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Marquette region, Michigan: [specimens] 21773-21871. No. 139 1892

Phillips, H. F.

[s.l.]: [s.n.], 1892

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U. S. GEOLOGICAL SURVEY
FIELD SECTION BOOK

139

Marquette Region
Michigan
H. F. Phillips

21173-21871

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 fivers, 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 x 2½ x ¾ inches will be allowed, but in all other cases *large-sized specimens*, trimmed to a size of 3 x 4 x 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.

#139

Those numbers which occur in R 49 are not yet plotted on sheets, those numbers are:-

21779 - 21786

21787 - 21794

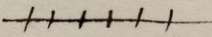
21795 - 21802

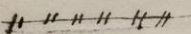
21803 - 21810

Contour intervals approximately 10 ft., but ~~indicate~~^{indicate} relative heights only, often only show shape of ledge.

Scale 8 inches to 1 mile unless otherwise indicated on the face of the map.

Line on map corresponding to course followed is indicated by an arrow pointing ⁱⁿ direction of course passed over.

Highways 

Railroads 

G. - Greenstone

Q. - Quartzite

H. S. - Hornblende-Schist

Gr. - Granite

G. C. - Greenstone-conglomerate

Book 4

H. F. Phillips,

D. C. Fortes. Copy as man.

T48-49N-R26-25 W.

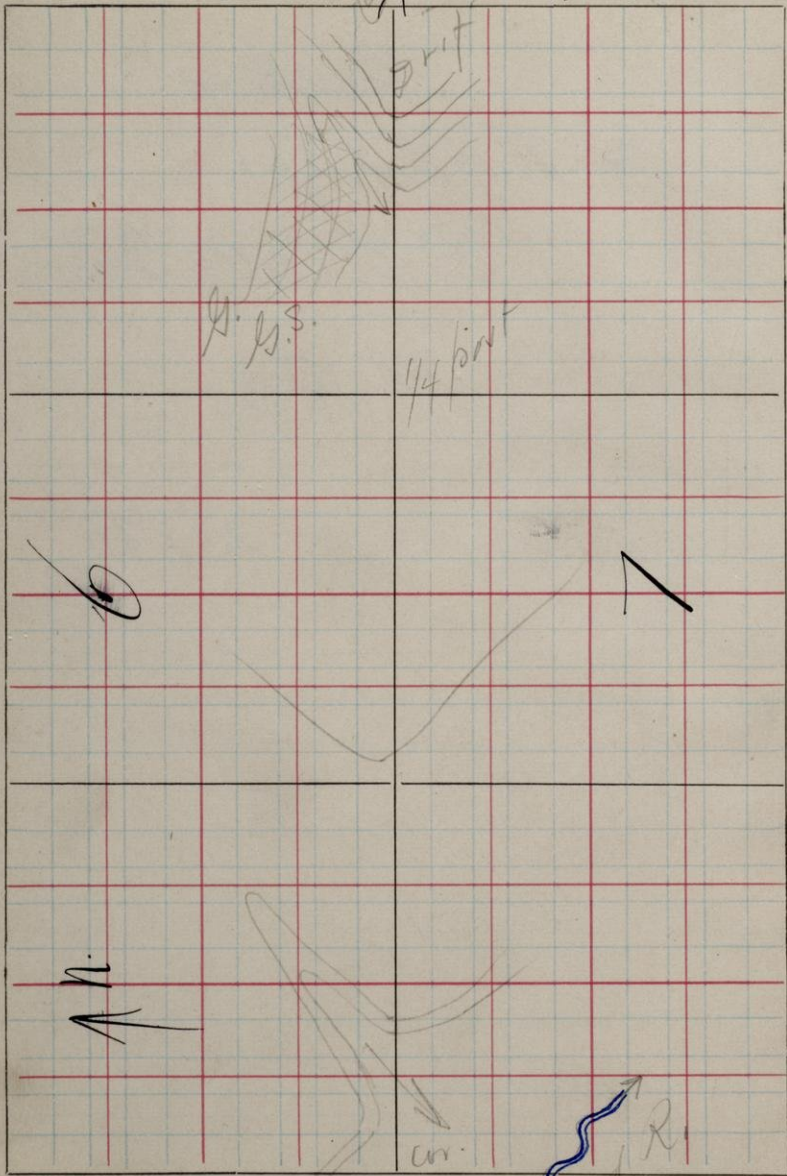
Spec's 21773-21871

Notes on Forms 49 in
this book are not
platted.

E. R. Manner

Oct 12 - 92

S. 6-7 T. 48 R. 26



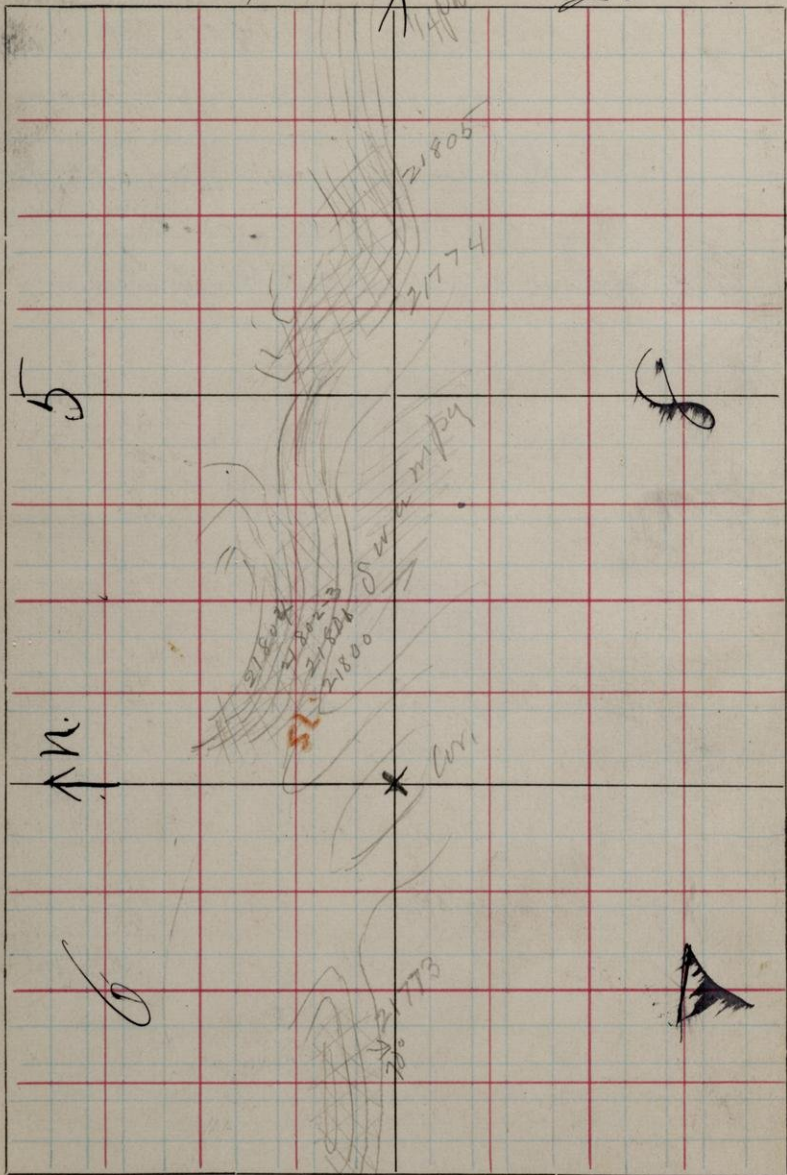
E.W. Sec. line Old. Sec's 6 & 7. Runs E.

- E.W. Ridge of granite ~~area~~
with granite out-crop on south
slope, runs north of the line

S.

T. 48

R. 26



✓ Exw. Ste. line betw Sts 6+7 and 5+8

21773 20N 310W S.E. Cor. 6. SN 90° E D 70° S.

55 ✓ Forms exw ridge 200 ps long,
30 ft high. # G.S.

21800 50N 3875W S.E. Cor. 5. Poorly exposed
55 ✓ but has apparent SN 90° E D 70° S

From foot of south slope.

21801 110N 1875W Small exposure + Mar
✓ ft of south slope; its extent
and nature can not be seen.

21802 150N 1875W. Forms layer + dyke
Dial running abt exw at top of main
ridge.

21803 { 225N 1875W. Massive form top
ridge. Forms mass of ridge.

21804 } Two opt. ciments are supposed
to be different phases of
same rock.

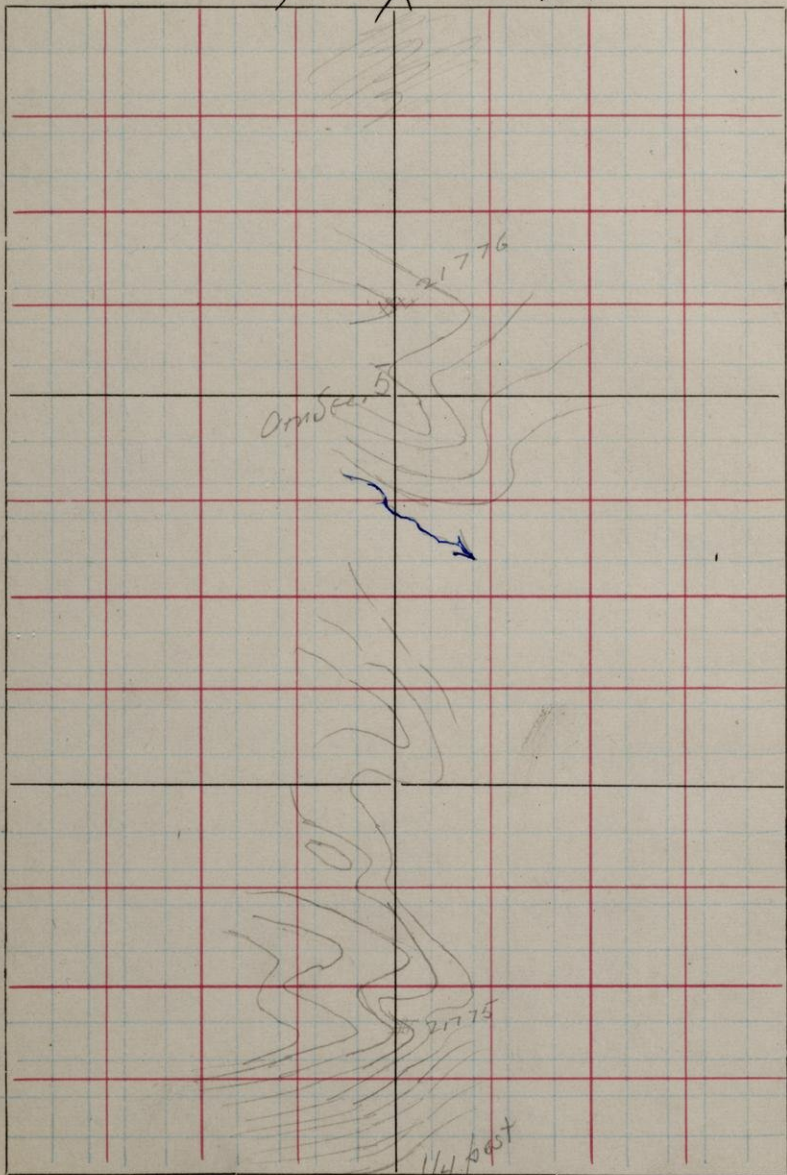
21804 0N 1380W massive, from foot
of knob similar to other one
first specimen + d (21800-04)

21805 0N 1250W. massive. Foot of
south slope. # Basic granite.

S. 5

T. 48

R. 26



2
NW 1/4 line Sec. 5

21775 175 N 10000 W S.E. Cor. 5, Mass wt.

From top of slope # Greenstone.
Slope not exposed.

21776 1115 N 10000 W Mass wt.

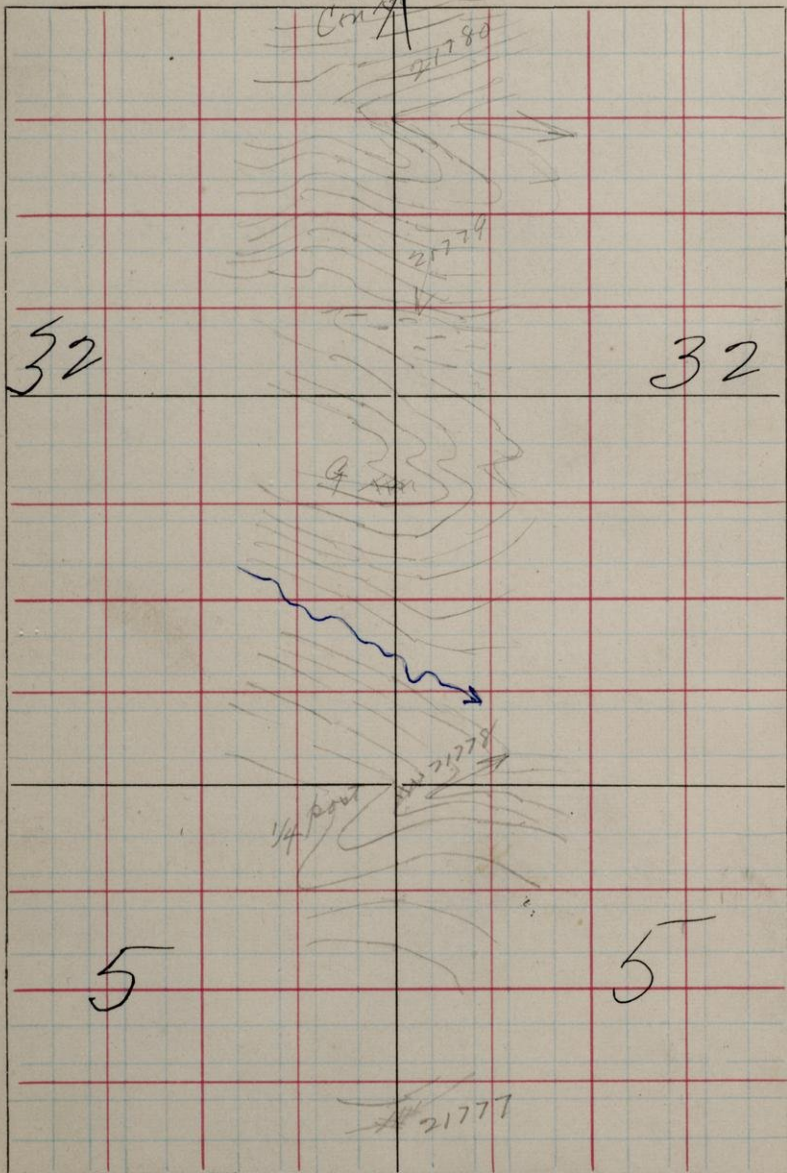
Small exposure greenstone;
Country mostly drift covered.

S.

T. 48-49

R.

76



N45 1/4 lot + D + C 5 + 32

21777 1575 N 1000 W S.E. Cor. 5 Massive.
Small exposure.

21778 2000 N 1000 W Massive.
Small exposure.

21779 680 N 1000 W S.E. Cor. 32. Non-uniform
From south slope. Poorly
exposed.

21780 975 N 1000 W. Massive. From
south slope, poorly exposed.
(1-79) found about it.

Country mostly drift covered
with a few small, poorly ex-
posed outcrops.

N40 $\frac{1}{4}$ Sect Spec's 32 & 29.

21781 1970 N. 970 W. S. E. Cor. 32. Broken.

Small exposure. Exposures
of sand at top of ris + sherd
5N90°E & 20°N. Small ex-
posures of sand on slope
north to creek.

N+O 1/4 Unit Spec's 32 & 29.

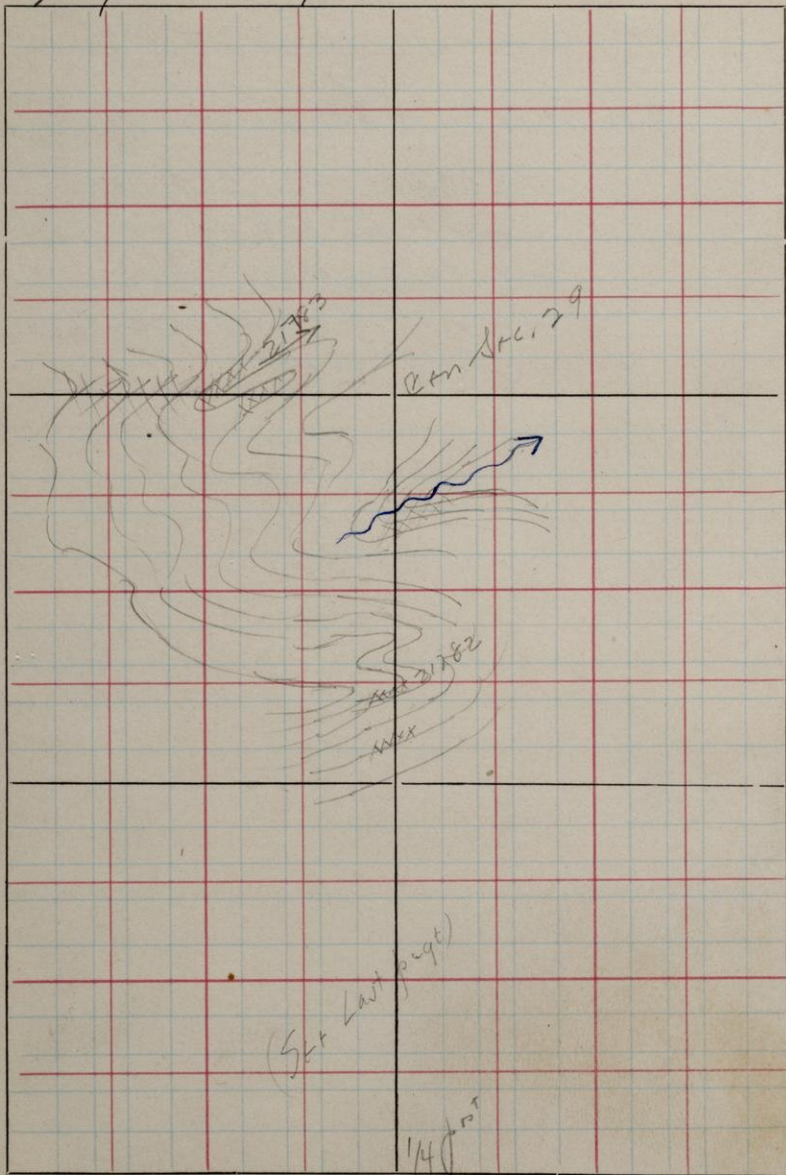
21781 1970 N. 970 W. S.E. Cor. 32. Broken.

