



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Township 44 north, ranges 30, 31, and 32 west, specimens 31301-31316. No. 212 Jun. 13-16, 1891

Brooks, A. H.

[s.l.]: [s.n.], Jun. 13-16, 1891

<https://digital.library.wisc.edu/1711.dl/YQC6ZBTJINQ6R9C>

<http://rightsstatements.org/vocab/InC/1.0/>

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

12

LAKE SUPERIOR SURVEY

Brooks

Index

LAKE SUPERIOR SURVEY. INSTRUCTIONS.

Topography.—On the left-hand page map as much of the section as has actually been seen, counting each of the spaces between the blue lines as 100 paces, and 20 of these spaces to one mile, or 2,000 paces. The scale is four inches to the mile, and the heavier blue lines, outlining one inch squares, mark forties. Denote streams, lakes, swamps, marshes, etc., by the topographical signs annexed.

The geologist will consult with the compassman, and describe as accurately as possible, the timber traversed. When pine is found, give its proportion; tell whether good or poor, and indicate kind—white, norway, jack. If hemlock is found, note the relative amount. In hard wood districts, designate as good or poor, heavy or light, and indicate predominant kinds, oak, maple, birch, etc. Cedar swamps, spruce swamps, tamarack swamps and meadow swamps will be always discriminated. Outline burnt timber.

Each day, just before leaving camp, the geologist will compare his own and the camp aneroids, and the reading of each, with time, will be recorded. At work the aneroid will be read on gentle slopes at intervals of 200 paces; on steeper slopes at intervals of 100 paces; also at all maxima and minima. When minima are streams the map and notes will indicate this, showing width and character of streams. When a stream has made a cut of importance, aneroid readings will be made where the banks break off and at water level. If instead of an abrupt break, the stream valley has steep slopes, aneroid readings will be made with sufficient frequency to show this character.

At reading points the compassman will stop, read the dial compass, and remain until the records are complete. The readings will, as fast as made, be placed upon the map at the right-hand side of the line traveled, and in the notes, the numbers being inclosed in parentheses, basing the work upon the bench-mark which served as a starting point. At bench-marks the absolute reading of the aneroid and the altitude as shown by the bench-mark will be recorded to serve as a base for subsequent readings. For instance, aneroid 29.13 inches; altitude on bench-mark, 275 feet. At each subsequent reading, by setting 275 on the altitude circle at 29.13 on the fixed dial, altitudes may be directly recorded. When the next bench-mark is found at two miles distance, the difference between the aneroid reading on the basis of the first bench-mark and the second bench-mark will be recorded. At intervals of a half hour during the day the time will be attached to the aneroid readings. Upon reaching camp, after the day's work, the geologist will record the readings of his own and the camp aneroid, and also the time. Interpolations will then be made, based upon the bench-marks and times (not distances) if the day has been one of no abnormal atmospheric disturbances, or upon both bench-marks and camp aneroid readings if there have been unusual disturbances, and the corrected numbers, less a constant of 4 feet, will be placed upon the face of the map at the left-hand side of the lines of travel, and in the notes without parentheses, but the parentheses numbers will not be erased.

At each aneroid reading the trend of a horizontal contour line will be indicated upon the face of the map, making the length of the line correspond as nearly as may be with the actual distance seen. In passing directly up or down a slope, the contour lines will be at right angles to the direction of travel. In passing up a hill diagonally the contour lines will intersect the lines of travel at various angles, which can be estimated and plotted with sufficient accuracy by an appreciation of the north and south direction.

The course of travel will be always north and south. In starting from a quarter or a sixteenth post, the work will be plotted on the assumption that the true course is followed, but upon reaching the next section line the geologist will remain in the position at which the line is struck by the compassman until the latter finds the adjacent bench-mark. The intervening distance will then be paced by the compassman, and the point of intersection of the section line marked. From this point to the starting-point, a right line will be drawn as the actual course of travel. The positions of the contour lines, aneroid readings, etc., will not be changed.

Geology. — In running the north and south lines, the compassman will, if possible, determine the course by the dial compass. At the time the geologist reads his aneroid, the compassman will determine the magnetic variation, which will be given to the geologist and recorded in the note-book. Each morning the watch of the compassman will be set to apparent time (corrections being made for the equation of time and for longitude), so that he will need to make no correction in reading magnetic variation. On cloudy days, and at times when the sun is too low for the use of the dial compass, the course run will be by needle upon the supposition that the magnetic variations indicated on the township plats are right when corrected by deducting 3° if the variation is east, or by adding the same amount if the variation is west.

Not less than once per week the accuracy of the watch of the geologist in charge of a party (who will give time each morning to the compassmen), will be tested. This may be done, first, by obtaining correct time from a railway station by means of a packer when sent out for provisions. Such time will be mean, i. e., watch time for the nintieth meridian. Second, corrected time may be found by blazing out a north and south section line, preferably a range line, for some distance, setting a signal on the line and placing the dial compass duly leveled, in a north and south direction upon a Jacob's-staff just before mid-day, and setting the watch at 12 at the time the line strikes the noon hour. In a watch thus set all corrections are made.






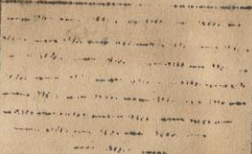
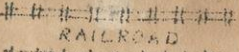
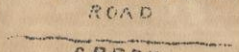
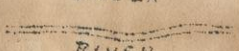





It will be the constant business of the geologist to search for outcrops. All hills within a reasonable distance of the course of travel will be examined. Oftentimes upon the steeper slopes of a hill a rock surface is covered with a coating a few inches thick of moss, leaves or vegetable mold and can be stripped with the pick. Where the exposure is small and there is the least possibility that it may be a large boulder, indicate this fact in the notes and by a query on the map. All ledges off the line of travel of the compassman will be located by the geologist pacing to this line in an east and west direction, his course being determined by compass.

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, having strike line and dip arrow with numbers attached. 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 specimens representing it. 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, No. 437, 1226, N., 353 W., *Strike, N. 47° E., Dip, 68° S. E.* Then follow with as full a description of the ledge as possible.

Collect a specimen from every ledge, and if the ledge exposes different kinds of rock, collect a specimen of all varieties. Take care to get fresh material, unless for a special purpose the weathered surface is desired. Where ledges are infrequent the normal size of specimens will be $3 \times 4 \times 1$ inch. In case several specimens of the same ledge are necessary, and when ledges are numerous, specimens $2 \times 2\frac{1}{2} \times \frac{3}{4}$ inch will be allowed. In all cases collect chips for slicing. No two specimens will be given the same number. In the cases in which several specimens come from the same ledge, the different numbers assigned to them will enable an easy description of their relations. Specimens will be placed at once in paper bags provided, upon which shall be marked in at least two places, with a blue or red pencil, the specimen number.

TOPOGRAPHICAL SIGNS.

 <p>PINE OR HEMLOCK</p>	 <p>HARDWOOD</p>	 <p>PINE OR HEMLOCK AND HARDWOOD</p>	 <p>CEDAR SWAMP</p>
 <p>SPRUCE OR TAMARACK SWAMP</p>	 <p>MARSH</p>	 <p>RAILROAD</p>  <p>ROAD</p>  <p>CREEK</p>  <p>RIVER</p>	 <p>NO STRUCTURE</p>
 <p>NEARLY MASSIVE</p>	 <p>SHALY OR BEDDED</p>	 <p>SECONDARY STRUCTURE.</p>	<p>↑ 63°</p>

EQUATION OF TIME FOR 1891.

Day	Min.	Day	Min.	Day	Min.
-----	------	-----	------	-----	------

JUNE.

Add to watch time.

1-6	2	7-11	1	12-16	0
-----	---	------	---	-------	---

Subtract from watch time.

17-21	1	22-26	2	27-31	3
-------	---	-------	---	-------	---

JULY.

Subtract from watch time.

1-6	4	7-13	5	14-31	6
-----	---	------	---	-------	---

AUGUST.

Subtract from watch time.

1-7	6	8-13	5	14-18	4
19-23	3	24-26	2	27-29	1
30-31	0				

2/2

SEPTEMBER.

Add to watch time.

1- 2	0	3- 5	1	6- 8	2
9-11	3	12-14	4	15-17	5
18-19	6	20-22	7	23-25	8
26-28	9	29-30	10		

OCTOBER.

Add to watch time.

1	10	2- 4	11	5- 8	12
9-12	13	13-16	14	17-22	15
23-31	16				

NOVEMBER.

Add to watch time.

1-13	16	14-19	15	20-23	14
24-26	13	27-29	12	30	11

No. 1.

June 13/91
June 26/91

1

A. H. Brooks. "Geologist."

Ira B. Weller. Comptroller.

These lines were run between town line
(levelled) 44, 45 & the levelled line
two miles S of that.

Between Range line 30, 31 & the
E $\frac{1}{2}$ Sec line of Sect. 5 Range 32.

Town 44 N. Range 30 - 32 W

Dial compass No 8.
Anemoid. No 9.

N. B. I consider that most of the
"wild" closes were due to the effects
of the dial compass.

The dial has been proved to be defective
by actual trial.

The variations have therefore very
little value.

SPECIMENS: 1301 - 1316

2 - 1316's

2

S. /

T. 44

R. 3
(454.10)

				446					(459)
				436					(460)
				434					(455)
				419					(470)
				448					(454)
				414					(420)
				450					(453)
				448					(463)
				443					(450)
				422					(430)
				392					(400)
				397					(403)
				402					(410)
				381					(390)
				383					(392)
				380					(402)



Browns. Geologist

Linn. Geomorph.

June 13/91

29.05 = 0.8.

3

Camp moved No 7. 28.732

Browns. " No 9. 28.65-

N.E. Corner Sec. 1. 44 R. 31 W. (454. 10)

Paus. Beginning H.L. line 8.26 A.M. V^o 3 1/4 E

O. Pine starting burned. Flat.

86

446
(450)

112

456
(460) V^o 2 1/2 E

200

454
(458)

305

474
(470) V^o 2 1/4 E

400

448
(454)

528

— V^o 2 1/2 E

581

414
(470)

600

— V^o 1 1/2 E

800

458
(455) V^o 2 E

1000

448
(455) V^o 2 1/4 E

1126

443
(450) V^o 2 E

1200

Spruce Swamp 9.15 A.M.

422
(430)

1265

Populus

(420)

1281

Spruce Swamp

(420) V^o 2 E

1314

" "

(420) V^o 2 E

1430

Pine starting burnt

(400)

1454

" "

— V^o 2 1/2 E

1468

Hill 30 Paus E

(420)

1600

" "

397
(405)

1637

" "

402
(410) V^o 2 1/4 E

1700

Mushroom

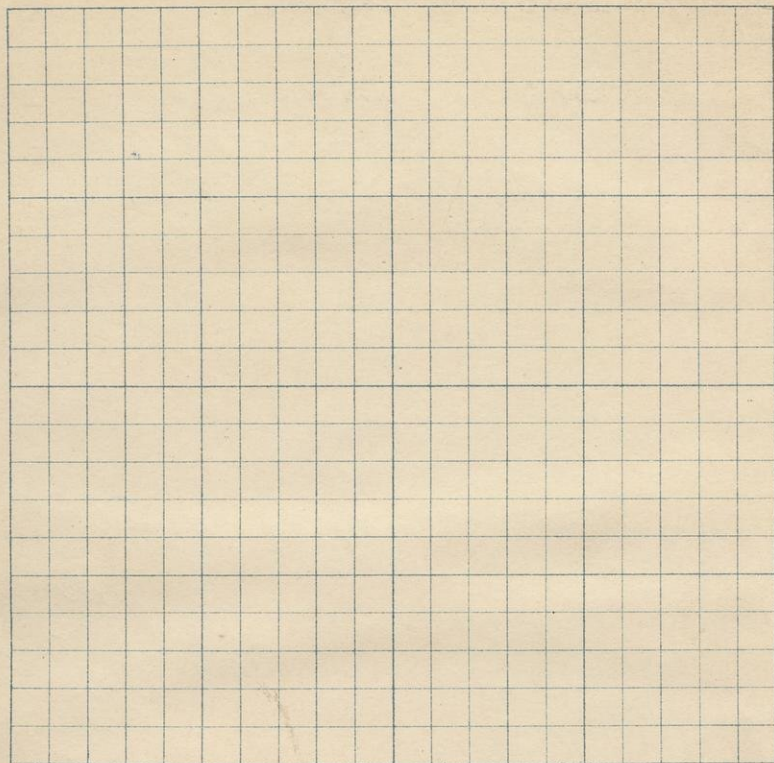
381
(390)

4

S.

