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Menominee Iron Range: [specimens 23361-26281]. No. 177 1895

Weidman, Samuel, 1870-1945

[s.l.]: [s.n.], 1895

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U. S. GEOLOGICAL SURVEY
FIELD SECTION BOOK

9-891

LAKE SUPERIOR DIVISION.

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 number attached, showing the direction and amount of the dip. Denote a shaly or other very plainly bedded ledge by right parallel lines, and a ledge having a secondary structure by wavy parallel lines running in the direction of the strike, with dip arrow and number attached as before. The greatest care must be taken to avoid confusing slaty or schistose structure with bedding, and in all cases where there is the least doubt about the true bedding direction, 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 to 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. The ruling of the left-hand pages is also arranged so that, if desirable, a larger or a smaller scale can be used, eight inches, two inches, one inch, or one-half inch to the mile. With the two-inch scale, the squares outlined in black represent sections, and those in red, quarter sections and "forties," while the space between the blue lines is 200 paces.

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, the latter always being expressed from the north; for instance 4025, 250 N., 300 W., *Strike, N. 78° E., Dip 50° S.* Then follow with a full description of the ledge. When topographical maps are used for locations this paragraph applies only in part.

3. Collect a specimen from every ledge, or wherever there is a change of rock on any one ledge, taking care to get fresh material, unless for a special purpose the weathered surface is desired. In case of trips made on foot or in canoes, for long distances, neighboring ledges, unquestionably of one kind of rock, need not be specimened. The position and extent of the ledges not specimened should be marked on the map, with notes that each is of a rock identical with specimen so-and-so. Under the same conditions small-sized specimens, trimmed to a uniform size of $2 \times 2\frac{1}{2} \times \frac{1}{4}$ 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 section 3, chapter IV, p. 44, Regulations of the U. S. Geological Survey. Specimens should not be placed together without protection in the collecting bag, as the fresh surfaces, important in determining the character of rocks, are thus destroyed. They should be damaged by no temporary mark, but the numbers should be at once marked in at least two places upon the inclosing paper or cloth bags. Specimens may be permanently marked in camp by painting the numbers upon them in white upon a black background, using Silver White and Ivory Black oil tubes for color, with turpentine as a diluent.

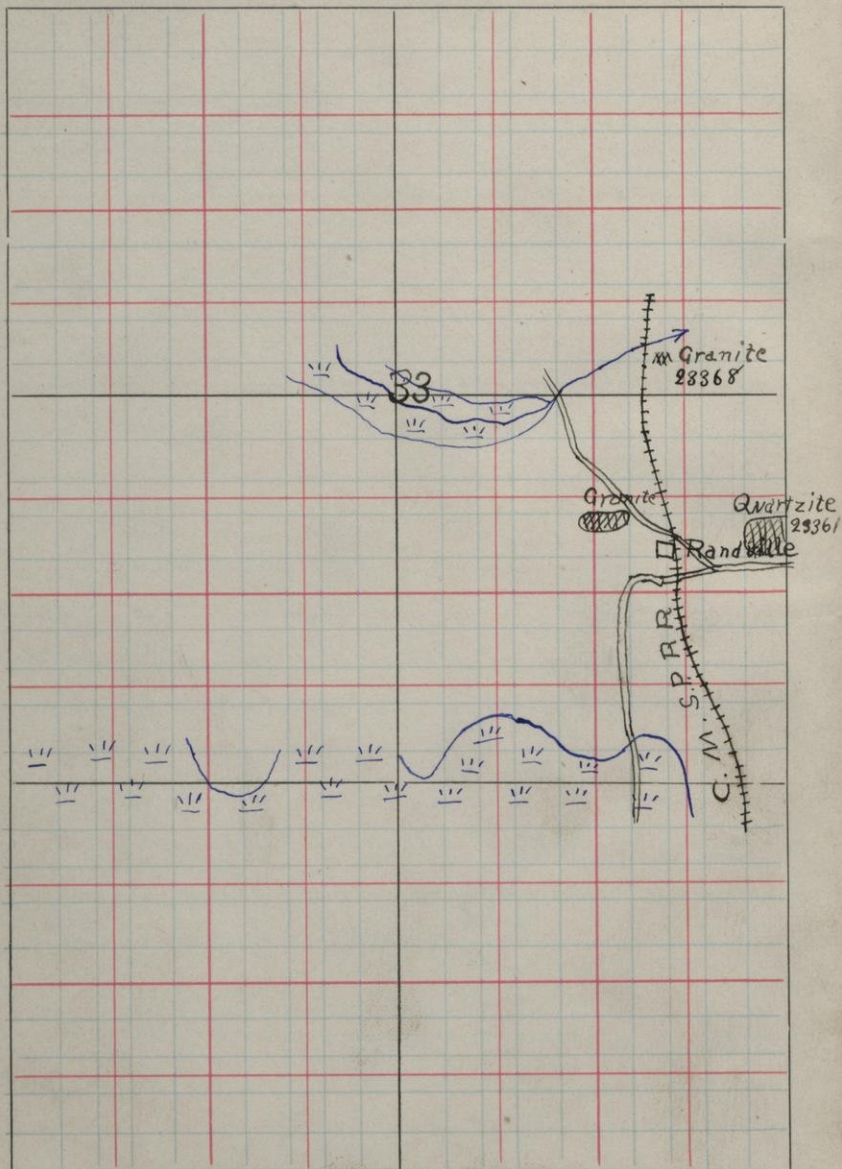
4. On the last twenty-five pages of the book give, as may seem desirable, a general account of the examination of the region mapped in the previous pages, correlation of observations, sketches, cross sections, etc.

5. Forward this note book as soon as filled as registered mail matter to C. R. Van Hise, U. S. Geologist, Madison, Wis.

S. 33

T. 42

R. 30



23361 620 N 25 W

33-42-30

Ledge of pinkish white quartzite the west end of a long ridge running further east. It appears as though the strike of the quartzite is parallel to the long axis of the ridge but cannot tell for certain.

23368 1100 N 330 W

33-42-30

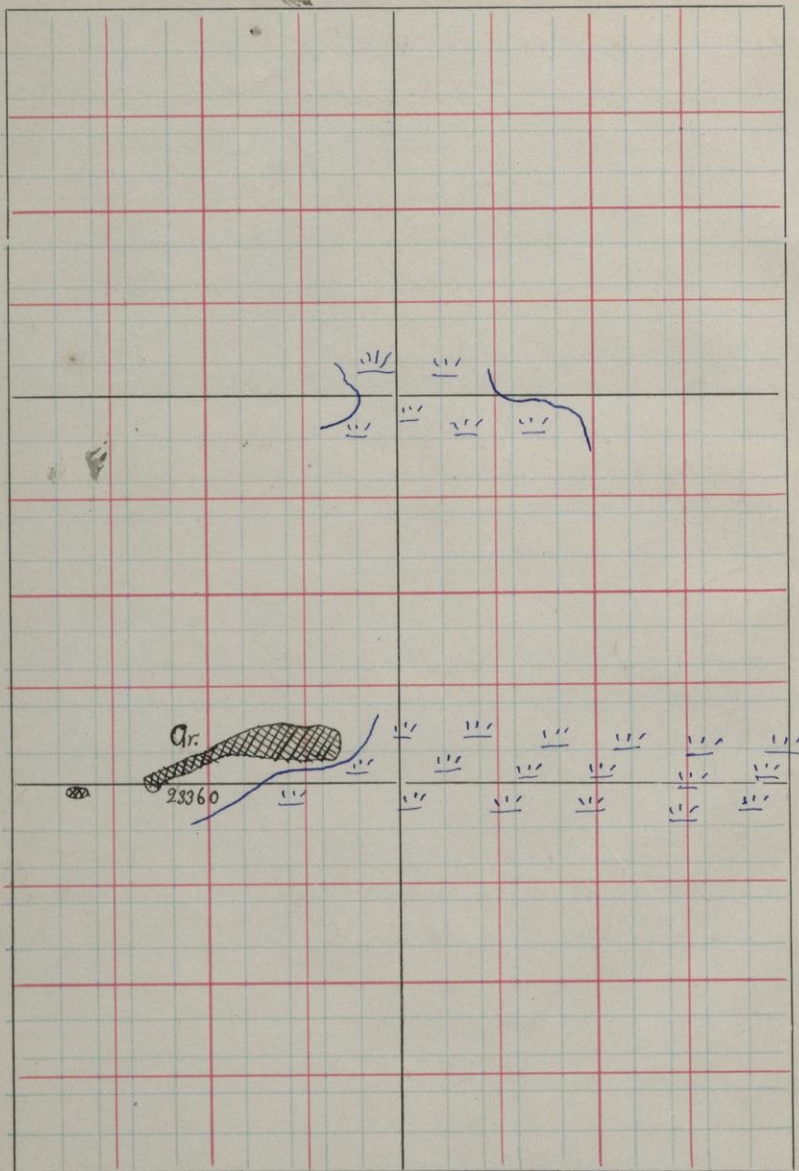
Ledge of rather fine grained granite.

About 100 paces NW of the Randville depot is quite a large exposure of granite and hornblende schist. It is quite schistose. The strike of schistosity is a little N. of E.

S. 32

T. 42

R. 80



23360 0 N 1650 W 32-42-30

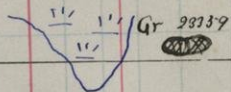
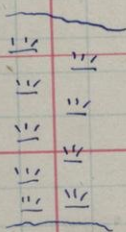
Ledge of granite like 23359
which is cut by dyke of
hornblende schist 23360.

The large ledge of granite
a continuation of the above
ledge is cut by great
masses or dykes of hornblende
schist like 23360. Strike
of schistosity slightly N of E

S. 31

T. 42

R. 30



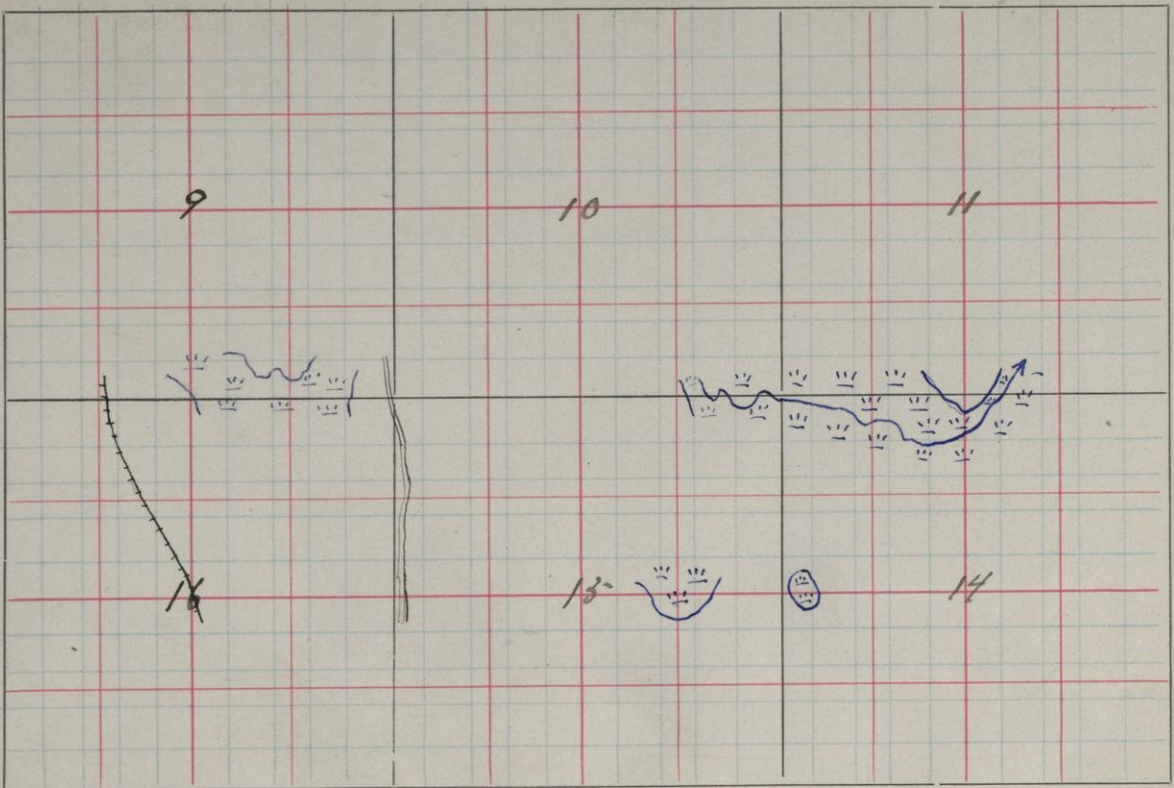
2335-9 25-N 150W 81-42-30

Ledge of coarse granite
having less mica apparently
than 2335-7.

S. 9/10 11
16/17 14

T. 42

R. 80

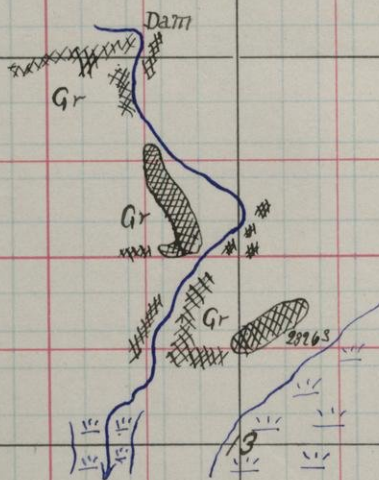


S. 12+13

T. 42

R. 80

12

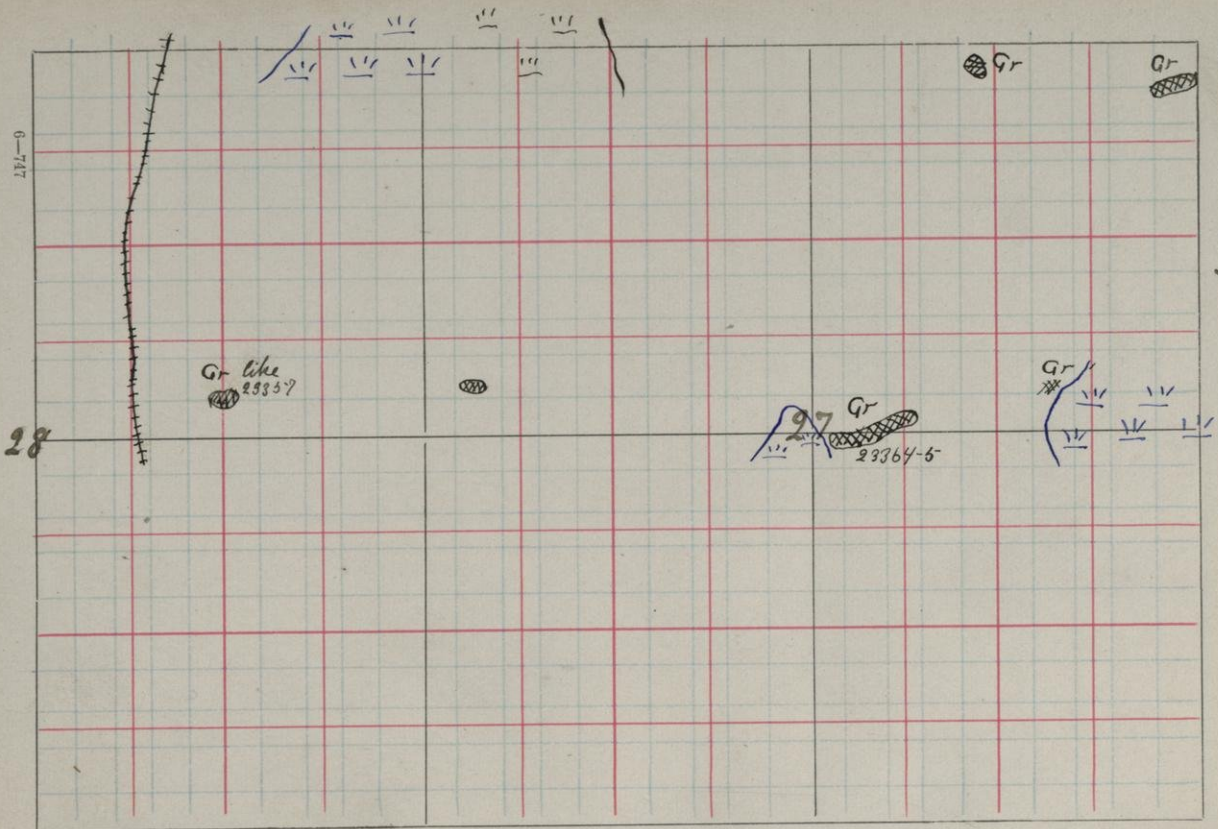


28863 1275° N 95°0 W 12-42-30

Ledge of coarse pinkish
granite

W¹/₄ 28
S. and 327 T. 42

R. 80



23364 95°0 N 95°0 W 27-42-30

Ledge of fine grained gneissic granite.