Small exposure. Exposures of summit at top of rise + should be N 90° E to 20° N. Small exposures of summit on slope north to creek.

S. 29

T. 49

R. 26



NWS $\frac{1}{4}$ line Sec 29 + EWS $\frac{1}{4}$ line.

21782 610 N 1000 W S.E. Cor. 29. Non-uni-
form small exposure.

21783 1000 N 1245 W. Massart.
Well exposed. Continues
along the line for 200-300 ft.

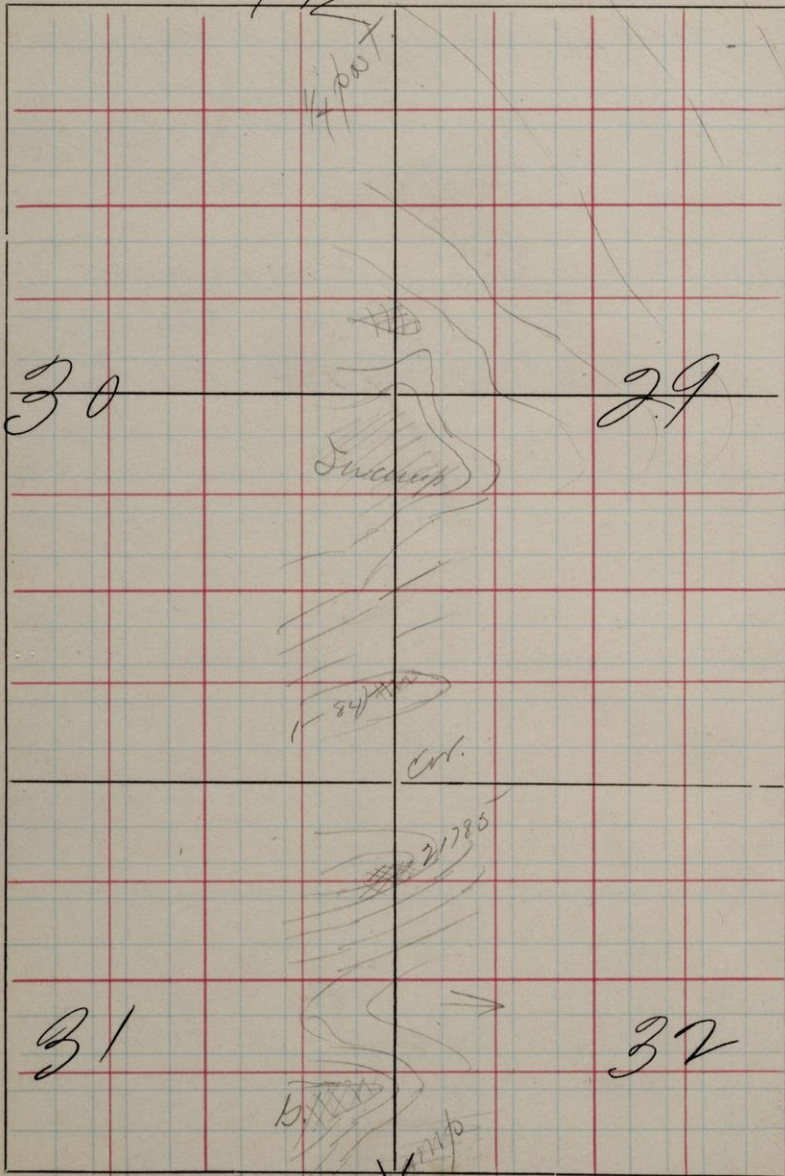
S.

T.

49

R.

76



✓ Not Sec. limit. Had Sec's 20029 and 31+32

21784 590 N. O. W. S. E. Cor. 30. Massivt
Small exposure.

21785 1875 N. O. W. S. E. Cor. 31. Massivt.
From top of slope.

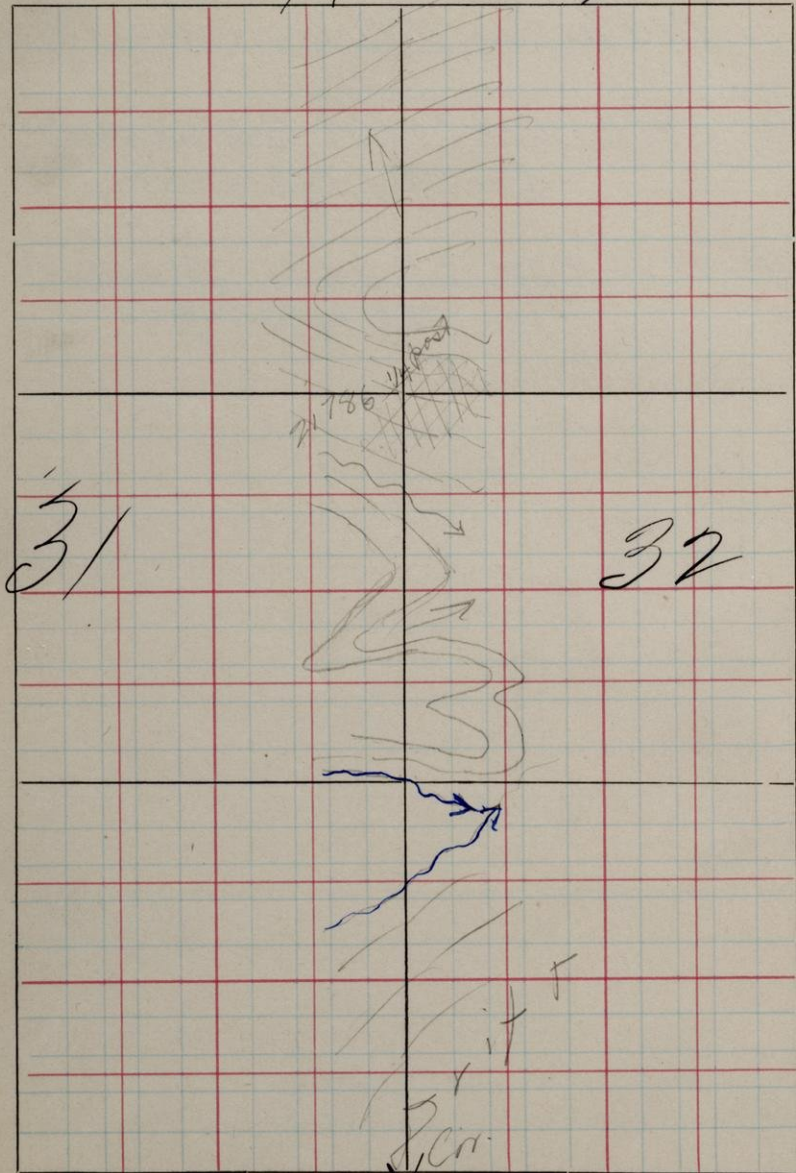
S.

T.

49

R.

26



NAD limit flint. St. 31/32.

21786 1020 N. 0W. St. Cr. 31. Mass wt.
On south slope. Not well
exposed.

S.

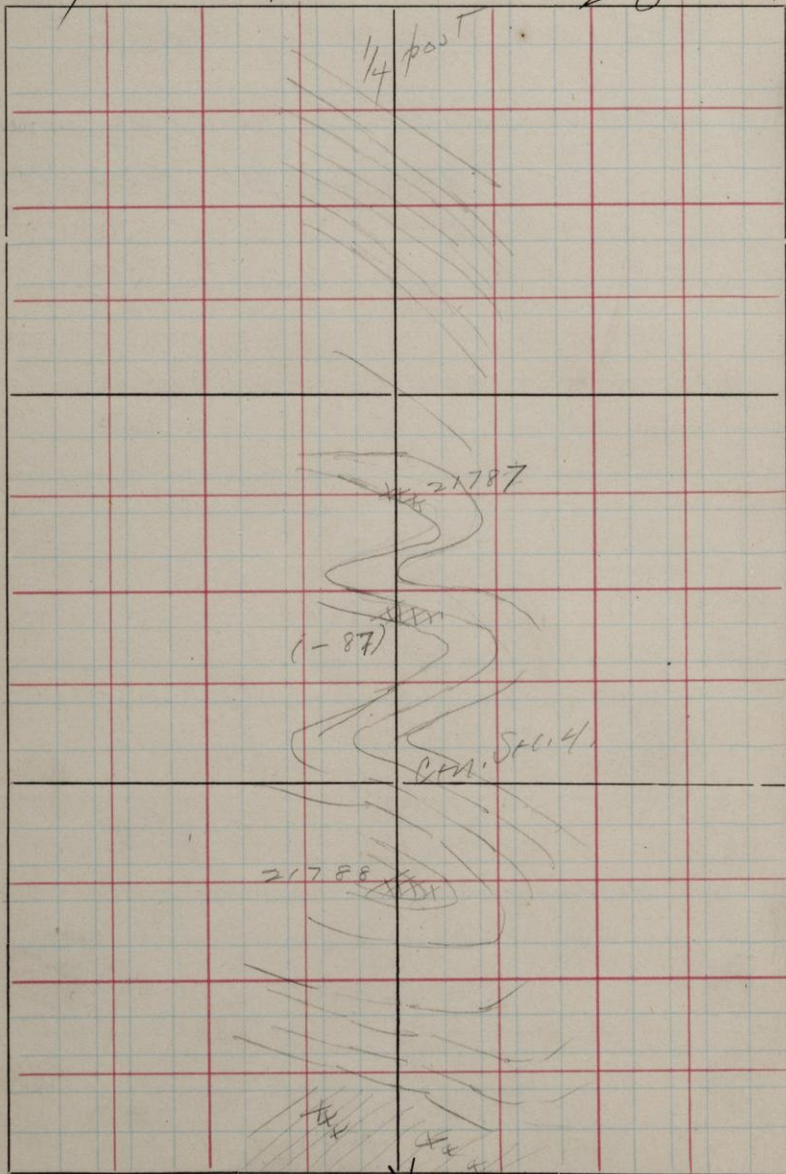
4

T.

48

R.

26



NWS 1/4 Sect 4.

21167 / 1325 N. 1000 W. S.E. Cor. 4. Massive.
Portions, finer grained.
Partly exposed on south slope.
Same at 1200 N. # 67200 mt.

71788 870 N 1000 W. Non uniform.
Partly exposed on south
slope.

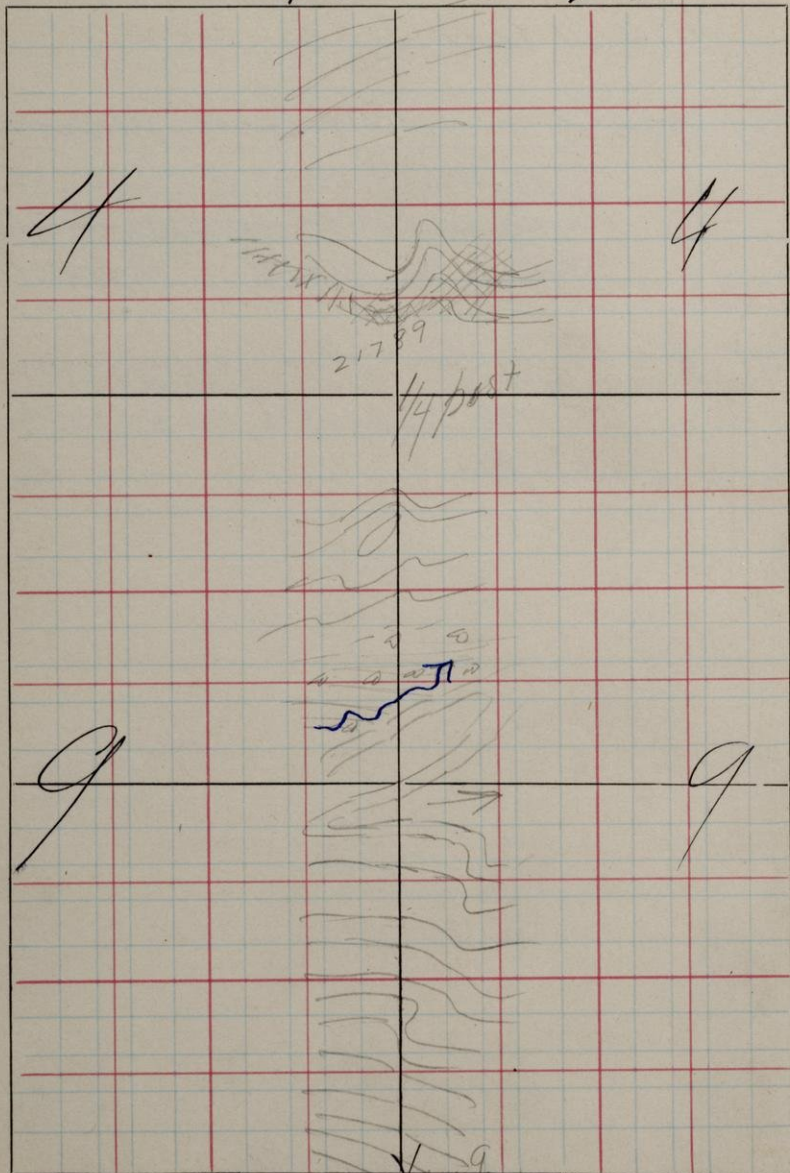
S.

T.

48

R.

26



N+S 1/4 line Sec 4 & 9.

21789 110N 100W S.E. Cor. 4. Massivite
 Ledge extends westward
 showing different phases.
 Well exposed having an
 irregular massivite ap-
 pearance. # 60 + no. int.

S.

T.

48

R.

26

com. Dec. 9

9

21790

swampy

1/2 foot

Brntly

Rolling

drift country

16

X

NRS 1/4 Sec 16 T10S R16E

21790 1076 N. 100 W. S. E. Cor. 9. J. N 90° E 80° W.

Weathered. Near top of
 ridge. Small exposure
 north slope is entirely drift
 covered. South slope is steep-
 er but is mostly drift
 covered. Country to the south
 gently rolling drift.

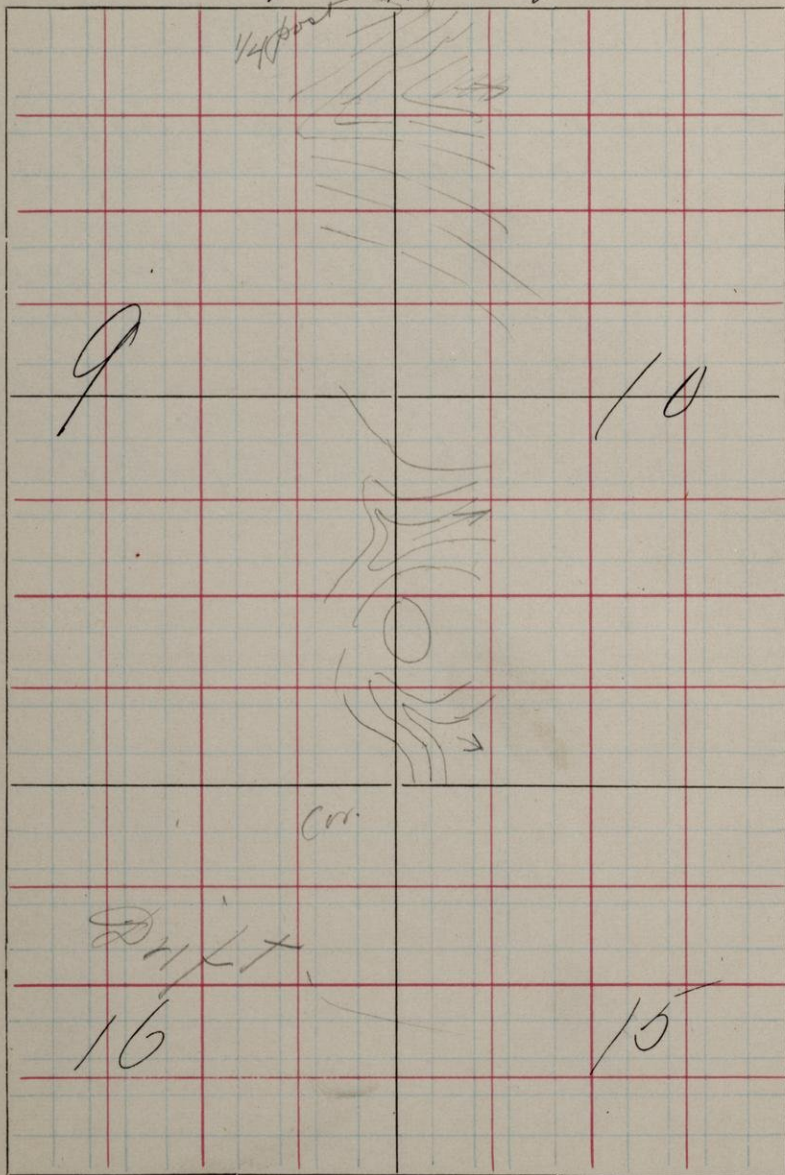
S.

T.

48

R.

26



N+S line Stev. Sect 9410

Drift country with hardwood
timber.

