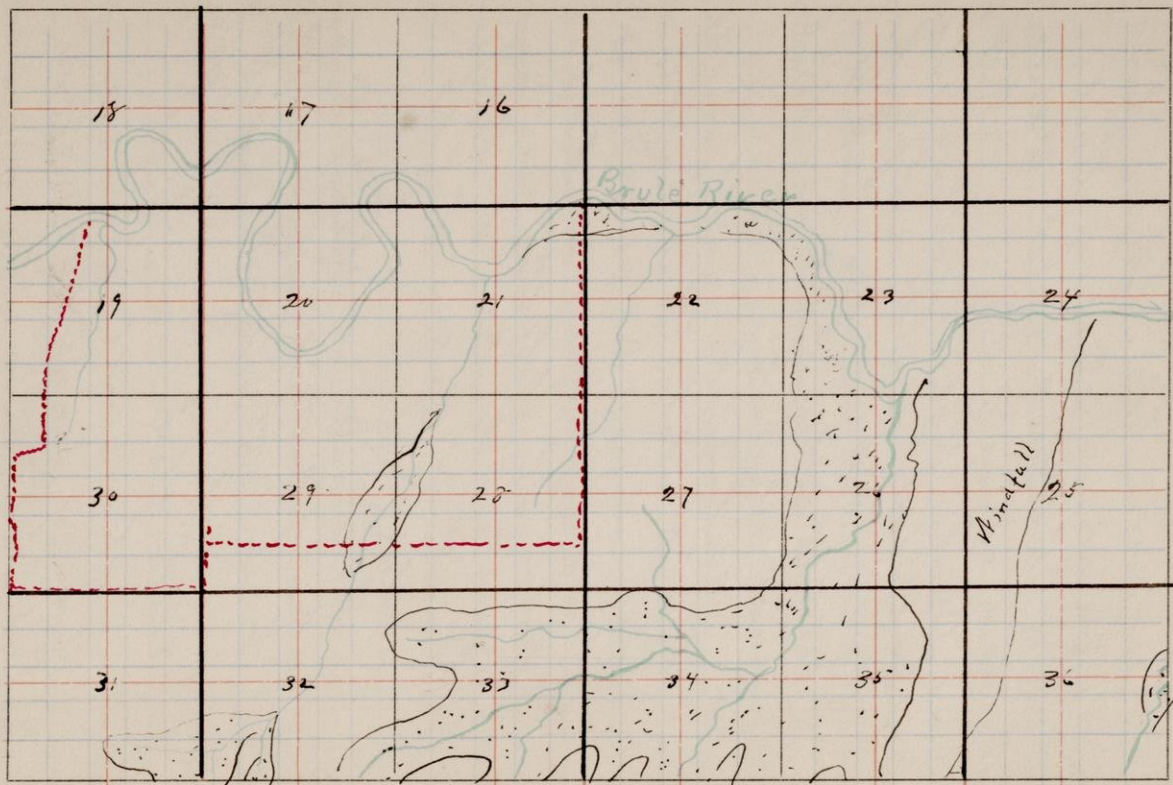
on section line to 114 post
200 steps. South of trail.

Continued south to south-
west corner of Sec 10 T43 R38 W
Country high & rolling with
hard wood growth except for
200 or 800 steps - north of
corner where it was low
and swampy.

Continued south on this
line to State Line at south-
west corner of Sec 15 T43 R38 W.
Ridge marked as trap-
ledge on platte is - as
far as could be learned
nothing but a boulder
ridge.

The river or stream is -
also platted incorrectly
being 100 steps north of
meandering corner of
State Line.

The south west meandering
corner of Sec 15 T43 R38 W
at State Line is, on north



T. 41 N.

R. 14 E

Side of a high ridge

Running East and west
over this ridge is a large
wind-fall.

Entered Wisconsin. Found
that the north and south
line between Secs 15 + 16 T43
R38 it joins the west Range
line of T42 R12 E (This
is contrary to gov. plat).

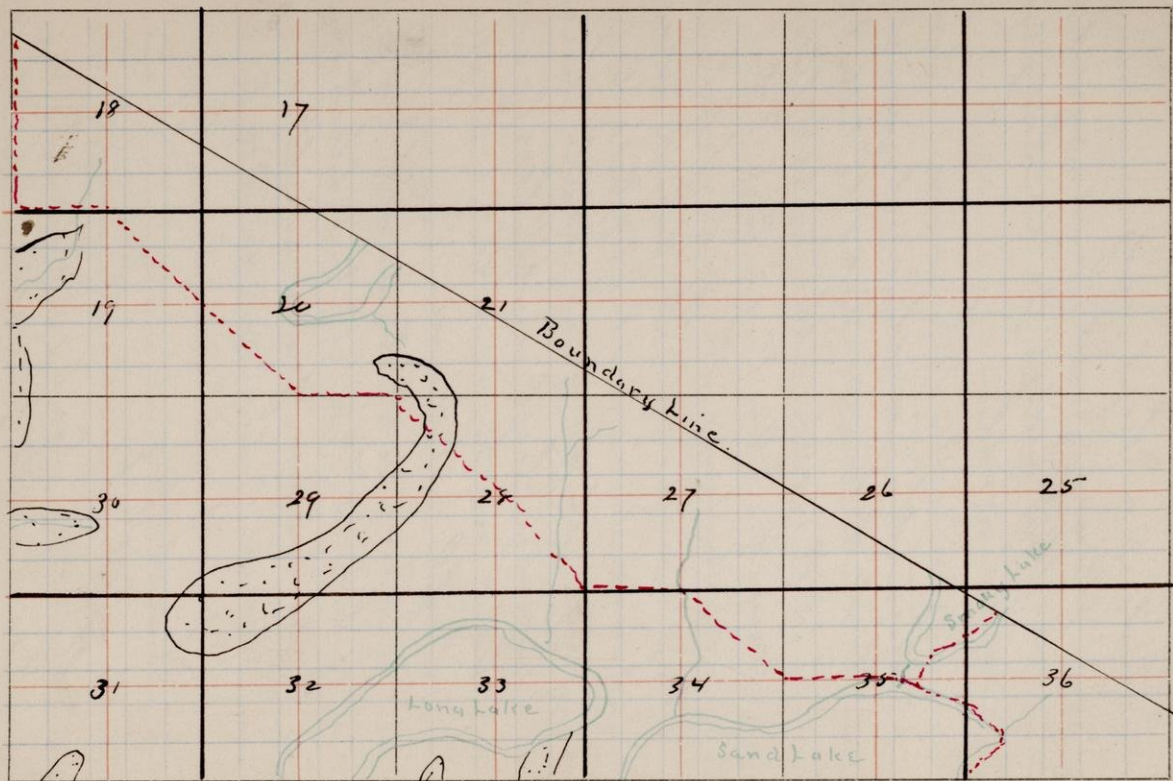
Run south to south-west
corner of Sec 18 T42 R12 E
1650 steps from State Line
Country high and level with
hard wood growth - high
hill at corner.

Run east to south $\frac{1}{4}$ post
of Sec 18 T42 R12 E. Stream
400 paces from south west
corner of Sec 18 T42 R12 E.
Spring water. Country
swampy.

Cut a cornered south east
through Secs 19 + 20 T42
R12 E to south $\frac{1}{4}$ post of

T. 42 N

R. 12 E



Sec 20 T42 R12 E.

County broken - mixed timber
Run east to south east
corner of Sec 20 T42 R12 E -
County level - hard wood
growth.

Cut a corner Sec 28
T42 R12 E to its south-east
corner

Swamp platted in Sec
28 is an open Spruce.
Stream small with boulder
bottom

County for remaining
distance fine stretch of
hard wood - very level and
fine travelling.

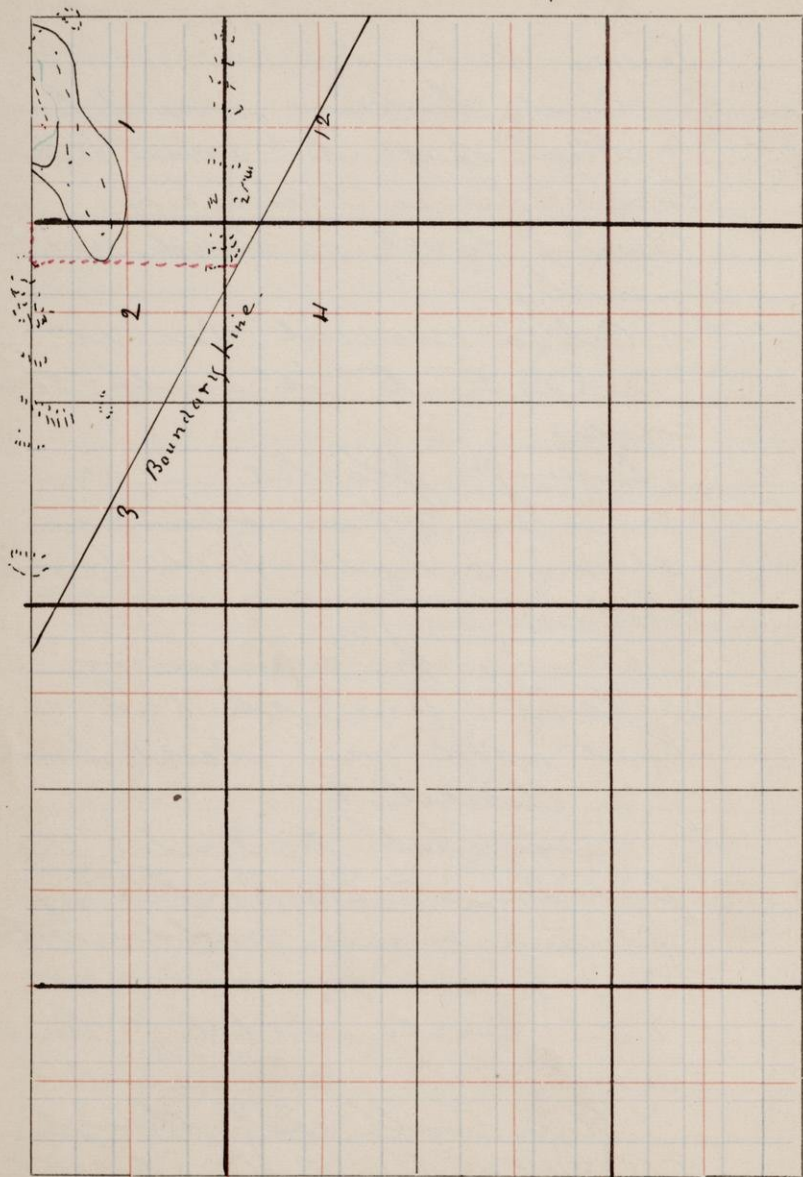
Run east to South 1/4
pt Sec 27 T42 R12 E.

Stream small boulder bottom.
County same as Sec 28
fine level stretch of hard
wood.

Run south-east through
Sec 34 T42 R12 E. County same

T. 42 N.

R. 37 W.



Run east to lake "Sawd Lake"
on 11/4 line of Sec 35.

Country broken but hard
wood growth continuing.
Traveled the lake to its
north-east corner and
camped.