T.

R.



1806

Pine Sillashing. Hunt.

var 2' E

383⁵

(392)

1880.

S. line Sec. 1.

390

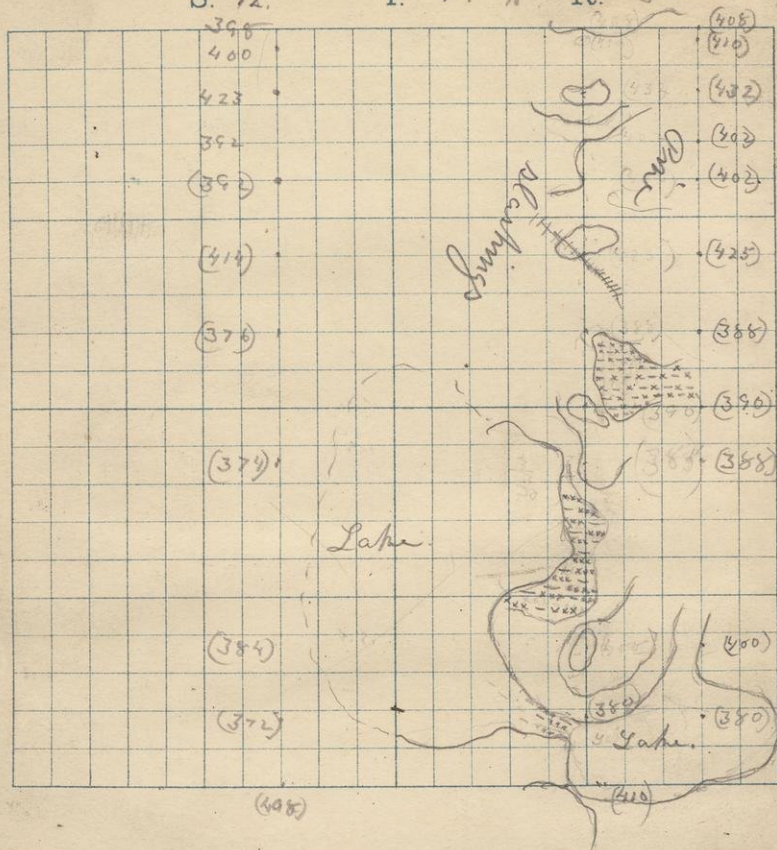
402

Hatch Sect. Line 26. Paces W. of Corner Post. S.E. sec 1.

10 A. M.

S. 12.

T. 44 N. R. 31 W.



Orange Lm. Starting at N.E. Corner Sec. 12. 10 A.M.

0. Pine Sclashings (408) Var 3° E

34 " " (410)

190 " " (432) Var 3° E

220 " " — Var 3° E

300 " " (402) —

400 " " (402) Var 3½° E

600 " " Road. (423)

635 " " Road. 10.30 A.M. — Var 3° E

800 " (Grass Swamp 400 E) (388) Var 3° E

1000 " " (390) Var 3½° E

1164 " " (385) Var 5° E

1200 " " (385) —

1232 Cedar Swamp 10.55 A.M. (372) —

1347 " " (372) —

1400 " " — Var 4½° E

1545 Pine Sclashings —

1648 Poplars. 400 Var 3½° E

1820 Lake 12.13 (380) Var 4½° E

2000 Sec. Lm. approximately 12.45 (418) —

Corner of Sec. in Lake

Stuck Sec. Lm 257 paces E of S.E. Corn Sec 12

B.M. 406.50

Amended. 418. —

8

E 1/8 Lm

S. 12

T. 44

R. 31

+10

350

1/2 (402)

(390)

424

(415)

430

Marsh

(423)

+9

437

(432)

449

(445)

438

(435)

+5

431

(430)

423

(422)

420

(420)

430

(430)

Lake

423

(420)

+3

425

(425)

393

(390)

417

(415)

386

(385)

388

(392)

+0

1/2 (404.64)

8

9

10

11

12

13

14

15

16

17

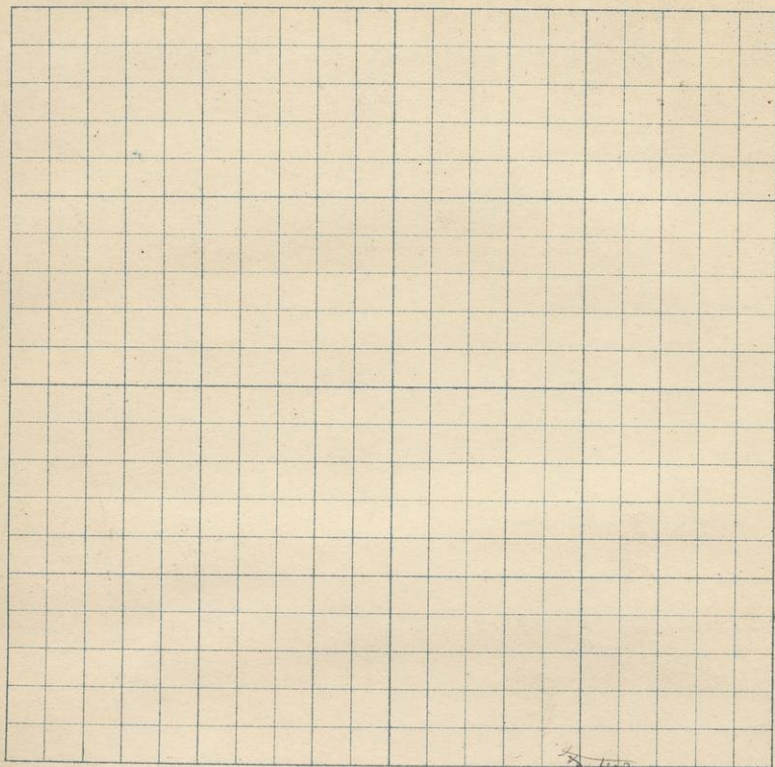
E 1/8 Line of Sect. 12. Beginning at S. Line 1.05 P.M.
B.M. 404.68. Summed at 28.98 = 0 ft

0	Poplar brush.	(404.68)	var 6° E
100	Spruce & Tamarack in amts	(392)	
200	" " "	(385)	var 6° E
220	Lean swamp.	—	
300	Top of hill Poplar under brush	(415)	var 5° E
349	Brook outlet of Lake 2.35 P.M.	(390)	
349	20 Paces E Lake.	—	
385	Hill	(425)	var 1 1/2° E
400	Lake	(405)	
580	" Opposite shore	—	var. 2° W.
600	Brush.	(420)	
700	Pine slashings		
700	Offset 75 Paces to W. toward Lake		
	Top of hill 7.5 P. W.	(430)	
850	Lake 10 Paces E	(420)	
925	Returned to Line	(422)	
1000	Underbrush	(430)	var. 2 1/2° W.
1215	Burnt Pine & underbrush	(433)	
1266	" " " " "	(445)	
1400	" " " " "	(432)	
1470	75 Paces W. Marsh		
1600	Burnt pine & underbrush	(425)	
1737	" " " " "	(418)	var. 1° W.

S.

T.

R.



1973 Road 3.30 P.M. (390)
2038 Sec Line ~~1/8 stake~~ 43 (402)
Strip Line 42 Rows E of ~~1/8 stake~~.

12

S.

T.

44

R.

31.

18

16

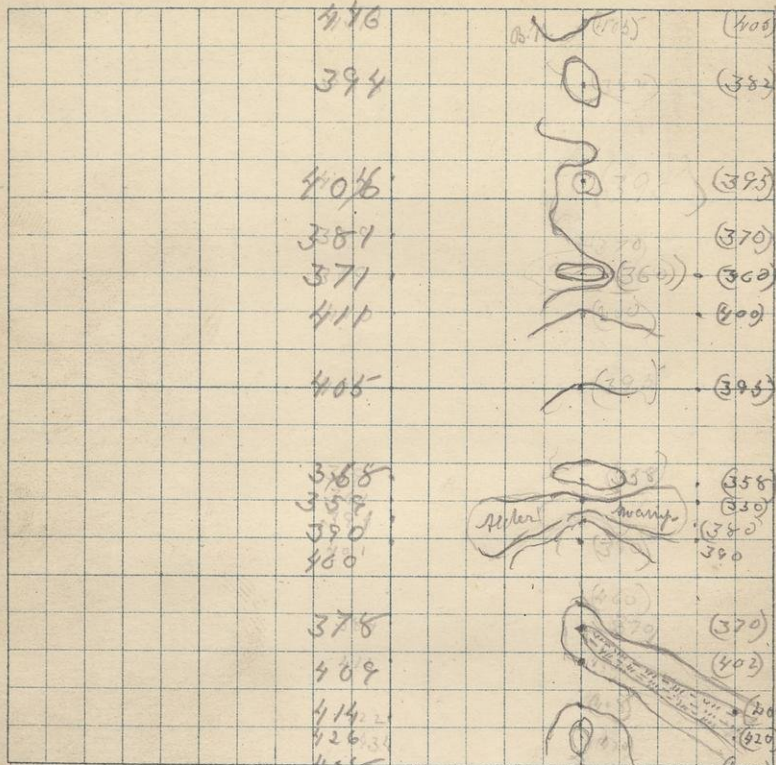
13

14

13

12

10



13

27

33

46

60

63

66

70

74

80

94

100

12

13

14

15

16

16

198

2nd magnetic compass. Sun clouded.
0° 0' Variation

13

1/8 Line of sec 1. 44 31 Beginning S Line of sec 1.