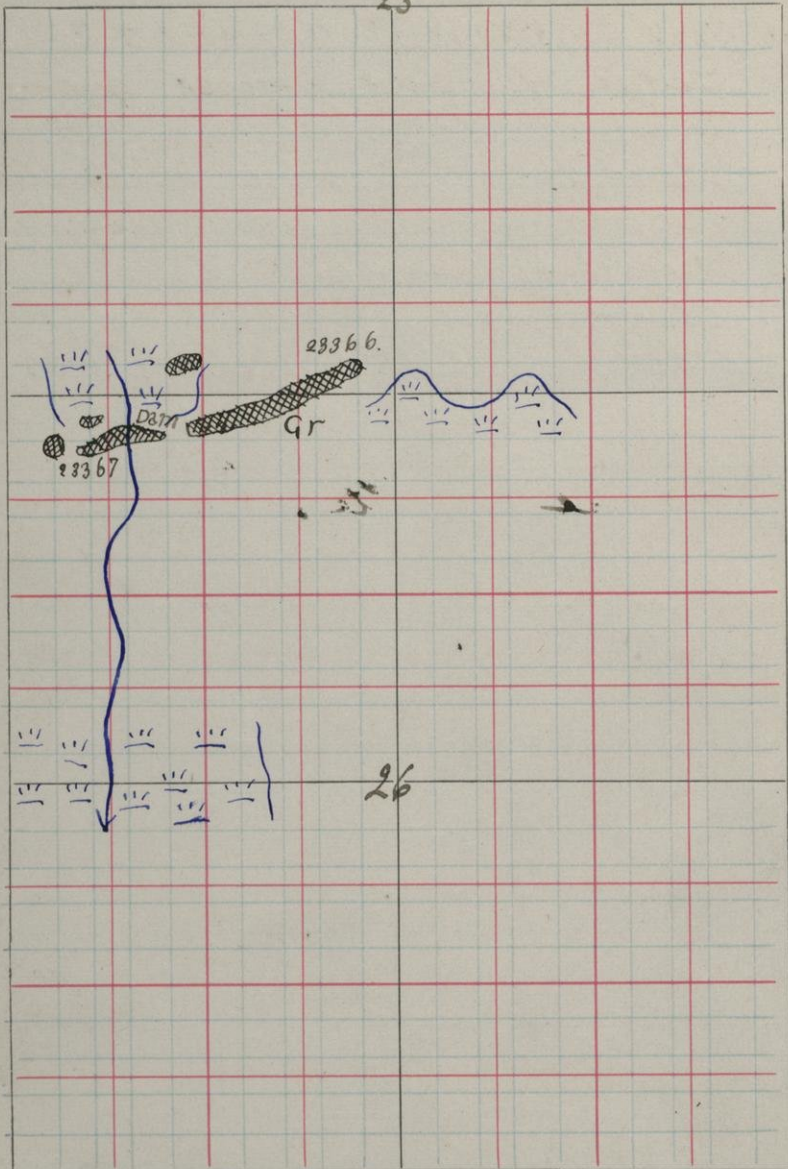
23365 Same ledge. A more acid granite occurring as veins cutting the other granite. This ledge also contains dykes of the hornblende rock like 23360

S. $S\frac{1}{2}$ of 23
and 26

T. 42

R. 80

23



23366 75-N 1113-W 23-42-30

Ledge of very coarse granite. Many of the feldspar crystals are over a foot in diameter and the crystals of mica are three and four inches in diameters.

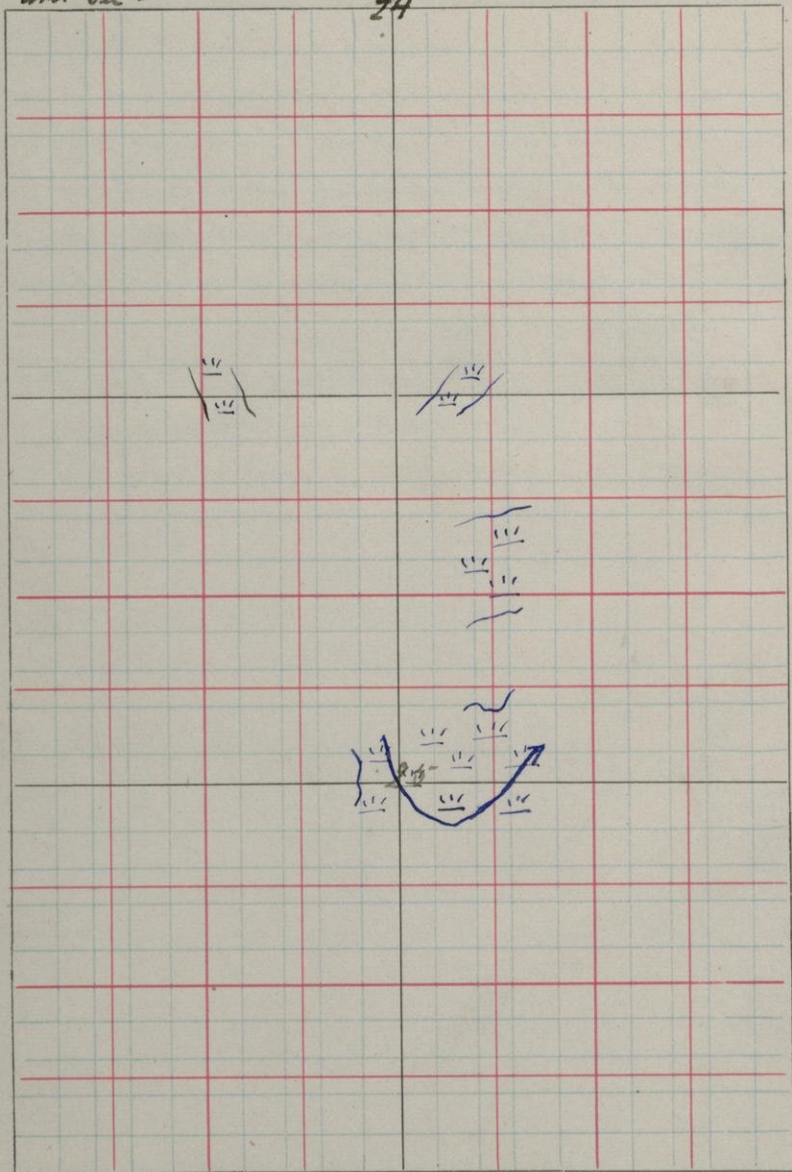
23867 1900 N 1700 W 26-42-32

Dyke of hornblende rock. The rest of the ledge is a very coarse granite.

S. $3\frac{1}{2}$ of 24
and Sec 26 T. 42

R. 30

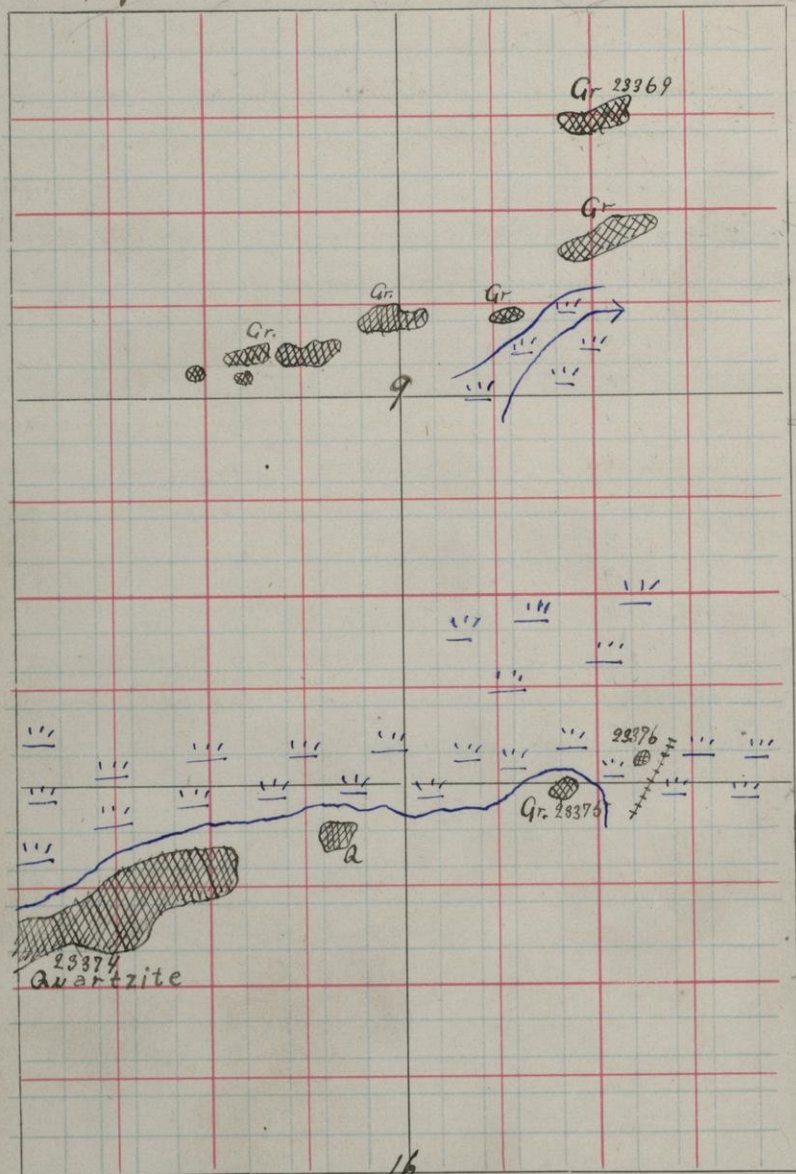
24



42

Sec 9
Sand $3\frac{1}{4}$ 1/6 T. 41

R. 80



23369 1710 N 300 W 9-41-30

Ledge of rather fine grained granite ridge running slightly N of E. At 1400 N 300 W is a ledge of somewhat coarser granite.

23374 1600 N 1940 W 16-41-30

Ledge of pink quartzite. A high ridge of it running N of E along swamp. No structure outside out.

23375 1980 N 375 W 16-41-30

Ledge of granite or quartzite?

23376 75 N 340 W 9-41-30

Ledge of granite or possibly it is a granite quartzite.

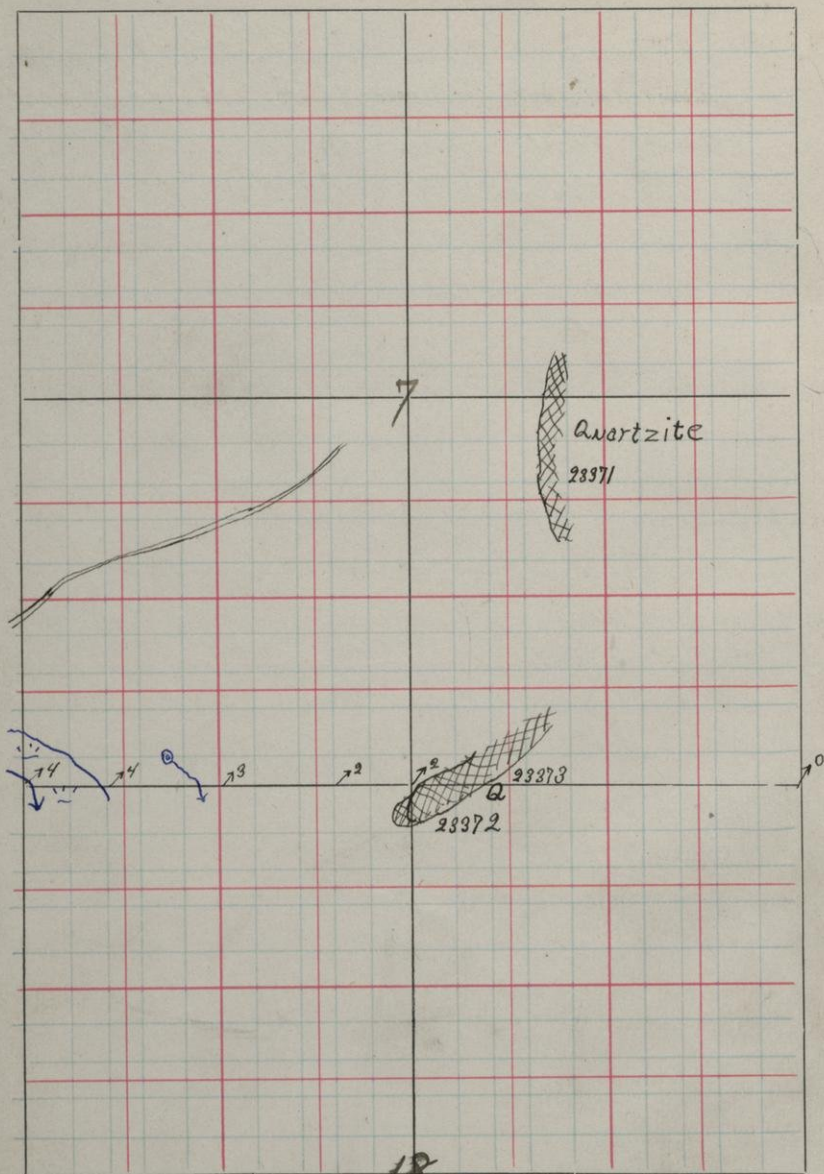
23370 1000 N 30 W 8 - 41 - 80

Ledge of granite, quite acidic
and fine grained.

S. 7

T. 41

R. 80



23371 850 N 640 W 7-41-30
 Large ledge of pinkish white
 quartzite. This ledge probably
 extends much further east as
 came up a long gently sloping
 hill covered with drift which
 begins at the east side
 of section 8. No structure
 could be made out.

23372 1965 N 1000 W 18-41-30
 Ledge of fine grained greenish
 quartzite.

23373 0 N 830 W 7-41-30
 Ledge at this place is pinkish
 white quartzite like 23371. Much
 the greater part of this ledge
 is like specimen 23373

S. 7+8 T. 41

R. 28

Sec 8

Sec 7

Granite

Gr.

Gr.

Gr.

23380

23374

23378

10

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9 1/4

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23377 900 N 0 W 7-41-28

Specimen is from test pit.
Rock is soft and friable and
stained red with iron. Quartzite.

23378 1585 N 45 W 7-41-28

Edge of rather fine grained
granite gneiss.

23379 1600 N 80 W 7-41-28

Black hornblende schist inter-
bedded with granite. There
are about equal portions
of black hornblende granite
and the white granite mingled
together.