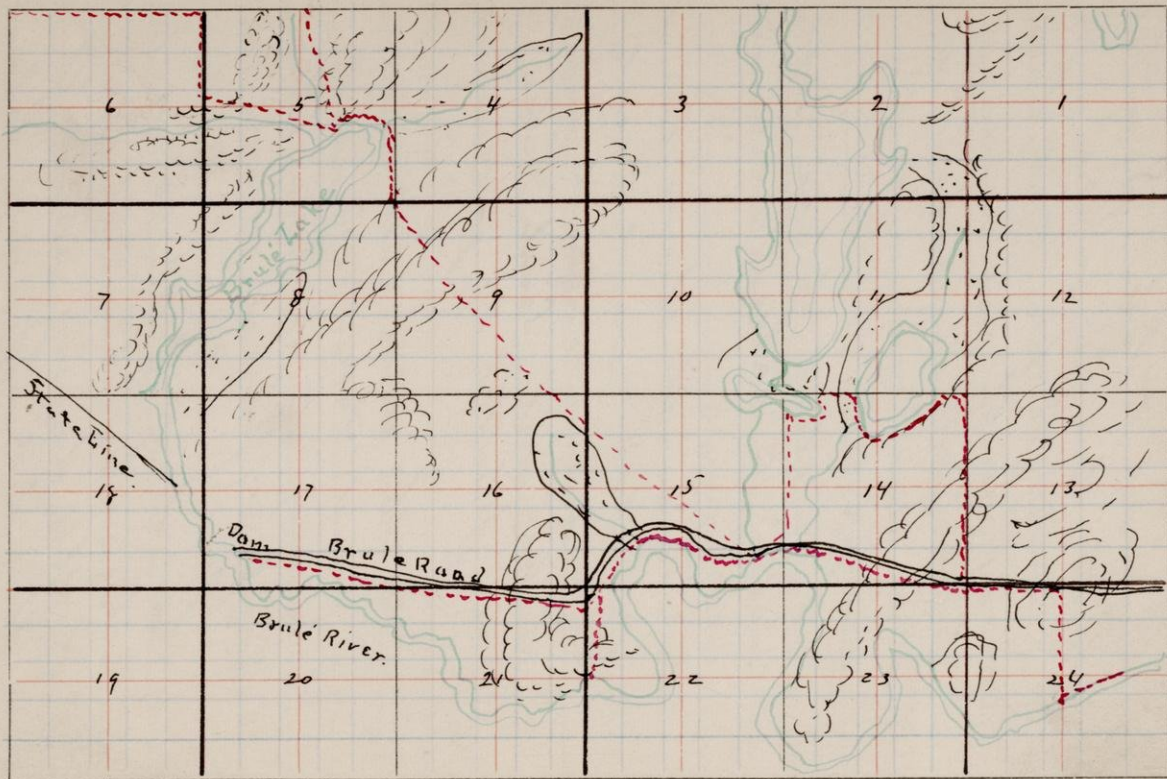
For a short piece after
coming to lake we encountered
a swamp.

The north shore consists
of a fine sand beach.
No stream connects "Smoky
Lake" with "Sawd Lake"
as plotted by government.

At the north east corner
of Sawd Lake on road
running to it from the
south a placer has sunk
wells one of which must
have been full 75 ft to
the water level. The result
of this digging shows that
they did not reach below

T. 42 N.

R. 36 W.



The glacial drift

Taking old Indian trail
to Bull Lake we run as
far east as Sec 8 T41 R13E

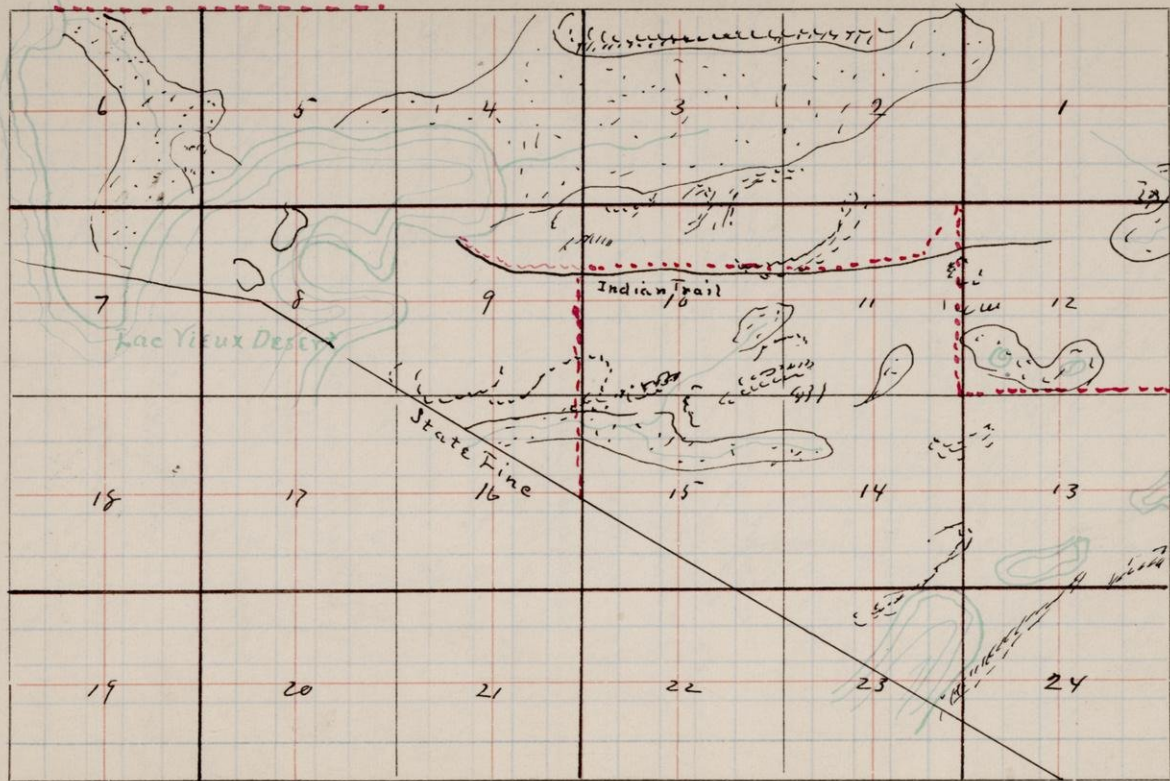
Leaving trail here we
run north east and picked
up north east corner of Sec
8 T41 R13E

High undulating country
with hard wood growth.
Scattering pine. Logging
in Sec 8 T41 R13E.

Run north 2400 slips
and finding east and
west line run east to
south west corner of Sec 36
T43 R37 N

Run north to north west
corner of Sec 36 T43 R37 N.
Country hilly with hard
wood growth.

Run east to north east
corner of Sec 36 T43 R37 N
Country to river hilly with
hard wood growth, meadows



T. 43N

R. 38W.

and plus tamarack swamp.
at river. River has soft muddy
bottom.

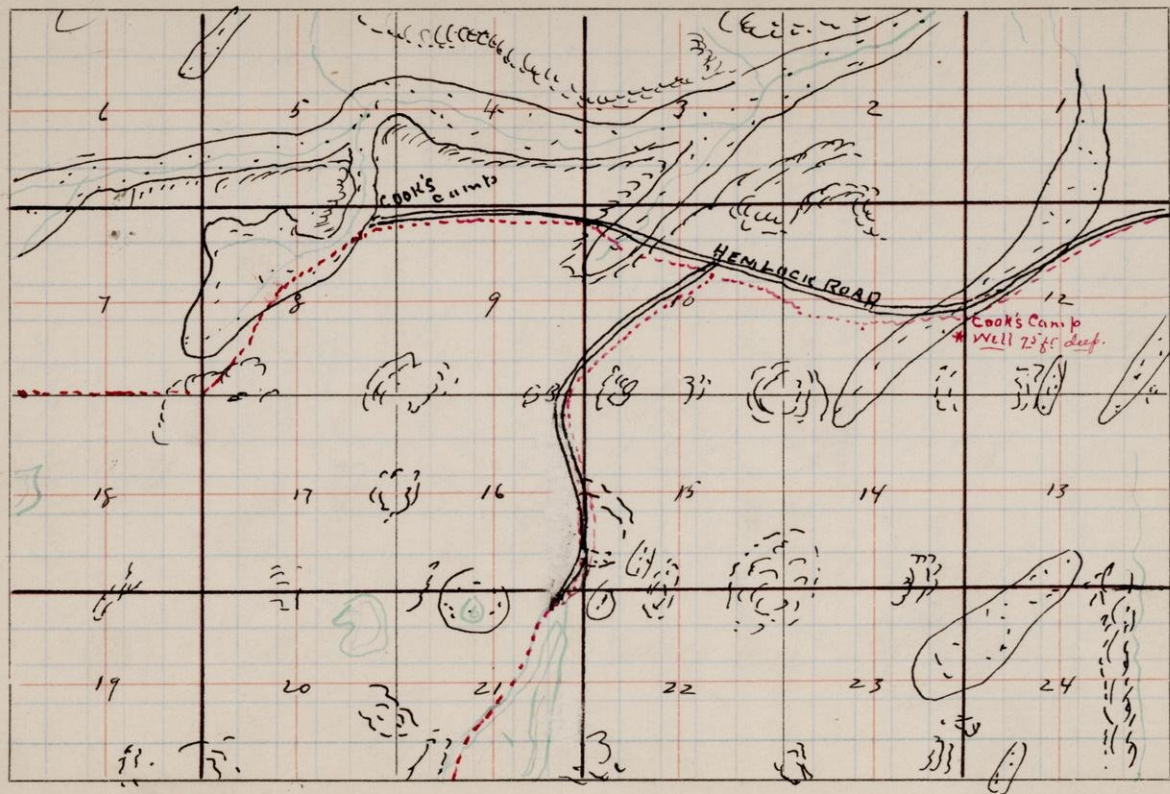
Beyond river country again
becomes high and generally
level.

Ran east to north east
corner of Sec 31 T43 R36 N
on trail - Country same as
preceding.

From this corner we ran
south east to dam and
Beechwood road in Sec
32 T41 R36 N.

Wednesday Aug 13 1890
Turned to Beechwood.

Left Oley in charge of
party and started for
Goose Lake Park to
make report of progress
in work and receive
further instructions from
Dr. Bayley.



T. 43 N.

R. 37 W.

Oley's Report

Thursday Aug 14/1896

See map
opposite
p. 11

Started from Sec 36 T44 R36 W
near the west $\frac{1}{4}$ part of this
section and ran north on
trail (homesteaders trail) starting
in from Chicago and North-
western R.R. to north line
of Sec 36 T44 R36 W about
100 paces east of north-west
corner.

Continued north to north-
line of Sec 25 T44 R36 W to
supply road 250 paces
east of its north-west corner.