0. Burnt pine & underbrush 3.40 P.M. (302) Road

79 " " " (420)

152. Burnt pine slashings (409)

275 " " " (404)

330 Marsh (370)

460. End of marsh (390)

605 Burnt pine Flat (390)

630 Branch of hill (380)

660 Alder swamp 4.20 (350)

700 Loose swamp "

740 Hill (358)

800 " (350)

940. Sun came out Dial compass used. — 2nd 1 1/2° W.

1000 Burnt pine 5.40 P.M. (395)

1200 " " Flat (400)

1312 Gully (360)

1400 (370)

1530 Hill (398)

1600 " (375)

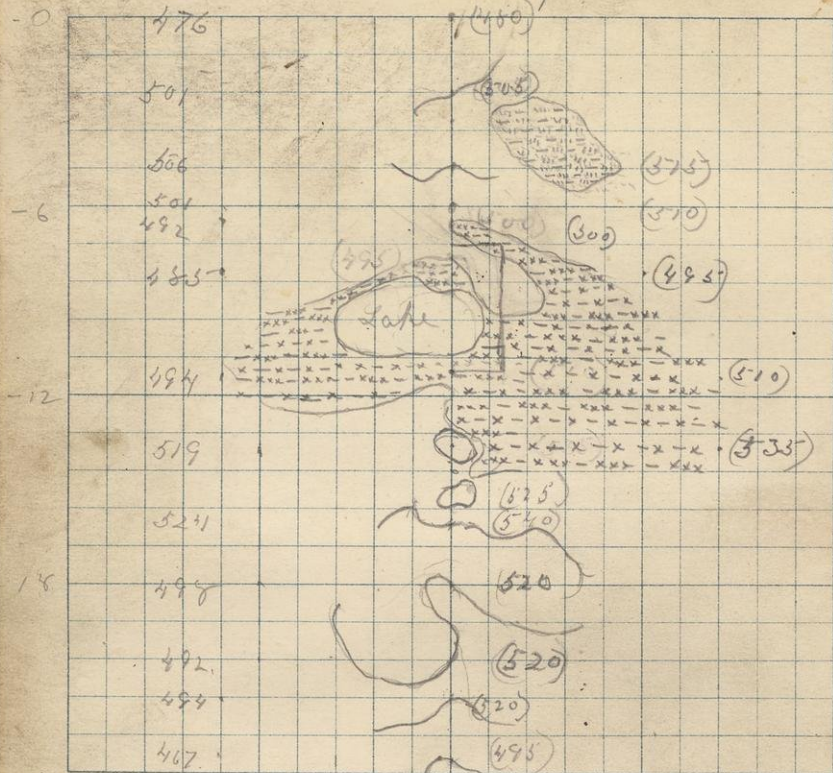
1600 Hill (382) 2nd 2° W.

1989 Struck N. sect Line 1200 paces E of E 1/2 Part.

B. M. 450.34

Amenid. 432 5.12. P.M.

+ 18.



Amended not compared with carrying forward 15
 As the cook failed to + no one to read it.
 June 28/91. 5.10.11 AM

1/4 Line of Sect 2 45 31. Beginning
 N. line. B. M. + 1/4 stake could
 not be found probably burned.
 Started 500 paces W of 1/4 stake
 At around same as June 15/91 as

B. M. was not to be found. 28.98 = 0

0. Brant pine Flat (480) var 1 1/2 W

200. " " (505) var 2 1/2 W

275 100 ft Marsh

400 (515)

500 600

570 Gallery (500)

630 Humble + cedar swamp

725 Lake (490) var 3 1/2 W

725 Opposite 40 ft Edge of swamp
 110 to avoid lake

800 940 End of Effort (510)

1090 Edge of swamp var 5 1/2 W

1130 (535) " "

1200 var 2 1/2 W

1265 Port Hole (525)

1320 Mixture of soft timber (540) 10.15 AM

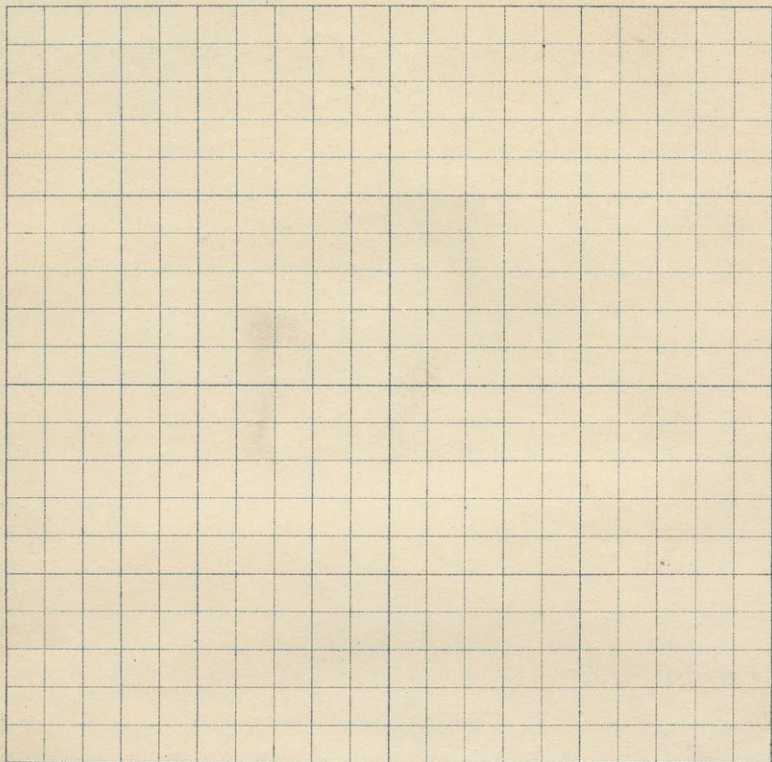
1500 Open place under bark (520) var 1 1/2 W

1600 (510) var 0° -

S.

T.

R.



1500 —

(520)

1888 Struck 5 Lm of *Sed.* 32 paces W $\frac{1}{4}$ Sect

24 Line of Sect 11. 44 31. beginning W line
 running S. 10.45 A.M.

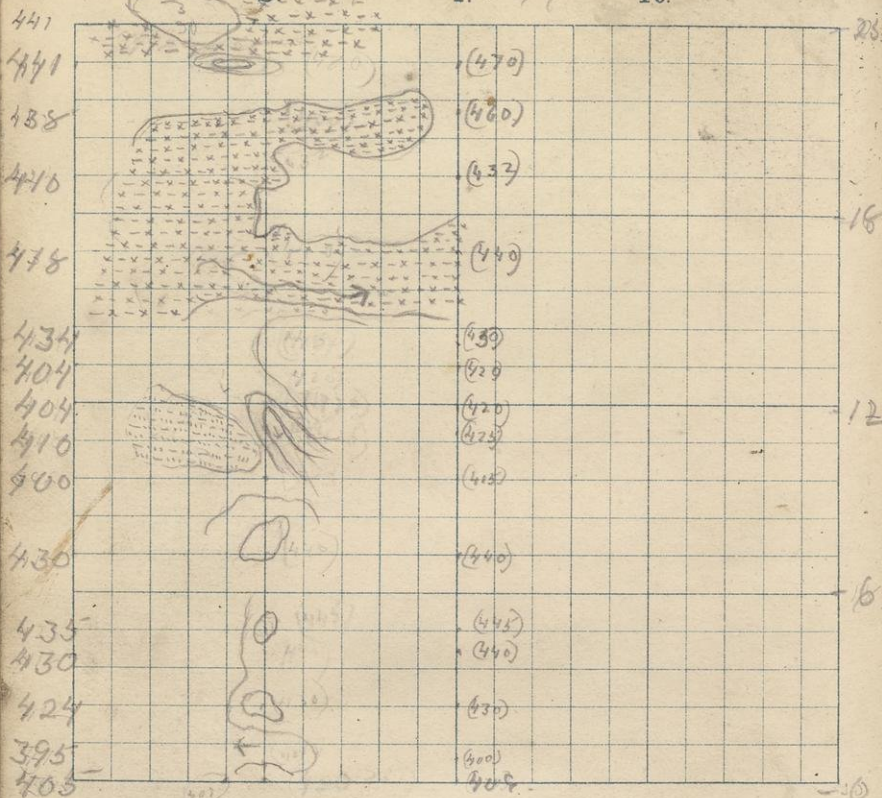
- 0 0. Marsh with alder (500) var 0° -
 335 Edge of marsh (505)
 370 Hill (530)
 485 Hill (530) var 0°
 502 Marsh (505)
 570 Stream 10 ft wide flowing SW
 600 (580)
 930 Edge of Marsh. (505) 11.25 AM
 1140 Hill (525)
 1165 Edge of Marsh (570) var 1° E
 1200 Foot of hill ^{Barnt pine} slashings
 1350 Top of Hill (540) var 1° E
 1500 Hollow (520)
 1600 Balsam Hemlock (545) var 1° E
 1175 Under barnt ^{Barnt} slashings (540)
 1841 Pine slashings tunnel (500)
 1965 Much fine Gyas W & Port. (550) var 0°
 B.M. 412.98 Annual 560 ft. 12.15 A.M.
 560

20

S

T

R



W 1/8 of 11.44.31. Beginning. 5 line / Sect 8
running N.

B.M. - 408.75 - Around pit 28 89 = 0 ft
1.15 P.M.

0. Pyle ridge. 7. Holbrook 40. (420) 0 var 10 W.

40 (400)

200 (430) var 10 E

300 (440)

400 (445) var 10 E

600 2.55 P.M. (440) var 10 E

800 Averys Marsh (415) var 10 E

880 End of "

935 (425)

1000 Burnt Pine slinkings (420)

1080 (420)

1200 (450)

2200 Tamarack & yucca swamp. (430) var 10 E

1300 Stream 10 ft wide from W. var

1400 2.35 P.M. (440) var 30 E

1400 (432) var 30 E

1500 Green swamps (460)

1800 (470)

1930 (100 paces W. lake) Spring Marsh

1990 Struck N line Sect 11. 10 W 1/8 stake

3.15 P.M.

22

S.

T.

R. 31

424

422

427

447

449

437

481

408

464

459

435

460

440

450

430

440

(478)

(475)

(475)

(493)

(475)

(486)

(526)

(340)

(306)

(459)

(470)

(495)

(476)

(485)

(485)

(470)

30

44

37

31

25

W 1/4 of Sect 2 44. 31. beginning with
 5 line from running N. 13. 16 P.M.
 0. Poplar Old burning. (470) var 2° E
 200 " " " (485) var 2° E
 400 " " " (495) —
 500 Gulley " (475) —
 593 " " (490) var 3° E
 700 Marsh (470) var 2° E
 810 Leave marsh
 900 Hemlock & Birch 480
 990 " " 505
 1010 " " 480
 1045 " (540) var 1° E
 1025 Hardwood (510) —
 1200 " (520) —
 1385 " (485) —
 1450 " (475) var 2° E
 1500 Pine burnings (493) var 1° E
 1650 Marsh (475) —
 1700 Lake — var 2° E
 1775 Edge of marsh —
 1790 Burnt Pine 480 var 2° E
 1825 Marsh (475) —
 1825 Shrub belt line 11 W 1/4 stake
 B. M. 525. 37.
 Arrived 425. P.M.
 50.