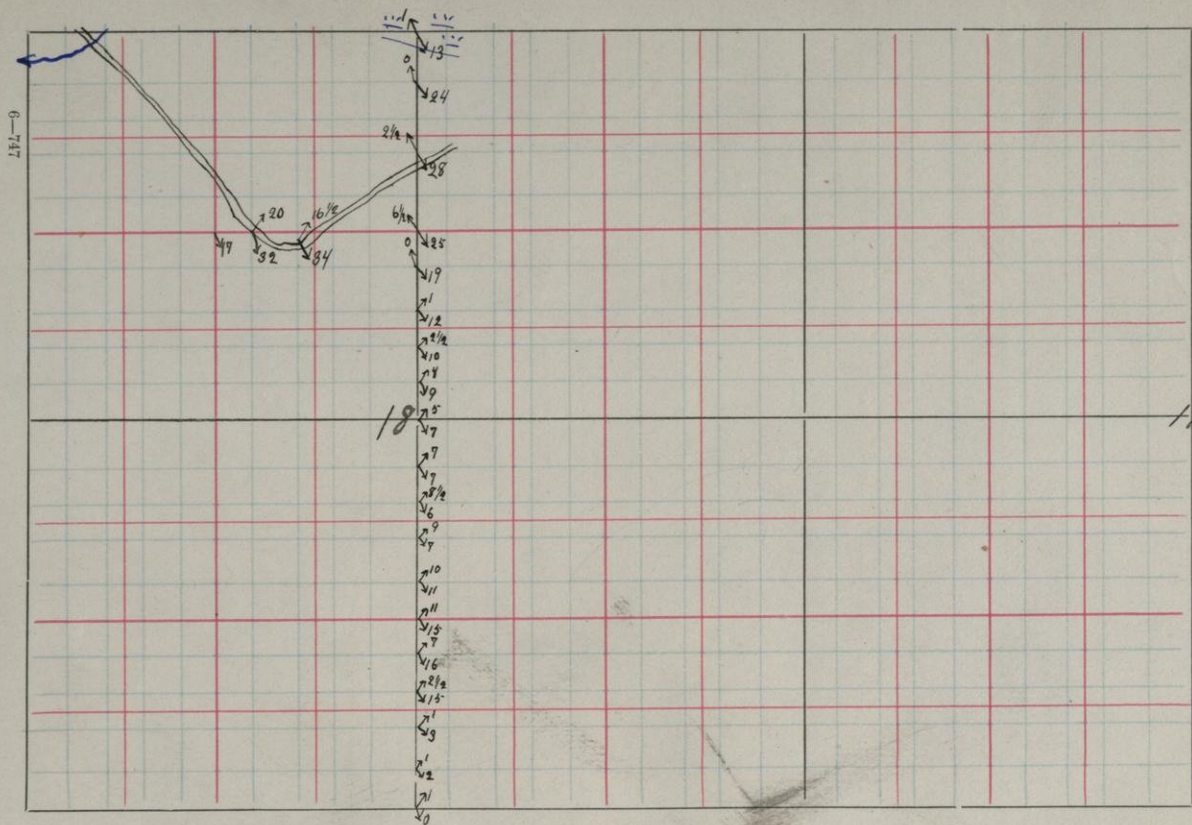
23380 1650 N 925 W 7-41-28

Friable red granite shows
in many places mingled
with the whitish

S. 18477

T. 41

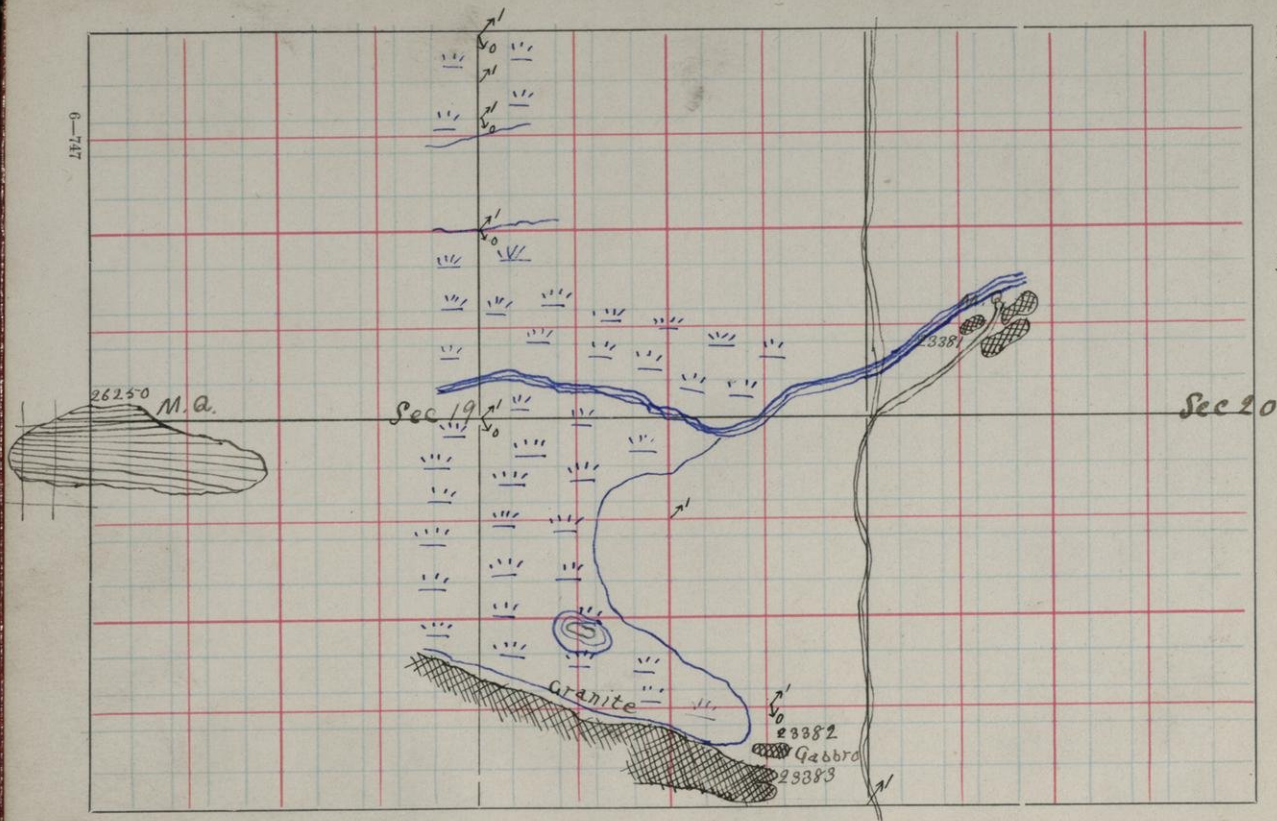
R. 28



S. 19 + 20 T. 41

R. 28

6-747



23381 1320 N 1650 W 20-41-28

Ledge of rather fine grained mica quartzite.

23382 145 N 250 W 19-41-28

Ledge of gabbro or hornblende granite. Just south and west of this lies the granite in great quantity in knobs and ridges.

23383 100 N 250 W 19-41-28

Specimen of the granite, fine grained and containing much quartz. The granite here is the southern boundary of the Harmonian Trough.

26250 1530 N 2000 W 19-41-28

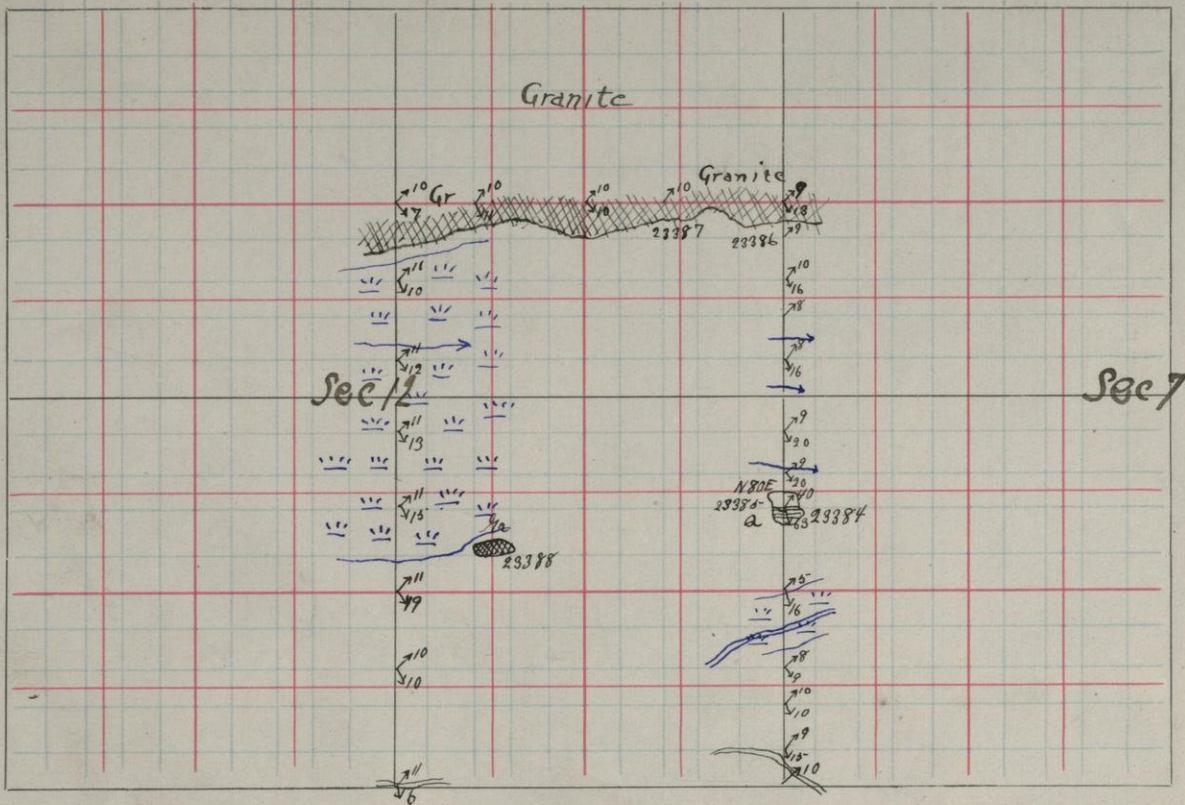
Ledge of mica quartzite. This ledge extends over into 24-41-29 a distance of 250 paces. Strike N 80 W Dip about 90°.

6-747

S. 1247

141 T.

R. 29 of 28



23384

685° N OW

12-41-29

Ledge of micaceous quartzite. This specimen has considerable quartz in it. Variation of compass upon this ledge 40° E Dip needle 63° . Strike of the bedding can be definitely determined and is $N 80^{\circ}$ E Dip 90° . In places there are narrow brecciated beds or zones.

23385

700 N OW

12-41-29

Same ledge as above. Specimen is a more micaceous quartzite and seems to contain considerable magnetite.

23386

1430 N. OW.

12-41-29

Ledge of gabbro or hornblende granite like 23382. Ledge is 60 or 70 feet high. To the North of this is a great quantity of the grey and hornblende granite in knobs and ridges.

23387

1500 N 100 W

12-41-29

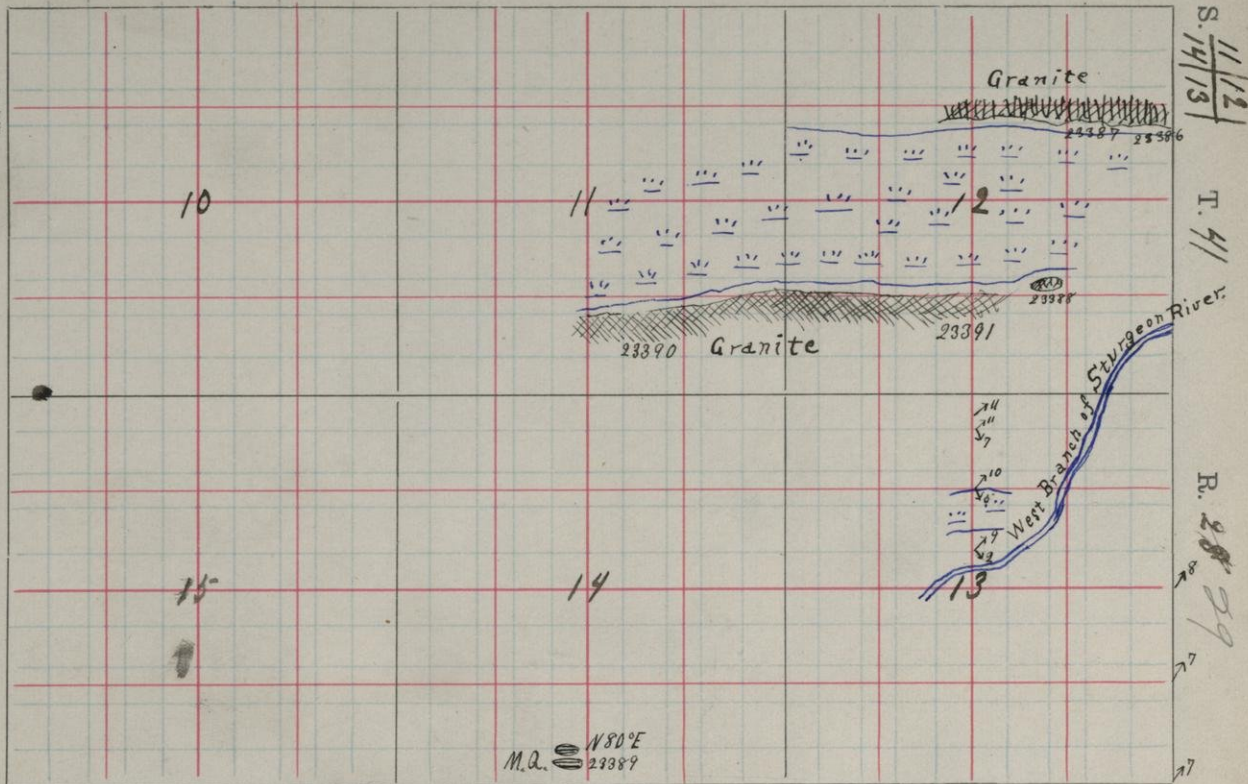
Specimen of the grey gneiss granite.

23388

630 N 830 W

12-41-29

Ledge of granite.



23389 100 N 1000 W 14-41-29

Ledge of mica quartzite.
Strike N. 80° E

23390 400 N 800 W 11-41-29

Ledge of fine grained mica
granite.

23391 500 N 1200 W 12-41-29

Ledge of granite(?)

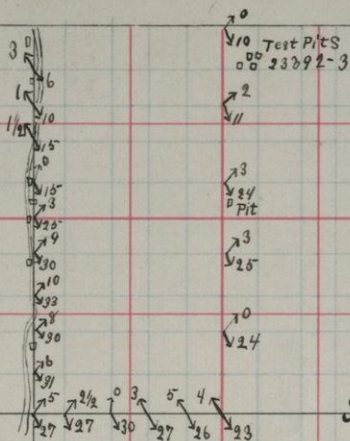
S. 17

T. 41

R. 28

6-717

Sec 18



Sec 17

There are a number of test pits along the N $\frac{1}{2}$ of section line between 17 and 18 but the pits do not reveal anything but drift. Very likely the explorers have struck the Potsdam sandstone and stopped.

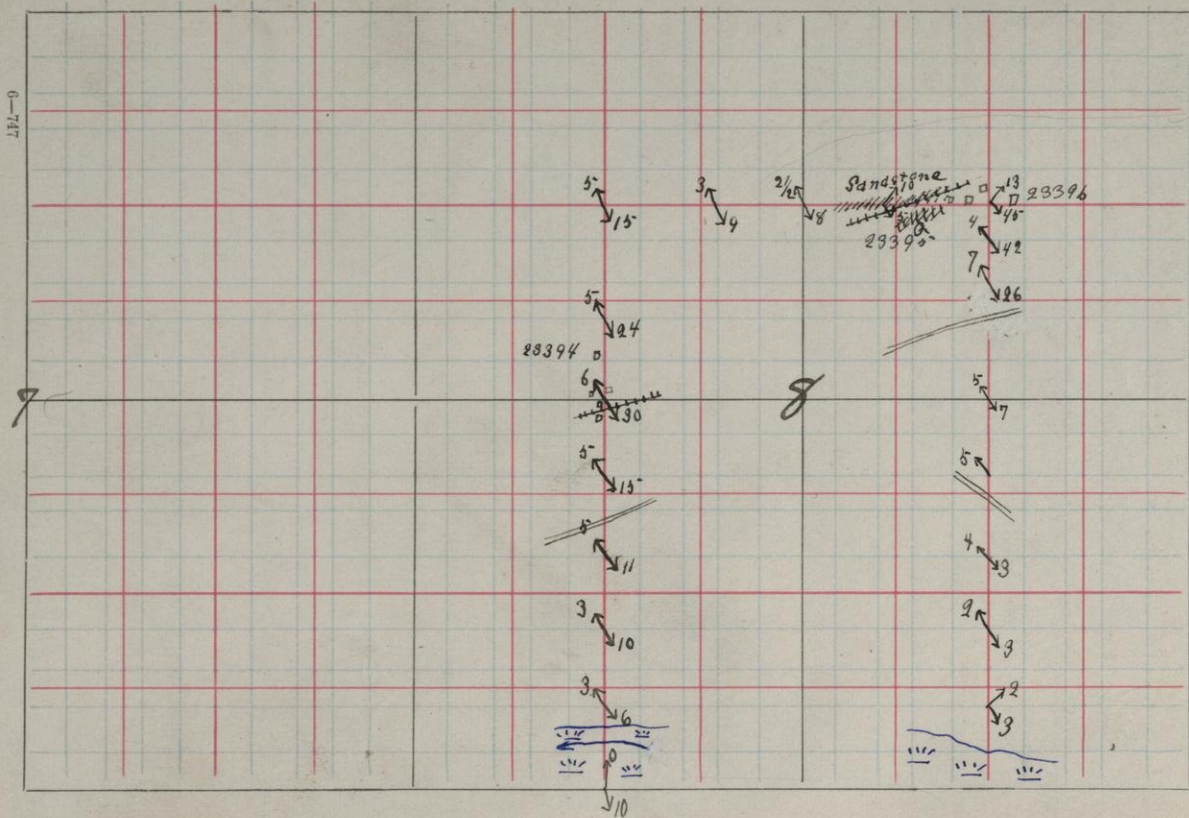
- 23392 1920 N 1450 W 17-41-28.
 From test pit, quite a few here in a small area. 23392 is a coarse quartzite which is much shattered. No structure could be made out. The quartzite is sheared and in the shearing zones are schists like 23393 which is reddish and quite ferruginous. These shearing zones are nearly vertical but their dip varies. In these pits the strike of the shearing zones is nearly E and W.