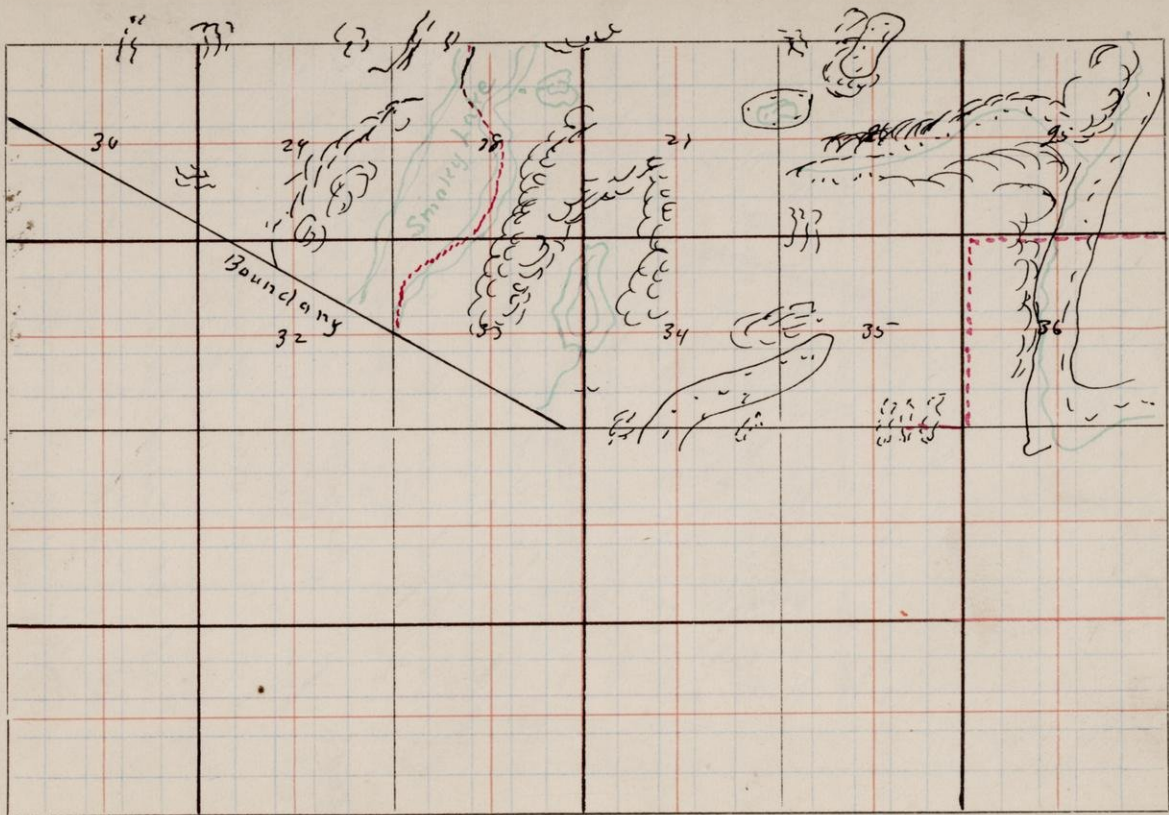
Spec
15263

Spec # 15263 was taken
from an outcrop 600 steps
south of the north-west corner
of Sec 25 T44 R36 W. Strike
about East and west.

It consists of a ledge of
cherty schist.

T. 43 N.

R. 37 W.



Spec
15264

A little north of this
outcrop took Spec 15264

This is also Chloritic Schist
Strike west 20° South.

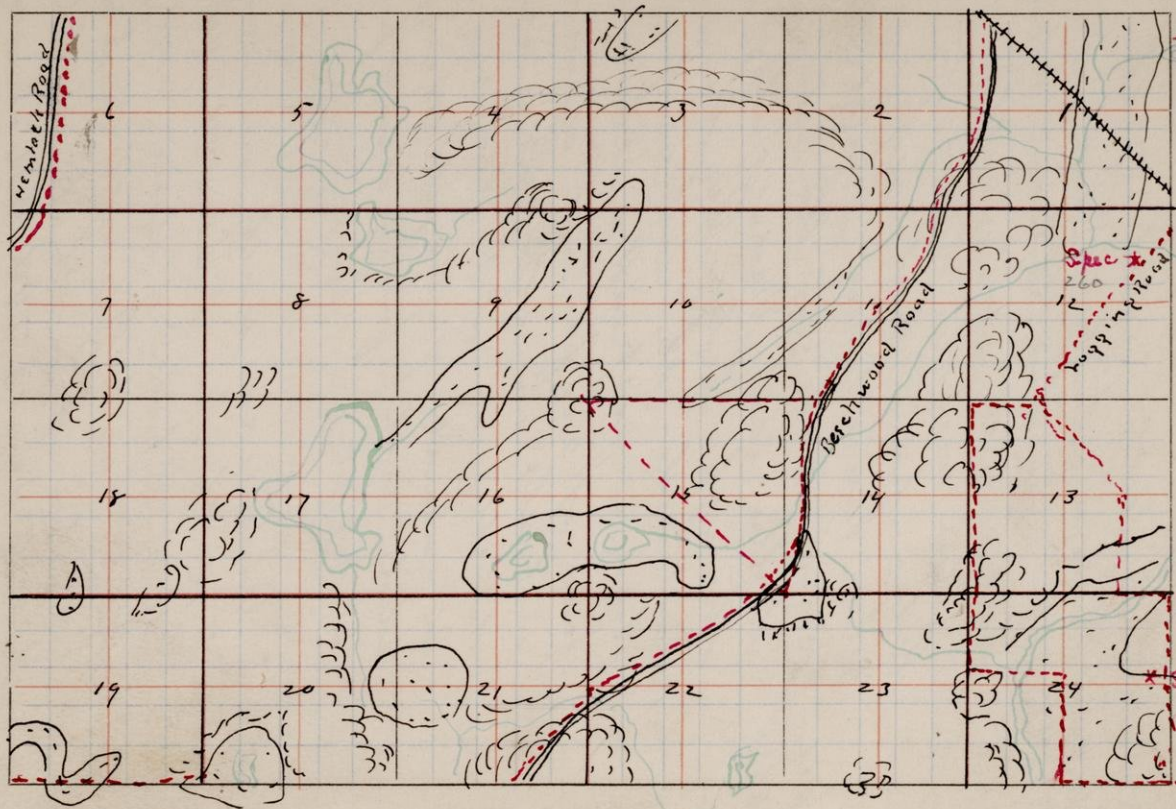
Run west to corner to
ledge from which spec
15265 was taken. Find this

Spec
15265

corner to be in the river
to the east. River cuts
through ledge. On the
east side the outcrop
shows a perpendicular
face of 20 ft. A dam
is built on upper side
directly against ledge.
It consists of argillaceous
slate with finely developed
cleavage

Continued north on road
to north line of Sec 24 T44
R36 W striking line 100
steps west of north 14 feet

Continued north to north
line of Sec 13 T44 R36 W 80



*Spec
259

T. 43 N.

R. 36 W.

*Spec *
260
Dorchwood Road

*Spec
261

paces west of north $1\frac{1}{4}$ post
Found ledge of

Spec
15266

Spec 15266 600 paces south
300 west of north $1\frac{1}{4}$ post
of Sec 13 T44 R36.

This is a homesteader's
gold mine. He reports his
last bit as sunk 49 ft.

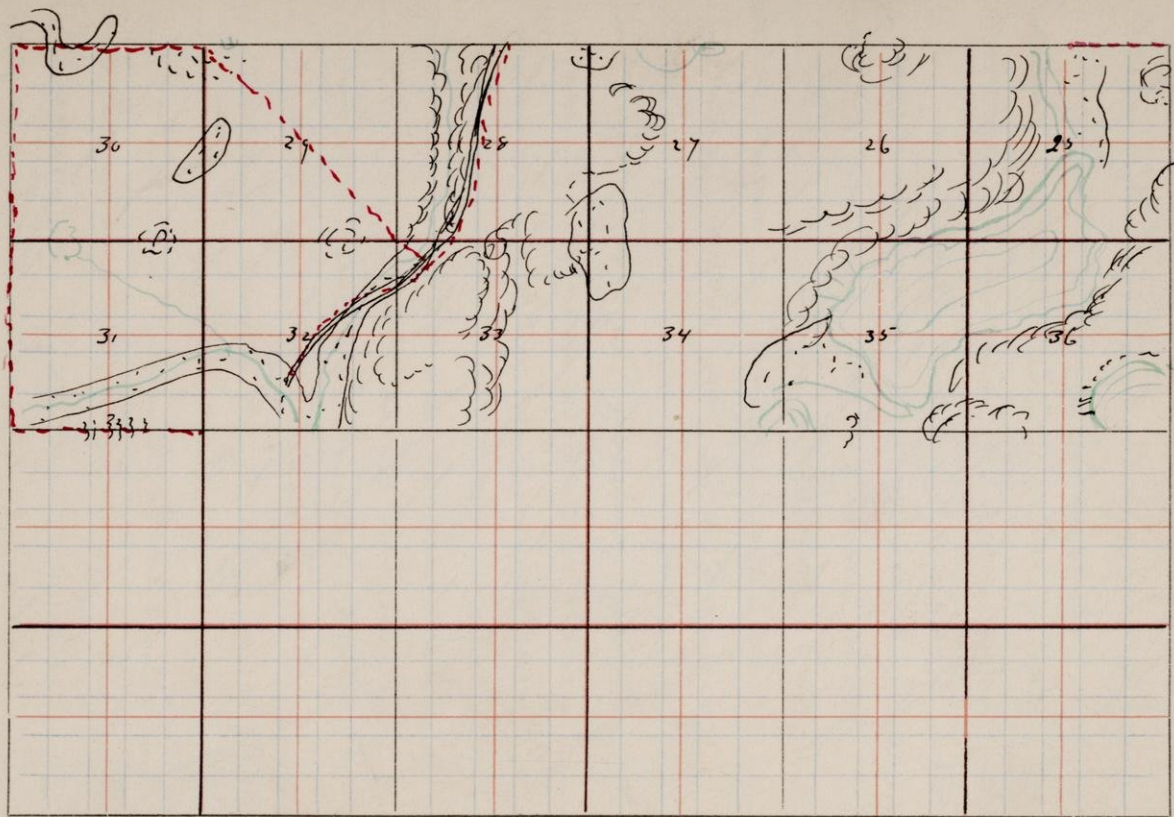
The same kind of rock appears
in outcrop on west side
of mine.

It consists of a black
slate with quartz veins.
The slate is very hard

Continued north on road
to north line of Sec 12 T44
R36 striking line about

Spec
15267

400 paces west of north-
 $1\frac{1}{4}$ post. Found Spec 15267
on this line at point-
crossed. It is a very high
hump shaped outcrop and
is made up of a hornblende
slate with fair cleavage.



T. 43N.

R. 36W.

Continued north to point
near north west corner of
Sec 36 T44 R36 where we
camped. Dism at camping
place.

Country passed over today
rolling and covered
with old crop stubs.

Aug 15 1891

Run north on same road
to point near north west
corner of Sec 36 T45 R36.

Run east on another road
1700 paces to river.

Followed stream up for
a half mile and back.