W. Lane of N. Y. Beginning N.

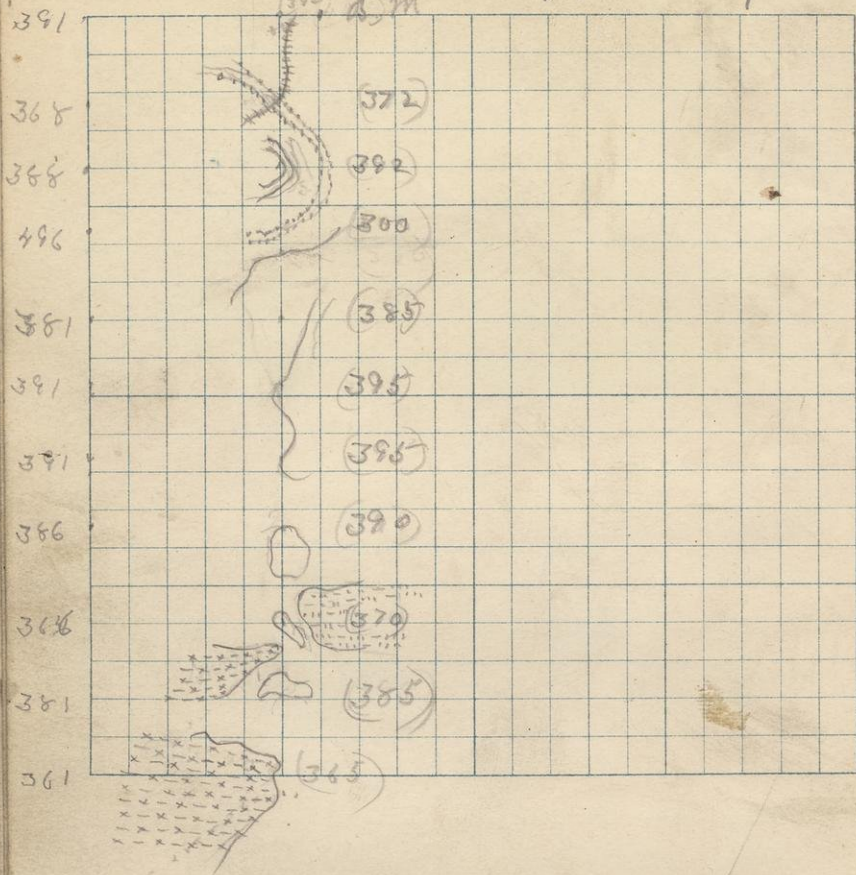
2

T.

44

R

3/



Sett made 10 W June 10/81.

25

W. Sett line of 24431 beginning N.W. Corner Sett.
running S. 7.40 A.M.

B.M. 405.65 found set 28.73-200

0. Round Pine slashings Broad (393)

200

(390)

225 Road & bridge

" River 25 Paces Broad

(372)

400 Hardwood & birch

390

575 River 20 Paces Birch

(360)

610 Hemlock

(363)

800

(365)

948 Old 1/4 Stake

1000 Hemlock

(396)

1175

(395)

9.15 AM

1365

1531 Mark 50 Paces E

1600

(370)

1630 Cedar Swampy, etc.

1780

(376)

1800

1980 Swampy spruce & cedar

2074 Shrub line 2 paces W. 1/4 stake (363)

26

W. rect. line of

S. 11

T.

44

R.

31

371

381

376

364

371

371

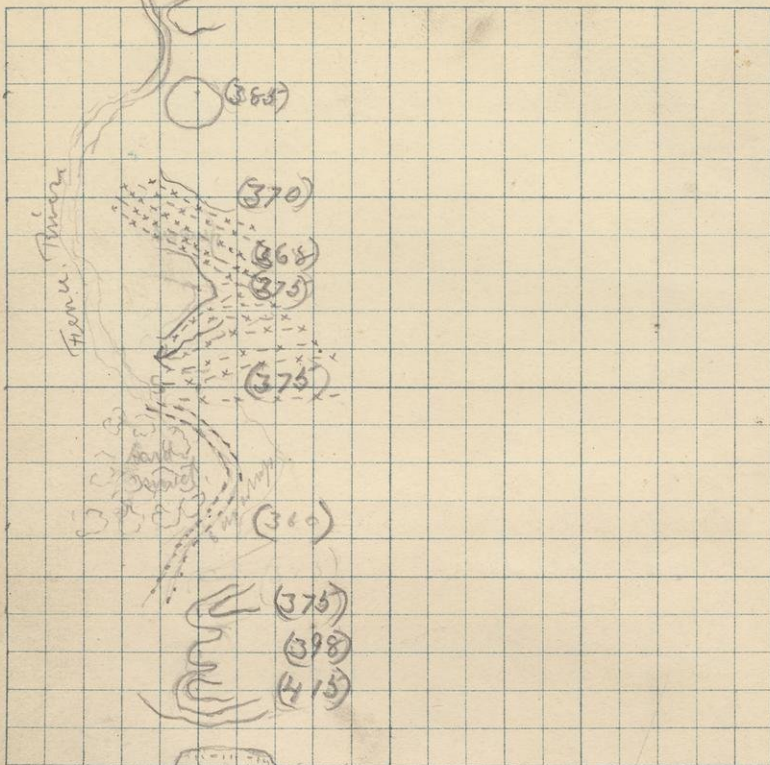
356

371

394

411

466



(370)

Shady side Ven 10 W.

27

Sept 11. 10 44 31, beginning N & running S.
10.25 A.M.

0. Marsh Pine 100 P.W. (375)
215 Open with poplars (385)
300 Swampy Tamarack ^{seen} cedar (370)
400 Green swampy. (365)
750 Beach stream (375)
860 Creek / opt Wade flowing W (370)
" marsh.

1000 Green marsh. (375)

1100 Thicket 25 Paces 11.25 A.M.

1375 Pines (360)

By Chas Ven 40 W.

1400 (375) 2 at 304 ✓

1700 Bristle pine 398 Ven 50 W

19800 Marsh

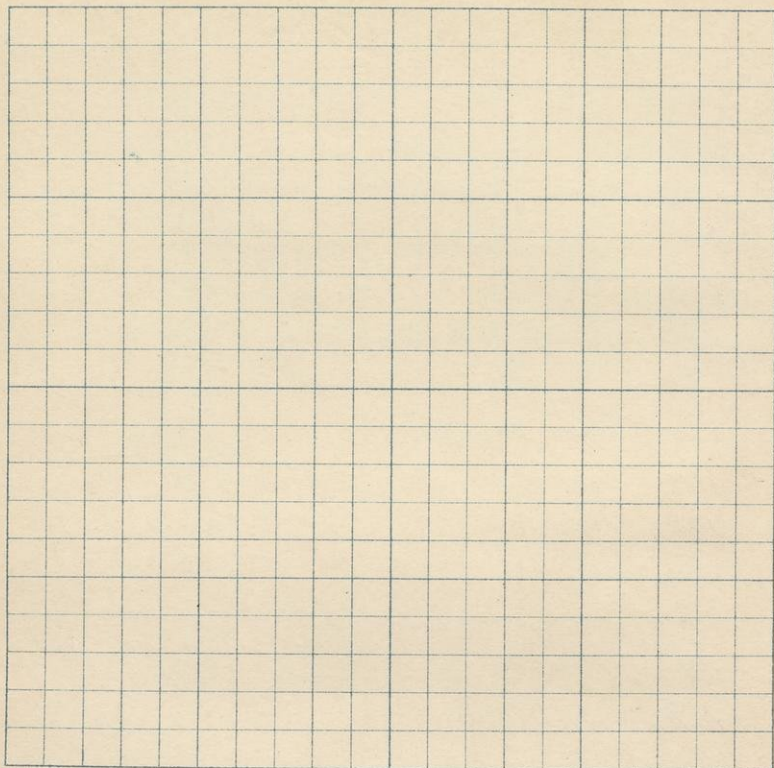
2022 Stick set line 12 paces W corner (470)

B.M. 388.83 Arrived 390 ft 1 P.M.

S.

T.

R.



S.

T.

R. 31

386	400	(400)
376	390	(390)
371	385	(385)
367	375	(375)
381	390	(390)
364	375	(375)
374	385	(385)
378	385	(385)
364	370	(370)
380	385	(385)
380	384	(384)

10

D

E 1/8 line of Sect # 4431 Beginning S Sect Line
 & running N. 120 P M

B M. 384.33 Summit 28.74 = 2100

0.

(384) 24 W.

25 Over 25 bars wide.

200 Burnt pine slashings

(385)

260 Marsh

333 Leave Marsh

(320)

400

(380)

Running needle under 20° 4 on W.

600 Burnt pine slashings

(385)

700

(385)

960 Marsh

984 Leave marsh

(376)

1090 Marsh 2.15

(374)

1200 Leave Marsh

1240

(375)

1370 Burnt pine slashings

392

1500 10 paces E Marsh

1600

(378)

1700

(385)

Sum curve out. Variation proved to be

5° W. instead 20° W. Corrected direction

1283

(390) 24 5° W

1860

400

2041 Much line 140 E of 1/2 Post 3.150 M

E. 1/2 N. 1/2 W.

S.

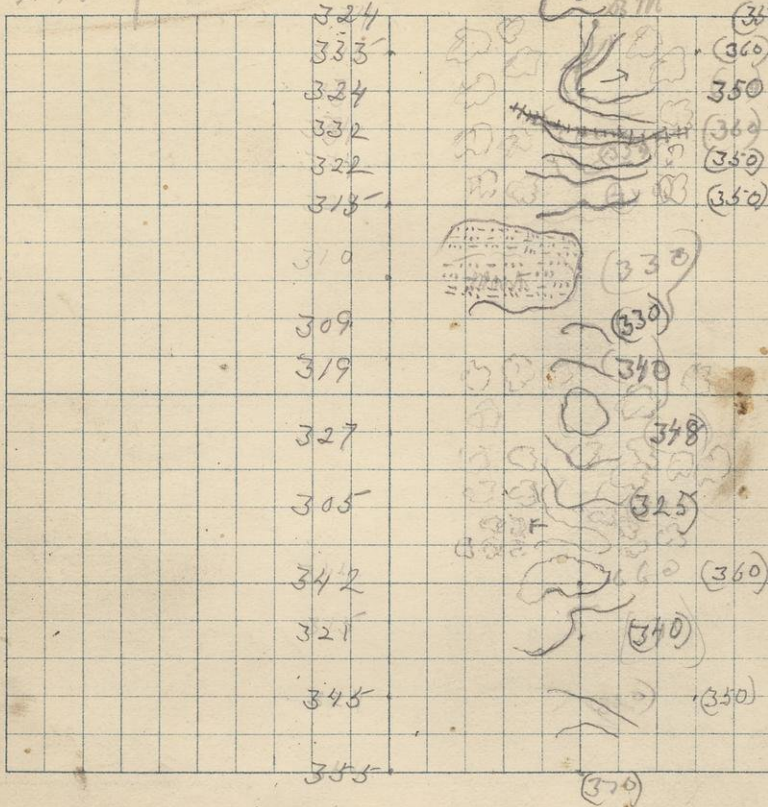
U

T.

44

R.

B.



(340) 12

(360)

350

(360)

(350)

(350)

(330)

(330)

340

348

(325)

(360)

(340)

(350)

(370)

11

22. E 1/4 of sec 3 1/4 31 beginning 6 ft
running N. 3.15

Run north needle at variation 5° W

0. Burnt pine starting on top of (370)

100 Balsam & poplar

200

(330)

335

(340)

400 Same Balsam & poplar

500 Sun came out Variation proved to be 3° W

Corrected direction

580 Hardwood

(360) N 2 1/2 W

700

(323)

800

(348)

1075

(340)

1775 Marsh

(330)

1310 Marsh 7.45 P.M.

1500 Hardwood

(352)

1600

(355)

1700 Oak

(360)

1800

(350)

1900

(360)

1957 Shrub bed line 8 paces E 1/4 stake

B. M. 4248.71

Arrived 330

8.15 P.M.

1/4 Sec. 14, T. 44, R. 31

S.