S. 8

T. 41

R. 28

6-747



23394 1100 N 1520 W 8-41-28

Specimen from dump pile about a pit 25 or 30 feet deep. It is a friable reddish quartzite with grey specks (carbonate?)

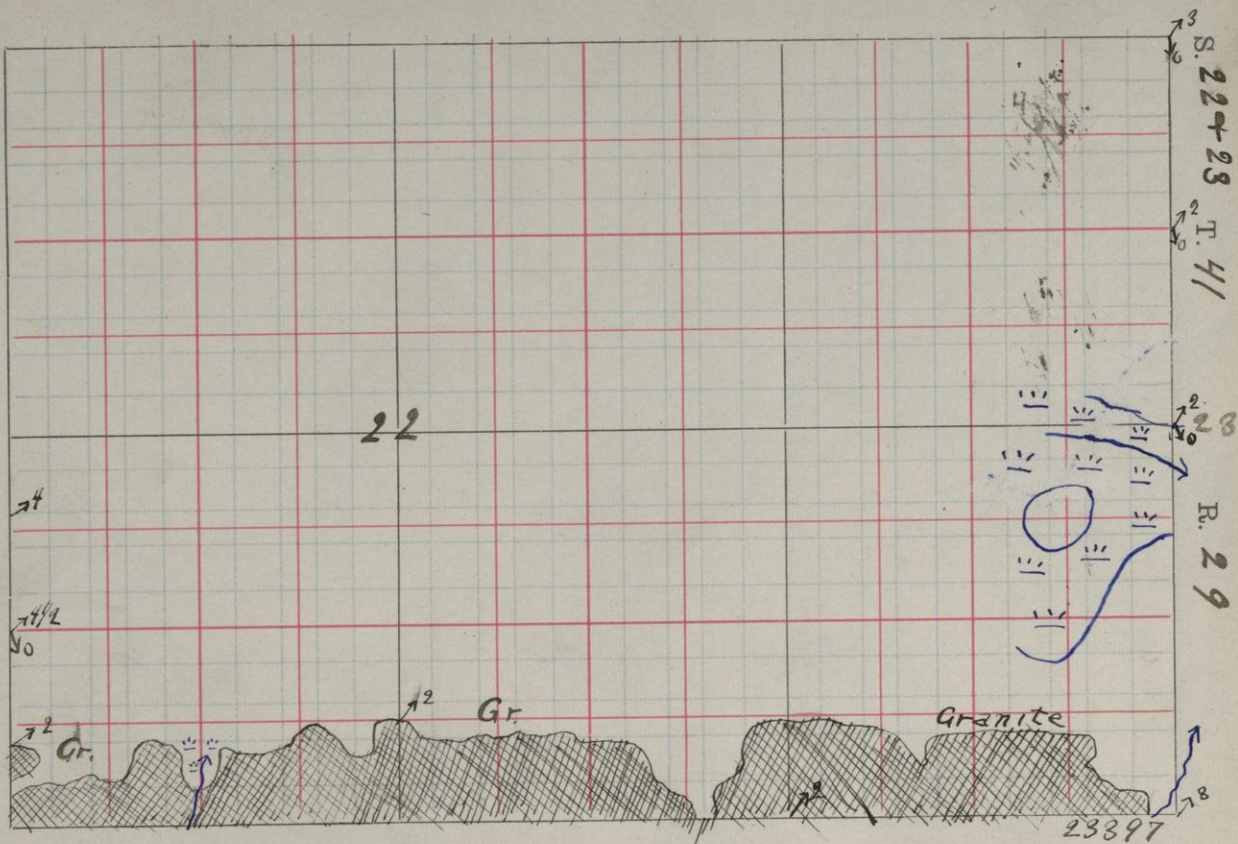
1500 N 900 W is a ledge of Otadum Sandstone along the side of a ridge.

23395 1480 N 780 W 8-41-28

In R.R. cut is a ferruginous quartzite exposed. This is but a few paces from the old Calumet Mine. The rock in the R.R. cut is much shattered and sheared. No structure could be made out.

23396 1500 N 470 W 8-41-28

From mouth of an old shaft over a hundred feet deep. Specimen of the ore are a magnetite quartzite.



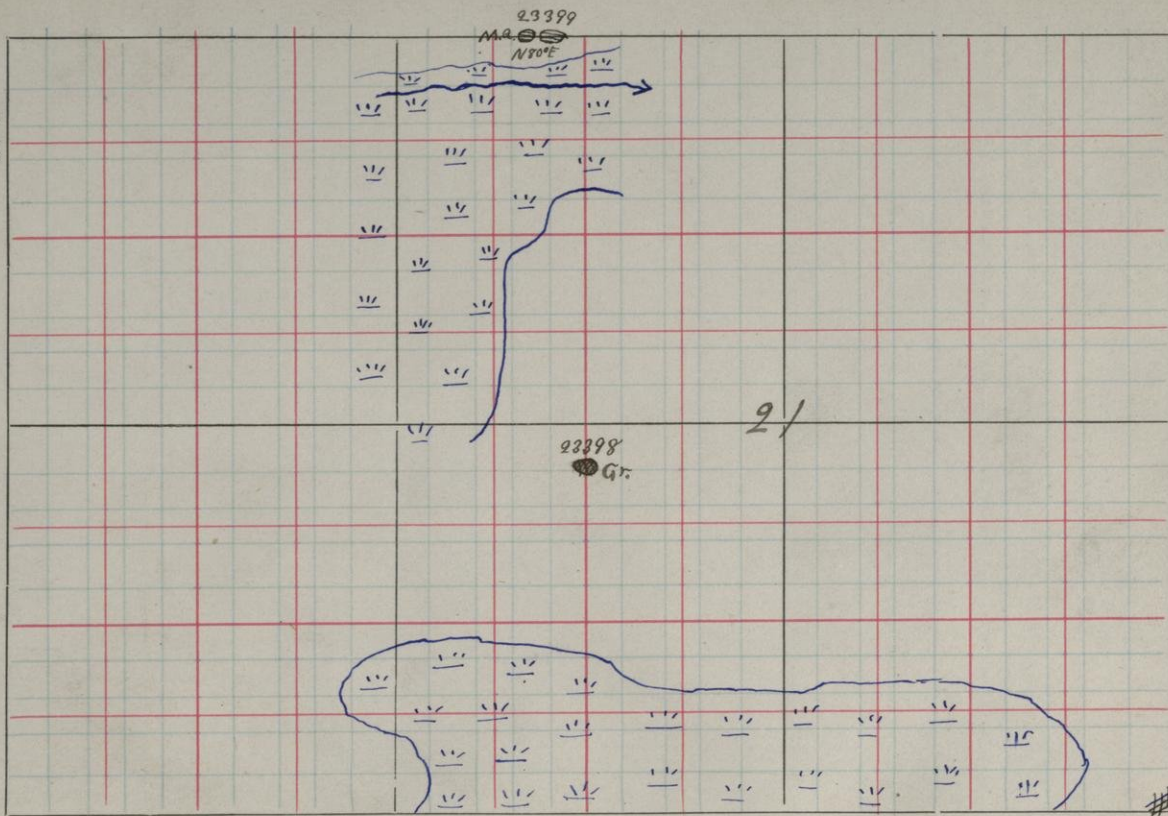
23397 20 N 125-0 W 23-41-29
Edge of granite. Large
quantity of granite to the
West and South of this.

S. 21

T. 41

R. 29

6-147



28898 915° N 15° 00' W 21-41-29
Ledge of granite.

28899 7985° N 15° 70' W 21-41-29
Ledge of mica quartzite
much like 28889, strike is
E and W about E 10° N
Dip 55° N

S. 8 + 9

T. 41

R. 28

26251

Gr. 

Gr. 







7  0

7  0

7  0

5  0

5  2

6  11

8 

6-747

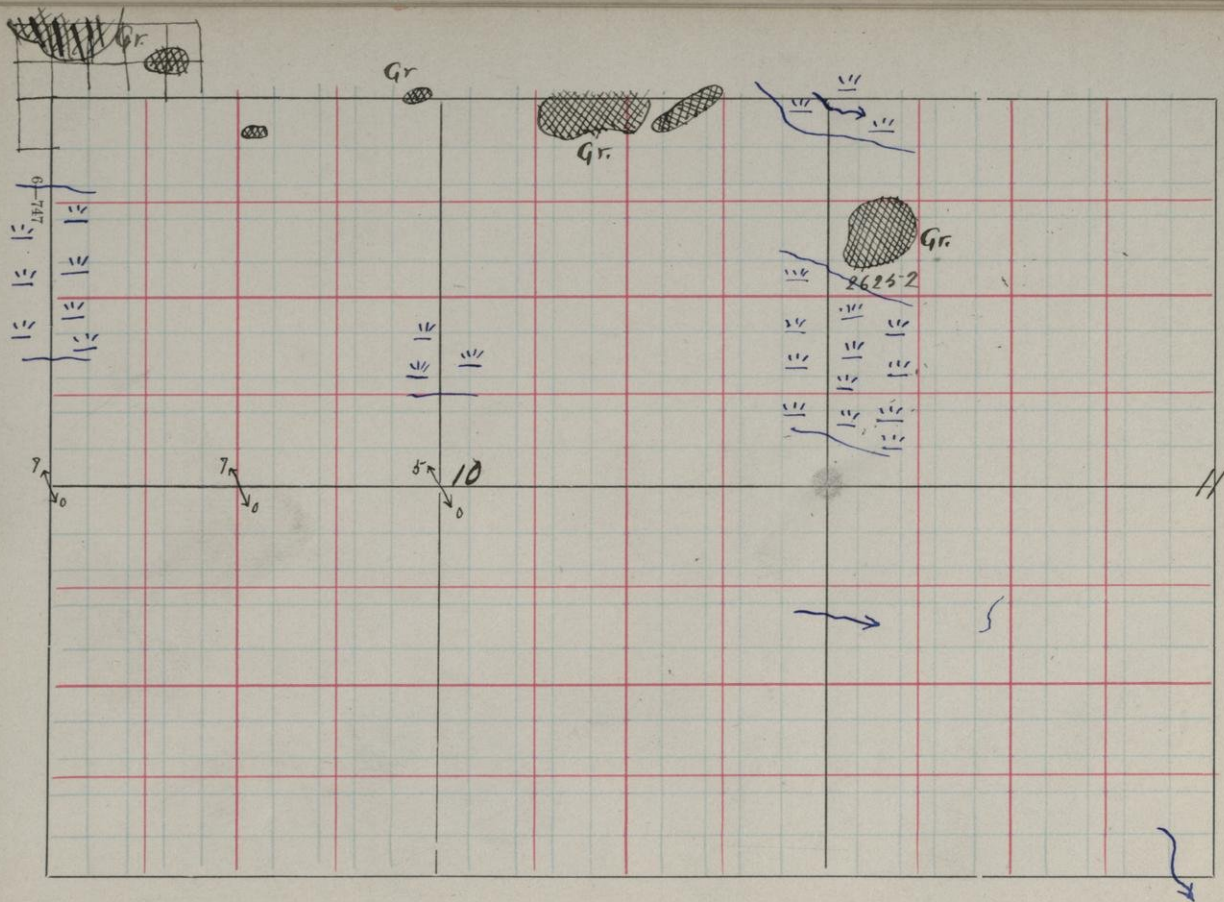
26251 2000 N 140 W 9-41-28

ledge of granite. Strike of
schistosity is N. W.

S. 10

T. 41

R. 28



26252

1575-N

1875-W

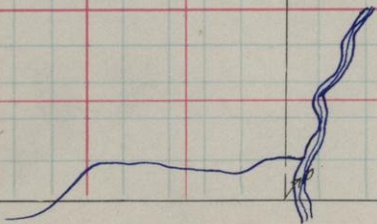
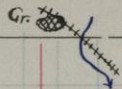
11-41-28

Large ledge of hornblende
granite or gabbro.