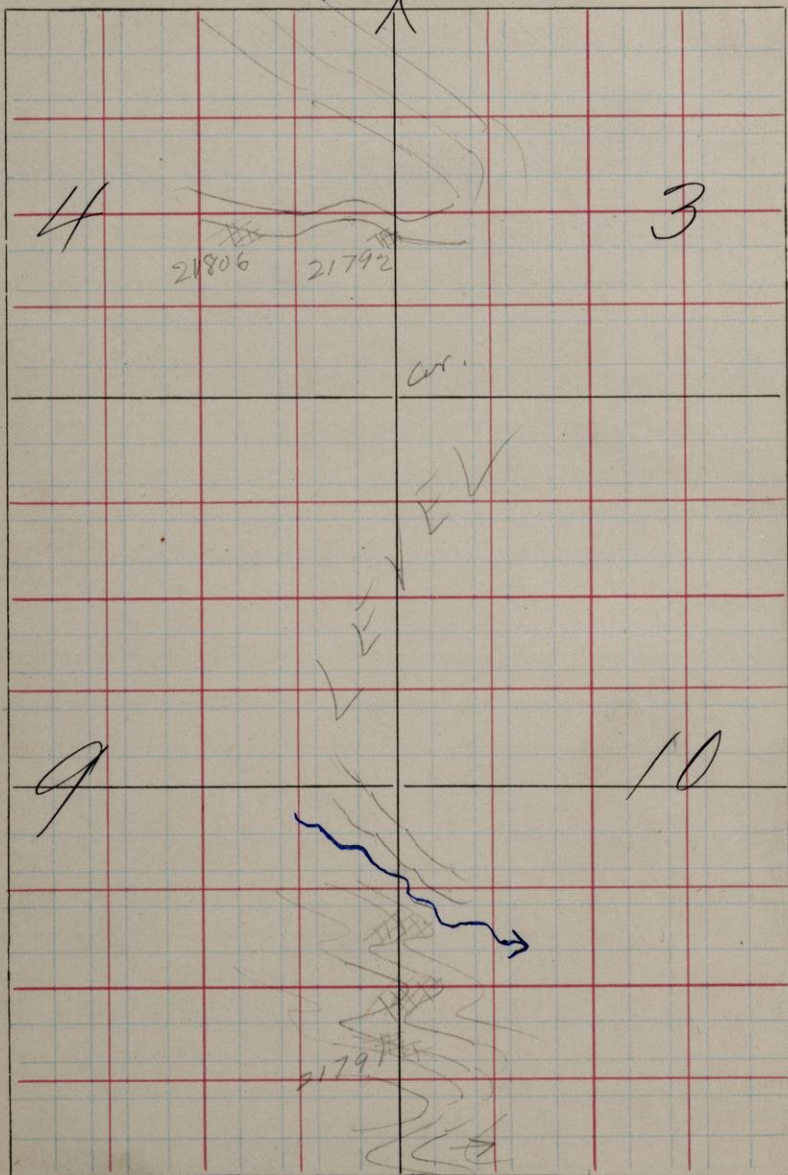
S.

T.

48

R.

26



1/4 100

Not listed. Stw. Sec's 9 & 10 and 4 & 3.

21791 1175 N.W. J.E. Cor. 9. Massiv.
 Poorly exposed north of
 creek.

21792 2100 S.W. N.E. Cor. 4. Massiv.
 Apparently in place though
 possibly a large boulder

21806 700 N 200 W S.E. Cor. 4. Massiv.
 Dyke in gtt + stur. Small
 surface exposure.

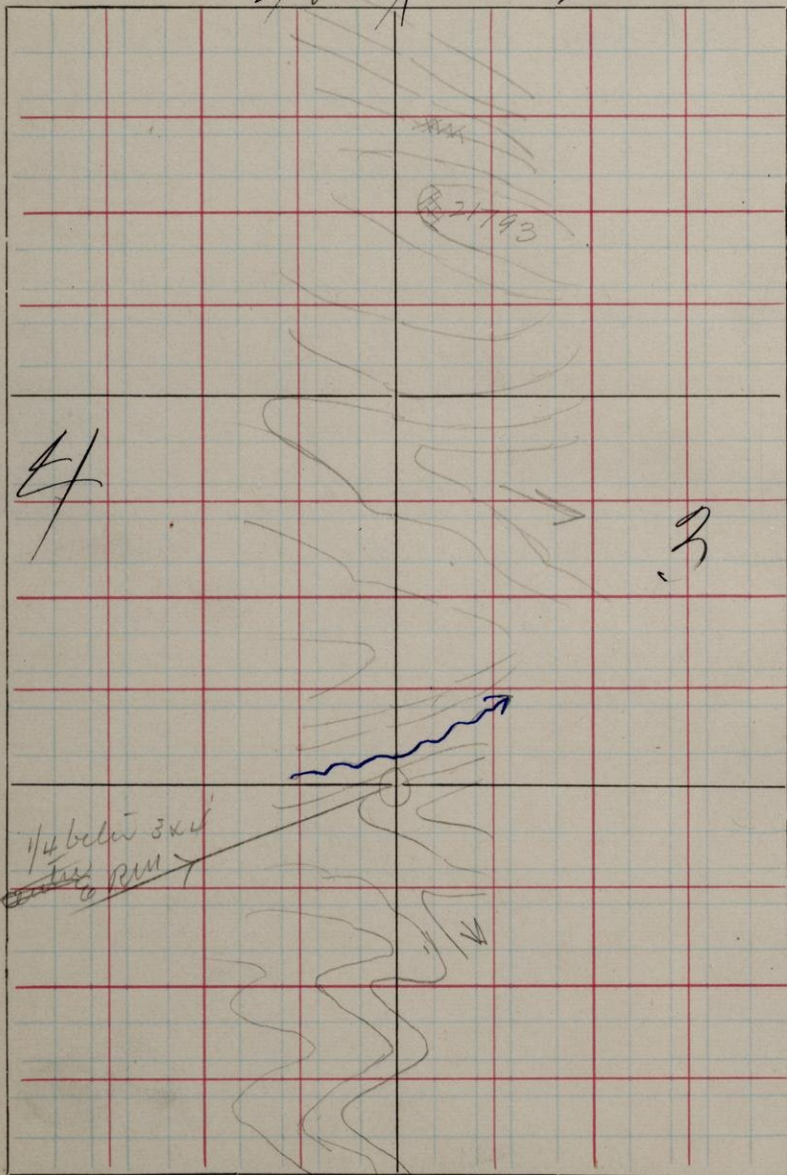
S.

T.

48 1

R.

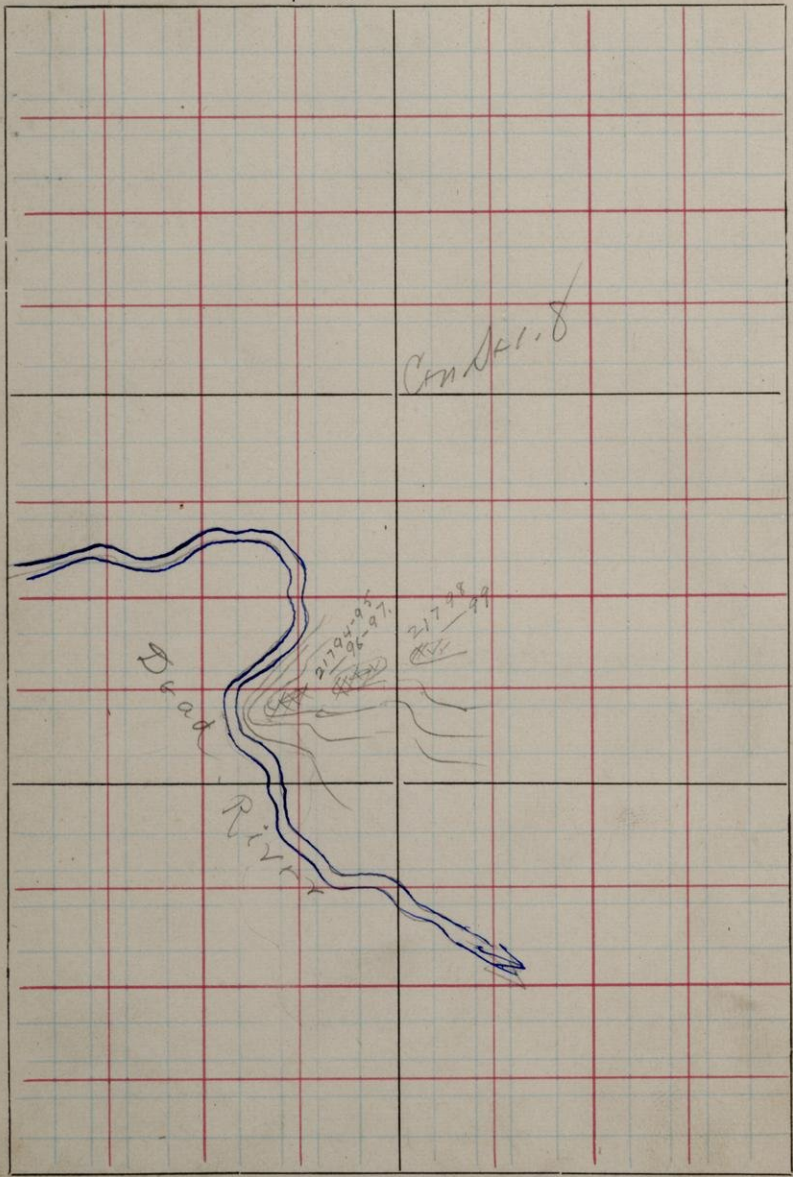
26



no limit to Ste's 443.

21793 1750 N1960 W. S.E. cor. 3. Masswe
From top of slope. Also
Exposed on north slope.

S. 8 T. 48 R. 26



Cont. Sec. 8

Localities is approximate, only.

21794 630N 1020W S.E. Cr. 8. S. N 90° E 89°

In places dips to south and in others
to the north. — 94 from south face.
Most massive in top and north-
ern face. Centered in places.
Small quartz veins.

21795 ——— Irregular, massive
dikes in — 94. Trending
approximately E-W.

21796 ——— Pebbles(?) from — 94.

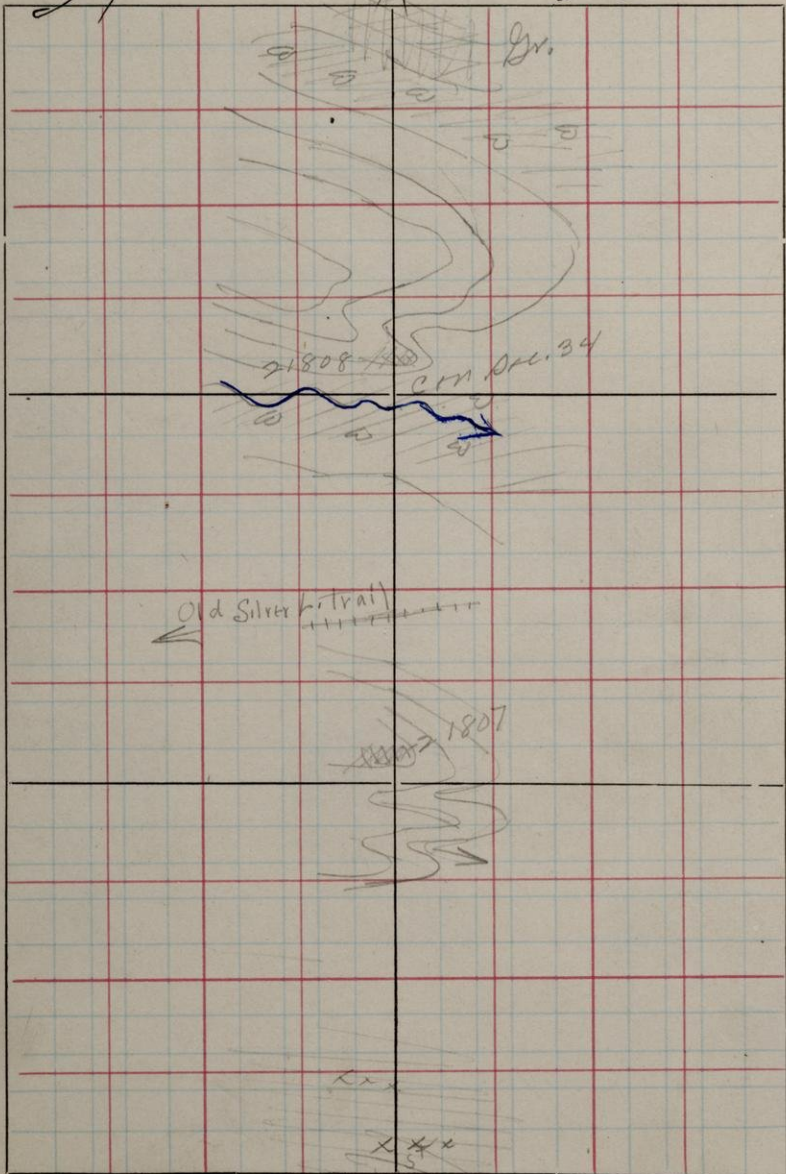
21797 ——— From — 94.

21798 650N 985W. Massive E-W sur-
face exposure. 10 ft N.S.,
15 ft E-W. ^{##} Conglomerate.

21799 ——— Chips from — 98.

21800 - 805 Deeply 1.

S. 34 T. 49 R. 26



W 1/4 Unit Sec. 34.

71807 550 N. 1000 W. S.E. Cor. 34. Massivite
Crap. Int. dyke. ~~#~~ [#] Diabase.

71818 1040 N 1010 W Massivite.
[#] Granite. Creek bed probably marks contact between
granite + greenstone.
Small exposures ~~to~~ ^{at} north.

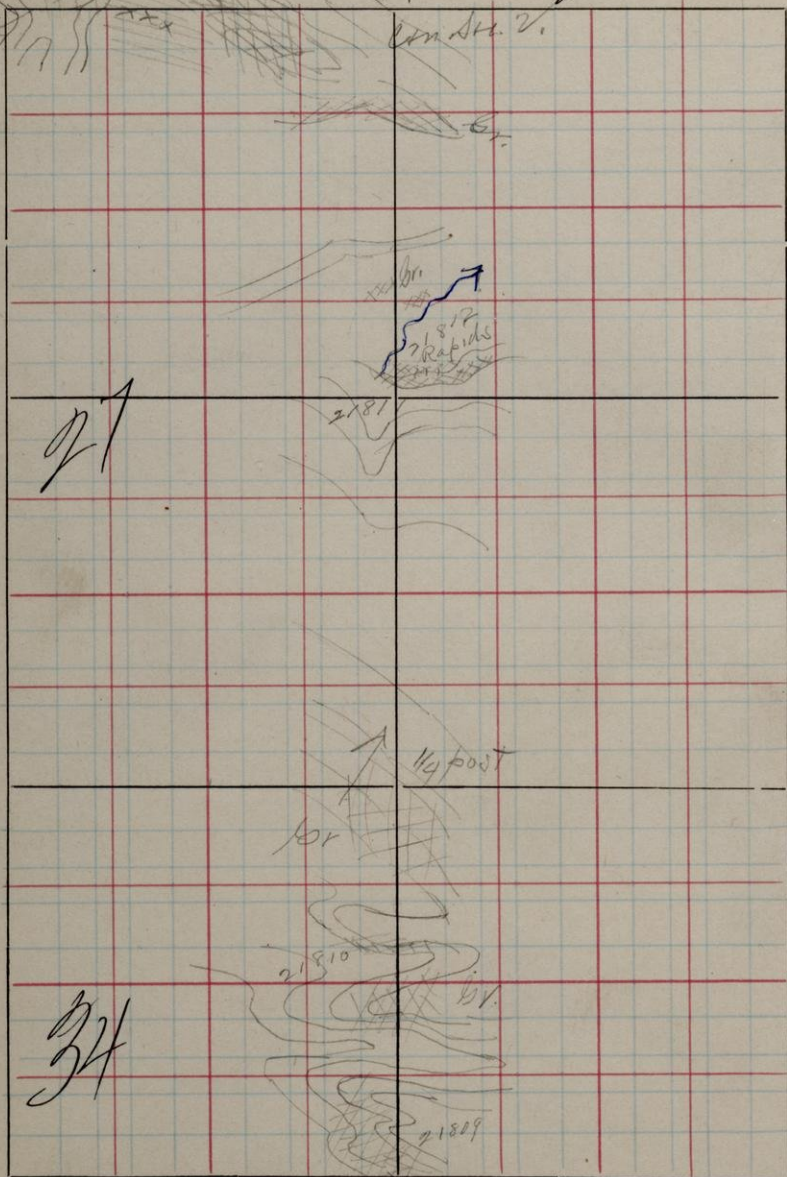
S. ~~21814~~

T. ~~21813~~

44 N

R. 26

26



NW 1/4 Sect 34 & 27

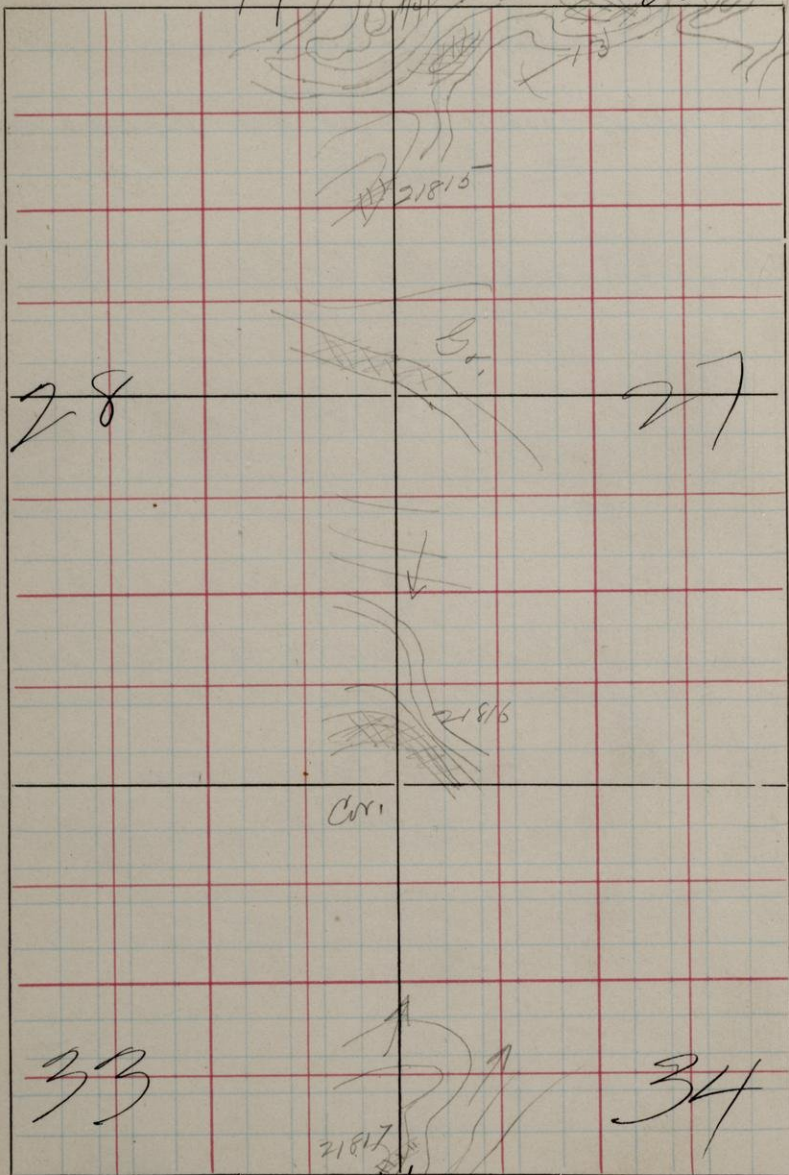
- 21809 1550 N 1000 W S.E. Cor. 34, Mass int.
Granite.
- 21810 1810 N 1000 W S.E. Cor. 34. Dykt.
Diabase.
- 21811 520 N 1000 W S.E. Cor. 27. From
south side of creek 10-12 ft
fact. Probably a dykt in granite.
- 21812 525 N 1000 W. S N 90° E S 65° N.
S.S. are given of coarse, shistose
planes exposed at falls in creek.
- 21813 1000 N 130 W Mass int. Probably
a dykt. Forms 20 ft + dykt.
- 21814 1000 N 1400 W. Mass int.
Granite.
- 21800 - 21805 of page 1

S.