Then along bank down
stream to point near East
1/4 part of Sec 36 T45 R36

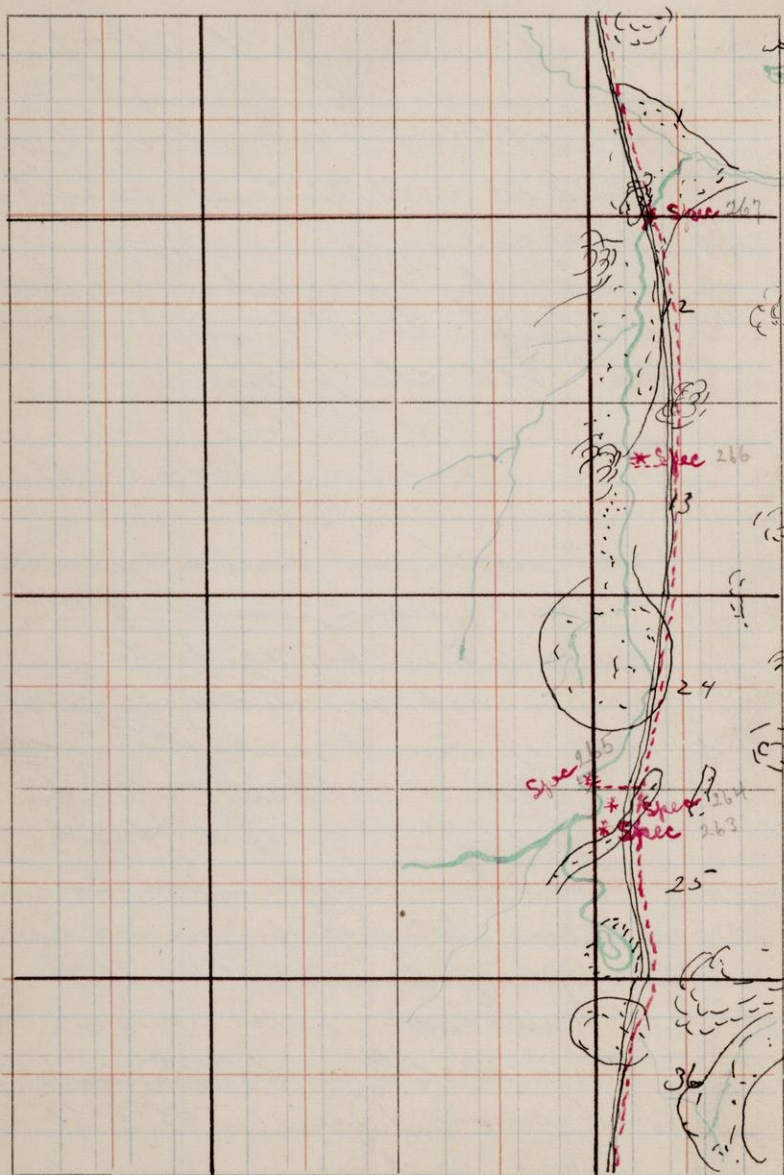
Run east 1000 steps.

Run north east to north-
east corner of Sec 31 T45 R35 W

Run east on a road keeping

T. 44 N

R. 36 W.



very near section line. Striking
east line of Sec 29 about
150 steps north of the south-
east corner of Sec 29 T45 R35 W

Here came up on another
road and run ^{north} south on
this. to north line of Sec 28
T45 R35 W striking line
250 steps. east of north-
west corner of Sec ²⁸ 25 T45 R35 W

Continued north in this
road 350 steps. and
camped.

In the afternoon we went
back on road to north line
of Sec 28 T45 R35 W.

Run west to north-west
corner of Sec 28 T45 R35 W.

Continued west 400 steps-
to ledge from which spec.
15268 was taken.

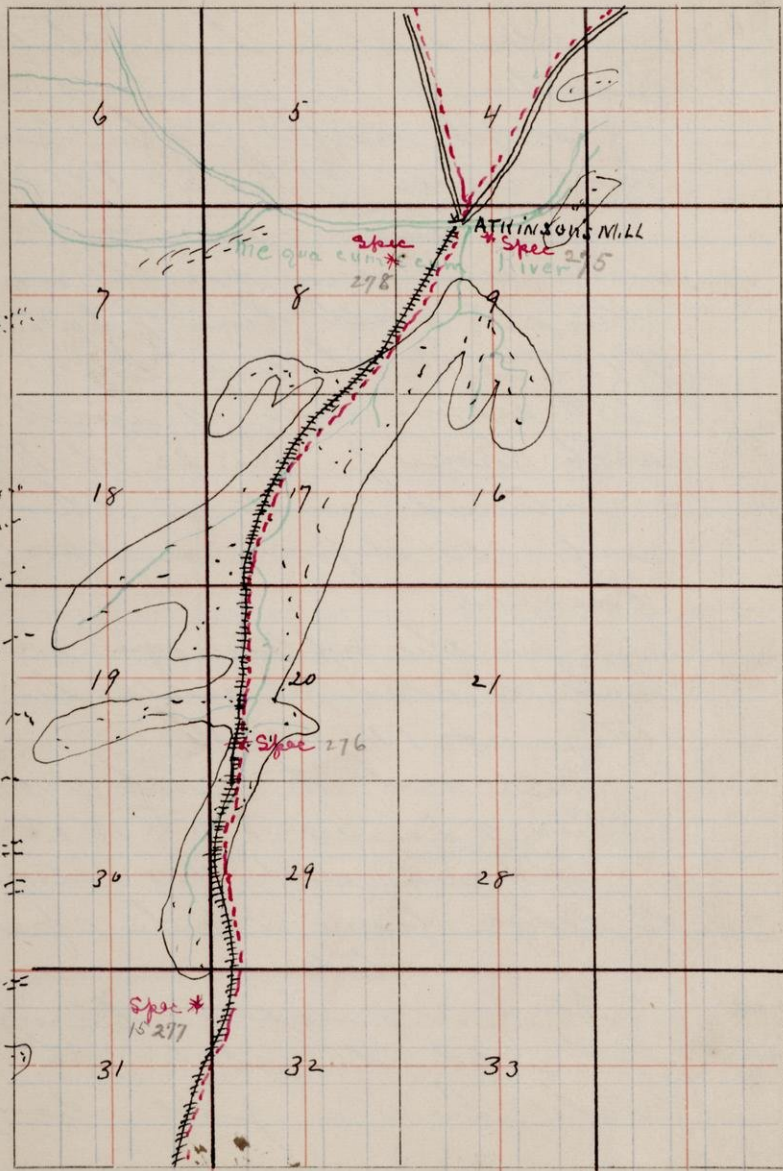
Spec
15268

It is a small outcrop
of hornblende slate. This
slate has a good cleavage.

pretty hard to follow.
Used a barometer.

T. 44 N.

R. 35 W.



Continued west to north west
corner of Sec 29 T45 R35 W.

300 steps. West of above
corner look Spec 15269

Spec
15269

This outcrop forms a
high hill.

Rock of same character
as Spec 15268 although
the cleavage does not
seem to so well developed.

Run back to corner of 29
300 ^{steps}

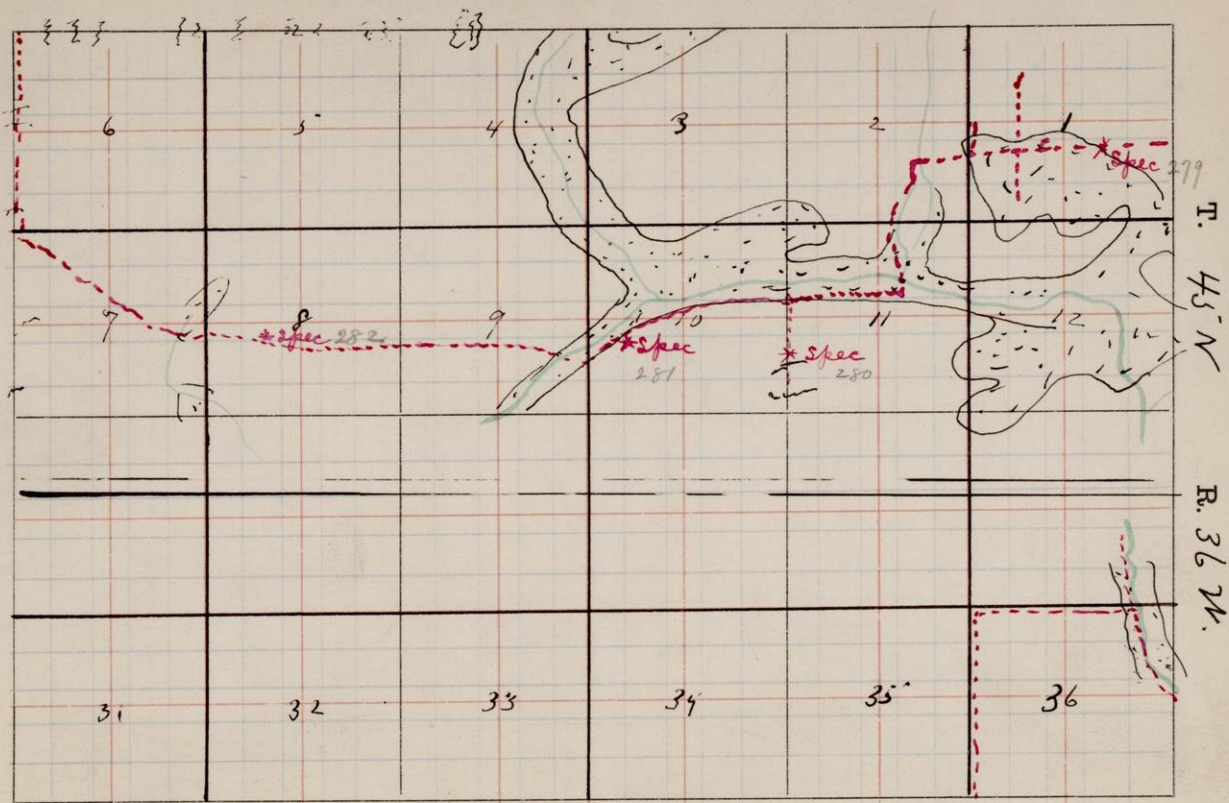
Run in a north-east course
from the north west corner
of Sec 29 T45 R35 W, 2400
steps.

Run north to ledge on
north line of Sec 20 T45 R35 W

This outcrop from which
spec 15270 was taken is

Spec
15270

300 paces west of the
north east corner of Sec 20
T45 R35 W. The specimen
is a humblende slate with



a good cleavage.

The outcrop forms a high hill well covered with vegetation and only shows a few grasses.

Strike west, 20° south.

Run back to north east corner of Sec 20.

Continued east 300 steps to supply road.

Run south on this road to a ledge 750 steps south and 300 east of the north west corner of Sec 21 T45 R35 N

Spec
15271

This ledge has become exposed by the wearing away of the road.

Took from this outcrop Spec 15271. It resembles a very fine grained diabase.

Run south on road 900 steps to camp.

Today's trip has been over a rolling country

through burnt clippings - very
rough.

Aug 16 1890

Run south from camp to
south line of Sec 21 T45 R35N
200 paces east of the south
west corner of Sec 21 then
east on section line to
the south east corner of
Sec 21 T45 R35.

Continued east to south
east corner of Sec 22 T45 R35 N.
Then run south 300 steps.
to ledge from which I
took Spec 15272.