S. 12

T. 41

R. 28



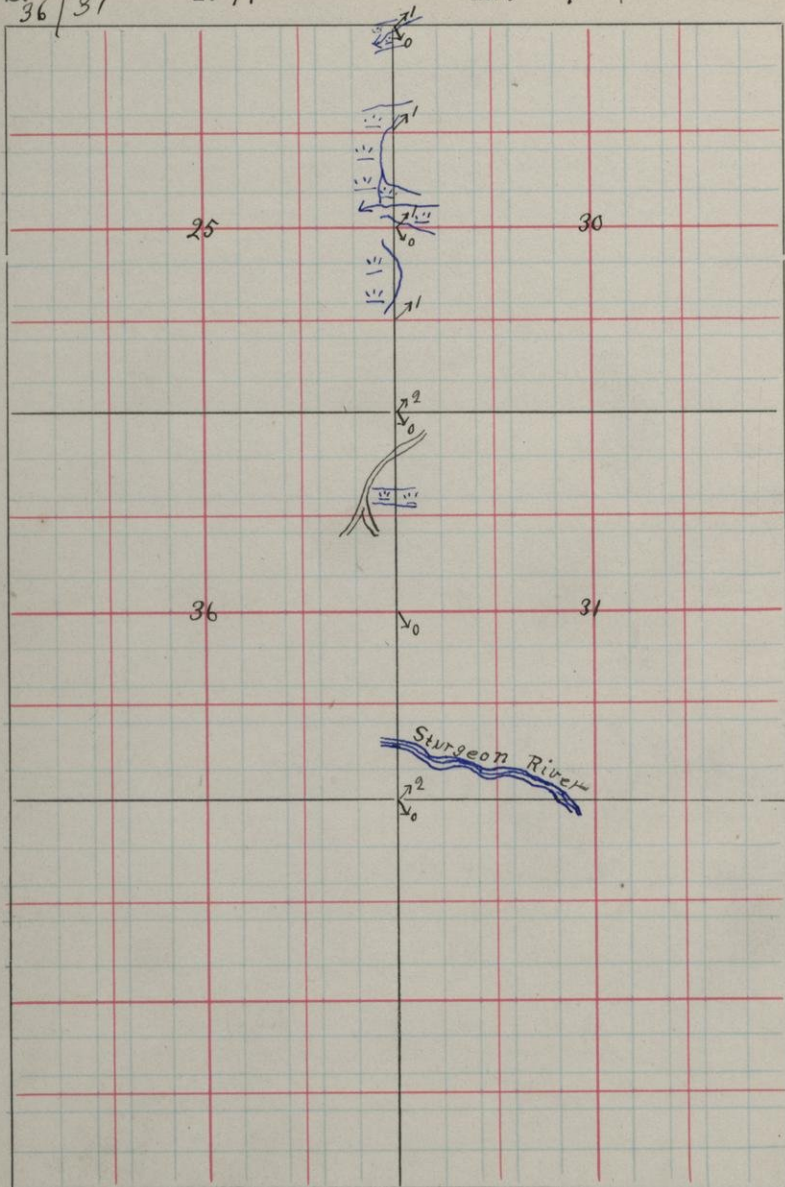
12

6-747

S. 25/30
36/31

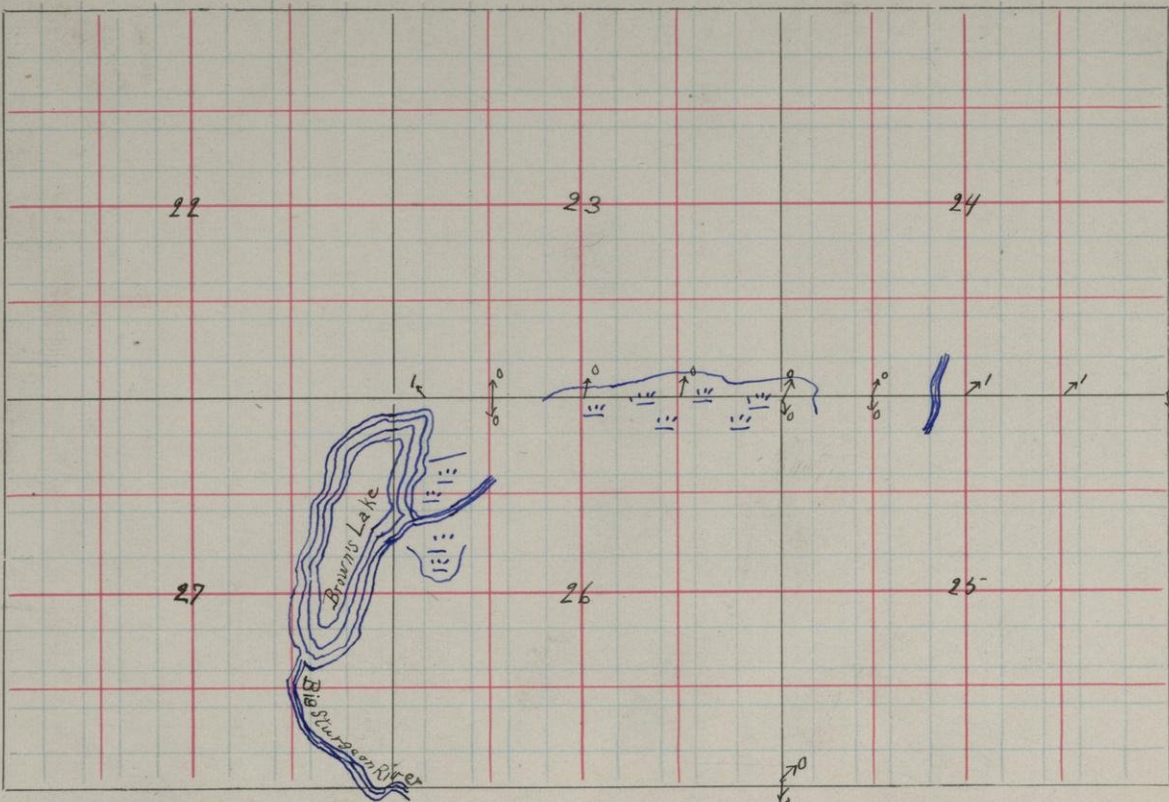
T. 41

R. 28/27



S. 22 23 24
27 26 25 T. 41

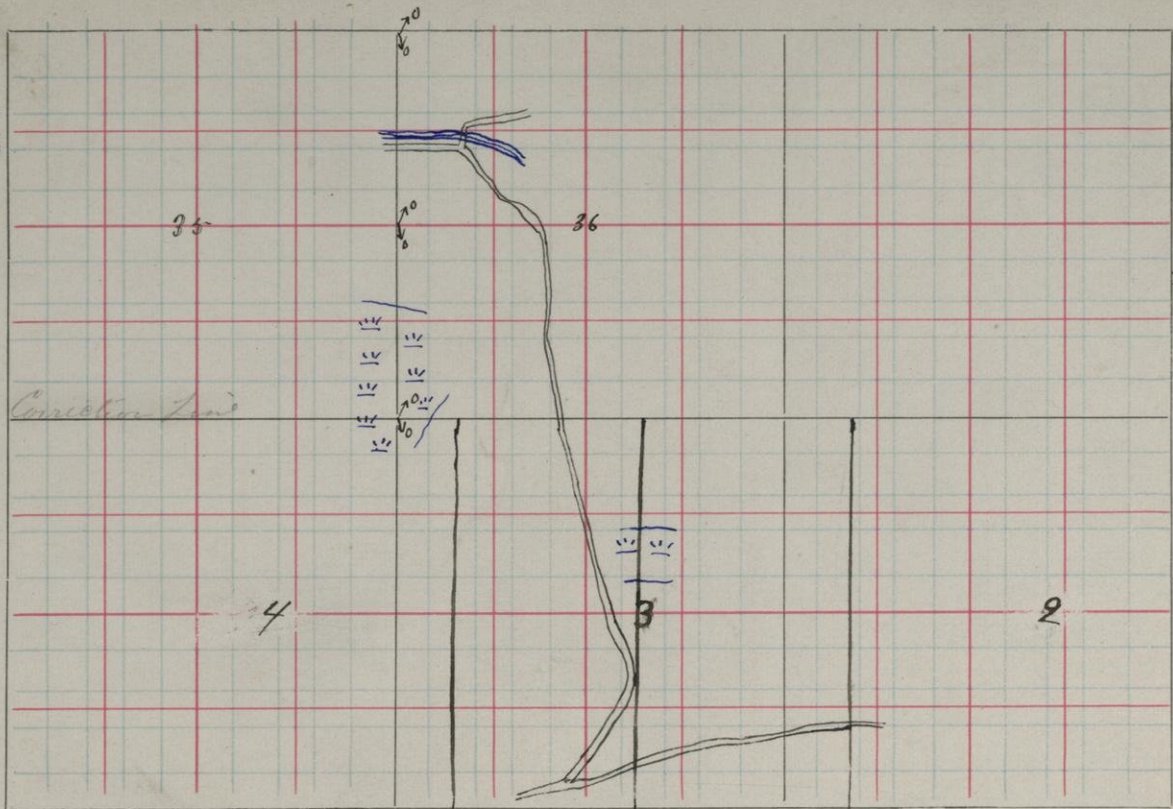
R. 28



S. 36 3

T. 41 4D

R. 28



S. 35-

T. 41

R. 28

35-

~~35-~~

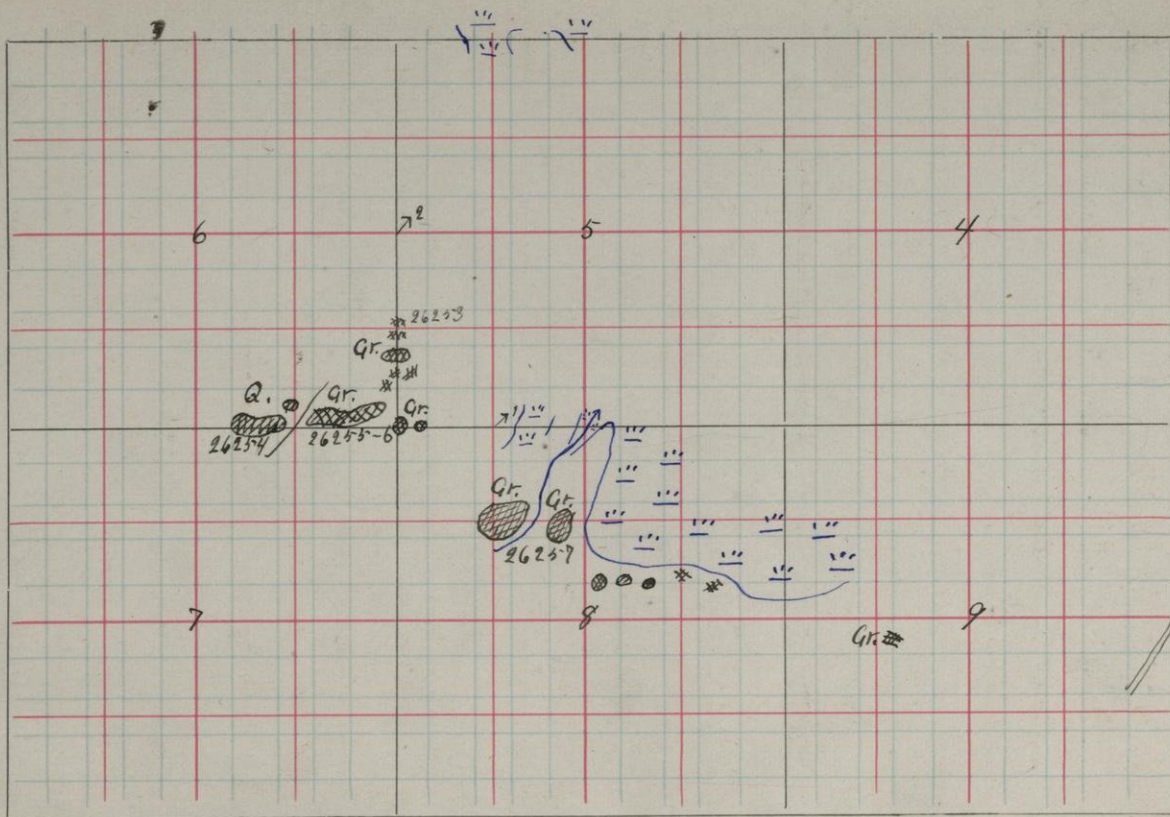
34

S. 6/4
7/8/9

T. 40

R. 28

6-747



26253 6-85-N 0 W 3-40-28
Ledge of banded granite
dark grey with pink feldspar
crystals.

26254 0 N 5-75-W 6-40-28
Large knob of fine grained
pinkish white quartzite

26255 25-N 375-W 6-40-28
Ledge of what appears to be
granite but may be a
pyroclastic

26256 25-N 350 W 6-40-28
Ledge of granite

26257 1450 N 1140 W 8-40-28
Ledge of granite like 26253
containing masses of horn-
blende granite.

1200 N 850 W is a ledge
of hornblende granite.

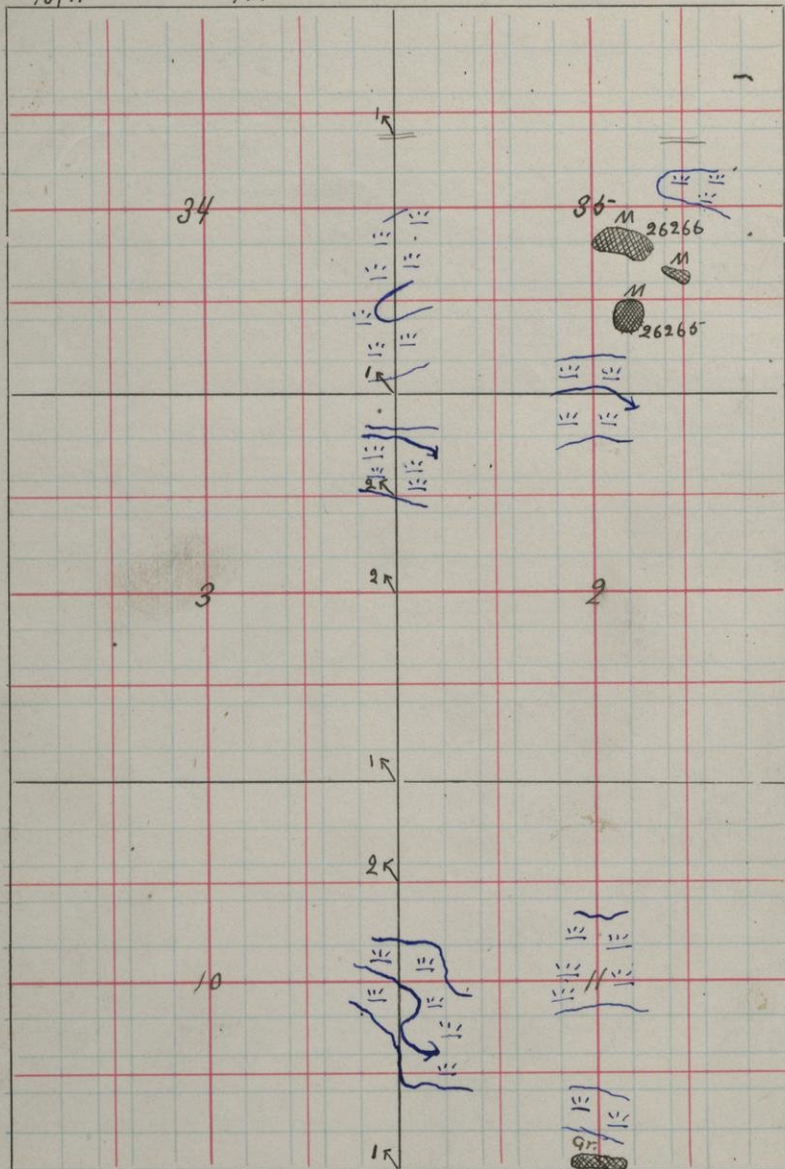
26258 Ledge shown in shallow cut of R.R. about $1\frac{1}{4}$ miles east of Porter City. The rock is a garnetiferous and selenitic schist. The dip of the schistosity is about 45° S.E. The rock is exposed along the R.R. for a distance of 40 or 50 feet. At east end have rock like 26258

26259-63. The specimens numbered 26259 to 26263 were taken in order west from the above 26258. These are all phases of the garnetiferous schist and show different degrees of schistosity. 26262 is a narrow seam or bed lying parallel to the dip of the schist.

S. $\frac{34}{32}$
 $\frac{10}{11}$

T. $\frac{43}{42}$

R. 29



26265 350 N 850 W 35-43-29

Ledge of marble somewhat quartzitic, having many veins of quartz. No structure made out.

26266 750 N 750 W 35-43-29

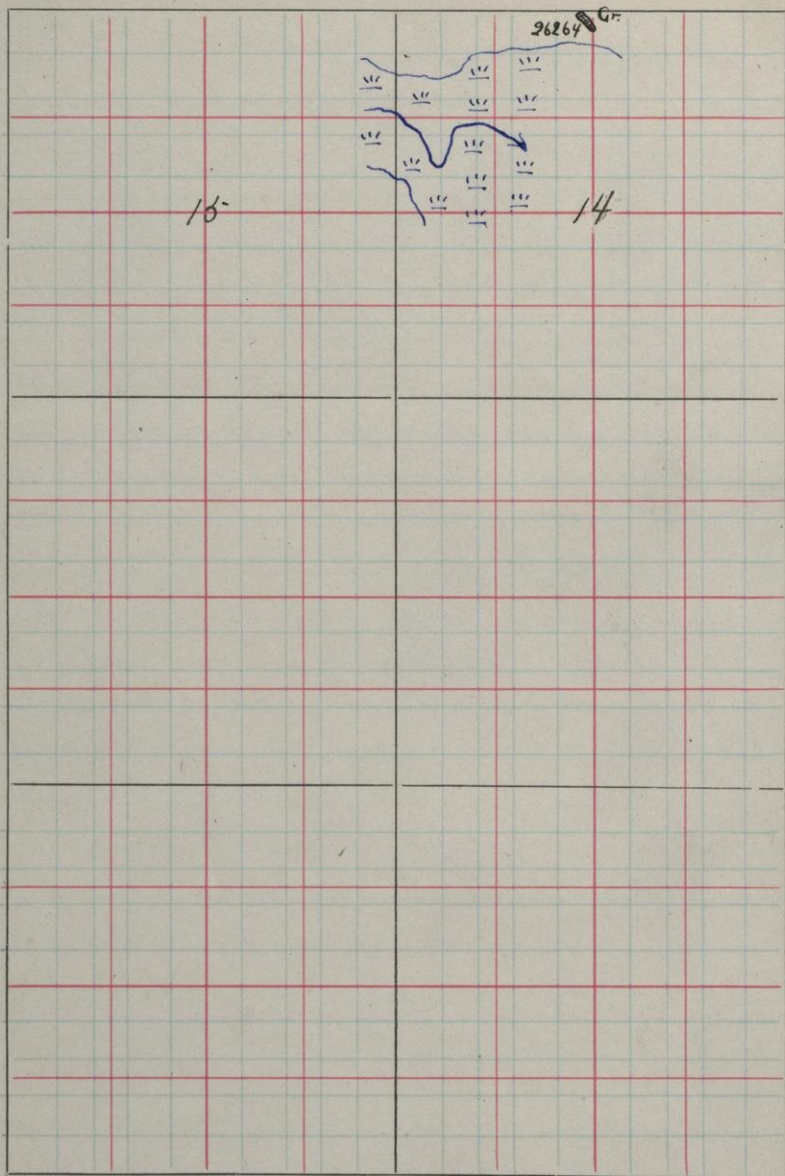
Ledge of marble. This marble ledge shows a system of narrow closely lying calcite veins curving and folding back upon each other but having a general direction of approximately N. and S. At right angles to this running E and W. is a system of joints or fractures so that the N. and S. faces of the ledge are vertical in an E. and W. direction. Specimen shows system of veins and fractures. No bedding structure was made out.

An examination of the ledge of marble further east shows that the system of calcite veins in this ledge run nearly E and W.