T. 49

R.

26



N.S. cont. Plot Sta's 28+77 and 33+34

- 71815 760 N 0 W S.E. Cor. 28. Massivt.
Small exposure. # Granite.
- 71816 65 N 0 W Massivt.
Granite.
- 71817 1515 N 0 W. S.E. Cor. 33. Massivt.
Granite.

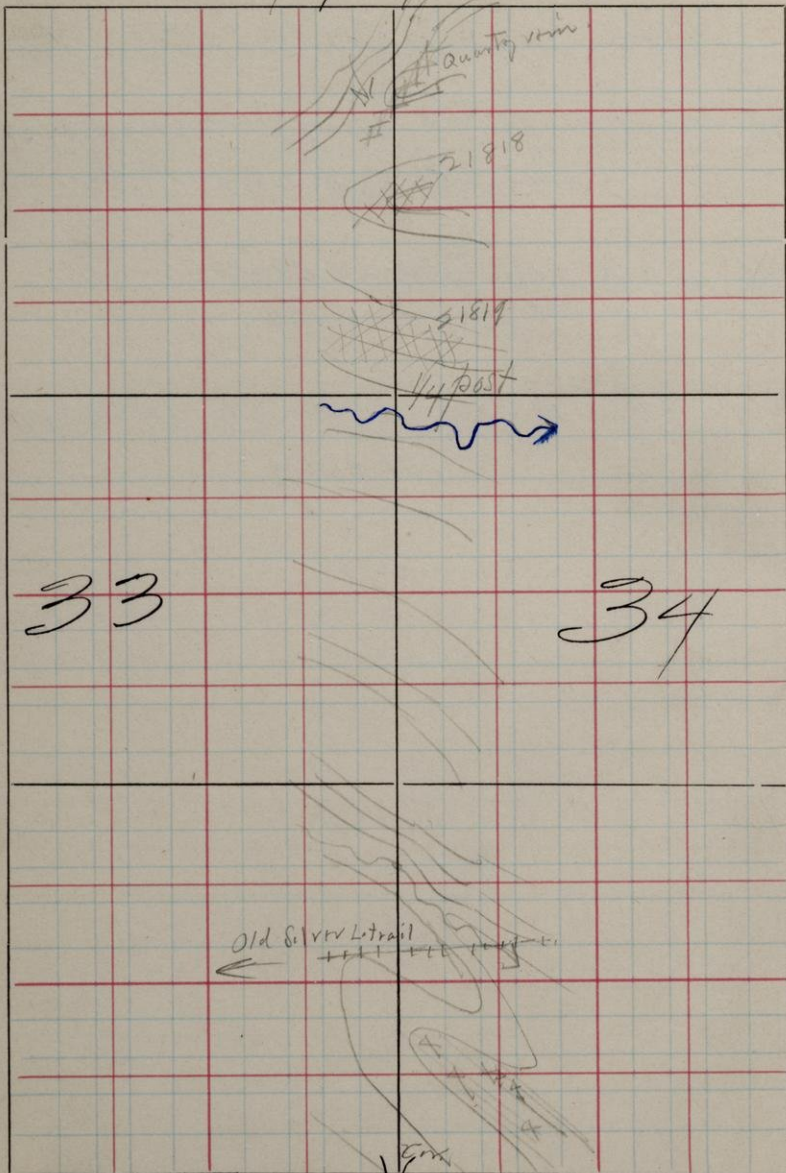
S.

T.

49

R.

26



W. 1/4 line pt. Sec 33 & 34.

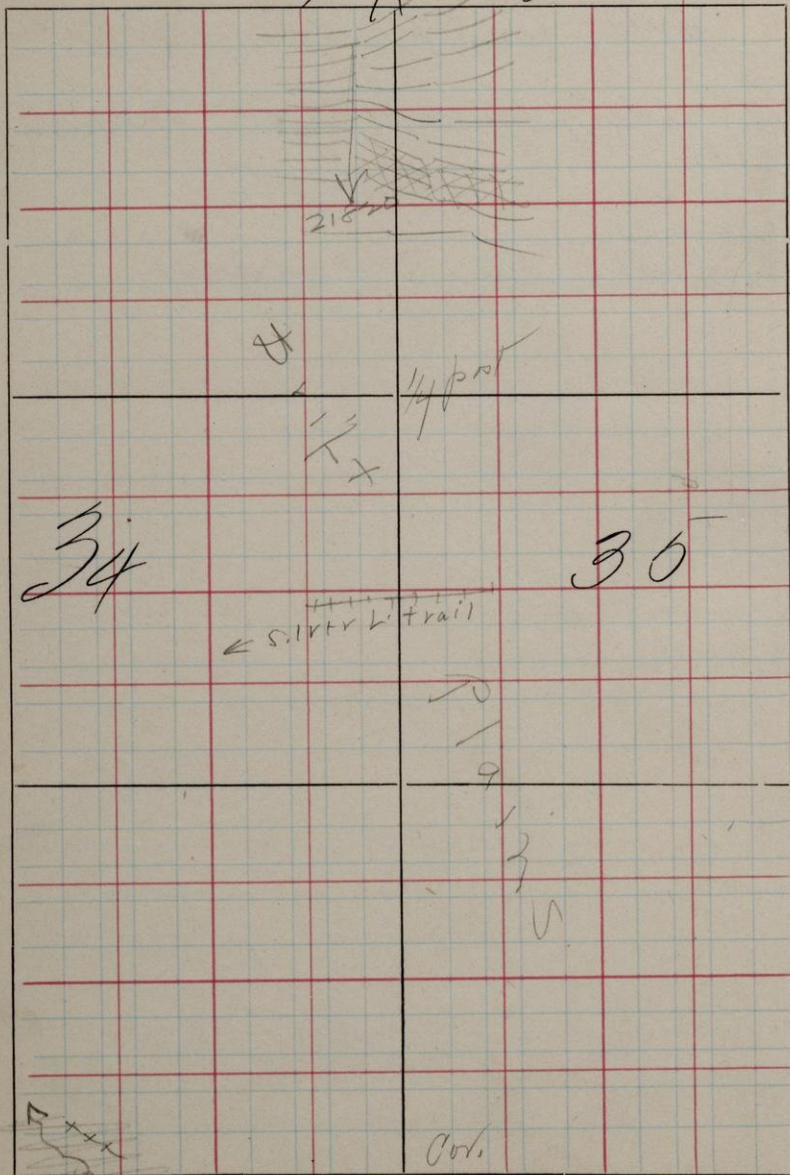
7/8/8 1775 n. W. J. F. Gr. 33. Massett
Shirt.

7/8/9 1060 n. W. Massett.

S.

T. 49. N

R. 26



34

35

21520

40 ft

← Silver L trail

10
9

3
5

Cov.

6-747

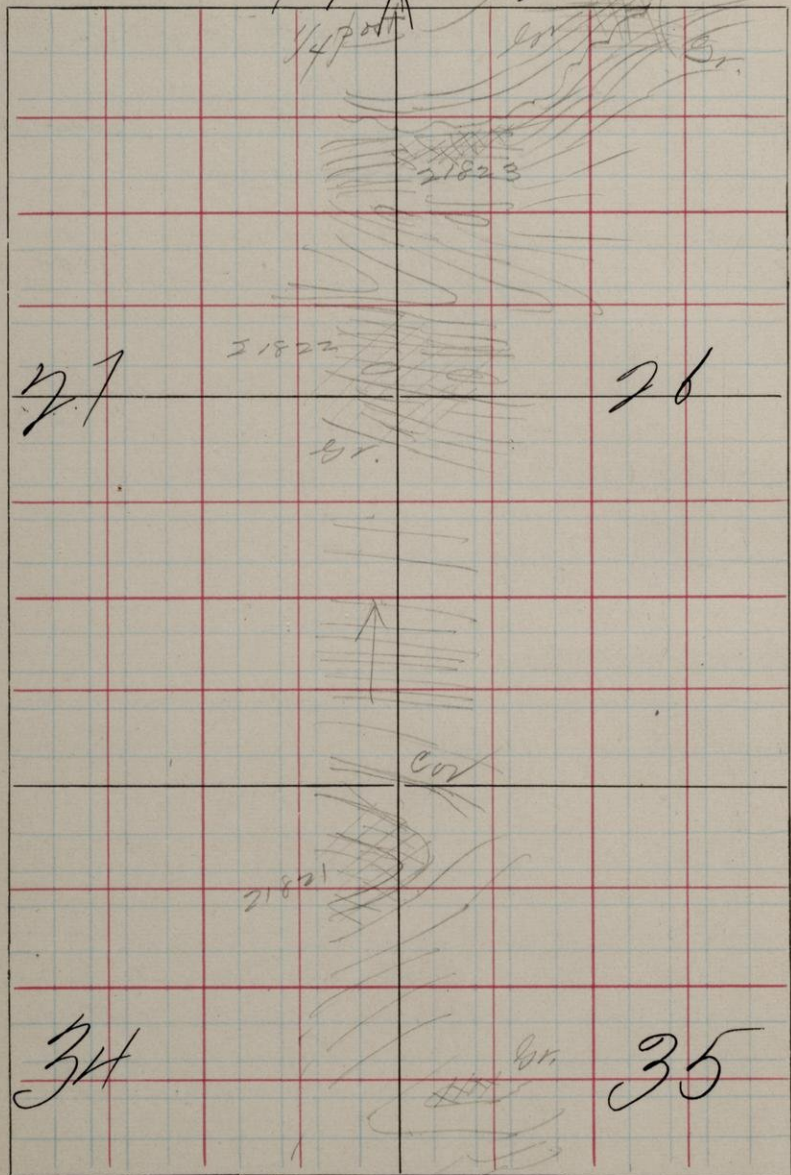
NSD limit Old Secs 34 & 35.

91820 1350 N. O. W. S. E. Cor. 34. Mass. int.
Granite ridge

S.

T. 49

R. 26



N.W. line + Old Sts 26 + 27 and 35 + 34.

21871 1890 N.W. S.E. Cr. 34. Mass int.
Granite.

21872 380 N.W. S.E. Cr. 27. Mass int.
Granite.

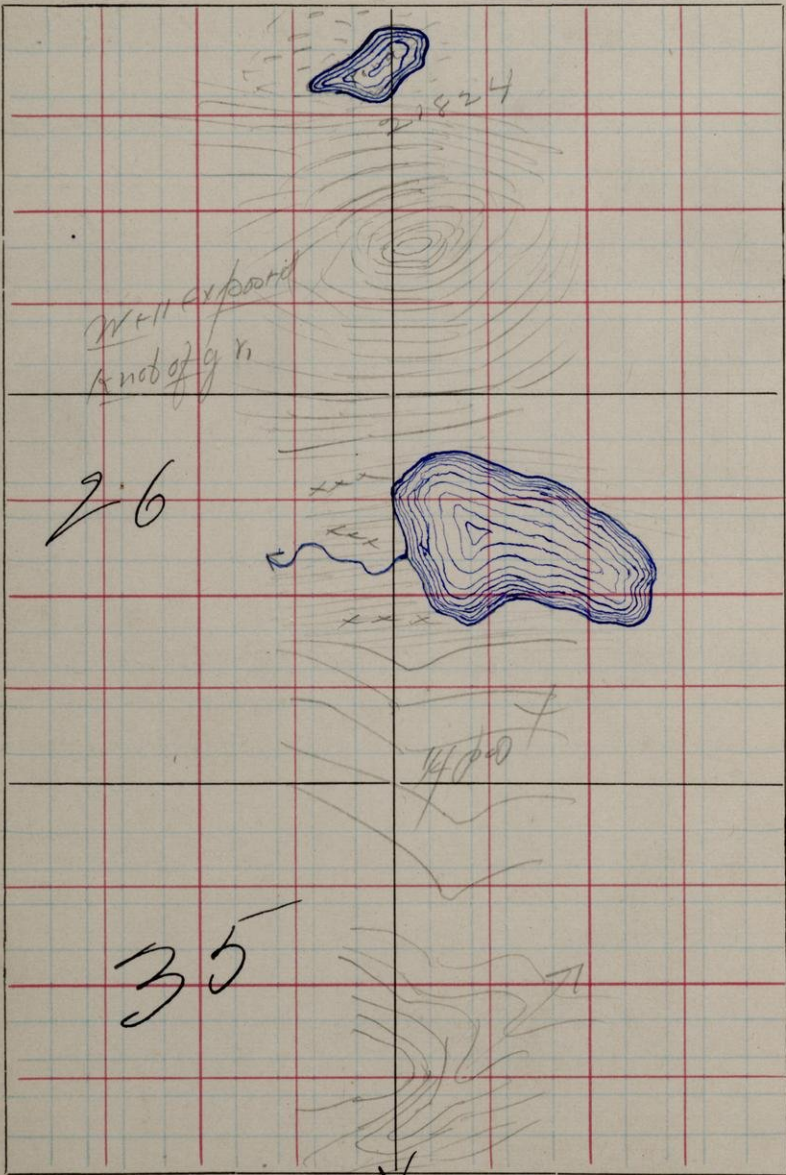
21873 825 N.W. S.E. Cr. 27. Mass int.
N.S.

S.

T. 49

R.

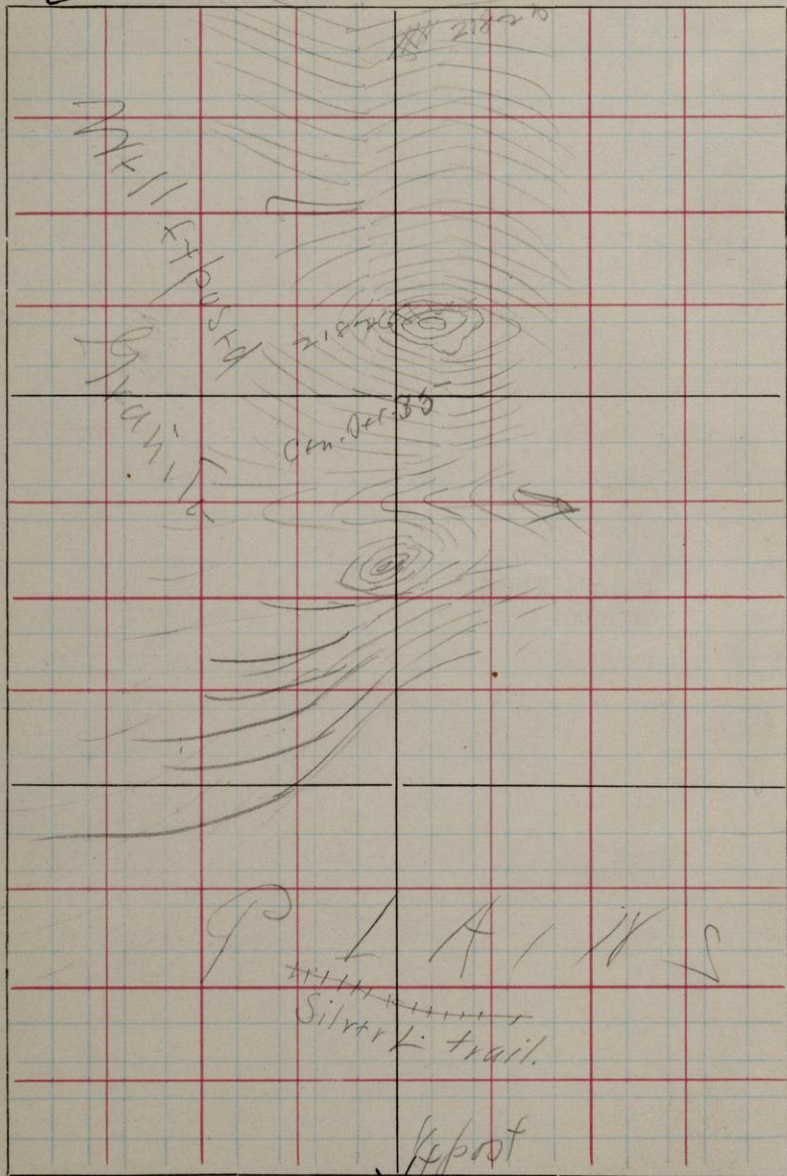
26



W + S $\frac{1}{4}$ Unit Secs 26 + 35.

21824 1975 N 100W S.E. Cor. 26. Massini.
#Granite Fossils large,
with exposed knots.

S. 35 T. 49 R. 26



N + S $\frac{1}{4}$ line + Sec. 35

2/875 1470 N 1000 W. S. E. Cor. 35. Massive.
Forms large well exposed
ridge.

2/875 1100 N 1000 W Forms dyke in
granite near top of emb.
Diabase

S. /

T. 48

R. 26

26

1/4 post

Silver L. trail

Open. Dec. 1

21027

N 40 1/4 Sect 1.

91897 775 N. 1000 W. S. E. Cor. 1. Massive.
Small exposures along
foot of north bank of creek.