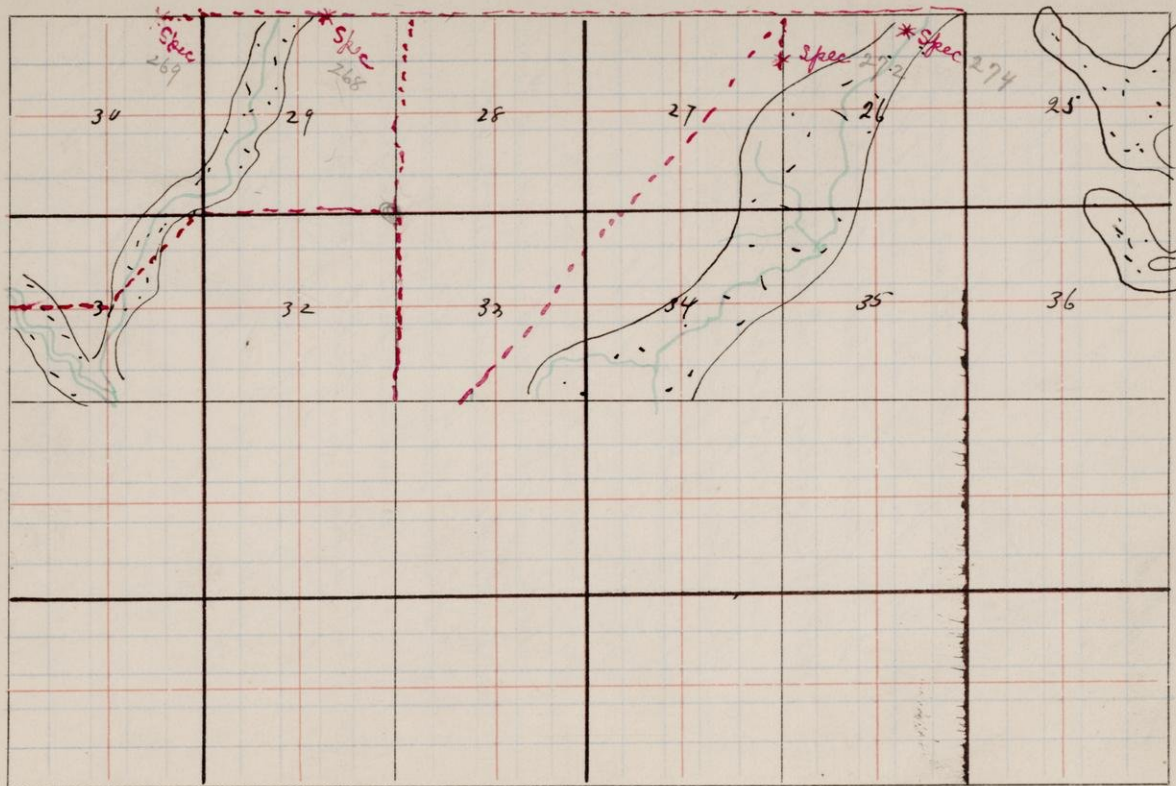
Spec
15272 A small outcrop on
west side of hill about 10
paces east of line.

The rock is a humblende
slate - good cleavage.

Run back to the south
east corner of Sec 22 T45 R35N
Run east 400 steps to supply

#15269

#15268



road.

Continued east on supply road running on section line to an outcrop from which took Spec 15273.

spec 15273 This outcrop is on section line 900 steps west of the South west corner of Sec 23 T45 R35 W. Section line passes over outcrop.

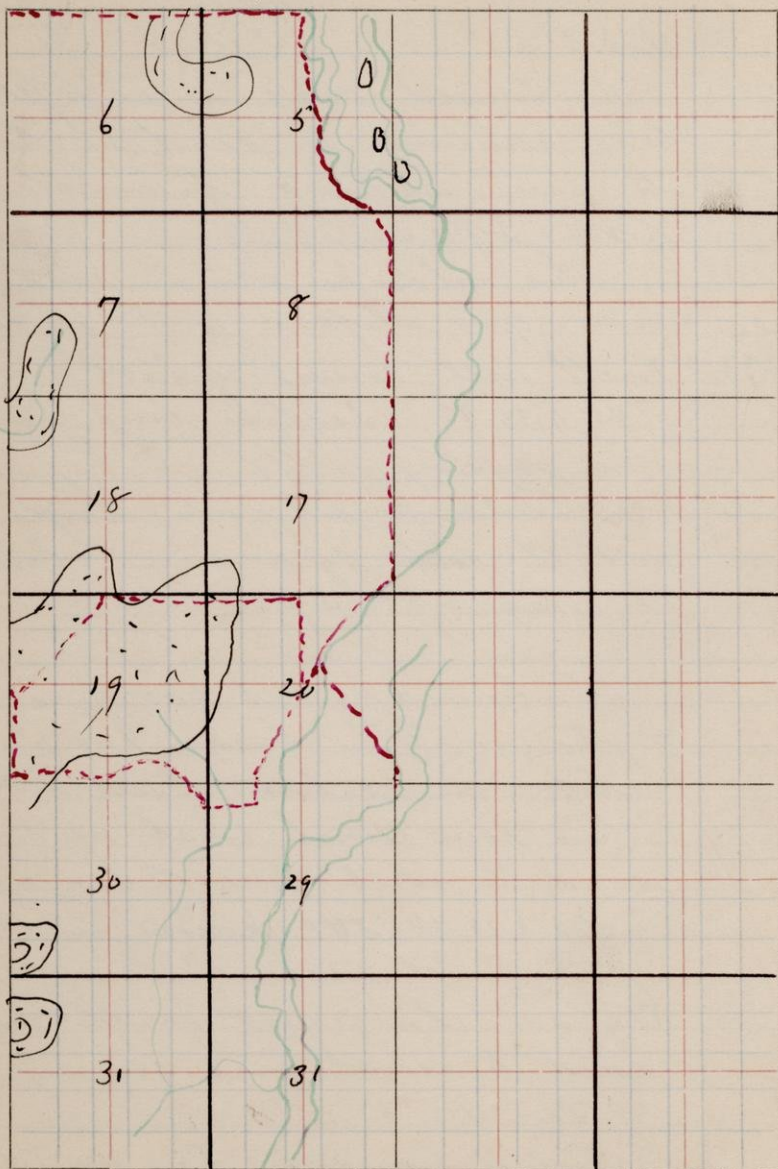
Outcrop is quite high and the rock specimen taken is similar to Spec 15272.

Continued east 600 paces to stream. Ran back 1000 steps on section line and then ran north-west on road to west line of Sec 23 T45 R35 W 500 paces north of the South west corner of Sec 23 then ran north on road to north west corner of Sec 23.

Cal a corner Sec 13 T45

T. 45 N.

R. 34 W.



R35 W to its north east corner.

Continued north east 1200
steps into ¹⁴¹⁹ Sec 14 T45 R35 W.

Run back to south west corner
of Sec 12.

Run west 500 steps.

" south 500 " to
road and then back
tracks to shear 500 paces
west of the south east corner
of Sec 23 T45 R35. Camped.
Country passed over
to day of a rolling chautau
mostly hard wood.

Aug 17 1890

Run east to east line of
Sec 23 T45 R35 W. Striking line
near south east corner of
Sec 23.

Continued east on road
to range line 250 paces
north of south east corner
of Sec 24 T45 R35 W.

Continued east little south

on road to north $\frac{1}{4}$ part of Sec
30 T45R34W. The road making
a bend to the north ~~and~~ took
~~to the bush~~ and runs east
meeting line 300 west of north
east corner of Sec 30 T45R34W.

Run south east to east line
of Sec 30 330 paces south of
north east corner Sec 30 T45
R34W.

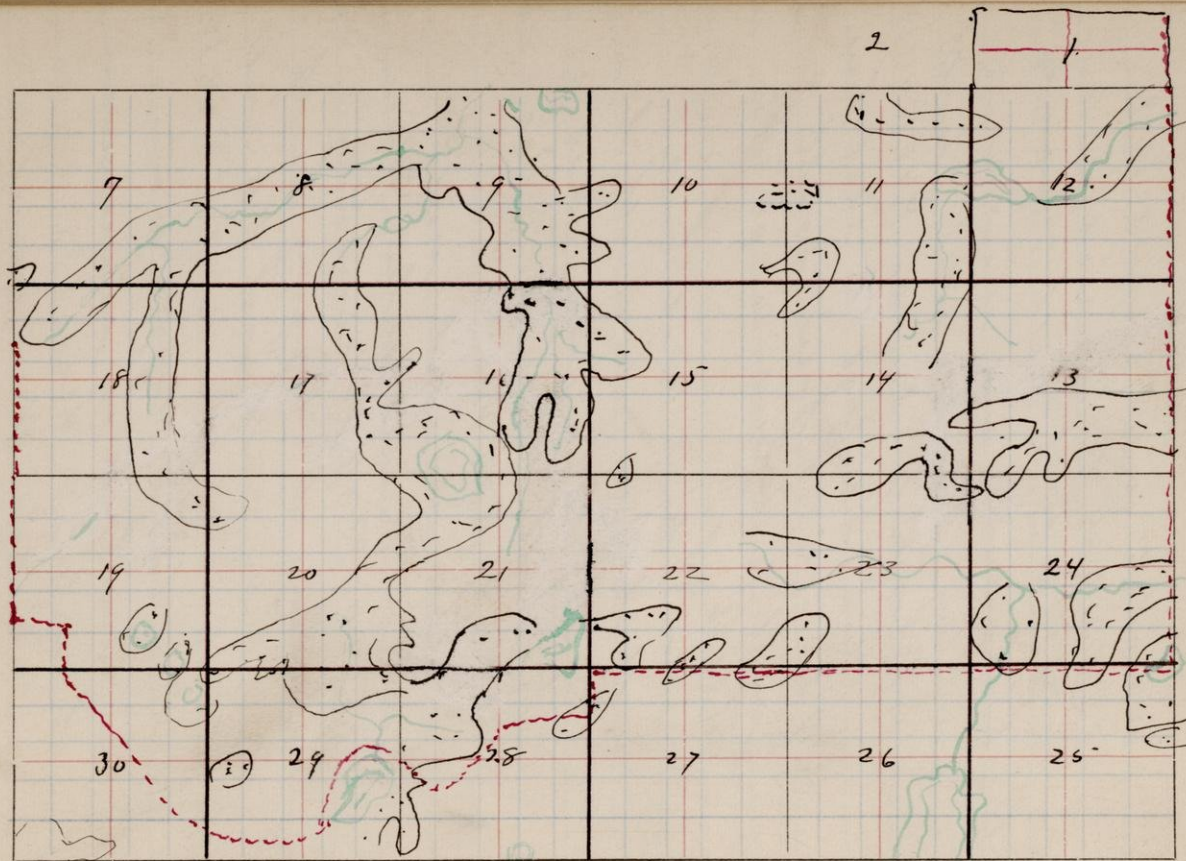
Road runs east and
north striking the north line
of Sec 29 350 paces west of
the north $\frac{1}{4}$ part of Sec
29 T45R34W.

Then on road north
east to near center of Sec
²⁰30 T45R34W crossing
stream to logging camp.

Run south east to south
East corner of Sec 20 T45R34W
to a broad boggy stream.

Run back on same road
to center of Sec 20.

Run north to north $\frac{1}{4}$



T. 46N.

R. 367N.

post of Sec 20 T45 R34 W.

Run west to north west
corner of Sec 20 T45 R34 W.

Continued west to north
 $\frac{1}{4}$ post of Sec 19 T45 R34 W.

Run south west to west $\frac{1}{4}$
post of 19.

Run south 750 paces to
supply road and back on
supply road to camp 500
paces west of the south east
corner of Sec 23 T45 R35 W.

From camp visited out-
crop and took spec
15274, from the top.