S. 16, 14

T. 42

R. 29



26264 1980 N 1000 W. 14-42-29

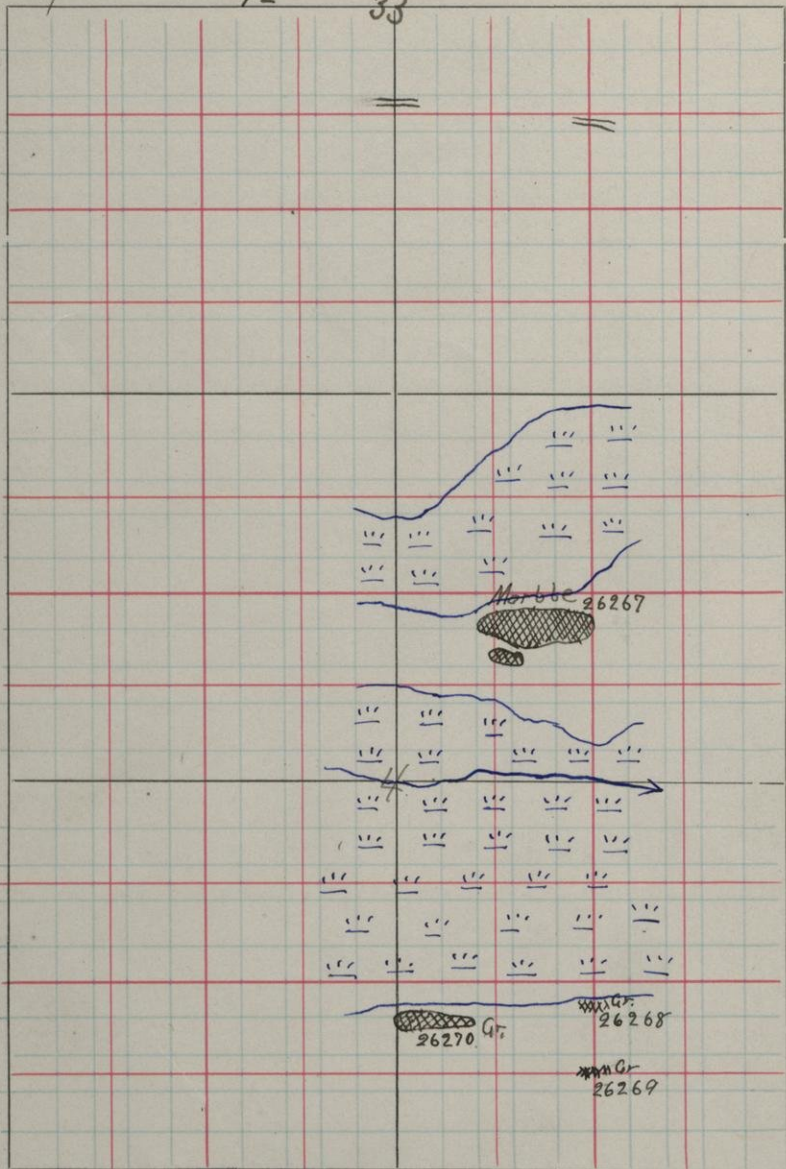
Ledge of coarse granite.

S. $\frac{33}{4}$

T. $\frac{43}{42}$

R. 29

33



26267 1380 N 65° W 4-42-29

Large hill of marble much like 26265.
Other small hills in vicinity but
the marble does not outcrop.

26268 450 N 50° W 4-42-29

Edge of quite coarse granite
somewhat schistose in places.

26269 240 N 50° W 4-42-29

Further up the same hill from
which 26258 was taken the
outcropping is a sort of chloritic
schist like 26269. Dip of
schistosity vertical and Strike
N 80° E.

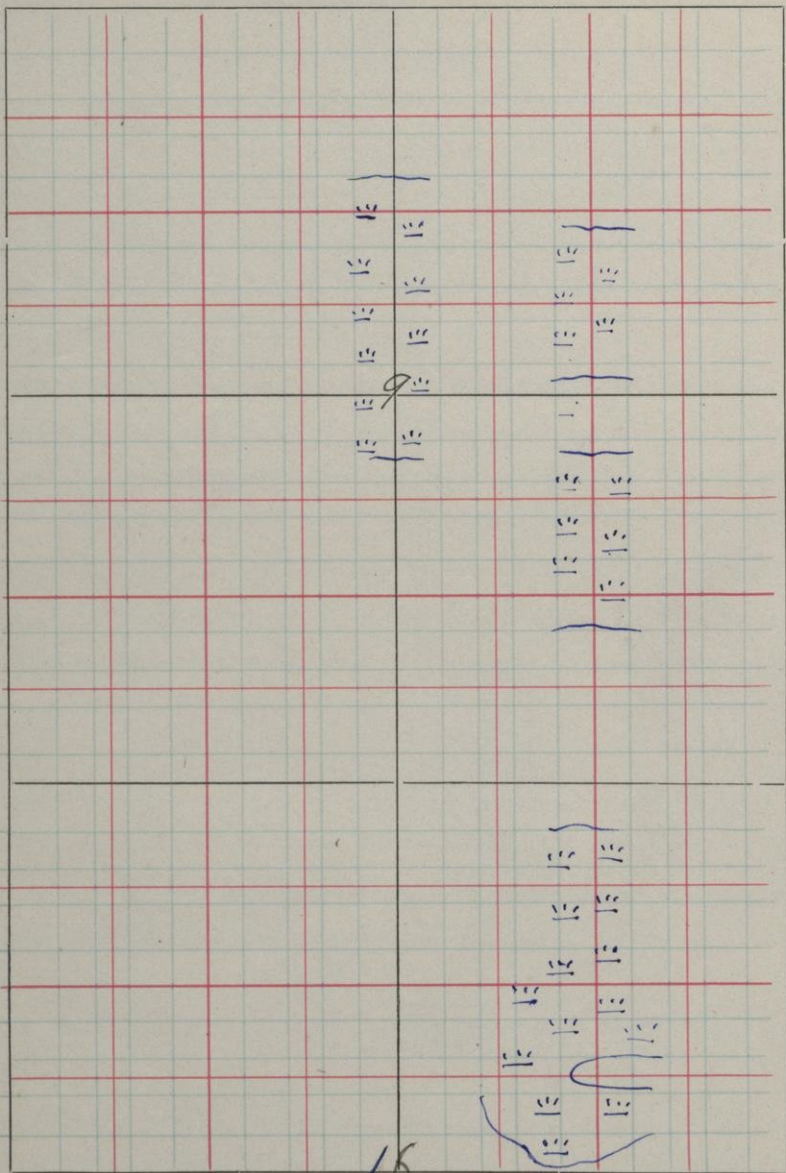
26270 350 N 95° W 4-42-29

Edge of black hornblende rock
quite schistose in places having
a strike of schistosity N 75° E. Dip
about vertical. This outcrop has
a vertical face on north side
at edge of swamp over 100 feet
high.