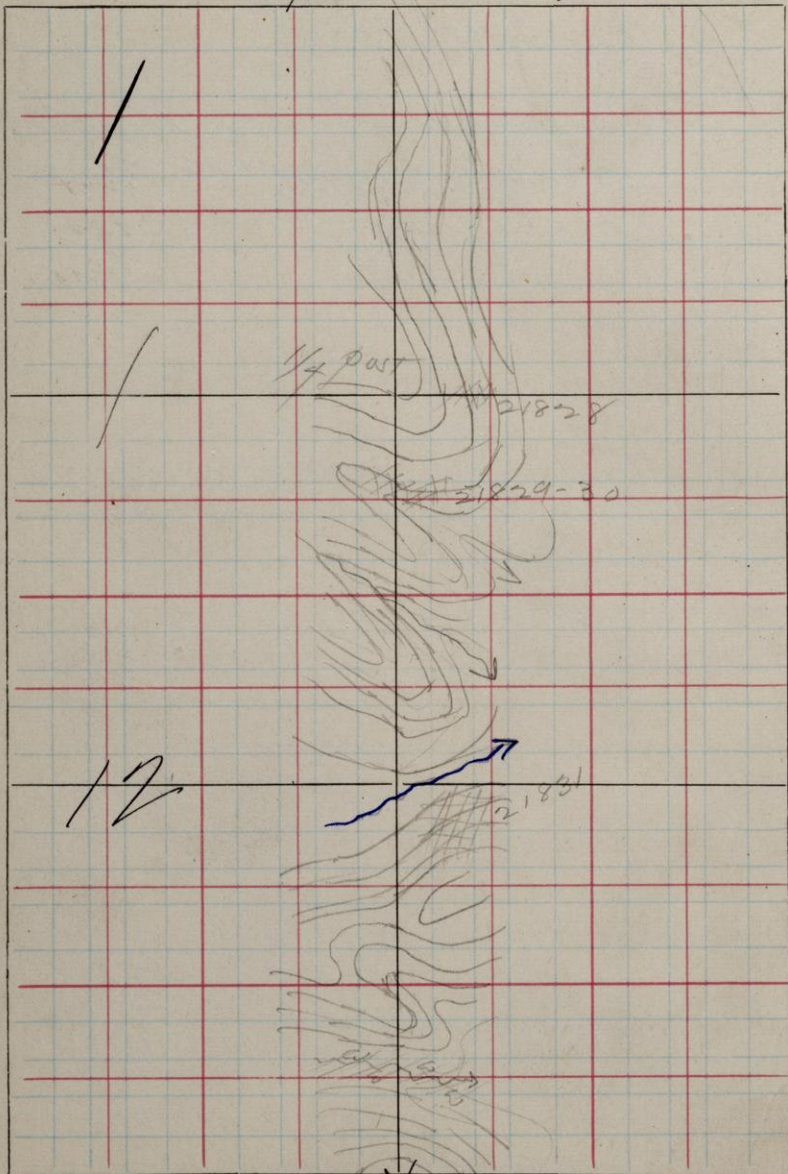
S.

T.

48

R.

26



N 8 1/4 line St 12

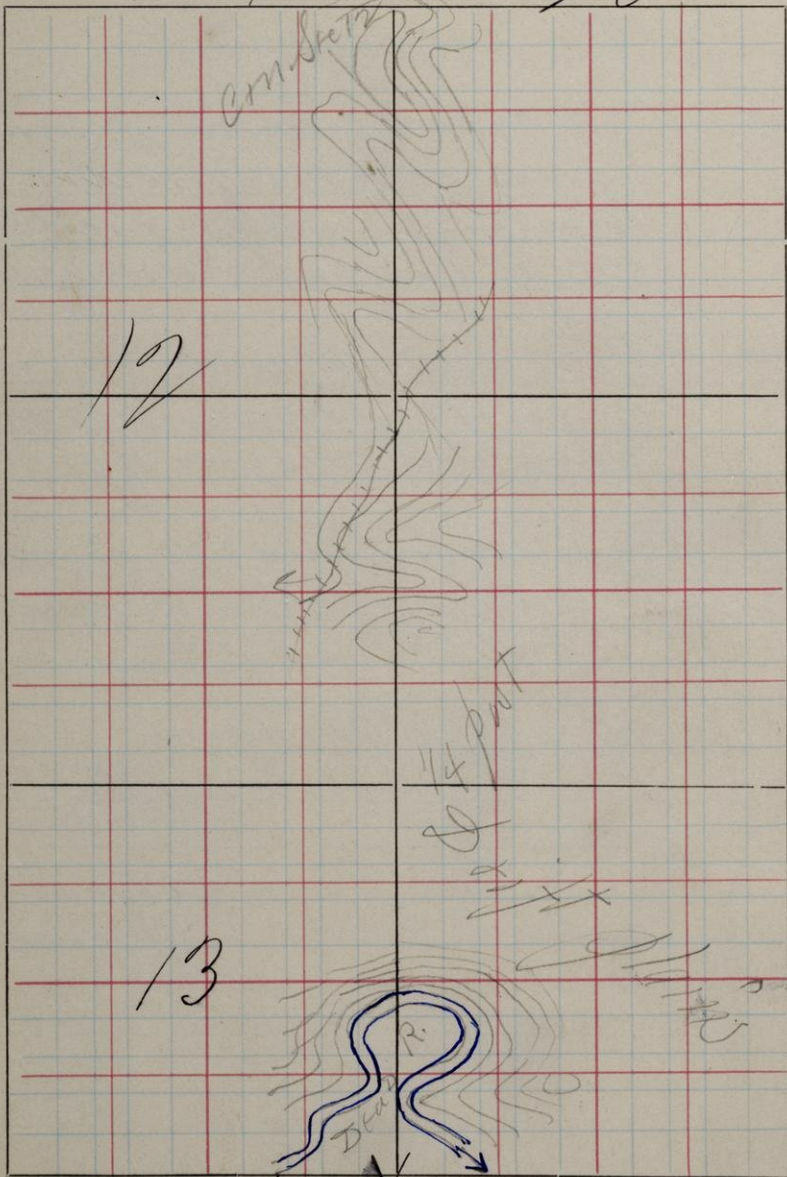
- 21828 1975 N 925 W S.E. cor. 12. Non-uniform. Small exposure on east slope. Slope mostly drift covered. # Greenstone.
- 21829 1845 N 1000 W. Mass out. Forms mass of exposure. Has small irregular mixtures of greenstone.
- 21830 1895 N 1000 W. Mass out. Shows nature of contact of granite and greenstone.
- 21831 1475 N 850 W. Mass out.
Basic Granite
Chert gray

S.

T. 48

R.

26



N 8 1/4 line Sec's 12 & 13.

Drift hills and plains. Banks
of Dead River show drift
material.

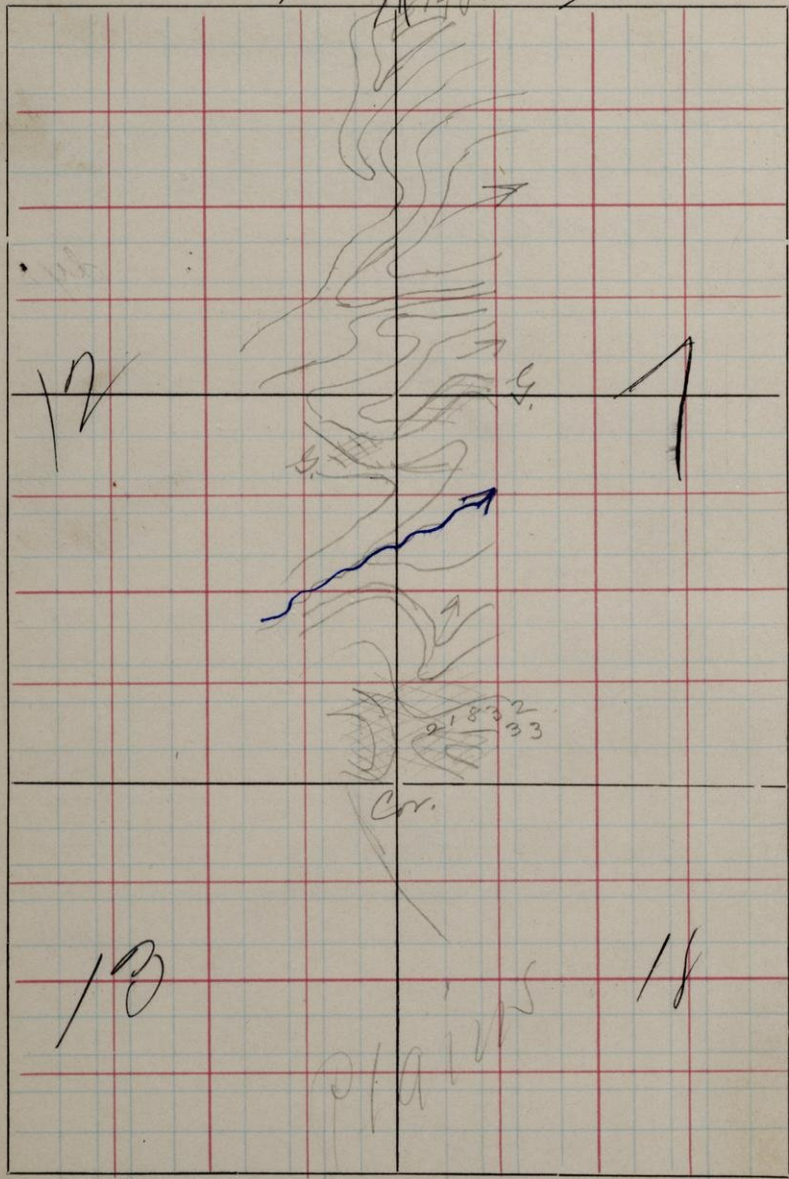
S.

T.

48

R.

96+25



Wolinit. St. H's 13+18 and 12+7

21832 60N 10W S.E. Cor. 17. Massive
Greenstone.

21833 60N 10W Irregular, Eow dykes
in greenstone.

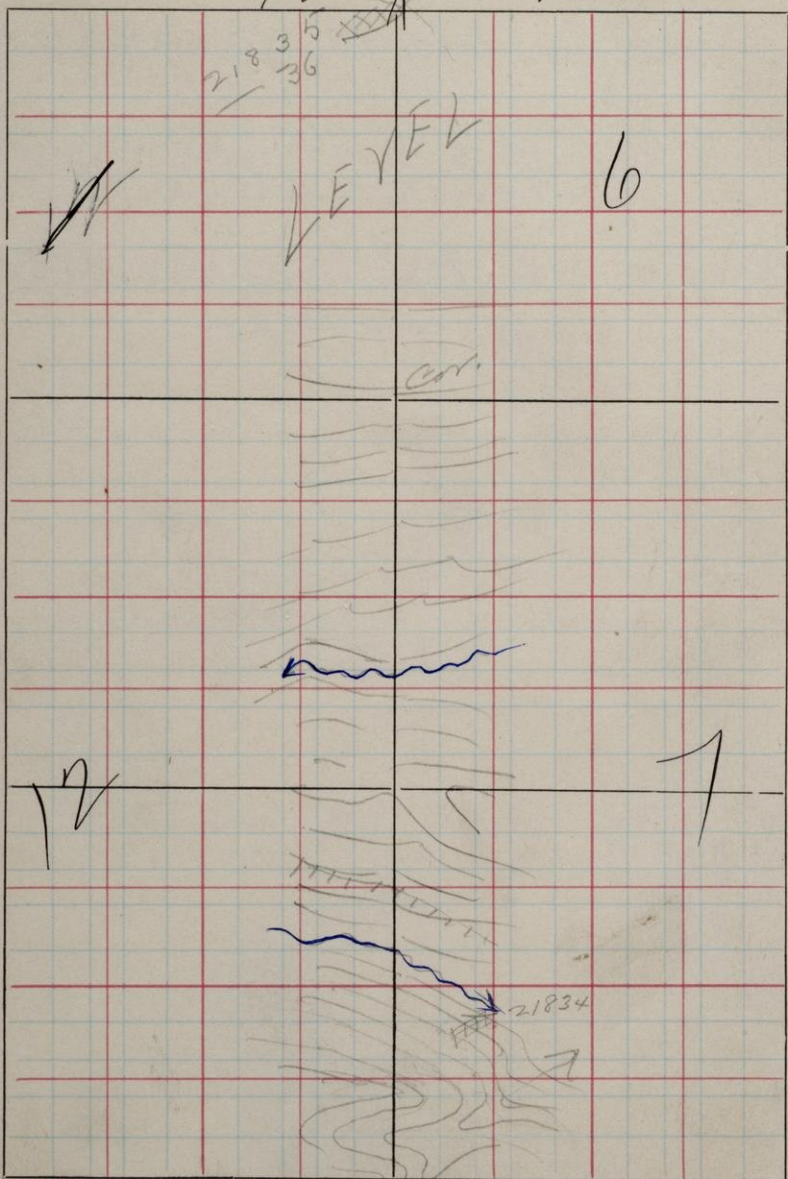
S.

T.

48

R.

26+25



1/4 post

✓ Not but Sta. No's 1257 and 146.

21834 1250 N 1900 W S.E. Cr. 7. Massiv.
 Exposed of granite on
 slope to Cr. ex.

21835 480 N 10 W S.E. Cr. 1. Massiv.

21836 485 N 0 W Massiv. Sur-
 face exposure

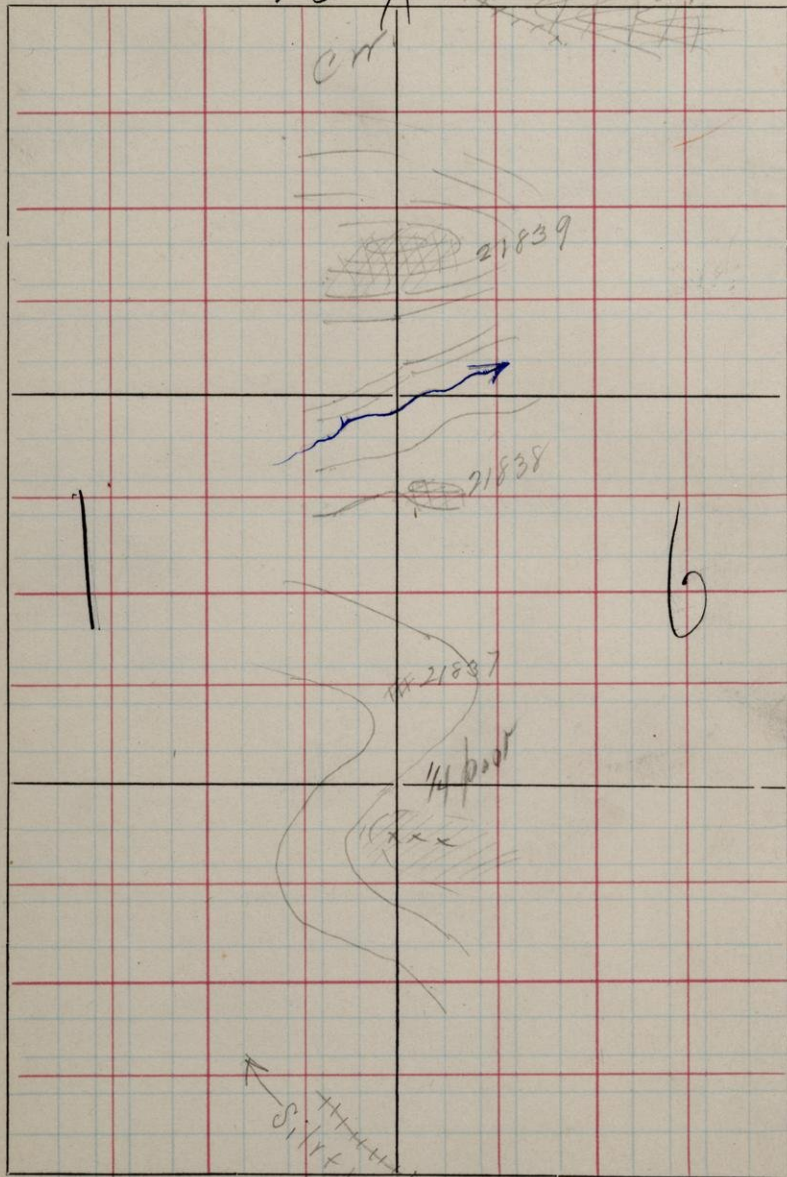
S.

T.

48

R.

26+25



✓ No line btw Sec 1 & 6.

21837 1170 N 0 W. S. E. Cr. 1. Massiv.
Small surface exposure.

21838 1370 N 0 W. Dykt. # Diabast.

21839 1700 N 0 W - Massiv.
Islets of granite with
dykes of diabast.

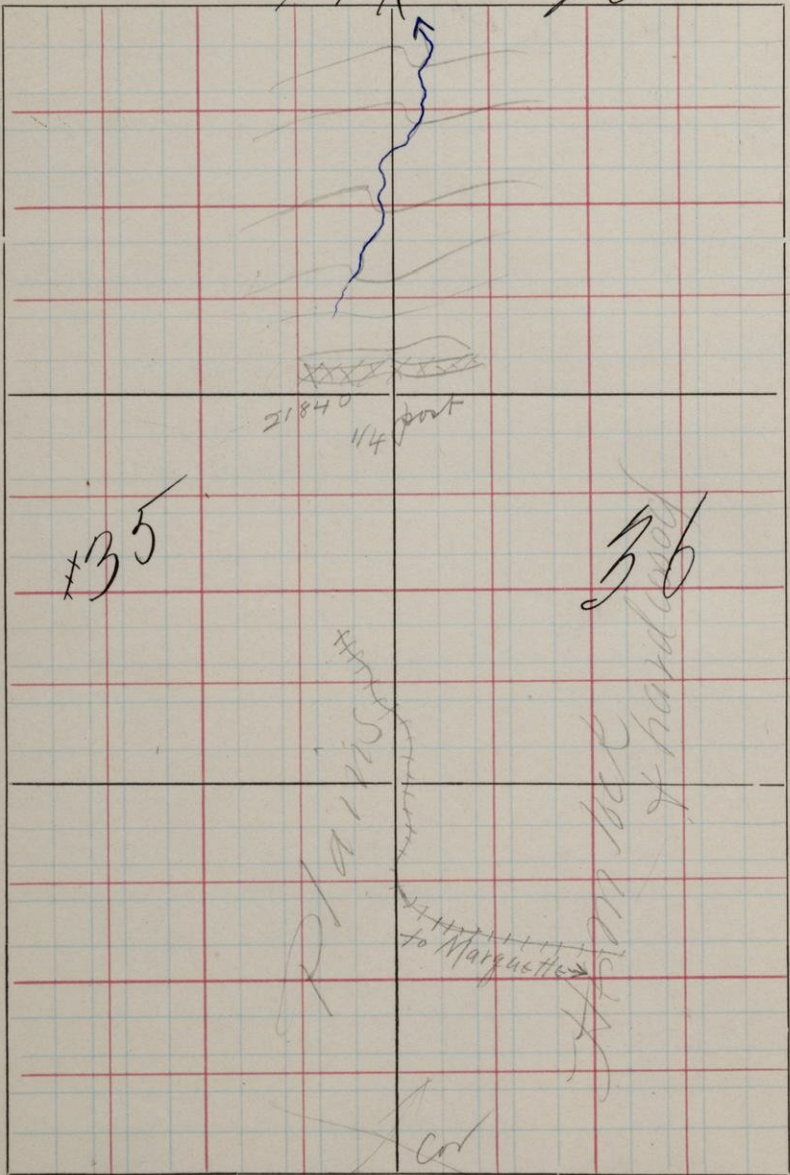
S.