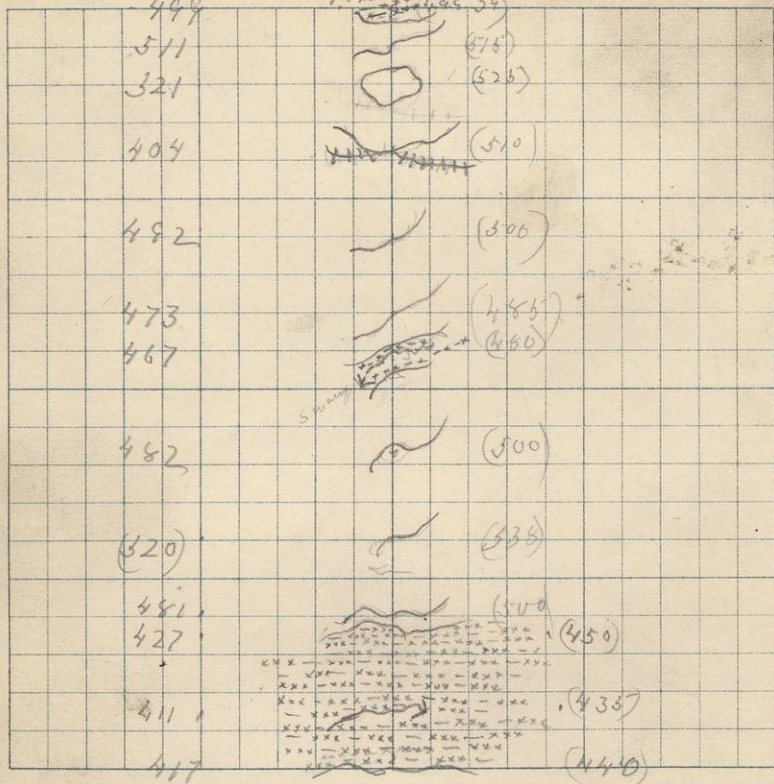
4

T.

44

R.

31



0

4

9

14

19

June 17/94

35

1/2 line 1 A. G. 44 N. 31 W. beginning N line 7 beginning S.

B. M. 499.54 humid at 129.18 = 675

No sun. Run by needle at 2 as 0° ~~7:35 A.M.~~

O. Tower at swampy. (499.54)

36. Banning Pine Hemlock

100

(515)

180 Har Shred.

(525)

375 Broad

(570)

600

500

800

(455)

880 Cedar swampy

(480)

900 ^{Bark S.W.} Har Shred 5 ft wide

(480)

8:30 A.M.

1175

(500)

1400 Hardwood & pine

(538)

1600

(500)

1840 Burnt cedar swampy

(450)

1845 Oak 4 ft wide flowing E

(435)

9:30 A.M.

1980 Much best line 134 Oak W 1/4 M

(440)

2100 End of swampy

9:40

1/4 Line of Sect 9.44.31 Beginning N Line
 running S. 9.50 A.M.

No sun. Sun behind Var 5° E

0 Cedar swamps (440)

300

(440)

Sun came out Var. proved to be 2° E

350 Edge of swamps

300 Birchwood

(450)

Var 5° E

600

(460)

672

(460)

10.30 A.M.

900 Poplar & Spruce

(480)

1000 Swamps.

1030 Spruce swamps

(440)

1100

(440)

Var 5° E

1175 Alder swamps

1300 Spruce swamps

(445)

Var 5° E

1300

(430)

1155 Alder

1700

(420)

Var 5° E

1900

(430)

1950

(450)

2032 Struck bed line & 1/4 Stake Var 5° E (C)

B. M. 402.93

Struck 440.

11.25 A.M.

38.

38

S. 1/4 9

T. 44

R. 31

-10

448		(460)	
486	○	(500)	
478	>	(490)	
458	⋈	(470)	8
454	→	(465)	
451	.	(460)	
451	/	(460)	5
462	≡	(470)	
443	≡	(450)	
469	~	(475)	3
468	~	(475)	
465	⊙	(470)	
476	~	(480)	-10

Beginning S + running N.

W 1/8 sec 2. 44. 31 Beginning S line of running N.
 12.10 P.M.

B.M. 480. 66 found at 29.06 = 0 ft.

0.	Hardwood	(480) Var 8°
200	Hardwood	470 Var 8° E
300	Hardwood	475 Var 7° E
540		(475) Var 7° E
660		(450) Var 9° E
800		(422)
990	Old 1/4 Post	(460) Var 7° E
	Amelanchier underbrush & balsam	
1170		(460) Var 7° E
1200		
1300		(465) Var 10° E
1470	Hardwood	(470) Var 8° E
1600		(490) Var 8° E
1700		(500)
2084	Struck line 8 paces W 1/4 Post	(460)
		1.50 P.M.

40

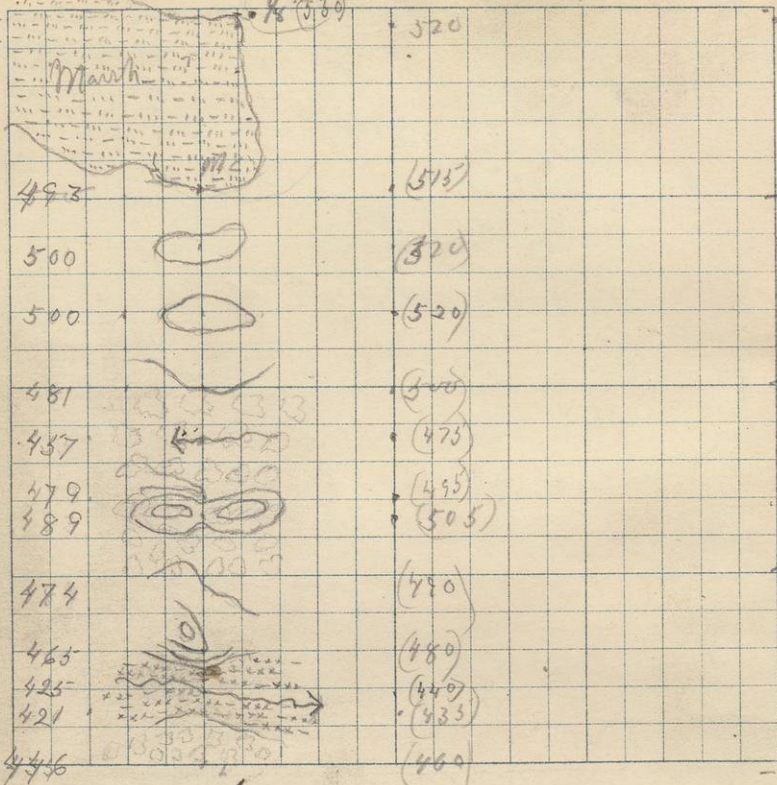
W 1/4 Sec 3

S. 3

T. 39

R. 31

493



W $\frac{1}{4}$ sec line of sec 3. 24.31
Beginning of sec. line & running N
2:00 PM

No sun. Run by needle 2 at $8^{\circ}E$

0 Hardwood (100)

25 Sun came out 2 at $8^{\circ}E$

130 Cedar swamps (435)

200 Creek 4 ft wide (440)

250 End of swamps.

300 Burnt pine slavings (488)

500 Hardwood (490)

640 (505)

700 (545) 2 at $7^{\circ}E$

860 Small Creek 3 ft wide (423) 2:30 PM

1000 Burnt pine (500) 2 at $12^{\circ}E$

1200 (520) 2 at $9^{\circ}E$

1374 (520)

1525 Marsh (515)

1952 End of Marsh (520)

1982 Start sec. line 250. W of $\frac{1}{4}$ sec

Part of the above line was run by needle
at different variations & part by dial

B. M. 509.09

Arrived 530

3:30 P. M.

42

N. sect line

S.

4

T.

44

R.

31

506

504

511

504

549

519

521

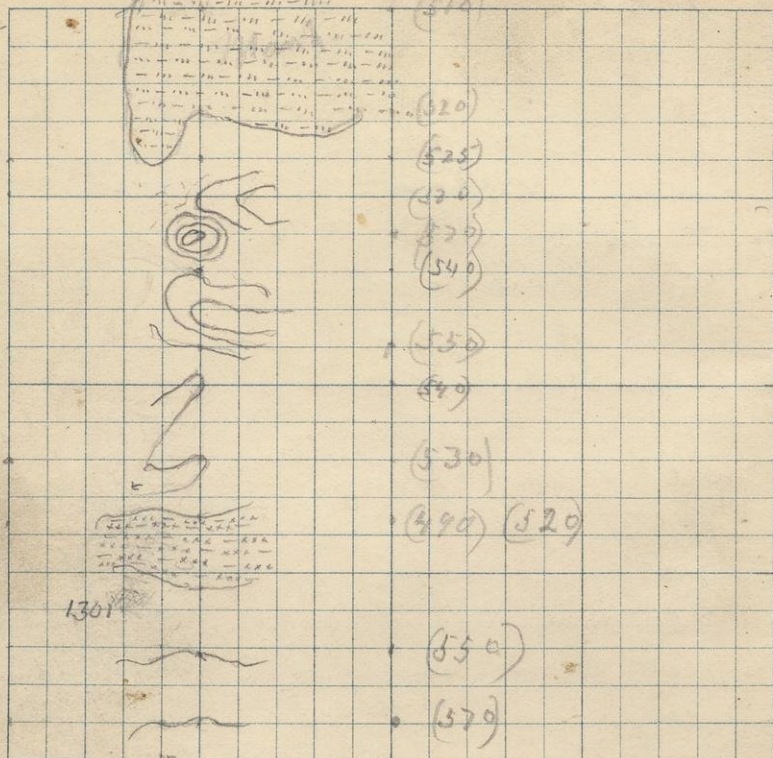
511

496

450

496

516



sect line 4.5

578
37

130

June 7/81

West Sect line of Sect 4. 44. 31

Beginning N.W. corner & running S

B.M. 1510.66 found at 28.93:0

740 A.M.

0 Marsh

(530) 2nd 40° E

250 Edge of marsh

(520)

400 Burnt timber

(525) 2nd 2 1/2° E

500

(520) 2nd 2 1/2° E

600

(570)

700

(595) 2nd 2 1/2° E

900

(550)

1000

(540) 2nd 40° E

1100

8.27 A.M.

(530) 2nd 5 1/2° E

1250 Burnt cedar swamp.

(490) 2nd 3° E

1300 Edge of swamp

(460)

1340 1st later spot on cut exp.(320) 2nd 30° E1301. ⁵⁰⁰ ~~1500~~ N. 130 W. Strike & dip not apparent.red granite (?) with quartz veins & hematite
country about 100 ft long & 40 wide.
30 ft high.1302 Same cut exp covers granite with more
feldspar.

1700 Hardwood.

(550) 2nd 30° E

1900

(520) 2nd 40° E

2010 Much better line of granite W. corner of

9.50 A.M.

(570) 2nd 40 1/2° E

44

✓ W. Mt

S.

9

T.

44

R.