Spec
15274

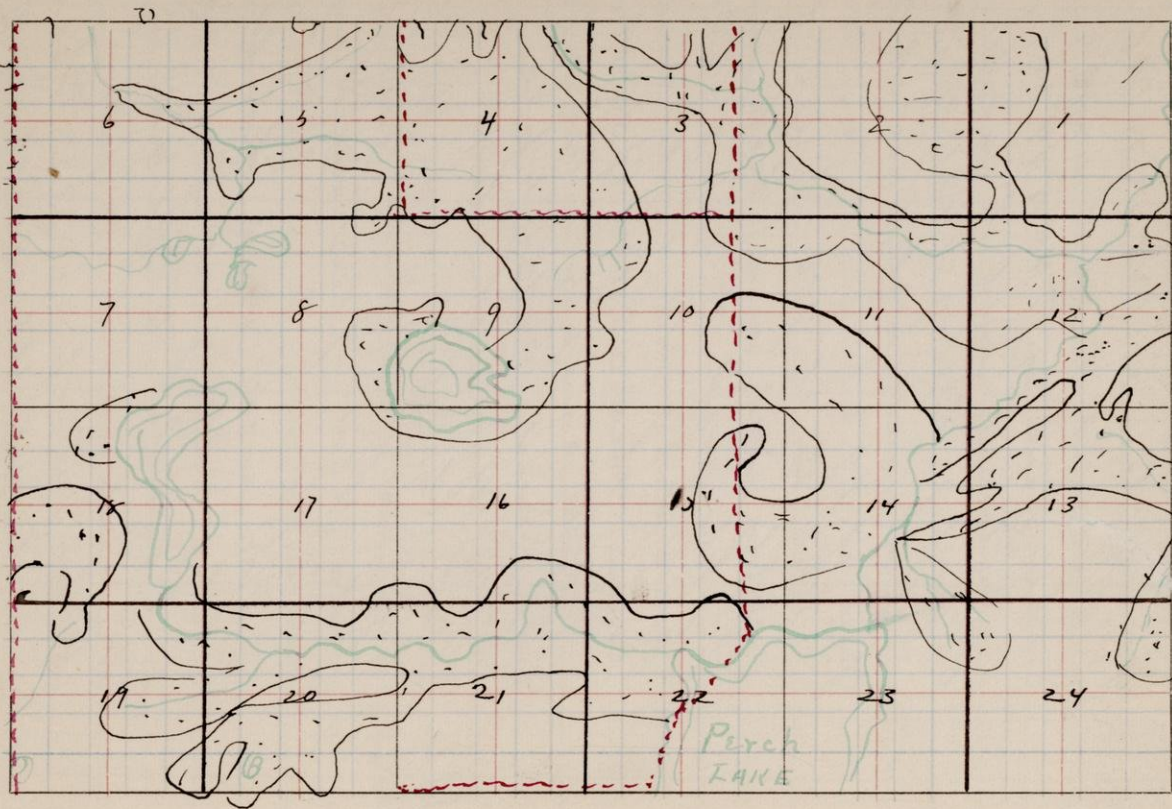
This outcrop is over 100 ft
high and commands a
wide view of surrounding
country.

The rock is a hornblende
slate with good cleavage.
— similar to preceding
specimens.

This outcrop is 350 paces
east and 150 south of the

T. 46 N.

R. 35 W.



north $\frac{1}{4}$ part of Sec 26 T45
R 35 W.

Country in T45 R 34 very
low and swampy. In
Range 35th land becomes
high.

Aug 18 1890

Rainy day

Aug 19 1890

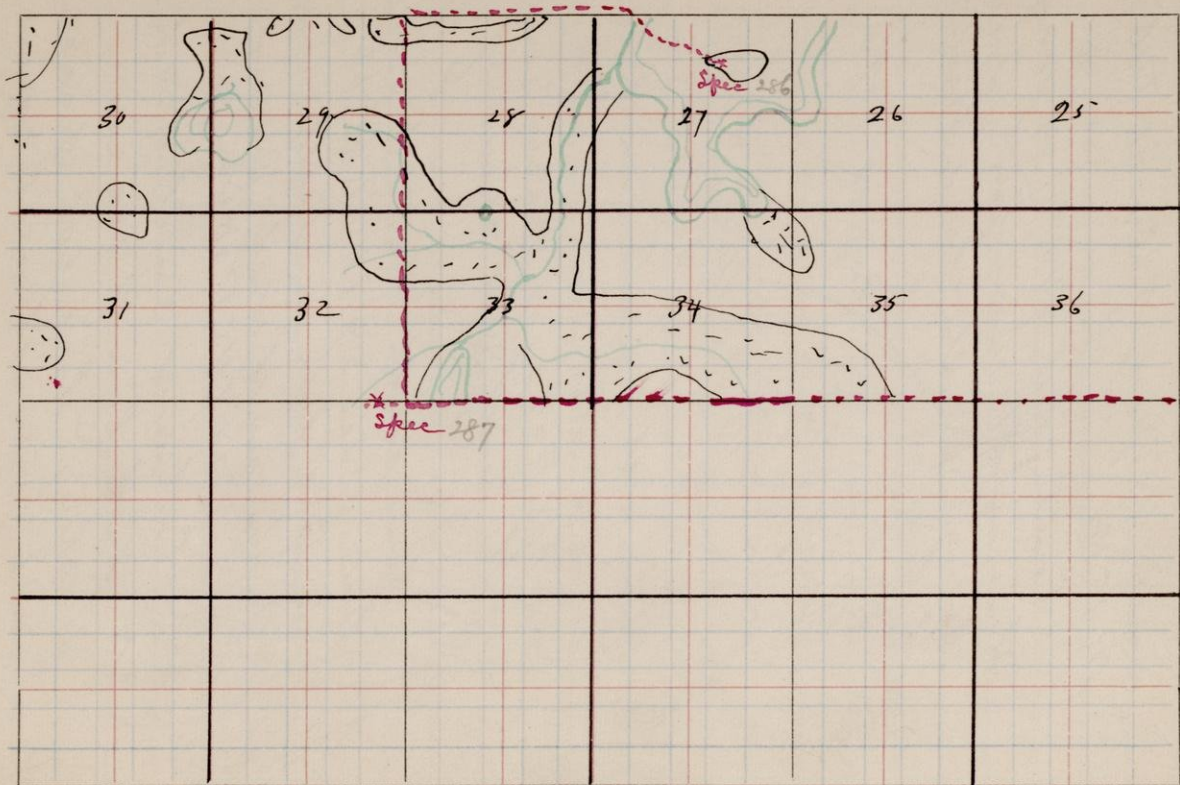
Ran west from camp on
road to west line of Sec
26 T45 R35 100 paces south
of the north west corner of
Sec 26.

Ran south west to south
line of Sec 27 T45 R35 W.
meeting line a little east
of the north west corner
of Sec 34 T45 R35 W.

Continued south west
to south line of Sec 23
meeting line 600 paces
east of south west corner

T. 46 N.

R. 35 W.



of Sec 33 T45 R35W.

Continued south west on road to Saw mill in ruin in Sec 9 T44 R35 about 500 steps east and 300 south of the north west corner of Sec 9.

From here took spur to Atkinson (east of Beechwood) in Sec 1 43 R36 W.

Have mapped this - railroad to saw mill.

End of clergy report.

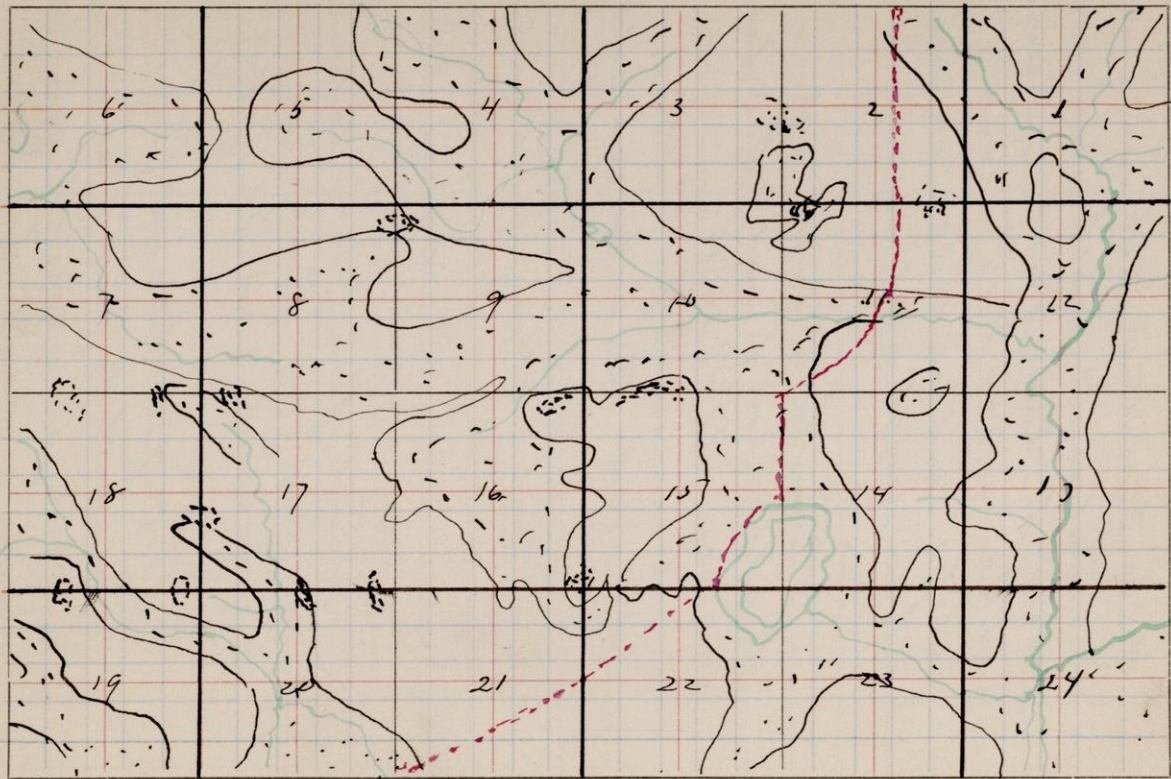
Aug 20 1890

Returned from Goose Lake and met the party at Beechwood on the 19th.