S. 9.16

T. 42

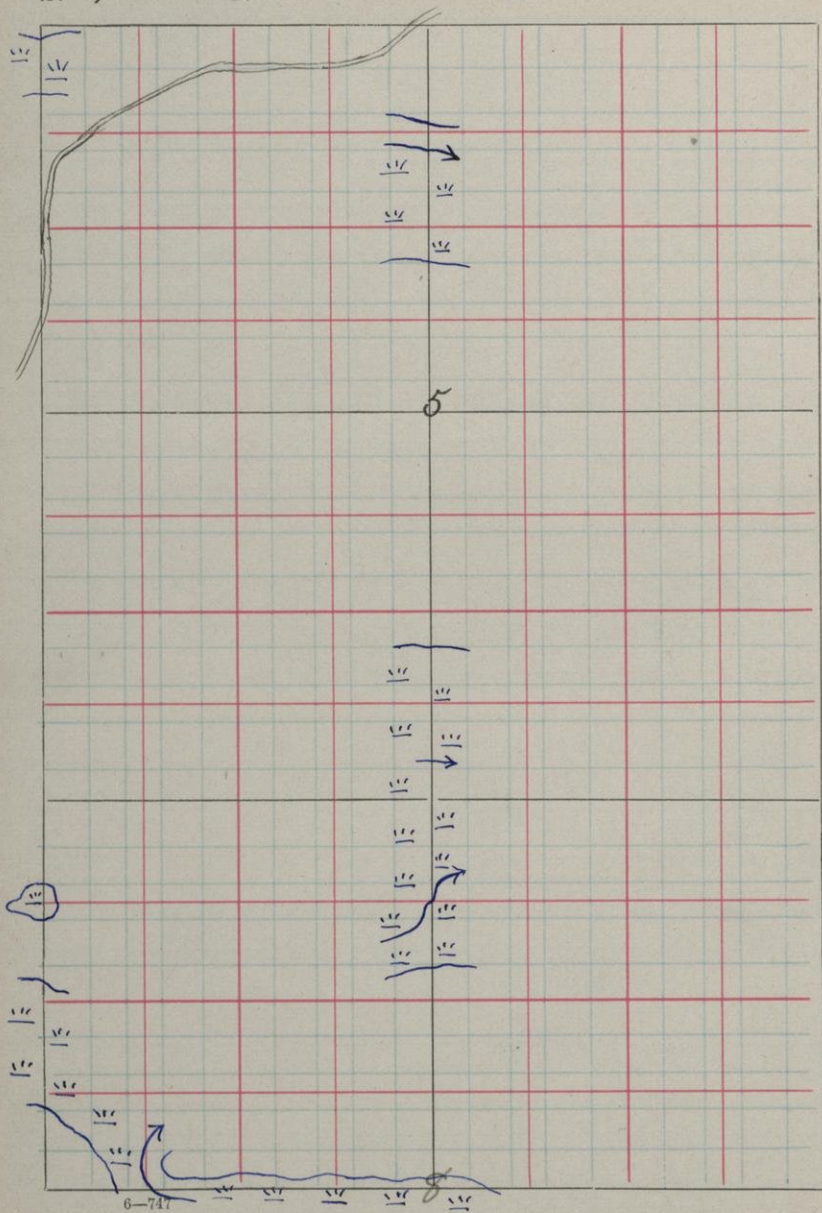
R. 29



S. 5, 8

T. 42

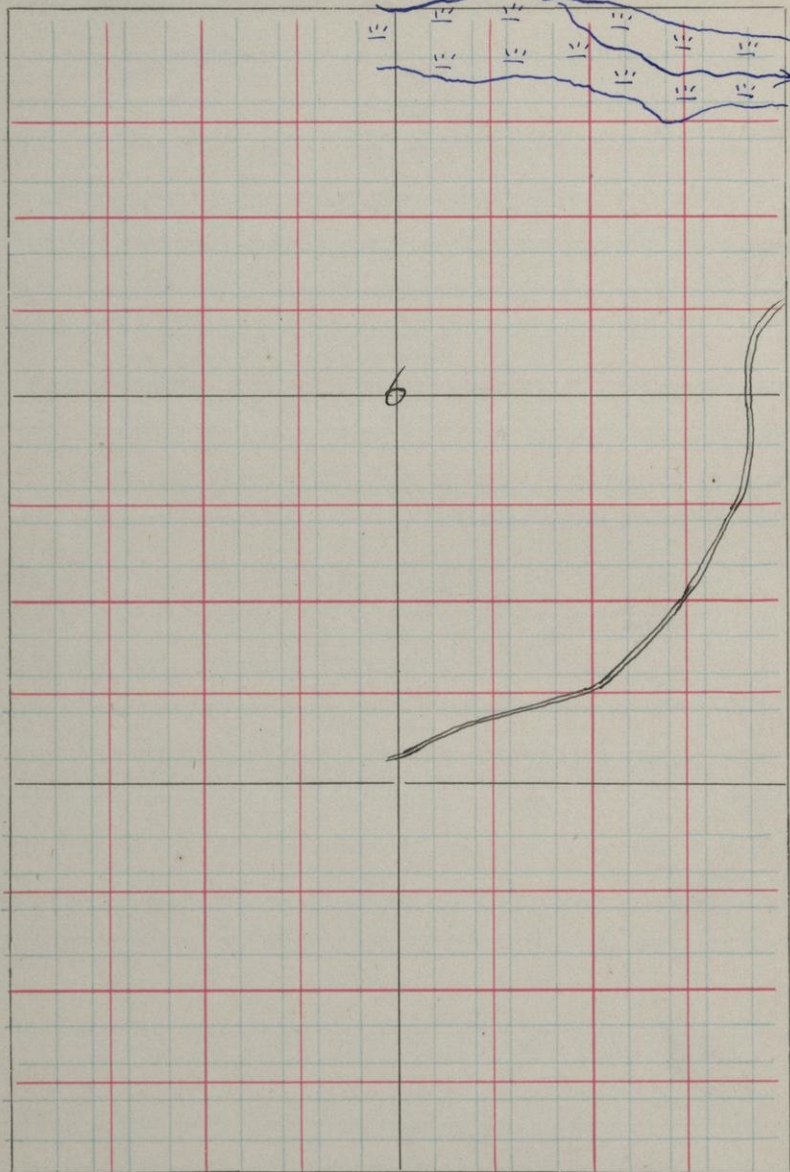
R. 29



S. 6

T. 42

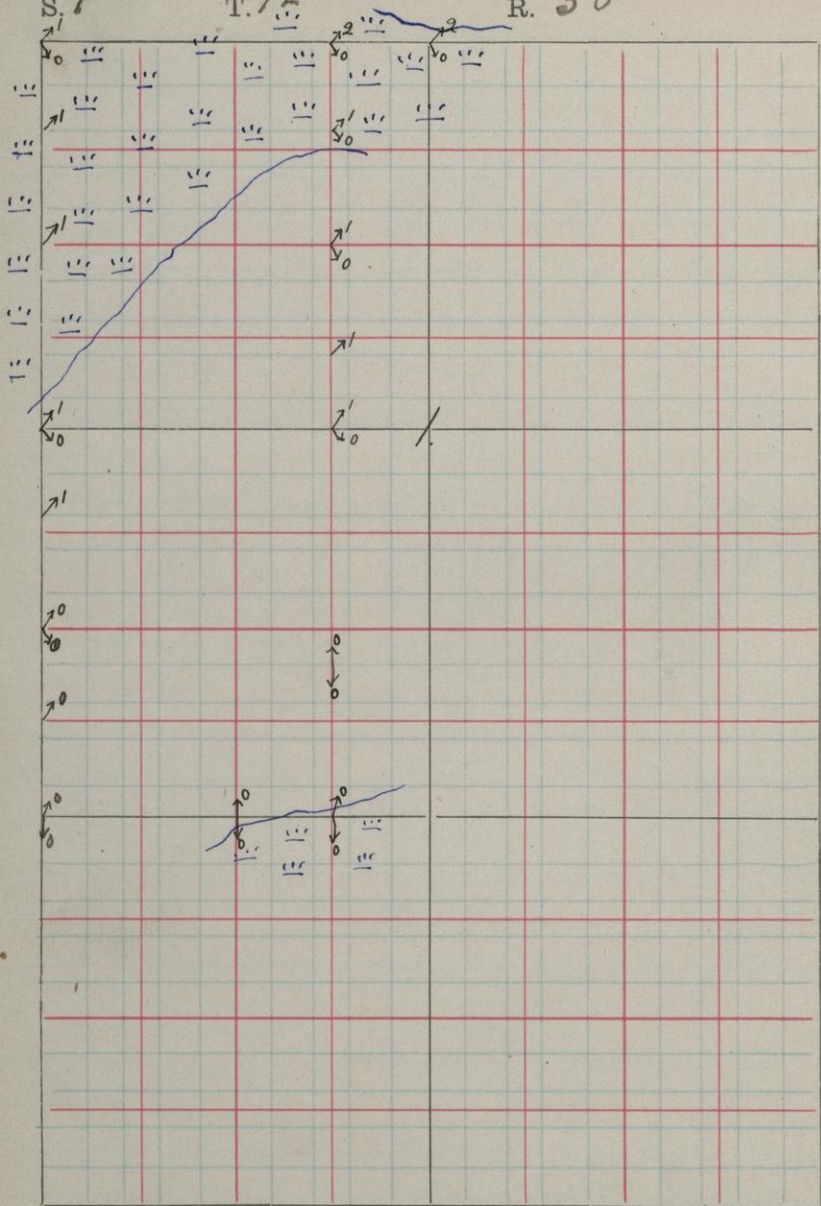
R. 29



S. 1

T. 42

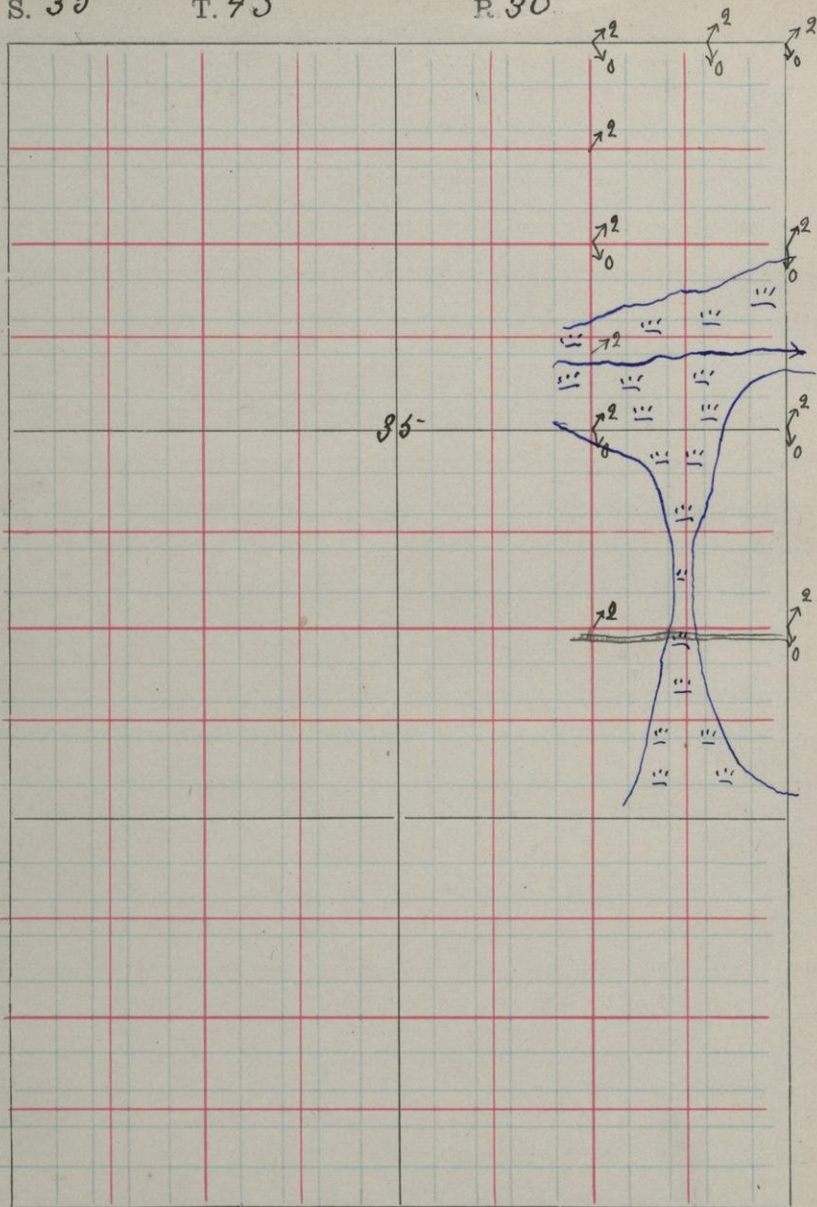
R. 30



S. 35-

T. 43

R. 30



S. $\frac{2}{17}$
72

T. 41
1° 1° 1° 2°
magnetic boulders

R. 31

↗₀ ↗³ ↗₀³) $\frac{11}{11}$) ↗₀⁶ ↗₀⁶

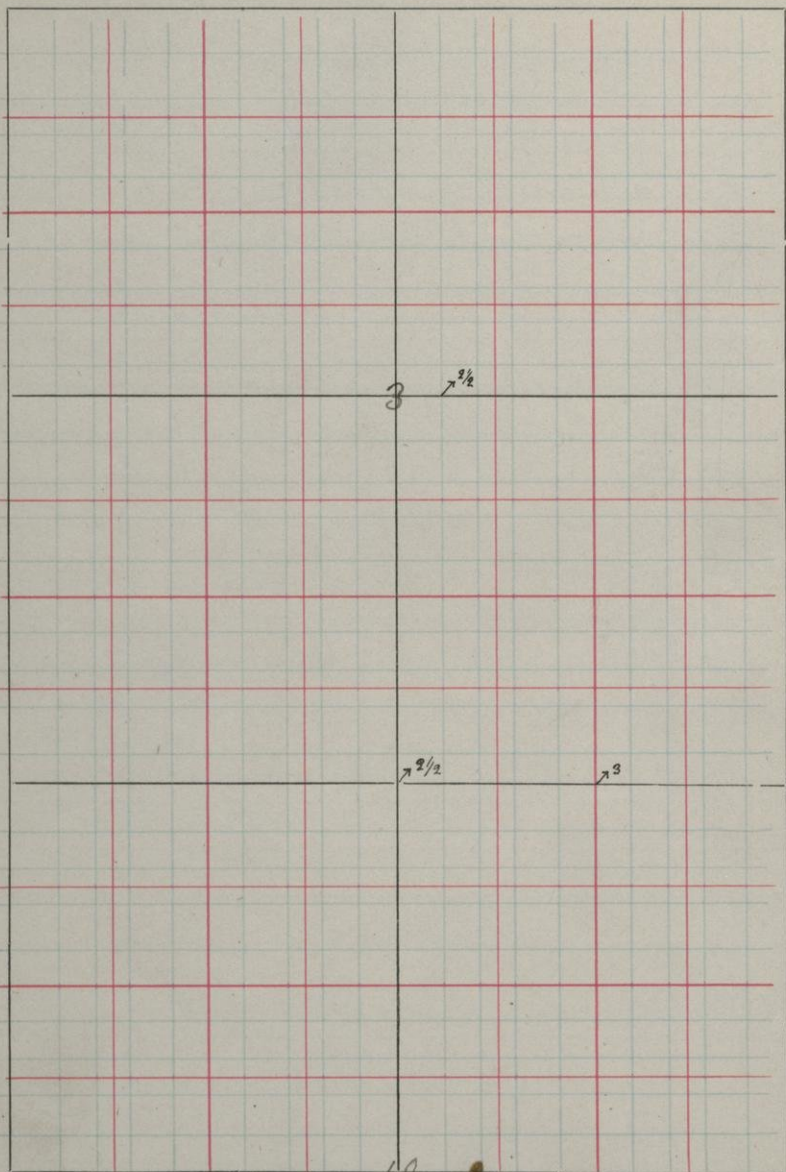
//

at 1850 W 1000 N 2-41-31
is a large magnetic boulder composed
of magnetite micaceous quartzite.