31

516

522

529

514

471

445

444

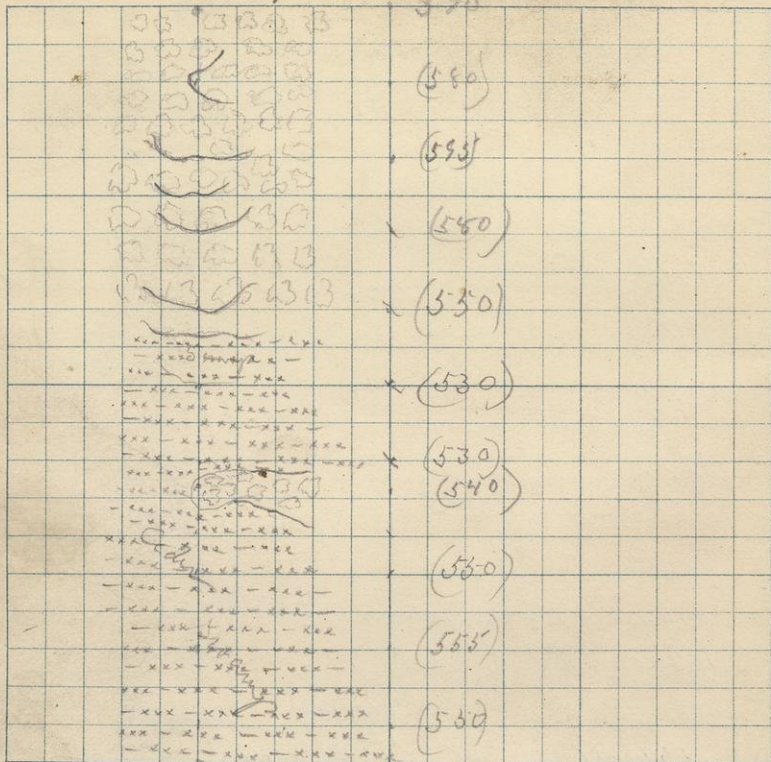
458

469

450

448

451



535

105

W. set line of 8 44 31 beginning N. L. Corn
9 & running south.

10. A.M.

0. Hardwood (520) var 4 1/2 E

500 (580) var 40 E

700 (595) var 50 E

800 (380) var 40 E

800 Hardwood + Balsam (350) var 50 E

850 Swamp ^{Balsam} ^{Trunk} ^{+ Hardwood} (535)

1000 — var 40 W

1148 10.45 A.M. (330)

1200 Hardwood (340) var 20 E

1335 Cedar Swamp var 40 E

1500 (530) var 30 E

1684 (335) var 30 E

1900 (530) var 30 E

2019 Shuck line & Corn just

B.M. 555. 96

Amwell 553. — 11.55 P.M.

46

E $\frac{1}{8}$ N

S.

T.

R.

31

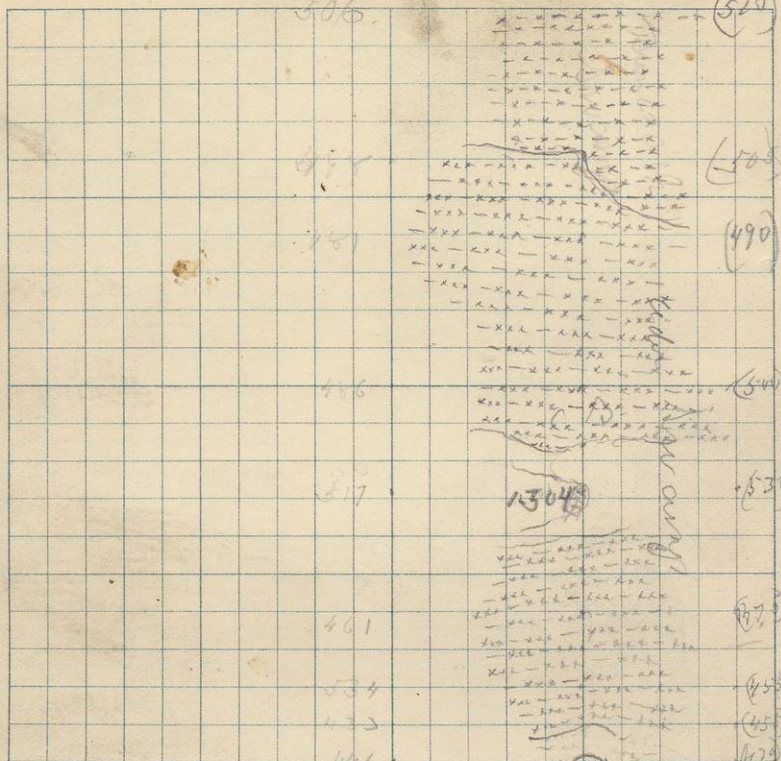
-20

-13

-10

-5

-0



#

W

1303

O. N 470 E Strike & dip not apparent.
 general trend N. 10° E.

Gravel with much hornblende.

Outcrop extends some distance S.
 See line. About 30 ft broad & 20 high.

N $\frac{1}{4}$ A of Sec 9. T. 4. N. 31 beginning S
line of road & running N. 124.7620
B.M. 472.57 found at 2.03 = 0

1303#

✓ 0 Burnt cedar (472) Var 11 $\frac{1}{2}$ ° E
900 Cedar swamp (450) var 7° E
200 (435) var 8° E
400 (475) var 8° E
600 Green Swamp (490) var 7° E
730 (530)

1304 735 N 500 W strike N.(S)

Hornblende rock trending off into a
gravel. Outcrop 75 ft long & 30 ft wide

730

var 7° E

825 Cedar Swamp - (450)

1000

(500)

1132 Hornblende rock by needle at 5° variation

1800

(490)

1400 Tamarack Swamp (500)

2110 Strike ~~by~~ line 245 $\frac{1}{8}$ ° strike

310

Last 600 paces run with needle var 5° E

300 M

48

— 2 1/2 M S.

52

3

4

T.

44

R.

31

-40

517

$\frac{1}{8}$ Stake (370)
Burnt land.

Burnt Lanes

508

1550

520

350

33

521

(560)

526

(56)

-30

326

660

509

(3410)

-25-

781

4810

→ 20

486

(520)

E $\frac{1}{8}$ A Sect 5. 44 31. Beginning Blue
 & running N.

3.10 P.M.

0. Tamarack swamp (310) 2° or 9° E
 500 Dead cedar swamp (315)
 700 Loose swamps & stub
 old farming (540)

No sun Run by variation of 7° E
 1000 (560)

Run by variation of 3° E
 1300 (560)

1500 Cedar swamps (560)

Sum: variation proved to be 8° E

1700 Tamarack swamp 4.13 P.M. (330)

0.37 Stuck here 42 W $\frac{1}{8}$ A stake

4.30 P.M.

B.M. 521.09

Sum d 560
 40

1

50 $\frac{1}{4}$

S.

6

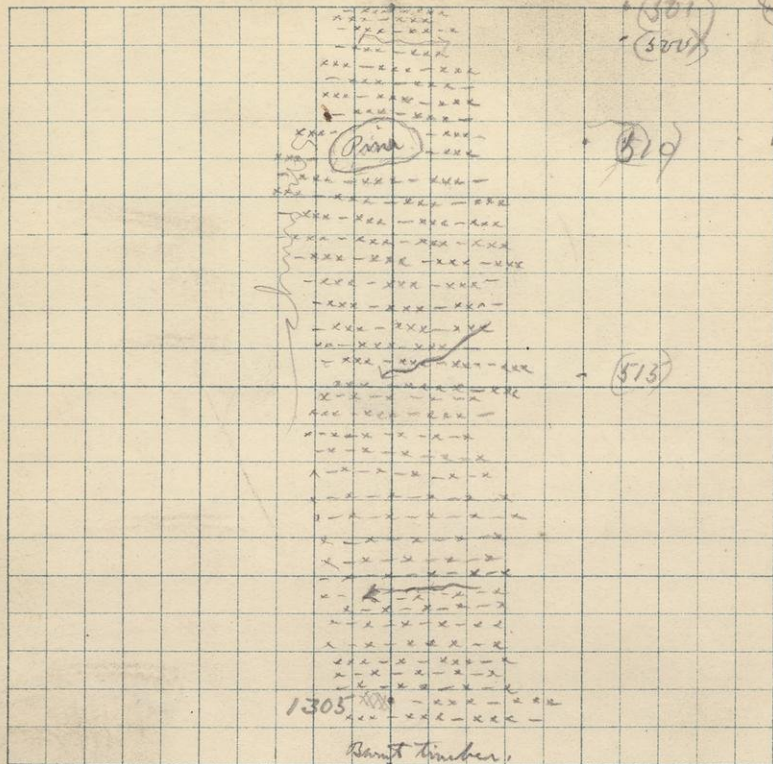
T.

44

R.

31

(501)



13

June 18/91

51

1/4 Lm of dirt 4. 44. 31 Beginning N
+ running S. 8. 35-4 M.

B M. 301. 04. from dirt 28. 73-20

0. Cedar swamps (301) var 10E

90 Creek 8 1/2 mile (300) var 20E

125

250 Burnt Cedar

300 Burnt pine slaking (310)

400 Cedar swamps + Thomas creek var 20E

570 var 20E

642

var 10W

700 Pt. 40. (315) var 10E

800

var 20E

950 Creek 8 1/2 mile (315)

1100 Thomas creek swamps var 20E

1255

var 0

1380

var 20E

1540 Creek 3 1/2 mile (330) var 40E

1705 Thomas creek + cedar var 30E

1825

var 30E

1305 175 N 1000 W.

Very coarse grain soil rock with large
masses of humblend.

2000 Burnt timber

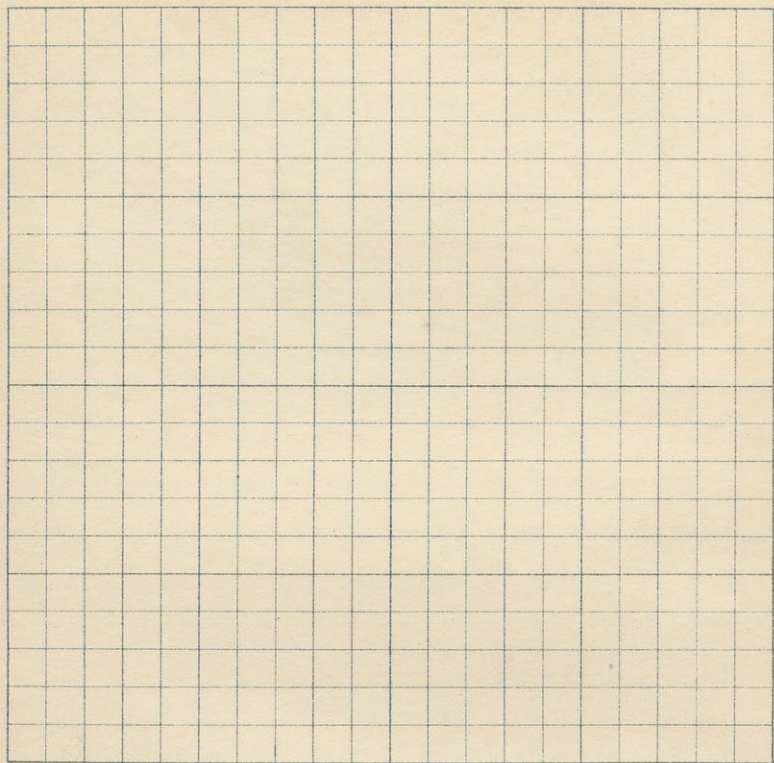
var 30E

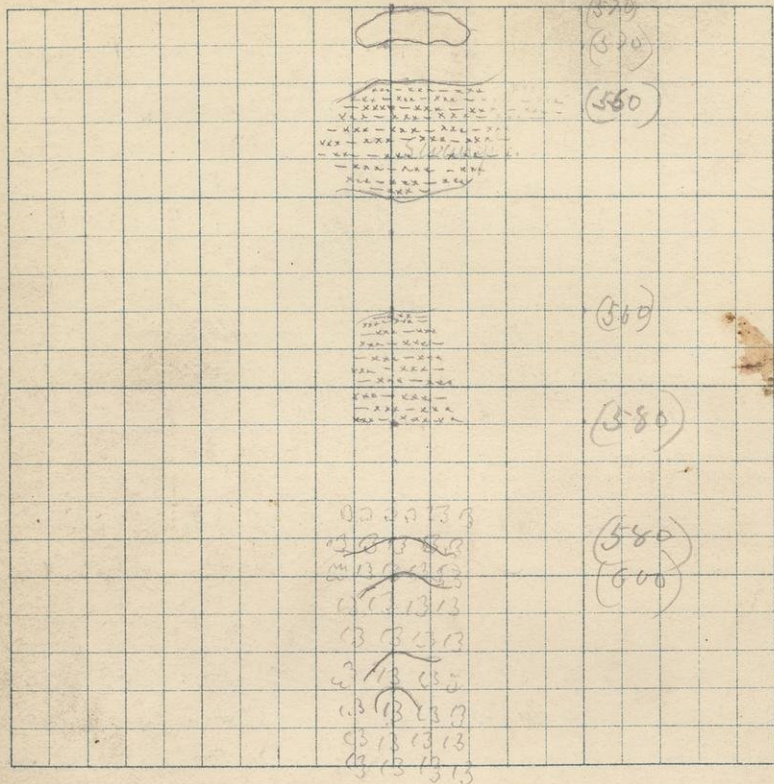
2098 Shish line 1/4 stake burned. ^{dist} Nothing to be to.