Left Beechwood (Sec 1 T43 R36 near north $\frac{1}{4}$ part of Sec 1) and ran north east meeting east line of

T. 46 N.

R. 34 W.



Sec 36 T44 R36 near east $\frac{1}{4}$ post
 Continued east on supply
 road to Atkinson Spur Road
 near east line of Sec 31
 T44 R35 N. about 1000 steps
 south of the north east corner
 of Sec 31 T44 R35 N

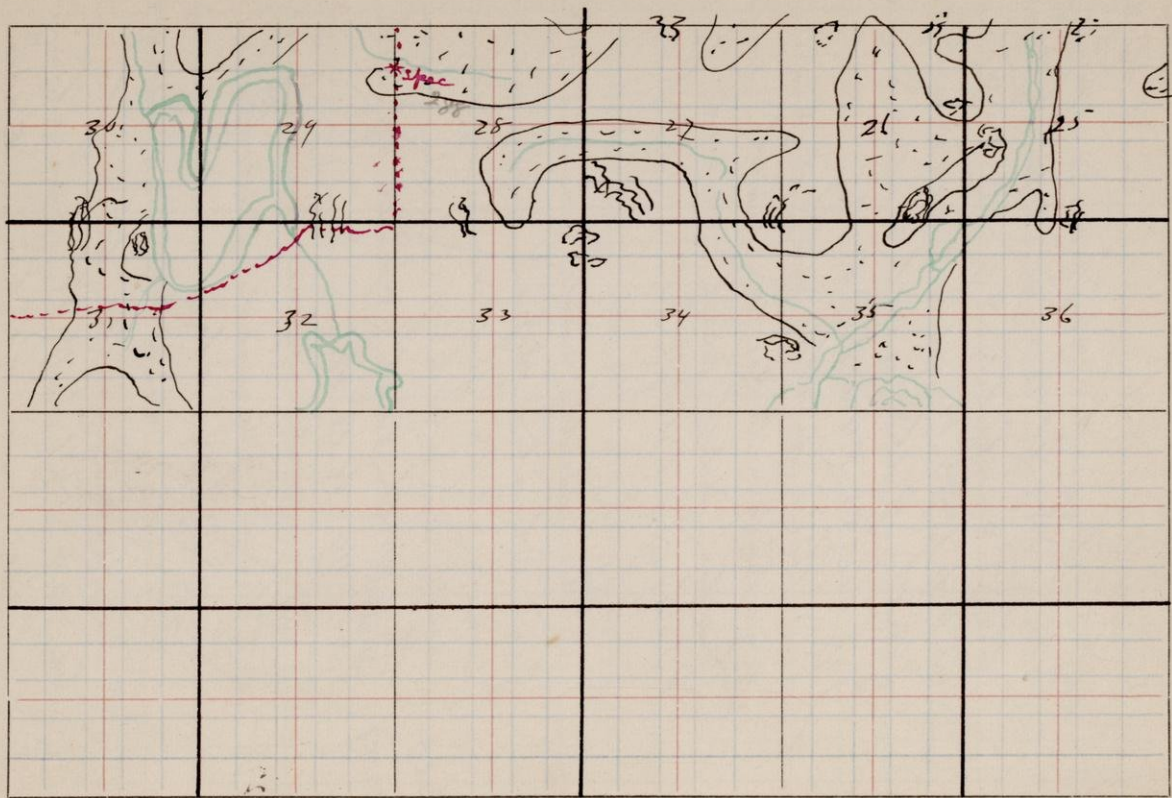
Run north on Spur
 meeting line a little east
 of the north west corner of
 Sec 32 T44 R35

Spec
 15277
 Run north and found outcrop
 from which Spec 15277 is -
 taken 575 paces south
 and 20 west of line from
 the north east corner of Sec
 30 T44 R35 N

This rock specimen is -
 a fine grained quartzite
 in gray wacke.

Then east one west.

Run north through
 Sec 29 T44 R35 N meeting
 line 200 steps east.



T. 46 N

R. 34 W

of the north west corner of Sec
29 T44 R35 N.

Run north into Sec 20
T44 R35 and found outcrop
from which Spec 15276 was
taken.

Spec
15276

This is a small outcrop
300 steps. north and 200 east
of the south west corner of
Sec 20 T44 R35 N.

Trend of ledge east and west
consistent with rock a fine
granitic diabase (?).

Run north through Secs
20 17 T44 R35.

In Sec 8 T44 R35 ^{250 ft} found
Spec 15278.

Spec
15278

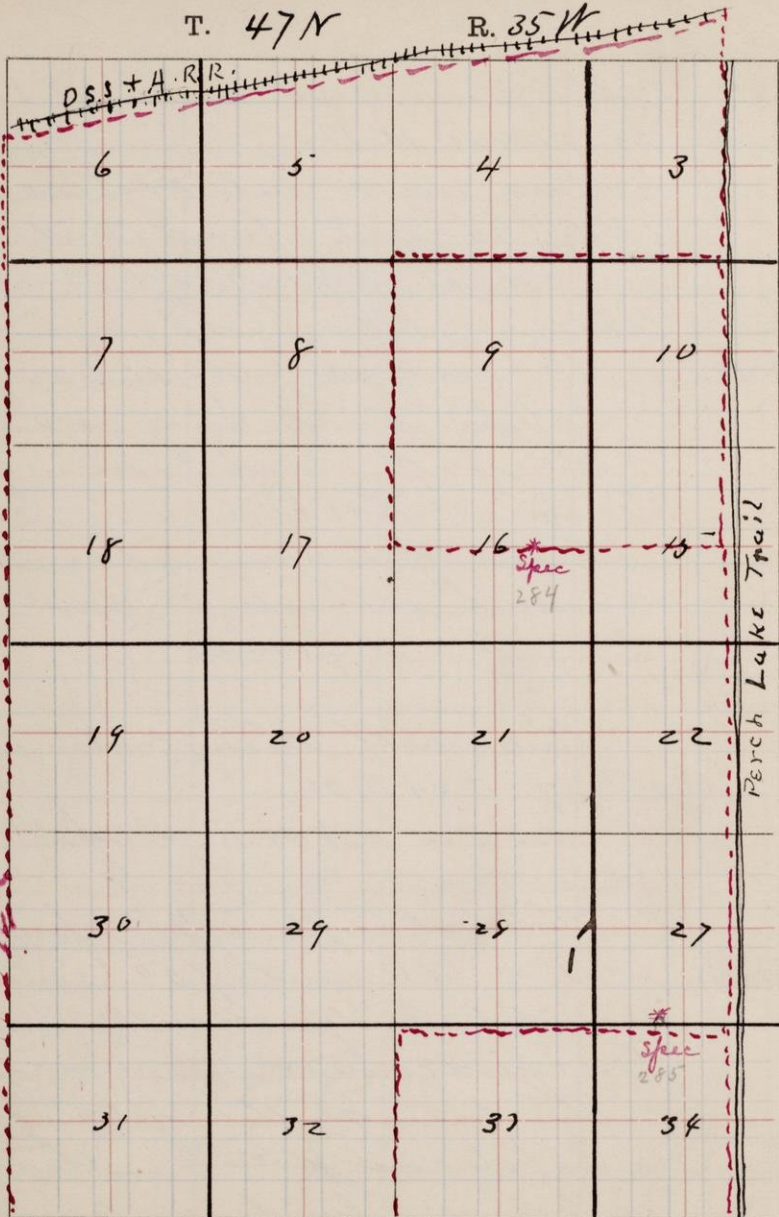
This outcrop is 750 feet
west of RR and 750 south
from R.R. Bridge over the

Marquand River

The face of the outcrop
is so decomposed that
a person standing a short

T. 47N

R. 35W



from it would take it for
a conglomerate.

It is an alluvial Chlontic
Schist.

About 400 paces east of
same bridge on the south-
side of the river is an
outcrop of similar rock
though possibly not so
decomposed as Spec 15278
From this ledge I took
Spec 15275.

Spec
15275

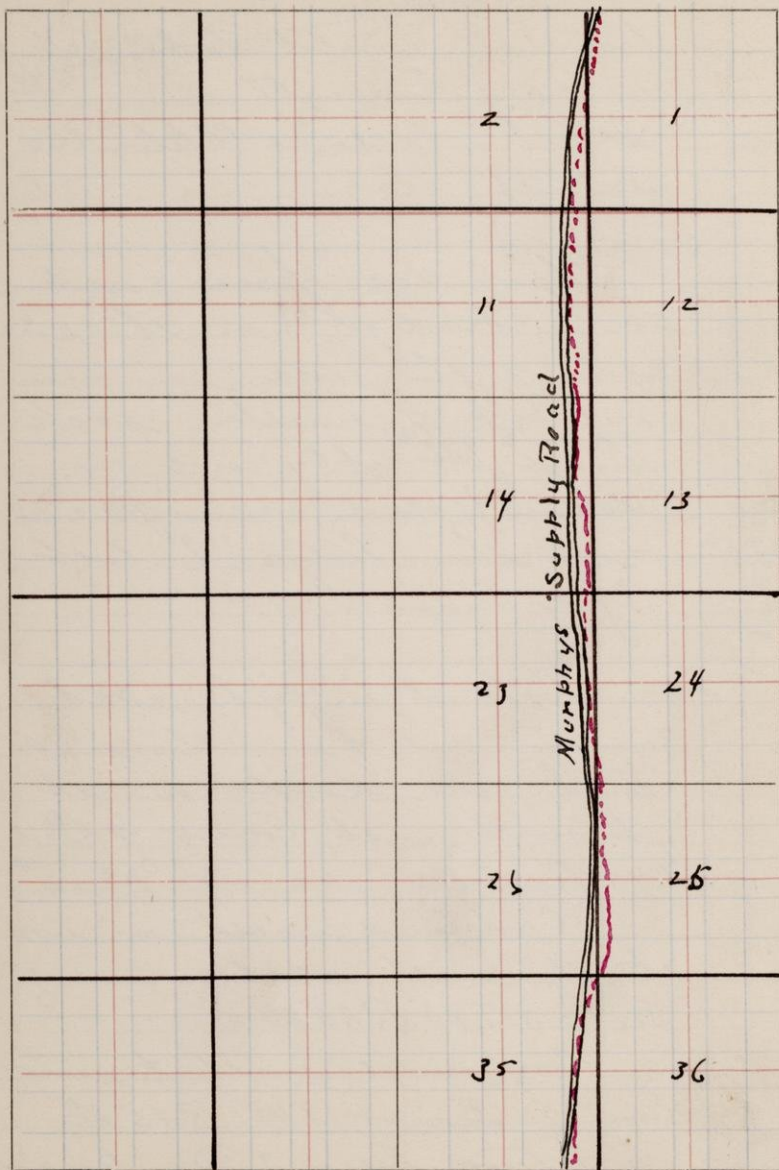
Took a supply road
running out from the mill
and ran north on it
to north-west corner of Sec 4
T44 R 35 N.

Continued north on road
to the north-west corner of
Sec 23 T45 R 35 N.

Continued north to north-
line of Sec 28 T45 R 35 N
meeting line 250 paces

T. 47 N

R. 34 W.



east of the north west corner
of this Section

Run 350 paces further
north on road to camp.

Continued north on road
through Sec 21 T45 R35

Run north west across
south west corner of 16.

Same course through 17 to
its north line.

Run west to the north
west corner of Sec 17 T45 R35 W.

Road stops at this Fabus
homestead in Sec 7 T45 R35

Run west to stream
crossing at an old Beaver
Dam

Run north through a
low, swampy and burnt
ore country to west in

100 steps of $\frac{1}{4}$ line of Sec 6
T45 R35 W and then west
into Sec 1 T45 R36 W.

Found an outcrop 300

paces west of Range line and
100 south of $1\frac{1}{4}$ line in Sec 1
T45 R36. This was a low
exposure of same kind of rock
as Spec 15279

125 steps further west
was another exposure of same
ledge still low.

75 steps west was a
high bluff of this ledge
dipping almost perpendicularly
to the south on south side.
Took specimen 15279 from
top of this ledge.

Spec
15279

Specimen is a fine grained
quartzite or graywacke
Trend almost east and
west.

Run west to ^{Sec 1} point 1300
steps from east line of Sec
1 T45 R36 W

Run south 100 paces

" west 200 "

" north 700 paces and back

Run south 300 paces and back
Run west to west line of Sec
1 T45 R36.

Run north on section
line 200 paces to west quarter
part of Sec 1 and back.

Run west to stream

Crossing stream took a
logging road on its west
side following road south
to the fork of main stream
where crossed (Sandy bottom
with boulders)

Followed trail on south
side of stream through Sec 11
T45 R36 to the west line.