T.

49 A

R.

26



N & S. limit of the. Stes 35 & 36

7/14/46 1050 N 0 W. S. F. Cor. 35. Massive
Granite.

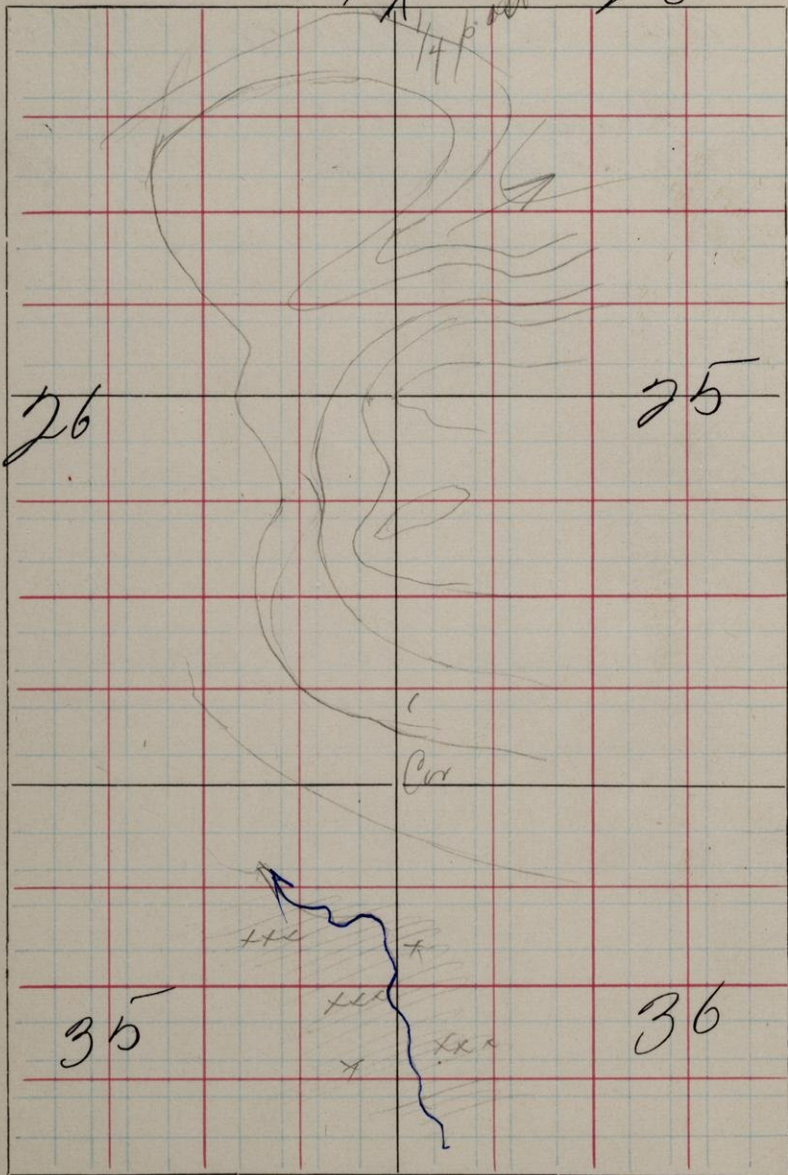
S.

T.

49A

R.

26



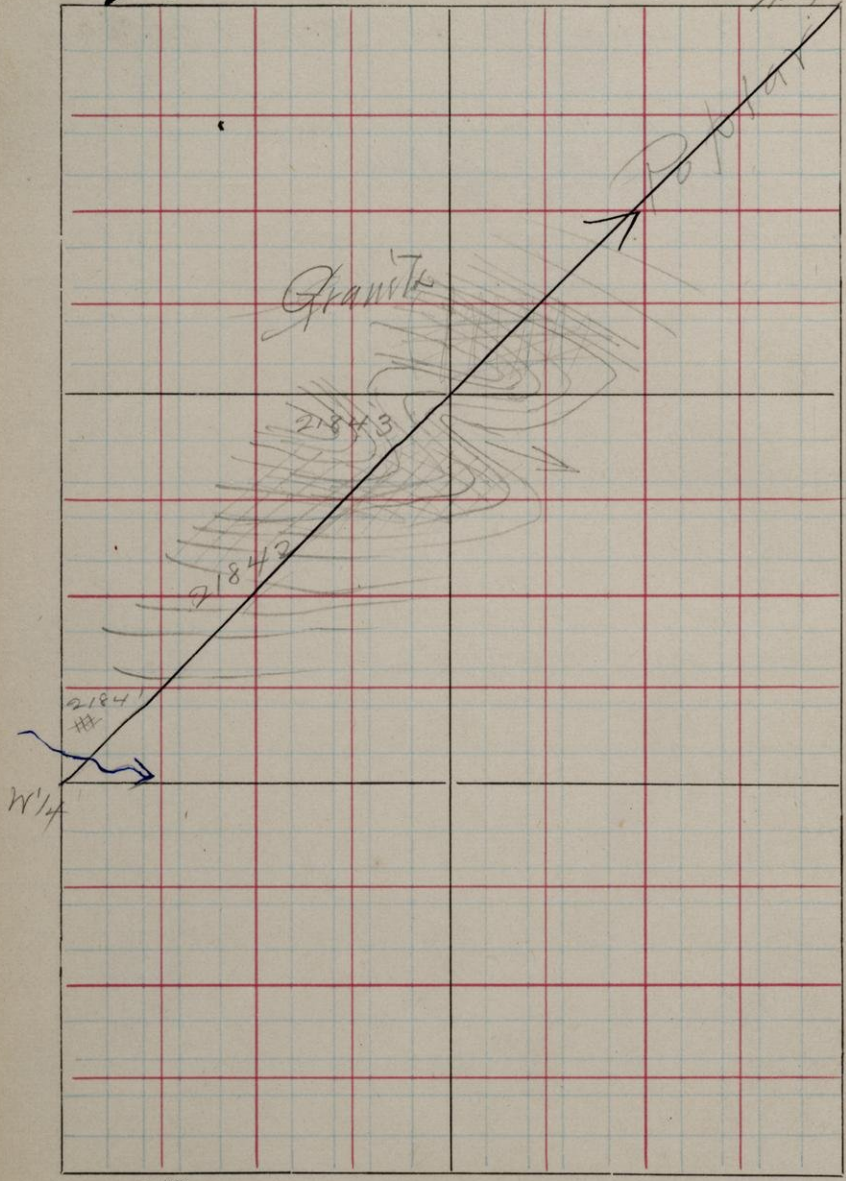
MS limit stw. Secs 35 + 36⁴ d 21 + 25

Drift country with second
growth of poplar

S. 25 T. 49

R. 26

N/4



N.E. line across N.W. 1/4 Sec. 25

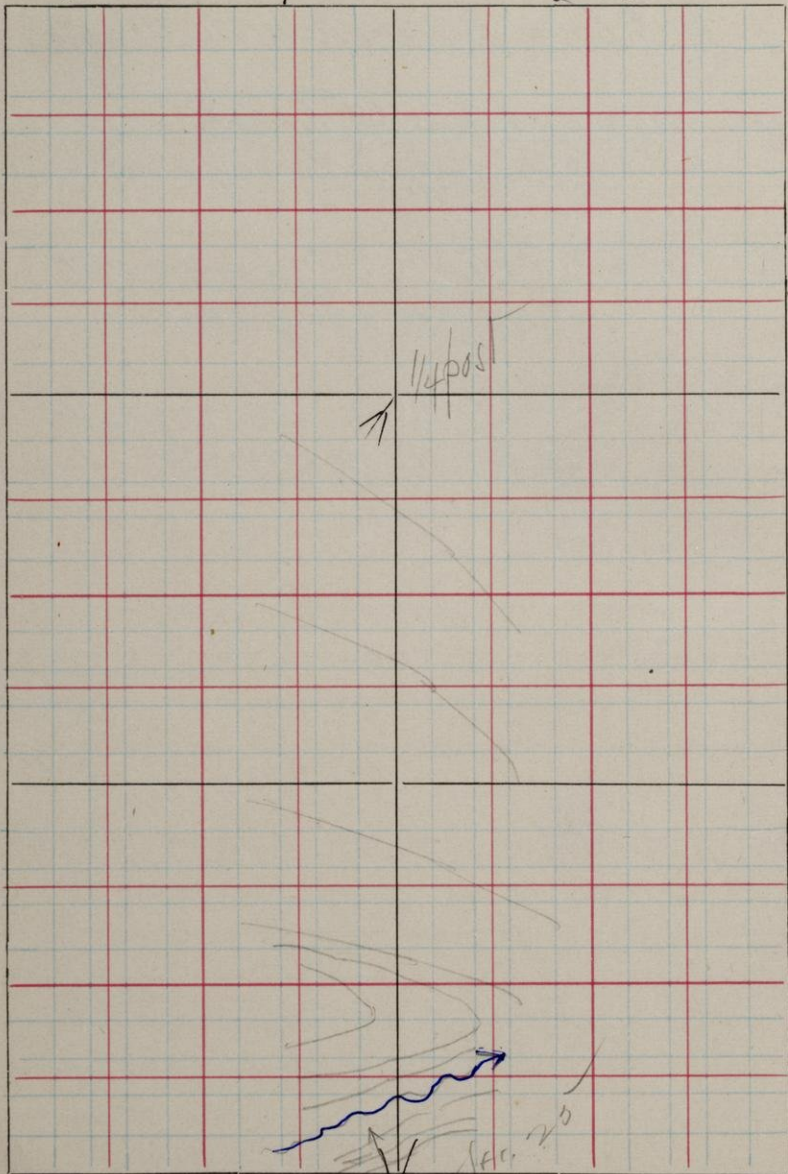
21841 1075 N 1950 W S.E. Cor. 25 Massiv.
Small, poorly exposed knob.

21842 1350 N 1650 W. Massiv.
Ridge of granite.

21843 1425 N 1600 W. Large, exw.
dyke in granite

S. 25 T. 49

R. 26



N. & S. 1/4 line Sec. 25.

Drift country.

S. *

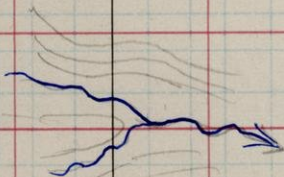
T.

49

R.

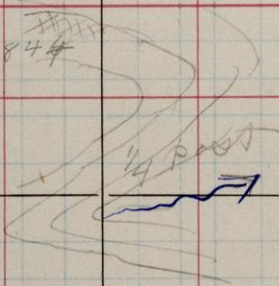
26

Cont. No. 25



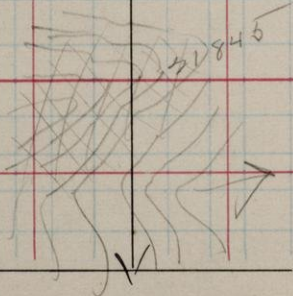
25

21844



21845

36



21845

NO 1/4 lot Sts 25 + 36

71844. 725 N 1000 W S.E. Cor. 25 Massuit.
Granite.

71845 1750 N. 1000 W. S.E. Cor. 36.
Granite ridge.

S.

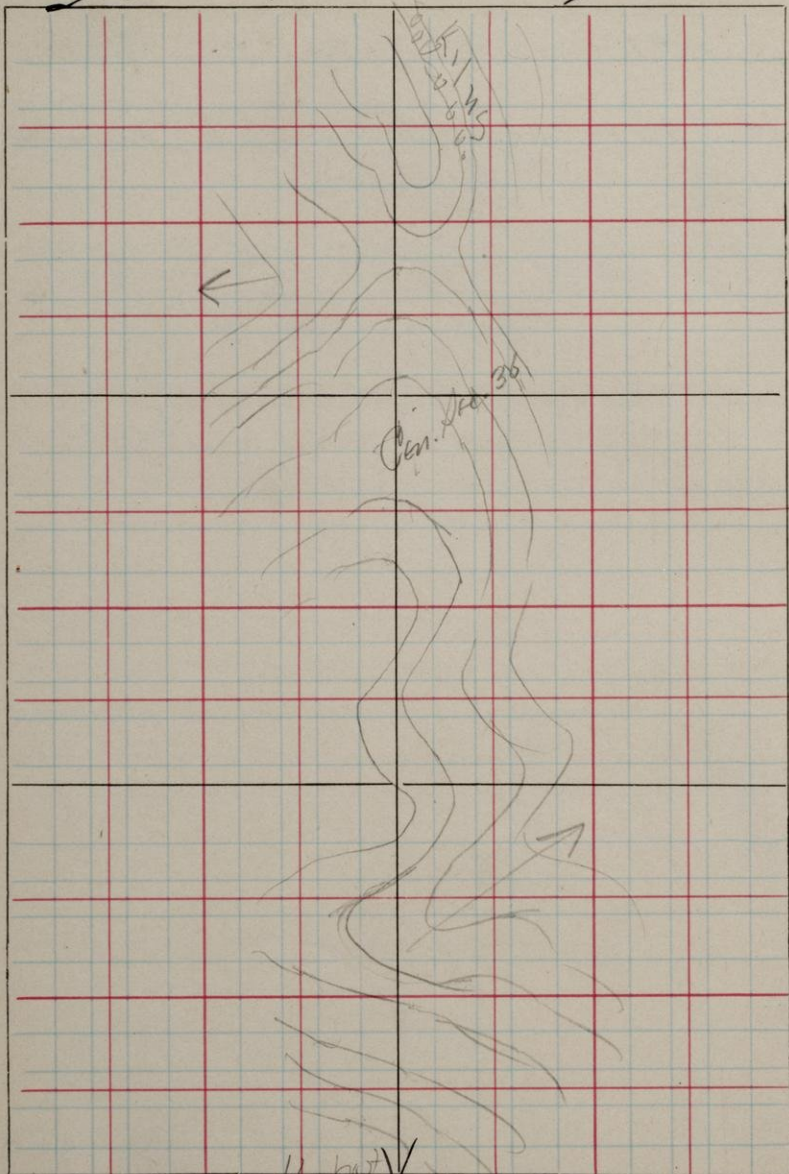
36

T.

49

R.

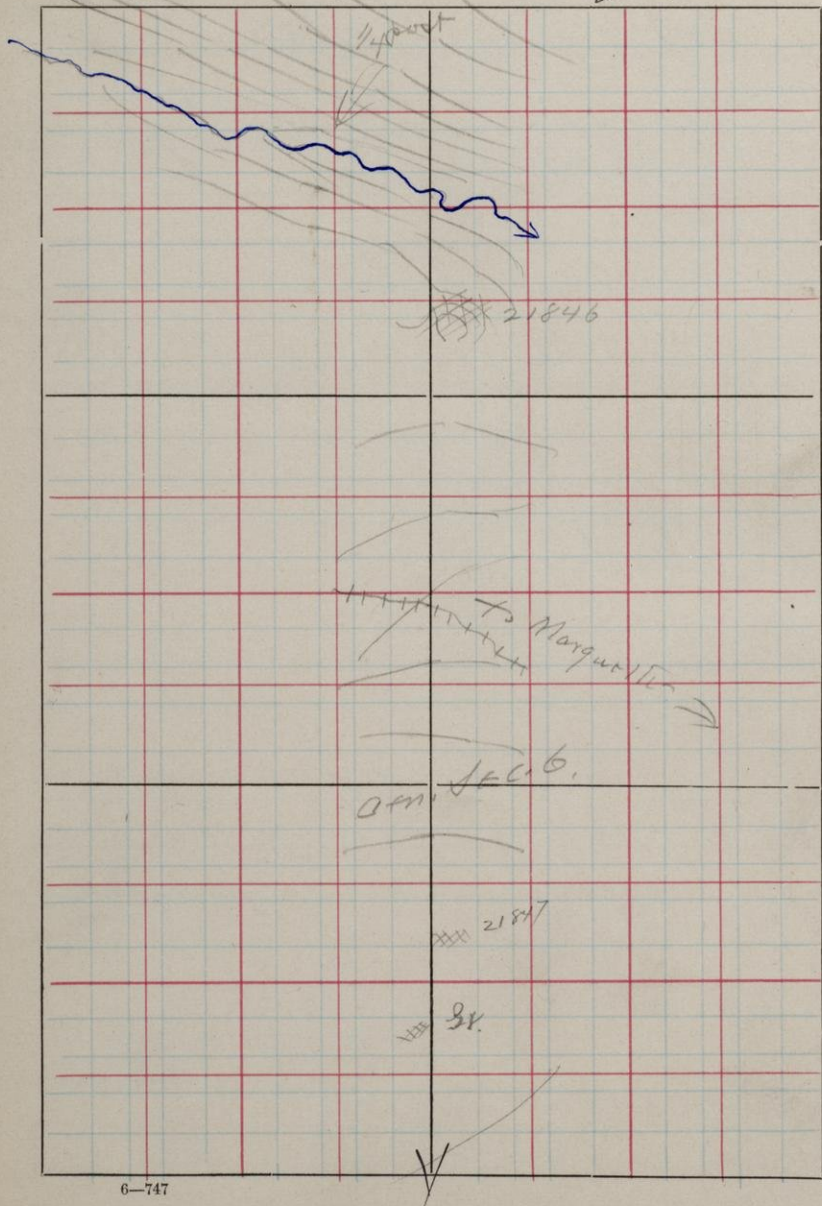
26



NWS $\frac{1}{4}$ lot Ste. 36.

Drift covered with young
growth of poplar

S. 6 T. 48 R. 25



✓ NS $\frac{1}{4}$ unit Stc. 6.

21846 1675 N1000 N-S.E. Gr. 6. Massive
Granite.