S.

T.

R.



$\frac{1}{4}$ sec

$\frac{1}{4}$ line of sect. 7, 44, 31 beginning N line
of sect at the point where the line
we ran intersected the sect line
The $\frac{1}{4}$ acre stake probably burned.

Running S.

11.30 A.M.

0. Burnt Timber

(370) var 4° E

100

(370) var 4° E

200 Cedar Swamp

(335)

275

12.30 P.M.

(360) var 5° E

635 Pop. gum & birch

var 5° E

800 Cedar Swamp

(360) var 7° E

1100 Pine slashings

(380) var 6° E

1200

var 6° E

1300 Hardwood

1400

(380) var 6° E

1500

(600)

1700

(610)

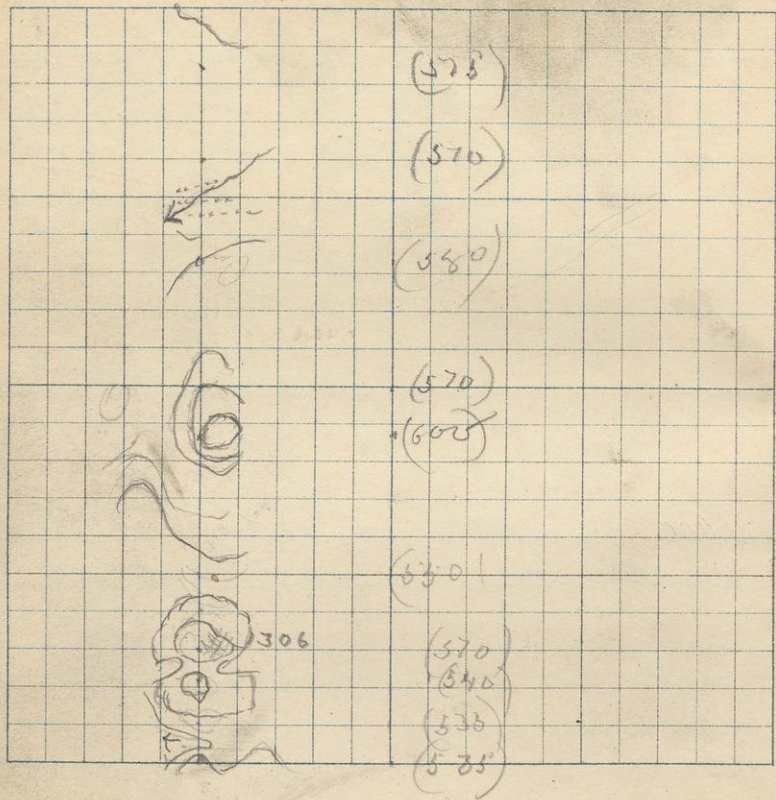
1800

(630) var 6° E

2023 Struck old blazed E & W line 70,
pans W of another old blazed line running
N & S. The leveled line not to be found
probably burned.

(650)

(2 P.M.)



2 1/4 mi S 6, 44, 31

Starting at 1/4 mi stake (S) burned,
running N. 3.20 P.M.

0 Burned hardwood (535) 2nd 5° E

100

(535)

220 Oak

(540) 2nd 5° E

1306 300 N/500 W. No strike apparent Edge grant

400

(560) 2nd 5° E

500

(560) 2nd 5° E

875

(600) 6° E

1000

(570) 4.00 P.M.

1100

(550)

1327

(580)

1500 Swampy Creek

1600 Burnt timber

(570) 2nd 12 1/2° E

1850

(575) 2nd 5° E

2000

(580)

2060 Oak struck line 30 paces S 1/4 D. 2
4.30 P.M.

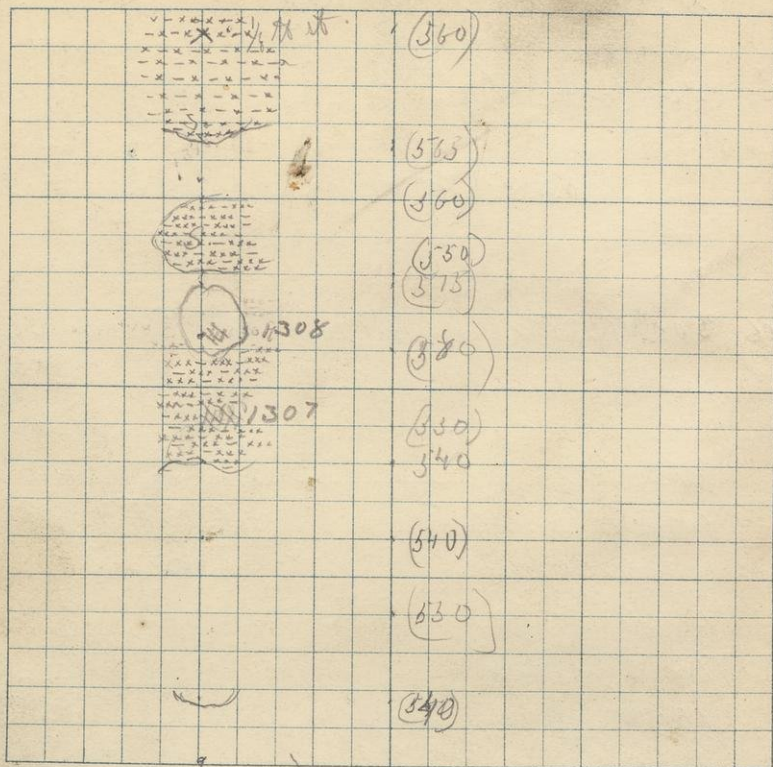
Compared June 19/8

(580)

fixed

(530)

The last line burned. Determined 1/4 mi part by
pacing from corner post.



(530)

W $\frac{1}{8}$ th of 6. 34, 31 beginning 50
running N 10.25 A.M.

The $\frac{1}{8}$ th just burned grassed
1500 W of $\frac{1}{8}$ th

0. Burned timber (530) var 5° E
150 (540)

300 var 70° E

400 (550)

600 (540) var 5° E

800 Cedar swamps (540) var 5° E

1307 900 N 1500 W. Stuck & chp not apparent

Outcrop of granite (?) (550) var 5° E

1100

(570) var 6° E

1308 1120 N 1500 W. Granite

1275

(575)

1300 Swampy.

(530)

1500 Burned timber

(560)

1550 Outcrops 40 paces W Granite

1620 Swamps Cedar & Tamarack (565)

1700

var 6° E

1940 Stuck red line 44 paces W $\frac{1}{8}$ th sta

B.M. 504.12

Arrived 560.

12.45 P.M.

The last $\frac{1}{2}$ mile of the above line was run
by angle with variation 5° E

60

Range Line 31.32

Pt. Line

S.

T.

44

R.

32

503

(507)

490

(495)

504

(510)

455

(460)

488

(495)

489

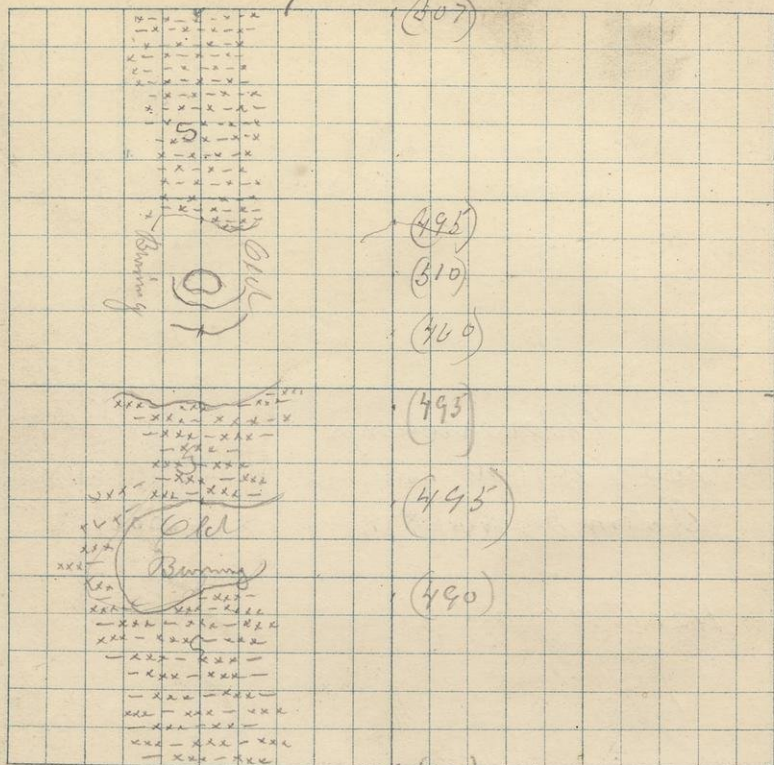
(495)

480

(490)

480

(490)



Range line 31. 32

61

W. Line of Sect 4. 44. 32 beginning N &
running S. 1.25 P. M.

B.M. 507.31. Aneroid at 58.70 = 0 ft
Line by needle with variation 3° E

0. Tamarack swamp (507.)

550. Old burning (495)

700 (310)

850 (460) (2)

1040 Swamp. Cedar & Birch (495)

1300 Old burning (495)

1540 Cedar swamp (490)

1960 North line Space E corner post (490)

3.05 P. M.

Don't see the 1311

62

E 1/2 N

S. 1

T. 44

R. 32. (330)

17

(540)

509

(530)

508

(530)

508

(340)

509

(560)

539

(530)

549

(560)

514

(530)

544

(560)

528

(540)

550

(560)

540

(560)

16

1h1

920

E 1/4 of Sect. 1. 44 32. beginning S
 running N 3.42 PM

0. Burnt timber (350) 2^m 8° E
 150 (360) 2^m 6° E
 400 (345) 2^m 7° E
 500 Swamp (350) ~~2^m 8° E~~
 600 Burnt timber — Var 8° E
 760 (560) Var 7° E

1309 900 N 500 W. Entrance of gravel (?)
 Very extensive outcrops but no time to examine

930 Marsh (530)

960 Creek 4 ft wide

1000 Loose Marsh

1100 (380) 2^m 7 1/2° E

1300 Hardwood (360) Var 7° E

1350 (560) 2^m 8 1/2° E

1700 (540) Var 7 1/2° E

1730 Cedars swamp (330)

1930 Stick Line 38 E of 1/4th post

B. M. 313.03

Arrived 330

5.30 PM

17.