Run south on west line
of Sec 11 T45 R36 to a
ledge 380 steps north of
the south west corner of
Sec 11 T45 R36. This is
a large exposure located
directly on line.

Spec 15280 From this, took Spec 15280
This specimen resembles

specimen 15279 very much

Continued west through
Sec 10 T45 R36 ~~by~~ trail
along river bank

480 steps. From west
line of Sec 10 T45 R36 W took
specimen 15281. The outcrop
consists of a long ridge
(trend east and west) with
& pines all along river
bank to the line of Sec 10
T45 R36 W. This specimen
like the two former is
either a gray wacke or a
very fine grained quartzite.

Spec
15281

About 300 paces ^{west} from
the west line of Sec 10 we
found a supply road
running west.

Followed this supply
road through Secs 9 and
8 T45 R36 W.

1300 paces west of the

east line of Sec 8 on north-
side of road took specimen
Spec 15282.

15282

This is only a small outcrop
the surface of which has
been rent apart by the action
of the weather forming slabs
and sharp edged boulders.

This is similar to specimen
15281

Continued west through
Sec 8 T45 R36, until west
through Sec 7.

Passed through South west
corner of Sec 6 and run north
on its west line to the north
west corner of Sec 6 T45 R36 N

Country high and rolling.
Run north ^{west} east on trail into
Sec 36 T46 R37 to small
lake and continuing to
larger lake camped
Country around lakes generally
low and swampy.

Meandered lake to north-
west $\frac{1}{4}$ of section 26 T46 R37

Run north on trail to
lake on north line of Sec 26

Run west to north $\frac{1}{4}$ post
of Sec 26 T46 R37 W

Cat. a corner the south-
west quarter of Sec 23 T46 R37

to west $\frac{1}{4}$ Post of Sec 23

Run north on west line
of Secs 23 and along west line
of Sec 14 to river (at a short
distance above the $\frac{1}{8}$ post)
where we were compelled
to camped on account
of rain.

In the afternoon run
north over a broken hilly
hard wood country to the
north west corner of Sec 11
T46 R37 W.

Run north on west line
of Sec 2 T46 R37 to $\frac{1}{4}$ post
where Specimen 15283
was collected

Spec
15283

This is the first of a series of ridges running east and west across this line.

The ledge is exposed on the south side a very little and is made up of argillaceous slate.

Run back on this same line to camp.

The K.C.Co. have a new logging camp No 13 at this point on the stream in Sec 14.

They have a supply road running to the D.S.S. & A.R.R. coming out at Kitchie.

We followed this road through Sec 11 to the ^{met} 1/8 post on west line of Sec 11 T46R37 then taking a trail run South east to a lake in Sec 13 (lake not platted by Government). Followed this along

its northern shore to town line
and then run south to the
south-east corner of Sec 13
T46 R37 W.

Run south on east (town
line) of Sec 24 to south $1\frac{1}{8}$
pt

Run east 500 slips into
Sec 19 T46 R36 W and then
south 500 slips to south-
line of Sec 19.

Run south-east through
Sec 30 T46 R36 W to south-
 $1\frac{1}{8}$ pt on east line.

Run east through Sec 29
T46 R36 to lake (muddy bottom).

Meandering north end of
lake to the east $1\frac{1}{4}$ pt of
Sec 29 T46 R36 we took
a south east course and
came upon a newly
cut supply road.

We ran north a little
to the east on the road as

for as the north $\frac{1}{8}$ line of
 Sec 28 T46 R36 and on this
 $\frac{1}{8}$ line run east to the east
 line of Sec 28 T46 R36 and
 north on trail to north-
 east corner of Sec 28 T46 R36.

Run east on north line
 of 27 to its north east corner.

Run east on north line
 of Sec 26 T46 R36 to its north-
 east corner

And east 50 paces
 to a small stream where
 put up camp during a
 heavy thunder storm.

Secs 28 & 27 low and
 swampy on line passed over.
 Sec 26 high and rolling.

Run east to east Range
 line of T46 R36 and north
 on Range to north east
 corner of town. First two
 miles on range line swampy
 and rough the remainder

high rolling country with
Norway growth.

Ran north on east range
line of T46 R36 to wire.
Country high rolling.

Ran north on east range
line of T47 R36 to D.S. & A.R.R.
and east on rail road to Sidnaw
Station where we camped
Country high and rolling.

Ran east from Sidnaw
on track to long bridge
over river at Sec 34 T48 R36

Here we found a trail
running south to Peck Lake

We ran south on this -
through Sec 34 T48 R36
and sec 3 T47 R35

This trail runs through
these sections very nearly
on the 1/8 line.

Country low and swampy.

Run west from trail
 400 paces ^{west of} south east corner of Sec
 8 T47 R35 on the north line
 of Secs 10 & 9 T47 R35 N.

Country until coming to the
 stream crossing north line of
 Sec 9 T47 R35 very rough
 cedar swamps predominating
 But west of the north west
 corner of Sec 9 T47 R35 the
 country became quite level
 hard wood growth.

Run south from the north
 west corner of Sec 9 T47 R35 to
 its south west corner and
 then south to west $\frac{1}{4}$ post
 of Sec 16.

Run east on $\frac{1}{4}$ line 1376
 steps. where found Specimen
 in 15284. Outcrop shows
 but a few feet above
 general ground level.

It is a homblende slate
 with well developed cleavage.
 On the specimen may

Spec
 15284

to seen ^{small} ridges at right angles
to the plane of cleavage.

Continued east to west
1/4 part of Sec 16 and then
east to trail 500 steps
west of the east line of
Sec 15 T47 R35 N.

Country high and very level.
Followed trail north to
camp in Sec 3.

Run south on trail from
south east corner of Sec 3
T47 R35 N to south town
line of T47 R35.

The trail leaves south line
of Sec 3 400 steps west of its
south east corner.

Touches 1/4 line of Sec 15
500 steps west of east 1/4 part.

Touches south line of Sec 15
730 steps west of the south
east corner of Sec 22

Crosses south line of

Sec 22 800 steps west
of south-east corner of Sec 22
Crossed south line of Sec 27
700 steps. west of the
south-east corner of Sec 27.
Country passed through
generally swamps and
low lands.

Ran north on trail to
south line of Sec 27 T47
R35.

Ran west to $\frac{1}{4}$ post 350 paces
from trail.

Continued west 175 paces
and found outcrop - from
which I took specimen

Spec
15285

This outcrop forms a long
ridge running east and
west. The north side where
specimen was taken is
covered with moss and roots.
So there is no exposure of
rock. The rock is a dark

gray holublen de slate - similar
to specimen 15284 having
a well defined cleavage but
not calan, the ridges of the
above mentioned specimen
Strike 15° south of east.

Run west to the south.
west corner of Sec 27 T47 R35 W
Run west to south west corner
of Sec 28. T44 R35 W

Run south to the south-
west corner of Sec 33 T47 R35 W
Continued south to the south-
west corner of Sec 4 T46 R35 W

Run west to south west
corner of Sec 3 and west to
trail 1350 steps from south-
west corner of Sec 3 T46 R35 W
and then north on trail
to camp.

Much of the country
passed over was high and
level. Forest fires
have swept over the greater
portion. Streams have

muddy bottoms

Run south on trail from town line to Peck Lake

The trail running as before very near the east $\frac{1}{2}$ line of section passed through.

This trail passes through the roughest country I have seen in the shape of swamps.

Peck Lake to south line of Sec 22 T46 R35

Went out to island near center of lake and got specimen 15286.

Spec
15286

This island is a solid ledge of humblende slate with cleavage fairly well developed.

Run west from Peck Lake on south line of Sec 22 T46 R35 N by a trail to the south west corner of Sec 22 then south by trail

along west lines of Secs 28
+ 33 T46 R35W.

100 paces west and a
little south of Sec 33 T46 R35W
found ledge from which
specimen 15287 was taken.

Spec

15287

This is a low & porous
comp sed. of humblende
slate bearing much resemblance
to the others.

Strike a little south of east.

From the south west corner
of Sec 33 T46 R35W. run
east on town line to
Lake. This lake is
small and shallow
with soft spring bottom.
Meandered Lake on
south side and continued
east along town line to
the town corner.

Encountered tough swamps
on south line of Secs 33
34 & more than half

of Sec 35 T46 R35W but
the remaining country
offered splendid travelling
— gently rolling with hard
wood growth.

Run west on south line
of Secs 31 & 32 T46 R34W
to lake. This was a good
sized lake and had a
sand and boulder bottom.
Country continued high.

Meandered ~~east~~ east side
of lake and keeping to
the east met east line
of Sec 8 at 1/4 post.

Run due south on section
line to more or south-
eastern corner of Sec 19
T45 R34

Just before coming to
more we struck a wretched
swamp and not being
able to find river we
had to follow it down

for about 500 paces and then found a crossing where the river bed is jammed with huge boulders.

After crossing the river we came upon a logging camp. The supply road running from this camp to Atkins's mill is the same one used by Oley (also mapped) during his August trip.

Followed this road to Atkins's mill and then took rail road track to Iron River mill.

Iron River Wednesday Sept 10/90

See charge W. L. Porter and arrange affairs at Iron River preparatory to quitting the field.

Leaving Iron River will-
only my woodsman went
to Beechwood, thence to
Atkinsons mill.

From Atkinsons mill
took a supply road
went through Secs 33-34
27-23-14-12 - and 1
T 45 R 35 W

Country light and rolling
timber generally hard wood.

Ran north on road
into Sec 36 T 46 R 35 W.

Leaving supply road
we ran east keeping
to the north, out of Sec
36 T 46 R 35 W into Sec
31 T 46 R 34 W

Passed through a
large spruce swamp.
in Sec 31.

Ran through Sec 32
keeping south of lake
until we came to
river. Ran up stream

to lake mean level its
south east corner and
picking up south line
of Sec 29 T 46 R 34 W run
east to its south east
corner.

Run north on east
line of Sec 29

Spec 15288 Ledge fin which I specimen
15288 was taken is 300 paces
south of the north east corner
of Sec 29 T 46 R 34
a fine grained green gite
a graywacke.
Strike east and west.

Run north to the north
east corner of Sec 29.

Run north east through
Secs 21 & 22 T 46 R 34 W
avoiding swamps met
lake in north east corner
of Sec 22 T 46 R 34 W
This is surrounded
by an open spruce

Swamp.

Proceeded the lake to the east line of Sec 15 T46 R34 W and run north on section line through an open spruce swamp.

At the north-east corner of Sec 15 left line and swamp and run north-east through a rough country to river.

Crossing river run north through Sec 11 T46 R34 W (a rough hilly section) to north line 237 paces of north $1\frac{1}{4}$ post.

Here came upon a logging road and followed it north through Sec 2 T46 R34 W

Country high and rolling - hard wood

Struck north line of Sec 2 50 paces

west of its north 1/4 post.

Continued on logging
north to river. Here
we came up on a regular
supply road running
from Murphy's Logging
Camp to our place
crossing on D. S. S & A
RR running through
town T47 R34 and T48
R34.

The road keeps high
ground but runs
very nearly due north.

Specs

15289

15290

15291

15292

The last four miles of the
road is frequently cut with
ledges. These run east and
west and are either slate or
graywackes - graywackes
predominating.

Took specimens #5289-90-91
92 - but had no time to locate.