21847 810 N1100 W. Massive
Small surface exposure
of granite.

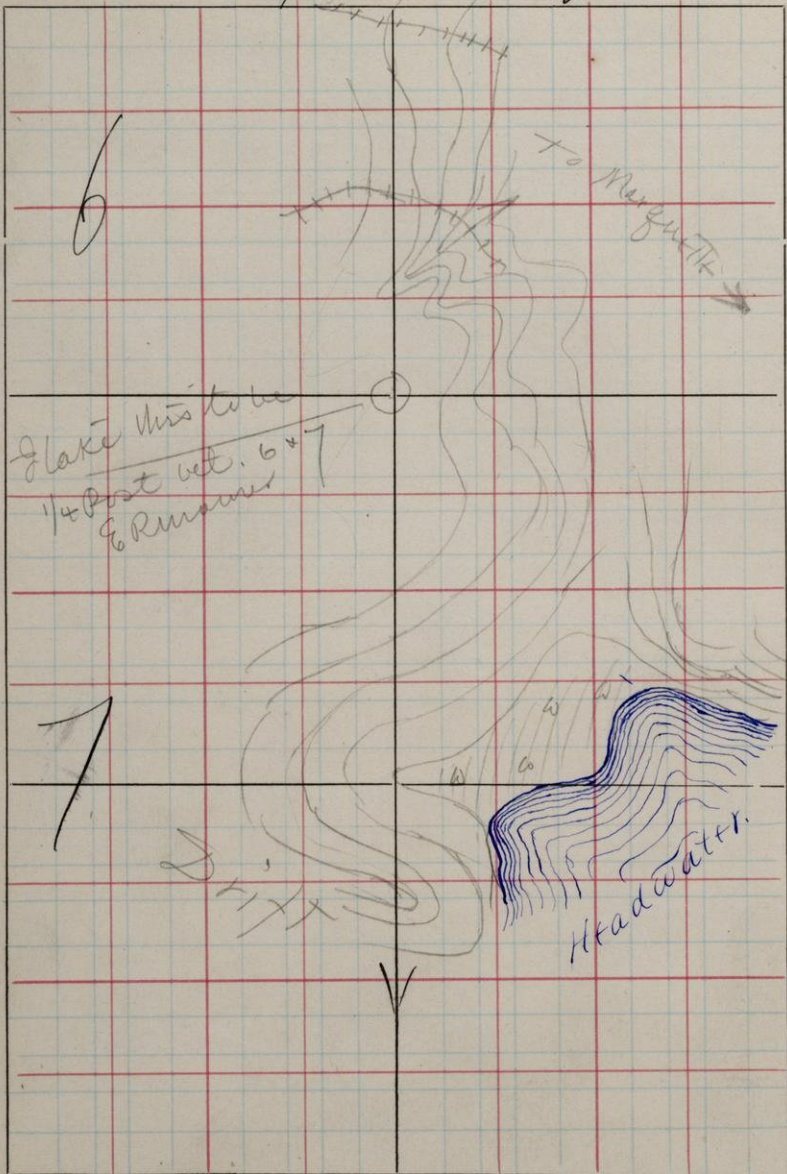
S.

T.

48

R.

25



MS 1/4 limit Ste. 6 & 7

Drift covered, with young
growth poplar.

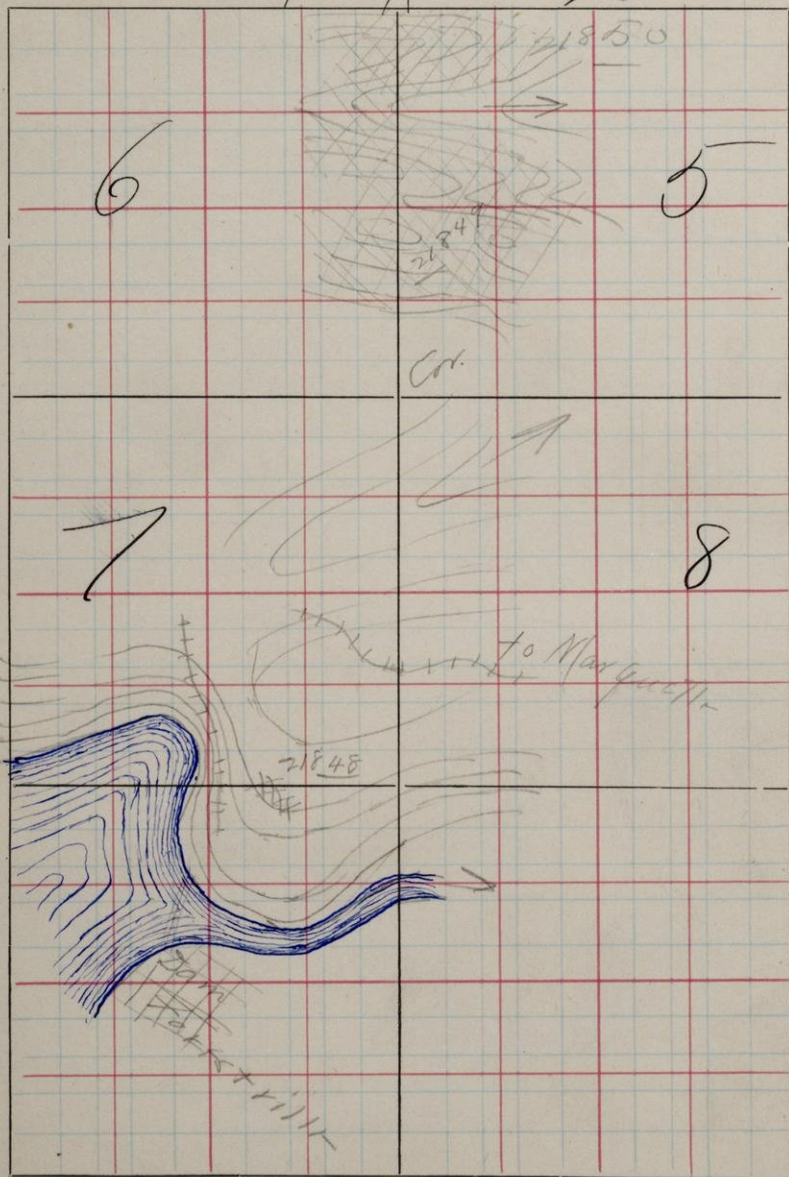
S.

T.

48

R.

26



No. 1000 ft. S. of T & S and 6 & 5.

21848 1500 N 200 W. S. E. Cor. 7. Massiv.
 Surface exposure of granite

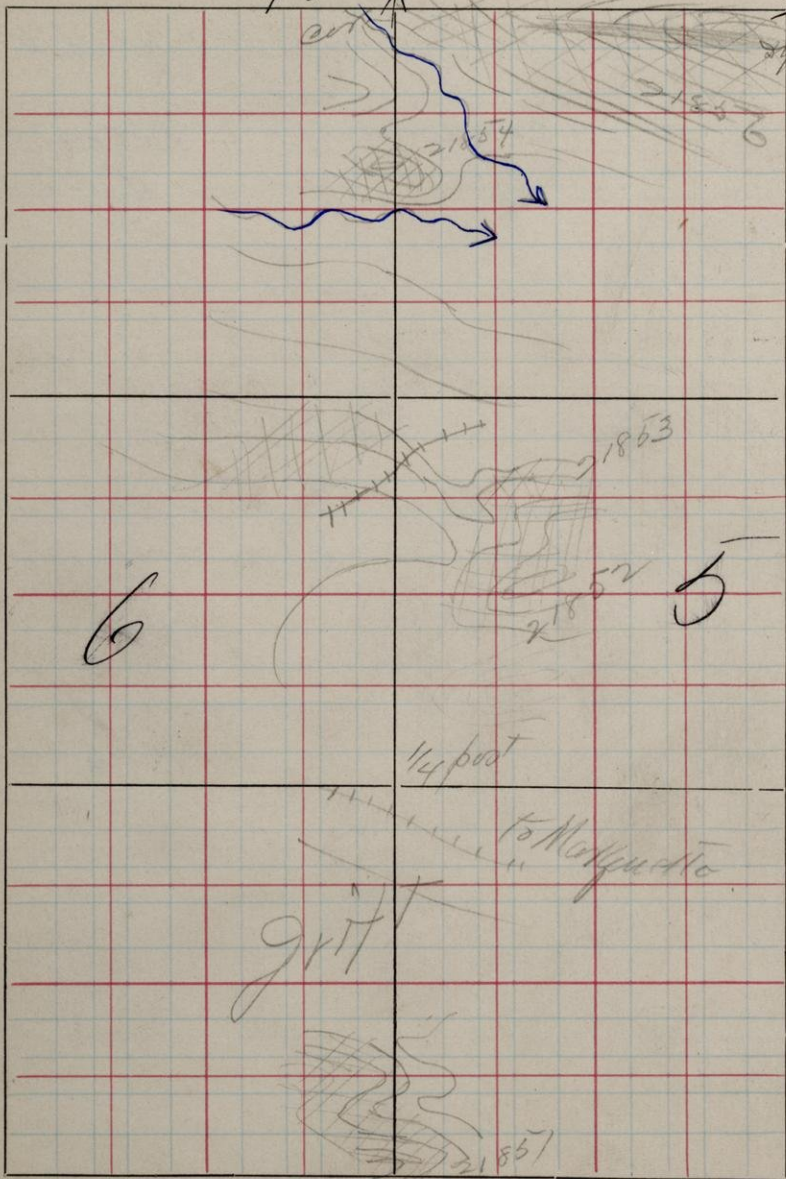
21849 175 N 0 W. S. E. Cor. 6. Massiv.
 Granite ridge.

21850 445 N 0 W. Dyke in granite.

Banks of Dead river com-
 posed most entirely of drift
 material

S.

T. 48 2185 R. 25



Map. Lin + Geo Sta 645.

- 21851 510 N 0 W. S. E. Cor. 6. In granite.
 Irregular stains. In
 place has $D 76^{\circ} N$.
- 21852 1250 N 1850 W S. E. Cor. 5. Massive
 Granite at top of N. slope.
- 21853 1375 N 1900 W Massive. Has ap-
 pearance of a dyke. Surface
 outcrops of same, rest along
 slope. Contact with granite
 drift covered.
21854. 1800 N 0 W. S. E. Cor. 6. Massive.
 Granite knob.
- 21855 2100 N 1950 W S. E. Cor. 5. Forms small
 dyke in granite.
- 21856 1950 N 1650 W. Large granite
 dyke in granite forming
 a little south of east.

S.

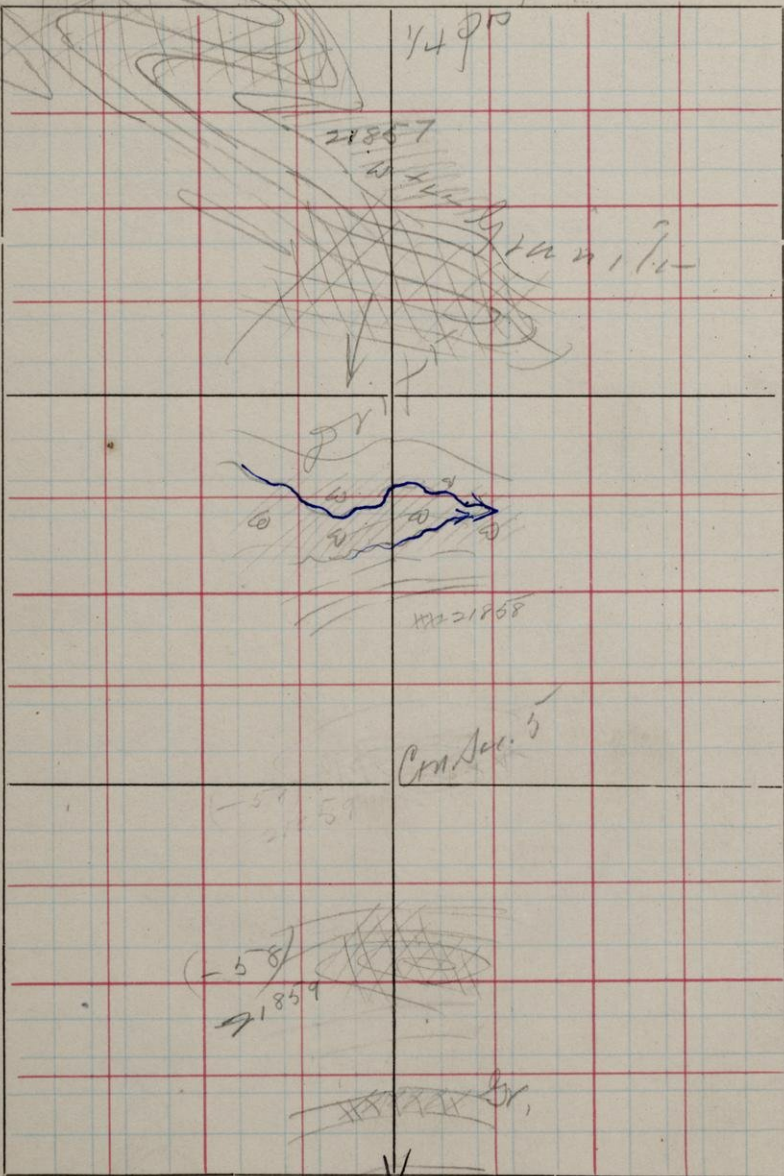
5

T.

48

R.

75



N + D. 1/4 line Sec. 5.

21857 1850 N. 1050 W. S.E. Cor. 5. Massiv.
Granite ridge.

21858 1200 N. 980 W. Massiv.

Probably forms a continuous formation along south side of creek. Called granite by R on right. Small exposure here. Summit at 785 N in NW ridge.

21859 760 N. 1000 W. S.E. Cor. 5, Massiv.
Granite on south slope of
knob composed of (-58).
Contact drift covered

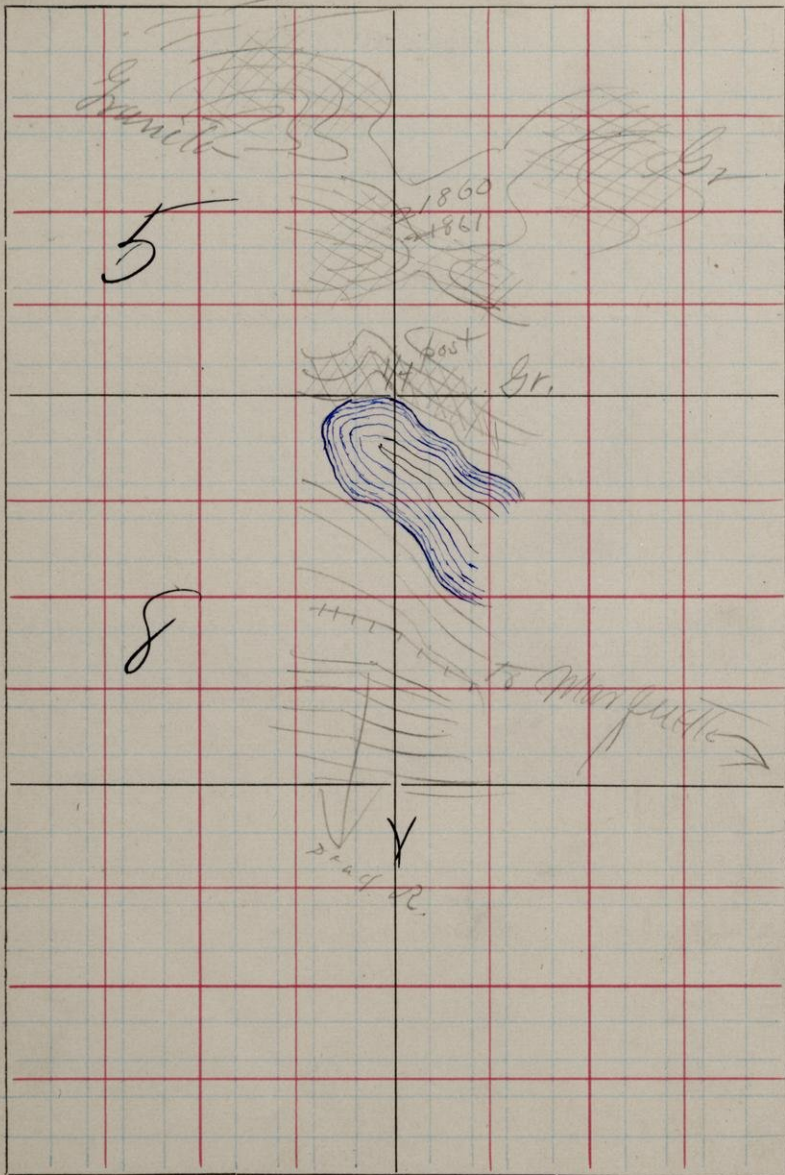
S.

T.

48

R.