S. 3

T. 41

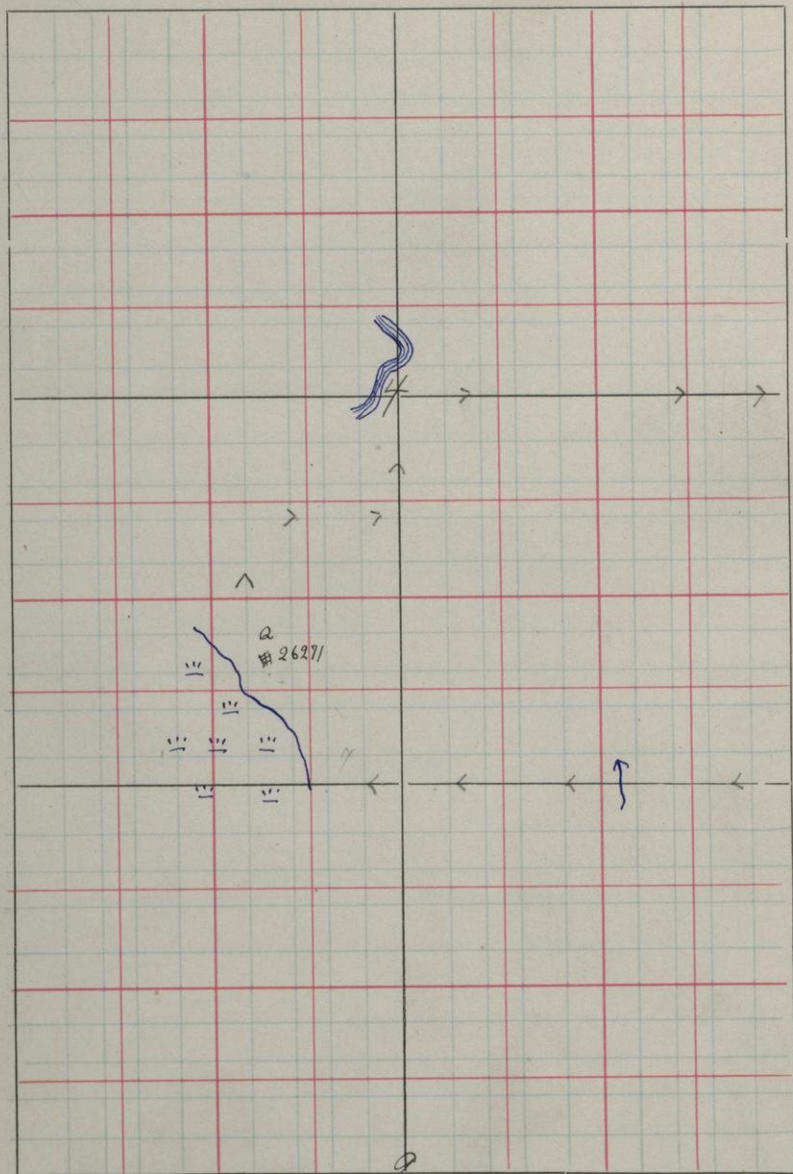
R. 31



S. 4

T. 41

R. 31



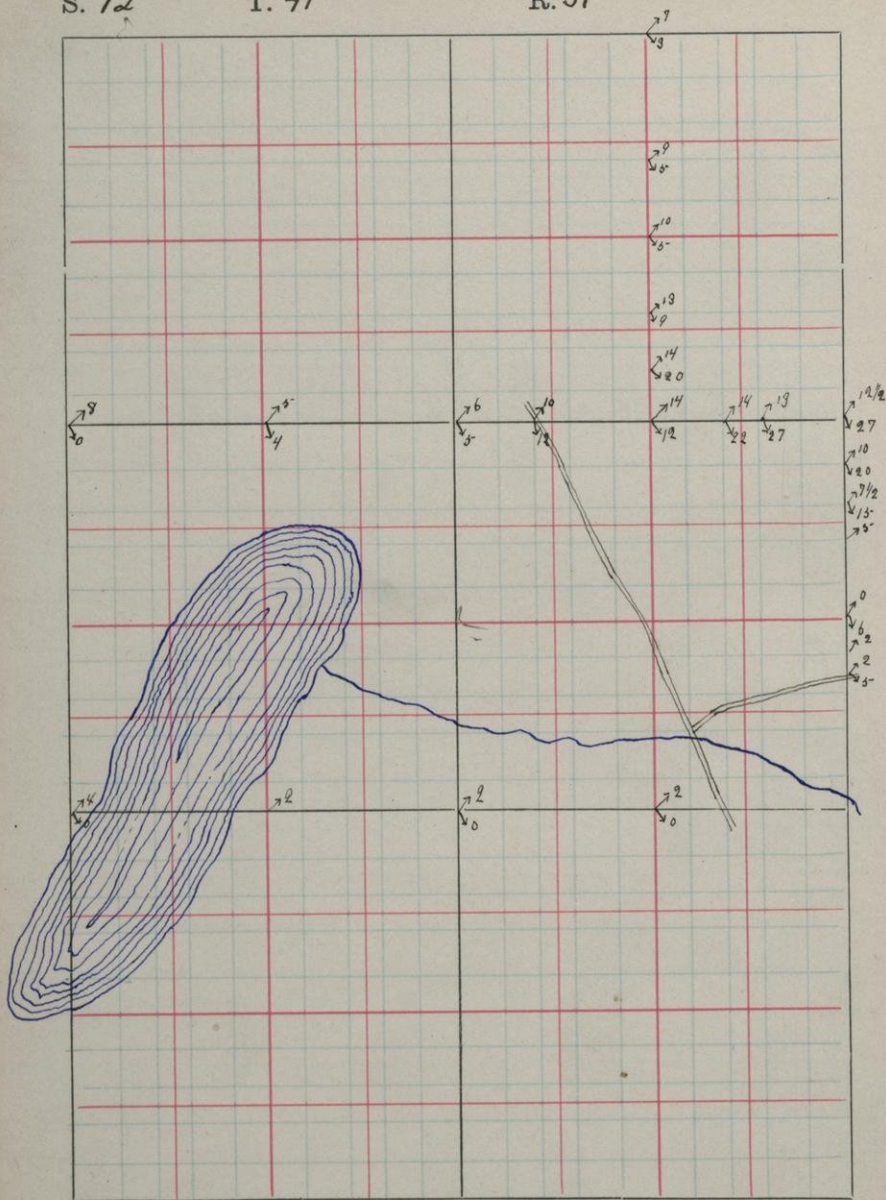
2627/ 350 N 1350 W 4-41-81

Small ledge of micaceous quartzite

S. 12

T. 41

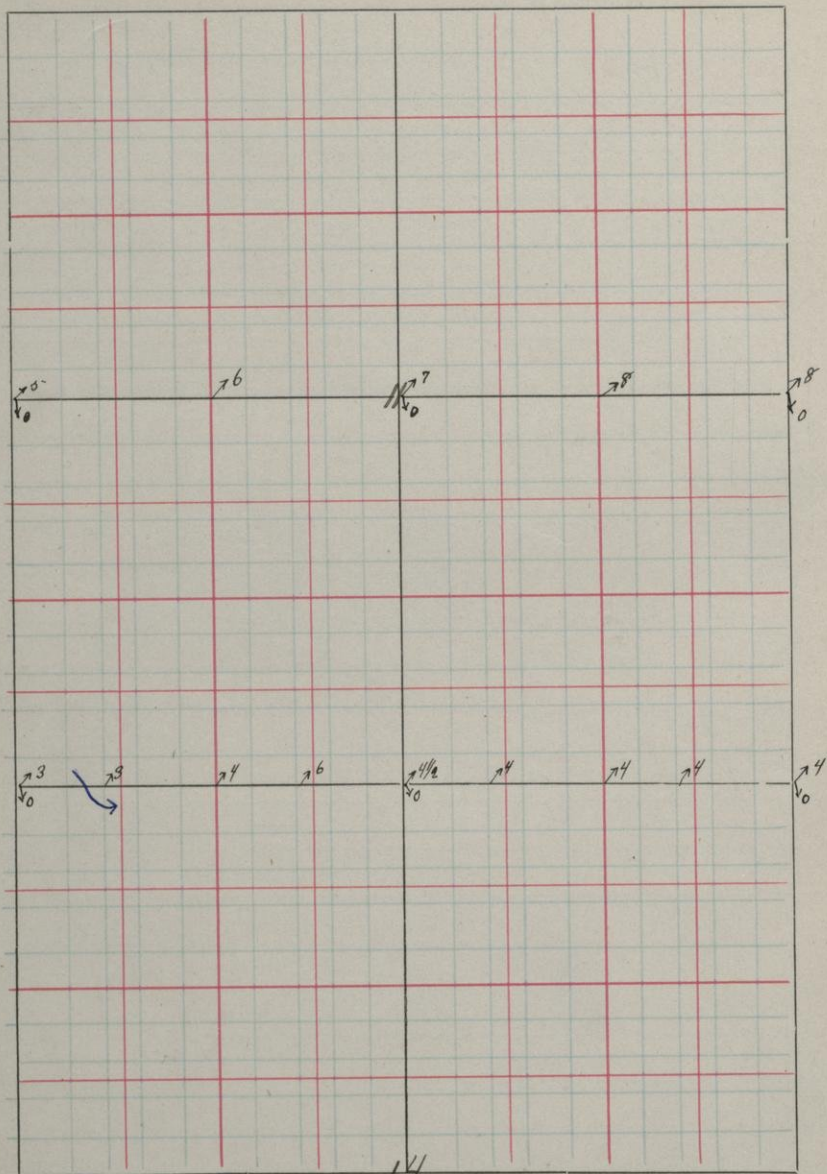
R. 31



S. //

T. 4/

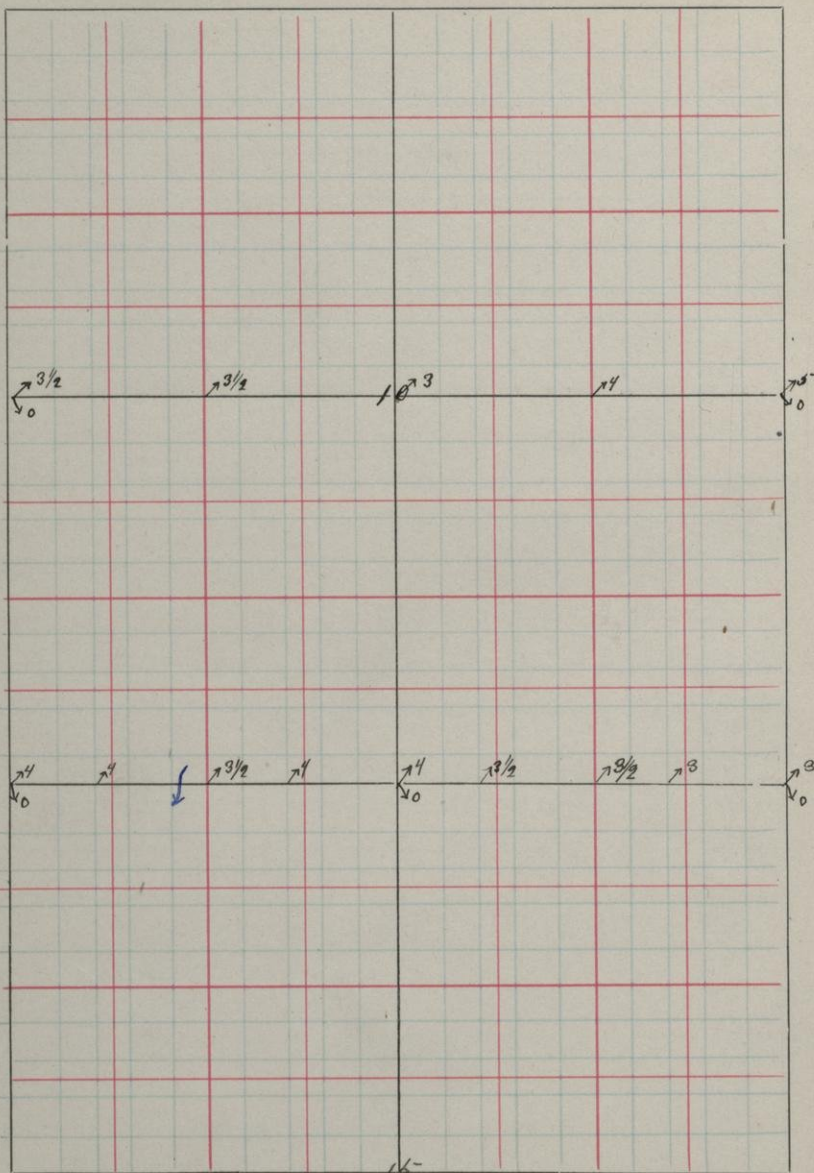
R. 3/



S. 10

T. 41

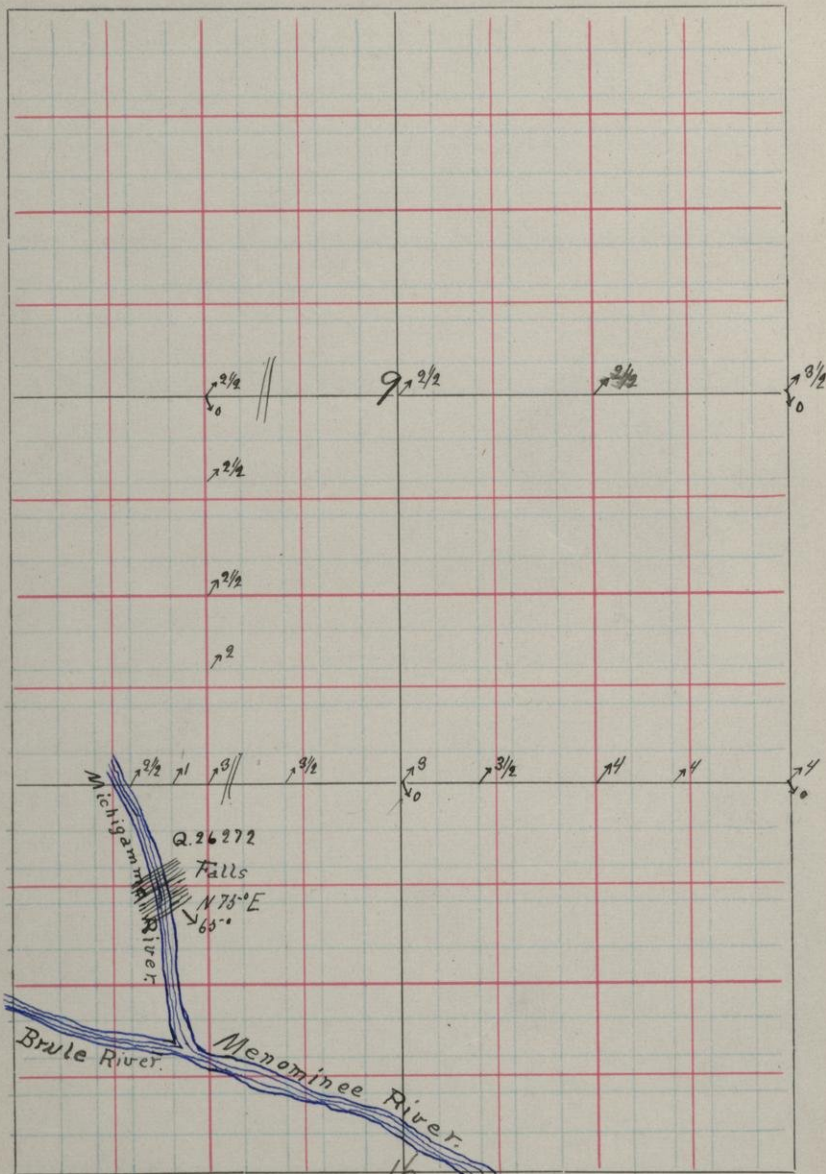
R. 81



S. 9

T. 41

R. 31



26272 1800 N 1650 W 16-41-31

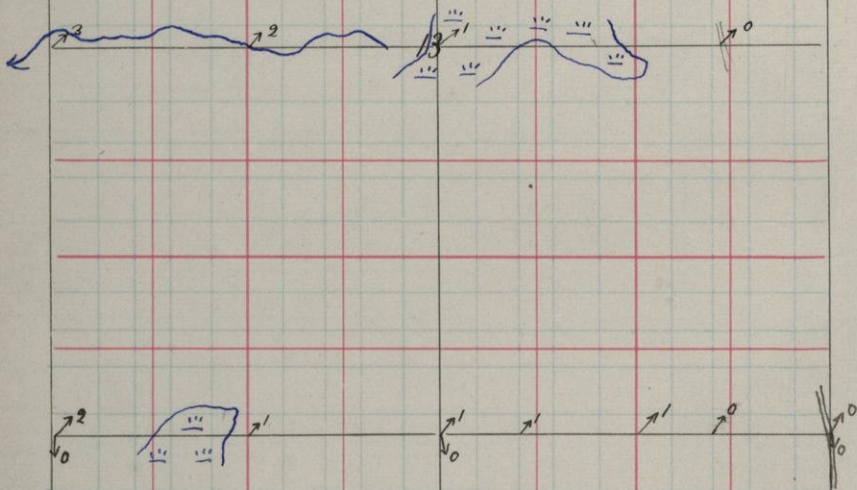
Ledge of micaceous quartzite forming the falls. The schistosity of the quartzite at this place apparently agrees with the bedding Strike N. 25° E. Dip 65° S.

Dr. Bayley has visited this place from the other side of the river.

S. 13

T. 41

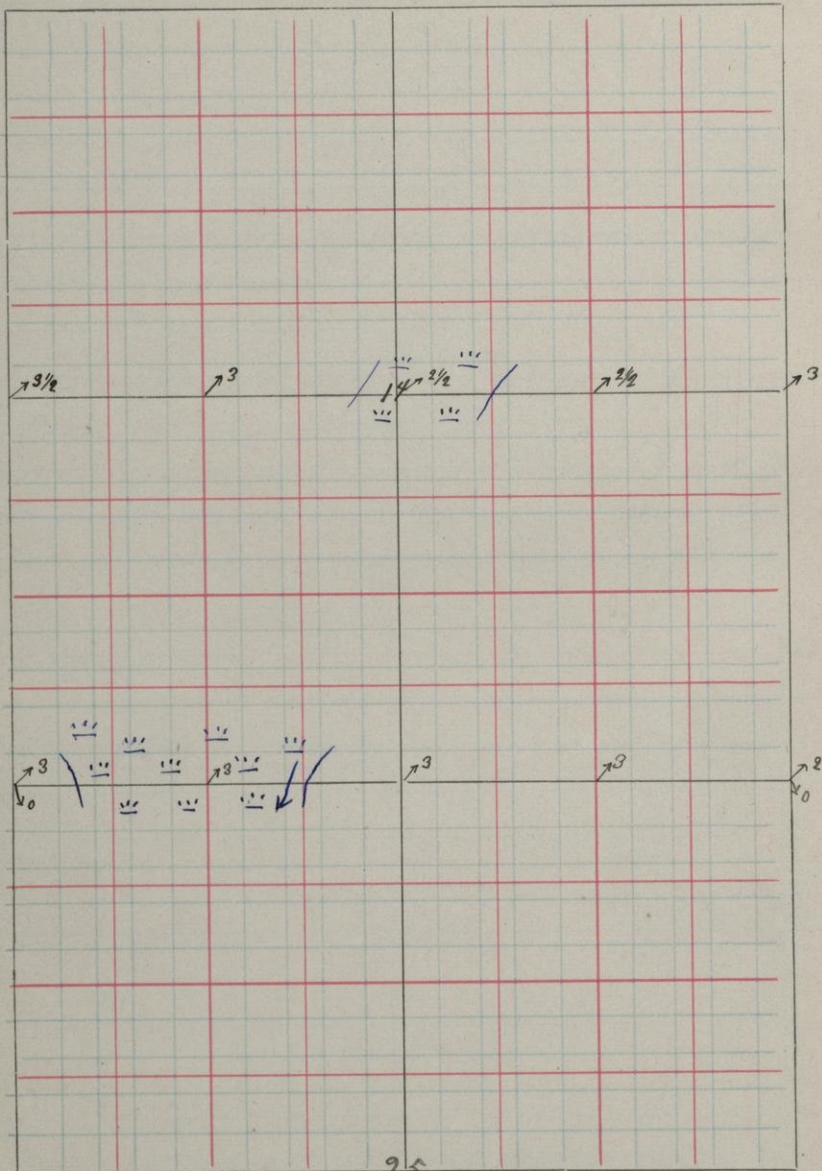
R. 31



S. 14

T. 41

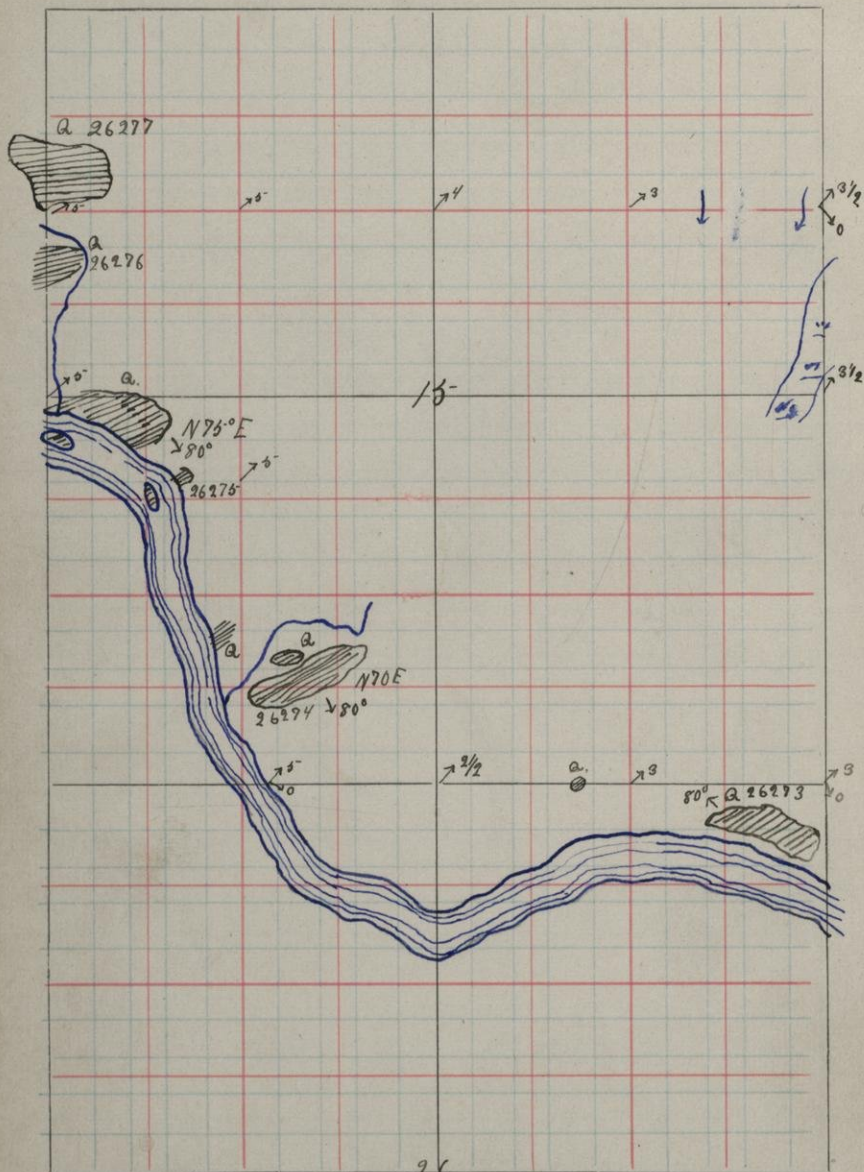
R. 31



S. 15-

T. 41

R. 81



26273 1900 N 300 W 26-41-31

Large ledge of micaceous and chloritic quartzite on the bank of the river. Strike of schistosity which agrees with the true bedding as near as can be made out is $N 70^{\circ} E$ and the dip is 80° to $85^{\circ} N$. Where the rock is fine grained and schistose it is crumpled and in places brecciated.

26274 200 N 1465 W 15-41-31

Ledge of quartzite like 26273. Strike $N. 70^{\circ} E$ and dip $80^{\circ} S$ of the schistosity. This ledge seems to be more schistose than 26273 but possibly not. I am not certain whether the bedding is the same as the schistosity or not.

26275 800 N 1695 W 15-41-31

Ledge of quartzite. Strike of schistosity $N 80^{\circ} E$. This is very probably bedding. Further up the river near section line the strike is $N 75^{\circ} E$ Dip $80^{\circ} S$.

26276 1800 N 2000 W 15-41-31

Ledge of somewhat coarser mica quartzite. Strike about $N 75^{\circ} E$

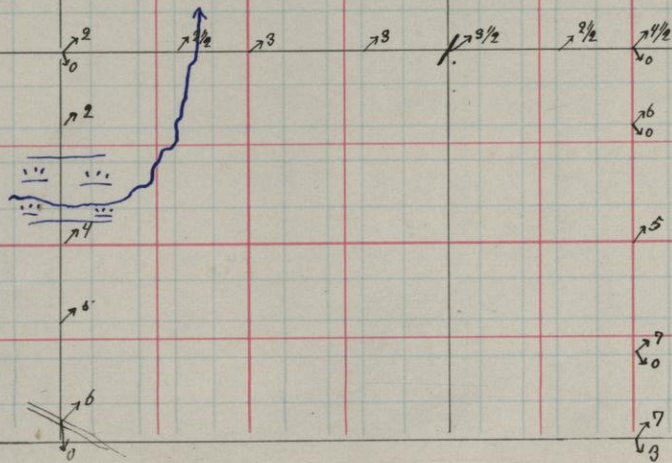
S.

T.

R.

6-747

2.



26277 15-5-0 N 2000 W 15-41-31
ledge of quartzite like 26276

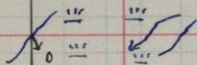
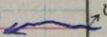
26277

✓

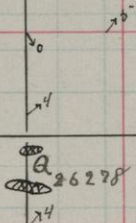
S. 24

T. 41

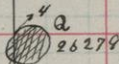
R. 31



24



Menominee River



26278 700 N 2000 W 24 - 41 - 31

Sedge of fine grained micaceous quartzite. Structure could not be made out.

26279 0 N 950 W 24 - 41 - 31

Sedge of fine grained quartzite like 26278. No structure made out.

S. 19

T. 41

R. 30

19

7

7

40
26279

26280

2

2
40

280N 970W

19-41-30

Ledge of quartzite like 26279. No
structure made out.

26280 250N 680W 19-41-30

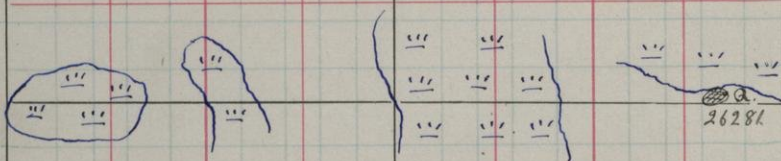
Ledge of quartzite. No structure.

S. 20

T. 41

R. 30

20



26281 40 N 200 W 20-41-30

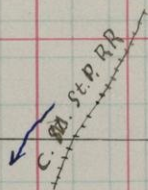
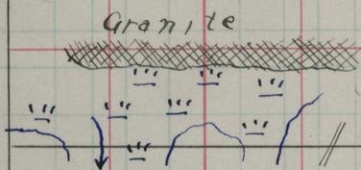
ledge of fine grained dark
colored quartzite. To the
north, across the swamp, can
be seen large masses of
granite

S. 21

T. 41

R. 80

21



55 8
 21 5
 13.08 8-18
 163 70
 14.63 11
 23
 11