25-

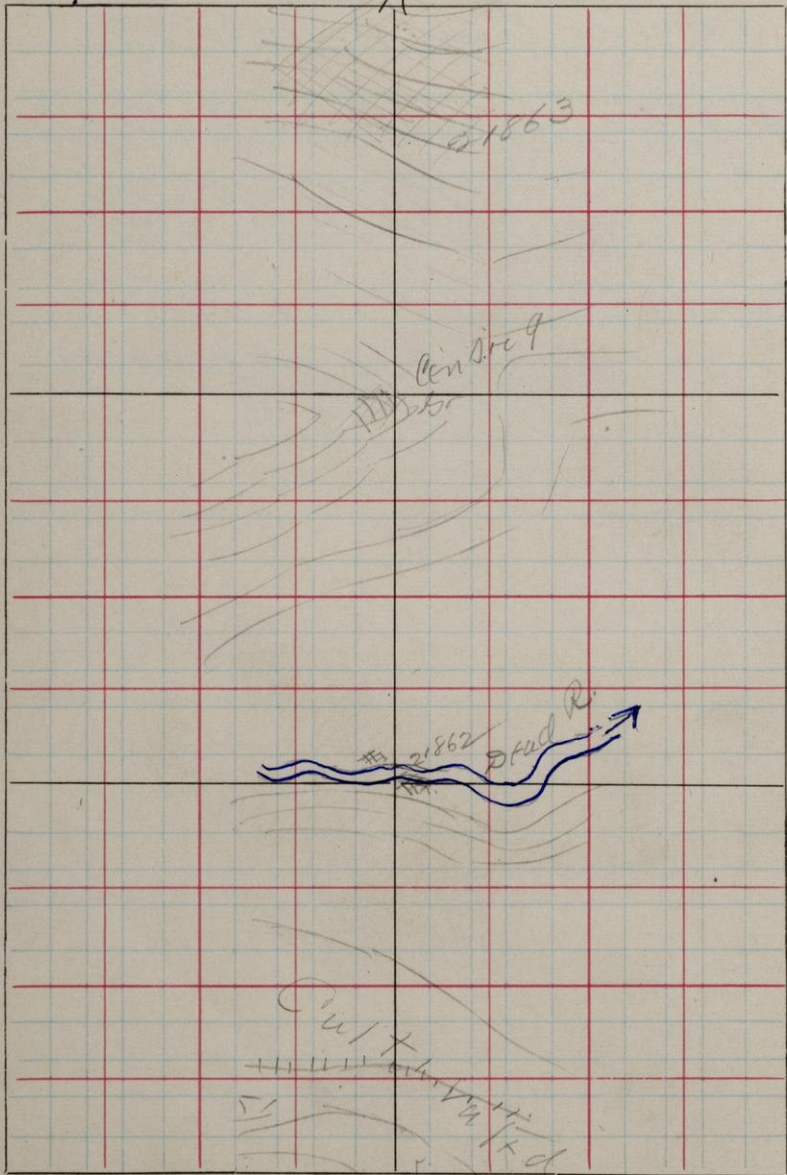


W. S. 1/4 line Secs 5 & 8

21860 250 N 1000 W. P. T. Cr. 5. Dyke
 in granite running about
 N.E. + S.W. 15 ft wide.

21860 250 N 1000 W. Massite and
 quarled in approximat.
 N + a third.

S. 9 T. 48 R. 25



NX S. 1/4 line Sec. 10.

21862 510 N 10-00 W. S.E. Cor. Q. S. N 90° E 370° N.
 S + D. given out those of shi + t +
 plants as report in r + t + t + d.
 # 1/2 units.

21863 1390 N 1000 W. Mass int.
 Exposed from base to top
 of ridge.

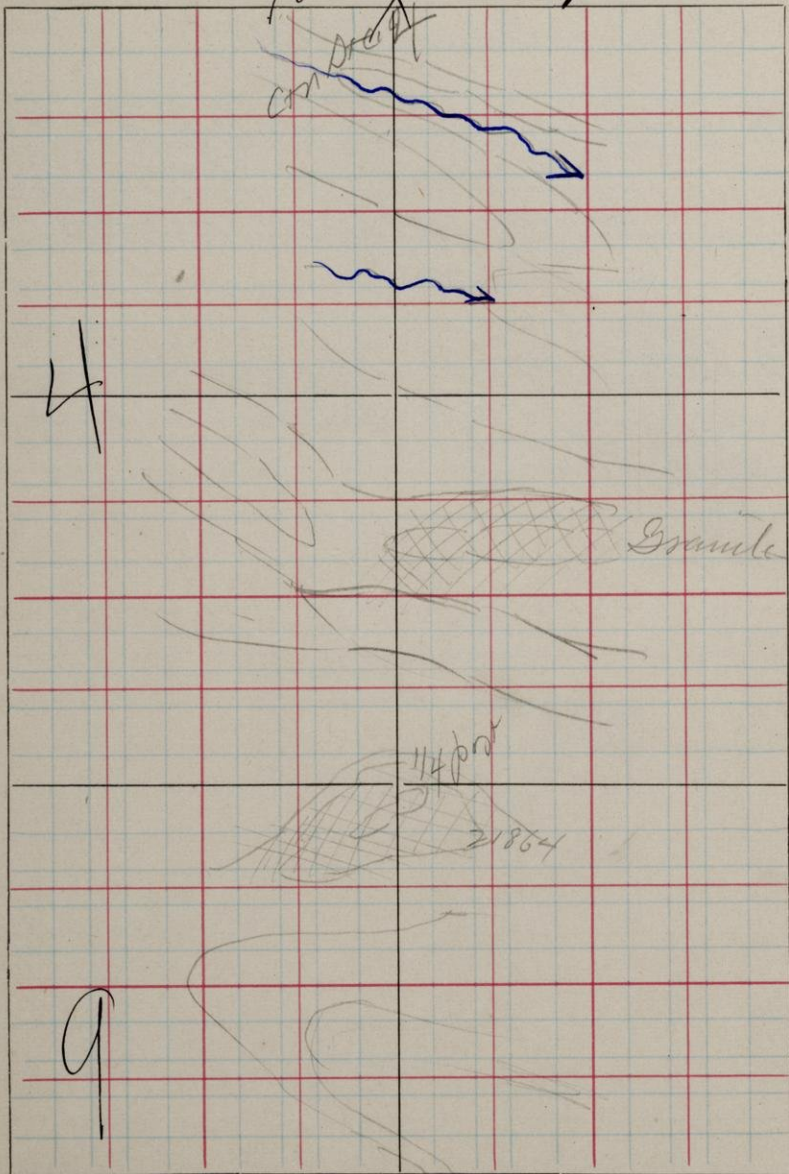
S.

T.

48

R.

75



NO 1/4 lot Sta 9 & 1/4.

21864 1950 N 1000 W S. E. Cor. 9. Massier.
Granite

Drift country north to
Lac du Superior.

S.

T.

48

R.

25

4

3

~~Handwritten scribbles and notes in the bottom left corner, including the number 21865 and the name Margaretta.~~

no. line the str's 4 & 3.

21865 1010 N70W. S.E. cor. 4. Massint.
brownite.

Low, swampy land north
of L. Superior.

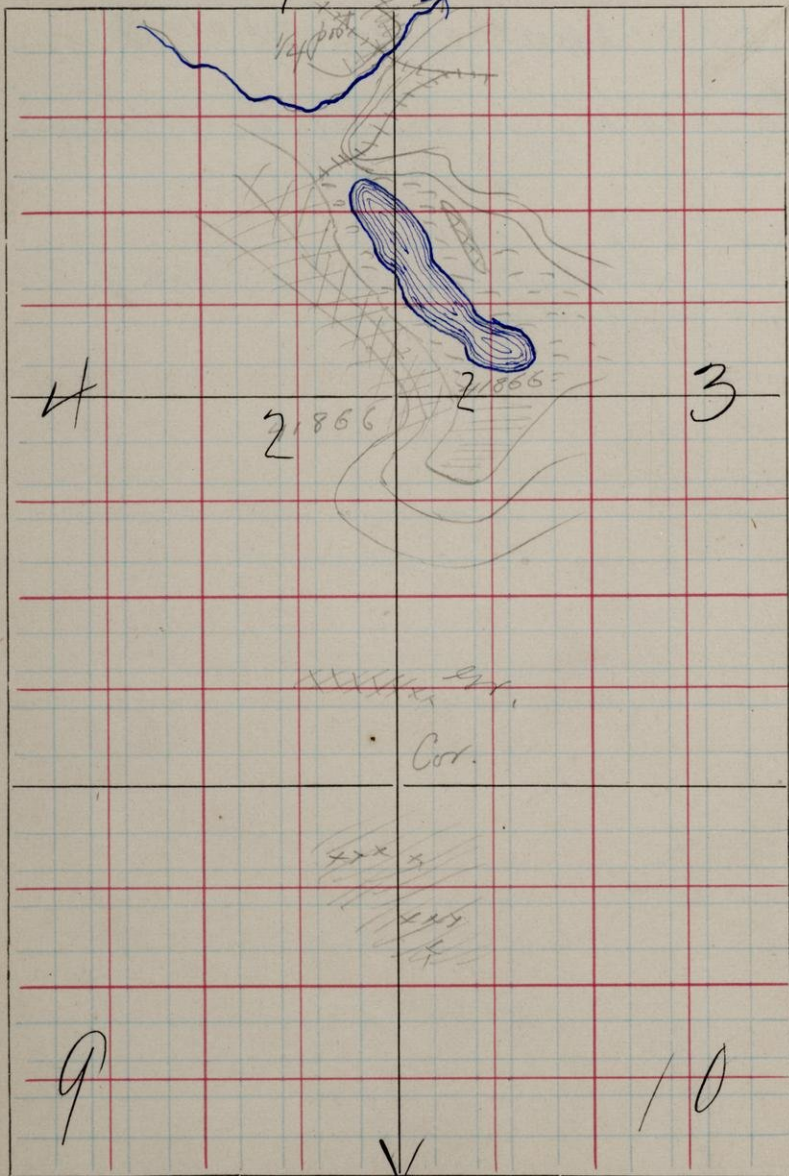
S.

T.

48

R.

25



MSlint flw. St. is 4^x3 and 9x10

71866 325 no w. J. C. Cr. 4. Masovit.
Granite

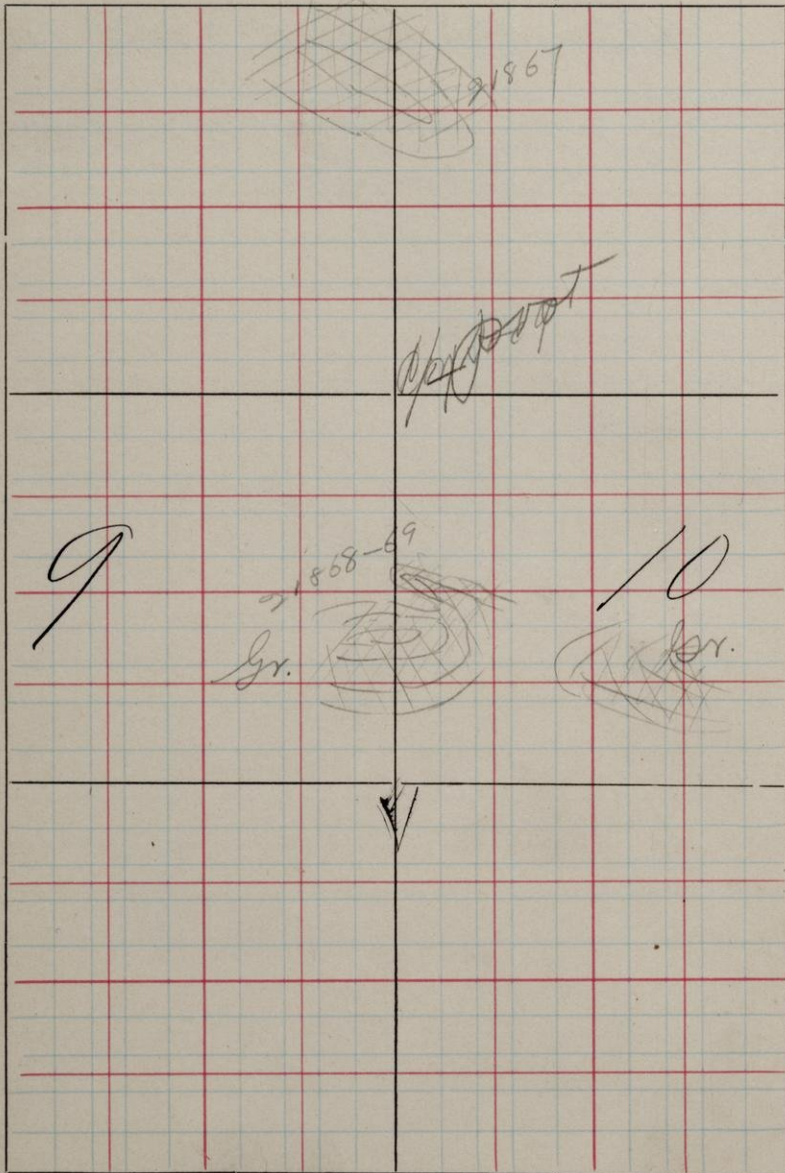
S.

T.

48

R.

75



W. Shurt. Flw. Dr's 9+10.

91867 1400 N. O. W. S. E. Cor. 9. Massint
Granite ridge.

91868 1760 N. O. W. S. E. Cor. 9. Probably
a dyke in granite.

✓
91869 1750 N. O. W. S. E. Cor. 9. Dyke

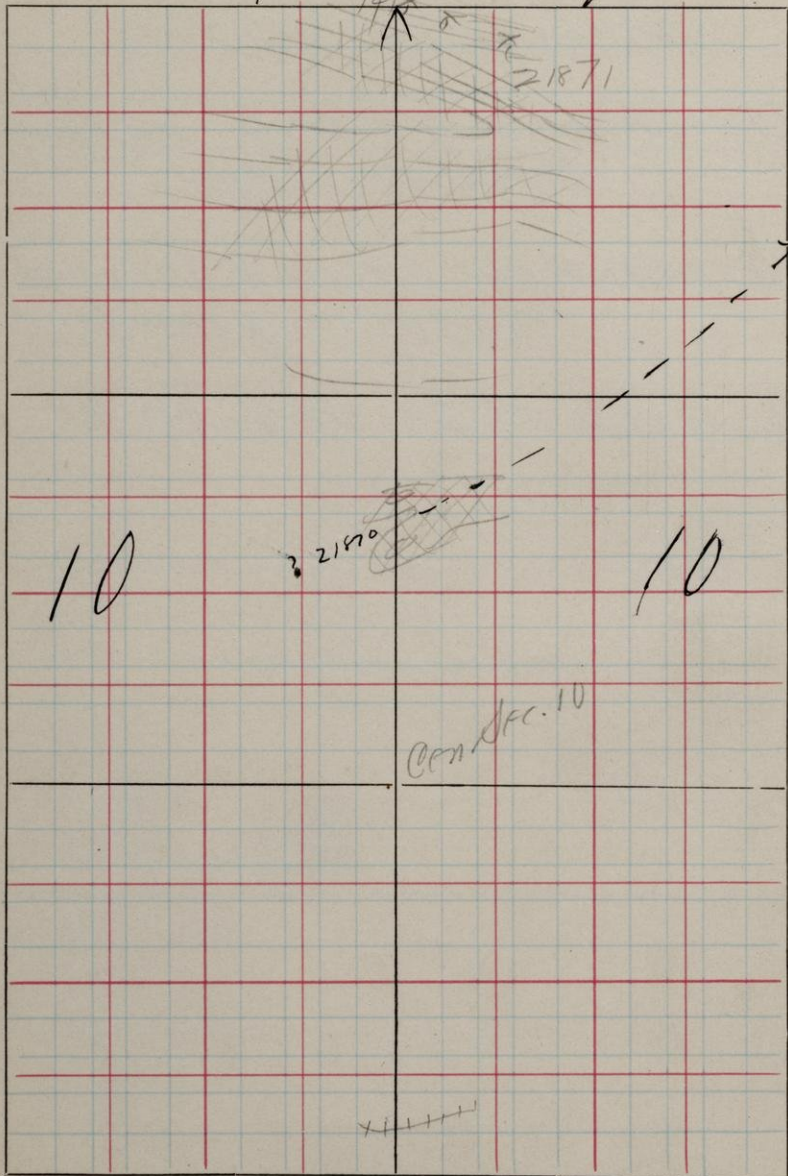
S.

T.

48

R.

25



NS 1/4 Sect. 10.

71870 1340 N 1000 W S.E. Cor. 11th Mass Int

71871 1875 N 1000 W. Mass Int.
Granite Ridge

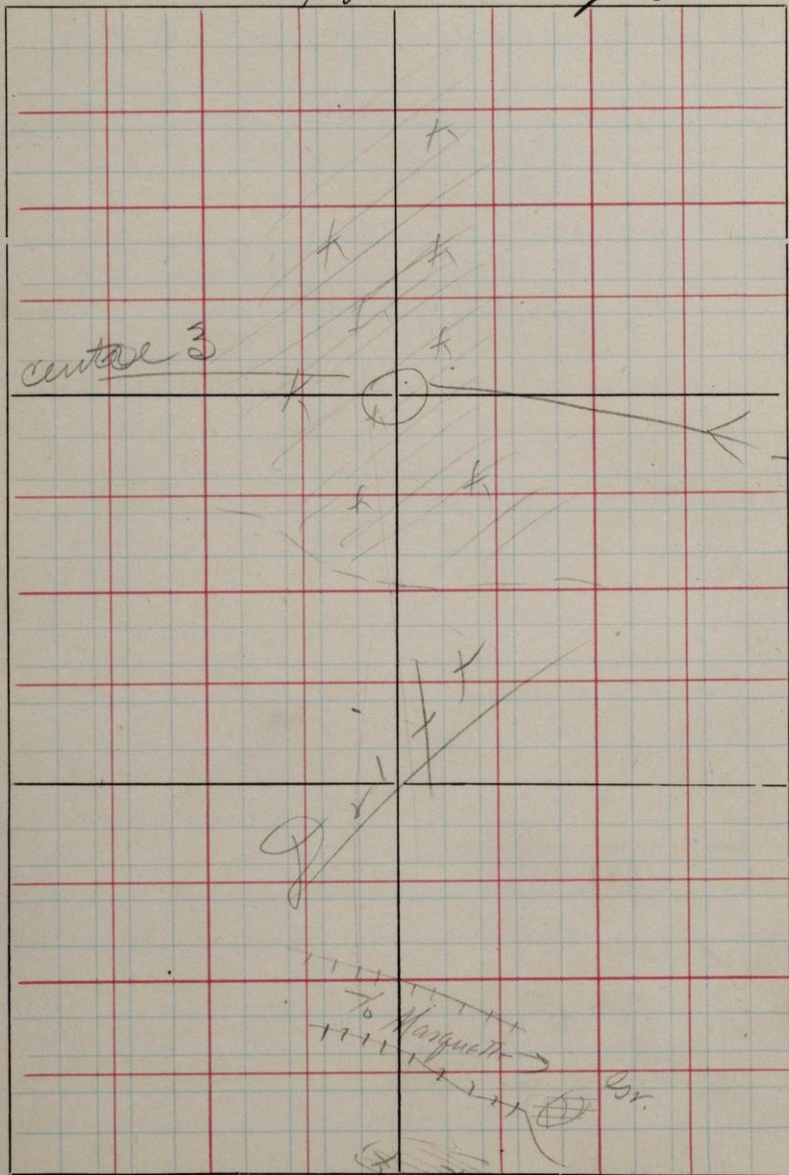
S.

T.

48

R.

25



MS 1/4 Brit St's 1043

Drift country north to
L. & S. Superior.

(from notes on preceding
page)

Assumed, to be
centre of $\frac{1}{2}$ ~~1/2~~
E. R. M.