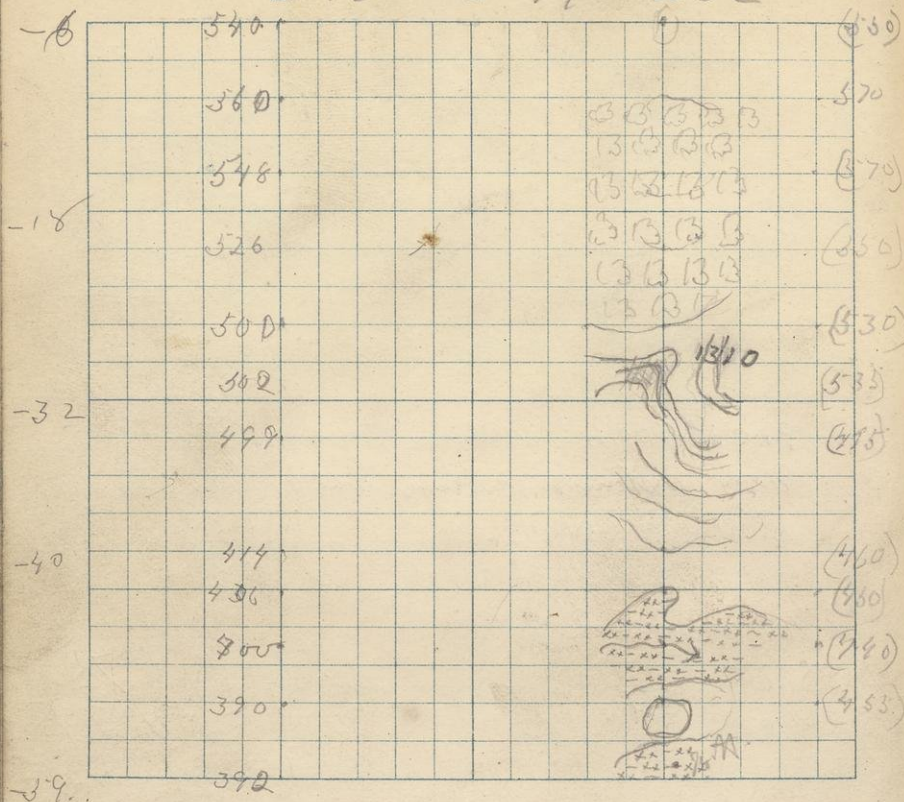
64

64 $E \sqrt{1/8}$ 南

S. 12

T. 44

R. 32



June 20th Sunday.

65

E 1/2 Sec 12, 44. 32 Beginning

Nr running S 6.23 A.M.

(650) Aerial set 28.88 = 0

(550) (430)

No sun. Run at variation 30° E

0. Second growth pine & hawthorn (550) (460)

200 Hardwood (570) (410)

400 (570) (410)

600 (550) (460)

800 Burnt timber (530) (430)

1310 1123 N 500 W No sun or day apparent

Outcrops of granite very extensive

1100 (495) (395)

1400 (410) (310)

1500 Swamps (450) (360)

1650 Creek 30 ft wide (440) (340)

1750 Burnt cedar

1800 (435) (355)

1900 Swampy

1910 Struck line 28 W of 1/2 A post

B.M. 376.13 8.50

Aerial 55.5

59

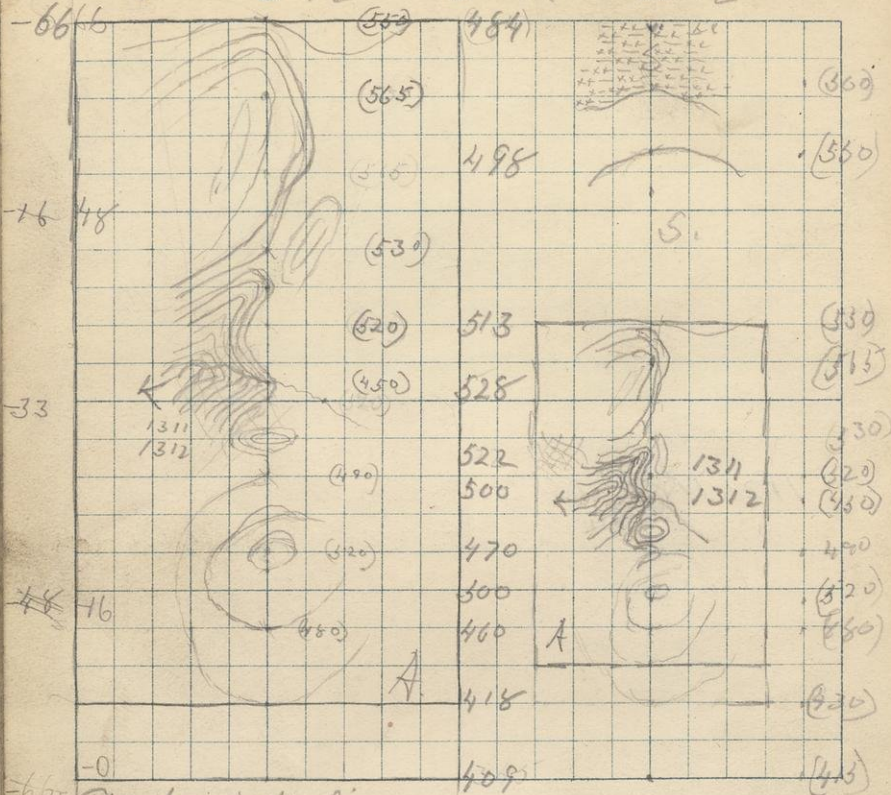
66

E. Young

S. 12

T. 44

R. 32



The above is the line
from 300 paces to 1200
paces plotted to a larger
scale.

E line of Sect 12, 44, 32 beginning SE corner
Sect 12 & running W.

B.M. 413.42 Summit set 28.80 = 0 ft

No sun run at variation 40 E' 9.10 AM

0. Old barning (413)

200 Hardwood ^{Bunch} (430)

400 ^{pine} (460)

490 ^{Aspen} (520)

100 Cedar (520)

660 Outcrops.

720 Creek 4 ft wide

1311 720 N.O.W. Very extensive outcrops of granite &

1312 Homestead rock. dip of foliation (?) 65°

1312 1312 apparently undisturbed 1312

800 Old barning (520)

900 (530)

1100 (565)

1200 Cedar sawcrops (550)

1640 Barning (530)

1823 Snowdrift (560)

1980 Thick Sect line 12. gaus W. of corner.

Amurich 530.

Calceolaryn 484

66

12.15 PM

68

✓ 1/4 Line

S.

2

T.

44

R. 32

439	439	(439)	0
425	425	(430)	
420	420	(435)	
400	400	(440)	
448	448	(460)	
448	448	(450)	+8
440	440	(460)	
420	420	(440)	+7
398	398	(420)	
372	372	(415)	28
348	348	(380)	+34

↓

$\frac{1}{4}$ Line of Sect 2, 1932 Beginning N
running S. 7.07 AM

B. M. 438.00 Aerial set 28.74 = 0 ft

0. Cedar swamp (438)
120 Oak 8 ft wide (430)
270 Old burning (439)
300 (460) Var $1\frac{1}{2}^{\circ}$ E
400 Swamp (460) Var $1\frac{1}{2}^{\circ}$ E
525 Hardwood — Var $1\frac{1}{2}^{\circ}$ E

600 (430)

925 Gate road to Crystal Falls (460) Var 10° E

1100 (440)

1300 Hardwood burning (420)

1300 (415) Var 10° E

1385 Var 10° E

1800 Pine burning (380)

1900 Stump line 10 paces W of $\frac{1}{4}$ Stake
Aerial 400

9.03 P.M.

70

1/4 Line S. 11

T.

1/4 44

R. 32

434

362

J

400

350

390

442

324

(370)

327

(375)

450

313

(363)

412

(353)

458

467

412

1/4 44

$\frac{1}{4}$ mile of 11, 44 32 beginning N line
 & running S. 9.03 A.M.

d. Pine burning	(400)
200	(390)
300	(370)
700	(375)
900	(365)
1200	(335) 9.40 A.M.

1241 Creek 8 ft wide flowing W.

1300

Jan 10 F

1900

Jan 20 F

2041 Shunk line 28 paces W of $\frac{1}{4}$ station

B.M. 412.47

Amund 350. — 10.43

67

72

W 1/4 A8

$\frac{1}{2} R$

52

11

T.

27

R. 32

13	+ 22	416
----	------	-----

T 34
(389)

420

Burn

Pr

(300)

44 + 56

(400)

43 + 71

(380) (320)

+ 15-

340

345

428-

433

4234

(430)

$$+20 \quad \boxed{20}$$

(420)

 $\frac{1}{4}$ A.

W. $\frac{1}{4}$ M. of Sect 11, 44, 32 beginning S. side line
 & running N. 10.55

B. M. V 420.29 Arrived at 28.80 = 0 ft

0. Burnt pine slaking (420) 2nd 2°F

200 (430)

400 Dead Tamarack (400) 2nd 2½°F

600 (390) 2nd 2½°F

800 Swamp Tamarack (380)

1050. Creek 8 ft wide flowing W. (380)

½ hr later after lunch (390)

1340 In the swamp. Dead Tamarack

1500 Burnt pine (400) 2nd 40

1700 (400)

1980 Thru Sect line 31 E of $\frac{1}{4}$ M. stake

(390)

12.30 P. M.

74

W. 1/8 M. 1/4

S.

2

T.

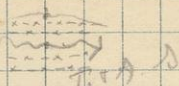
44

R.

32

+ 33

443



438

(410)

452

(425)

+ 30

476

(450)

440

(415)

28

495

(425)

448

(420)

25

430

410

418

400

418

(400)

+ 22

408

(390)

1/2 M

W $\frac{1}{4}$ Sec line of S. 2. 44. 32 beginning
S. Sect line running N. 12. 35 P. M.

0. Burnt timber	(390) 2 nd 6° E
150	(400) 2 nd 6° E
200	(400)
400	(410) 2 nd 6° E
600	(320)
735	(430) 2 nd 6° E
970 To road to C. Ft.	
1000	(430)
1200	(415)
1300	2 nd 6° E
1450	(480)
1500	(425) 2 nd 2 $\frac{1}{2}$ ° E
1700 Swamp.	(410) 2 nd 3° E
1875 Creek 10 ft wide.	(400)
1960 Leave swamp	2 nd 2° E
1980 Stuck line 7 paces W. of $\frac{1}{8}$ Stake	
B. M. 443.32	
Arrived 410. —	1.53 P. M.
38	

76

W. side line of

S.

2

T.

41 41

R. 32

- 0

478

S.

(478)

481

S.

(483)

436

S.

(440)

428

S.

(440)

8

423

S.

(435)

436

S.

(450)

16

435

S.

(455)

426

S.

(450)

22

409

S.

(435)

414

S.

(430)

386

S.

(420)

- 38

378

S.

(410)

Carm

W. L. D. Lm. of Sect 2.44.32 beginning

N. 7 umming S. 7.42 A.M.

B. M. 478.09 28.057 off A.M.

0. Old Larning (278) var 0°

100 (455)

200 (440) var 10° E

400 Cedar Swamp to W. (440) var 10° E

600 Spruce Swamp. (338) var 10° E

700 Old Larning (450) var 10° E

800 8.17 A.M. (435) var 20° E

1493 Tote road to Crystal Falls

1300 (430) var 10° E

1300 (435) var 1/2° E

1670 Tamarack Swamp (430) var 1/2° E

1800 Creek 10 ft wide (420) var 0°

1850 Old Larning

2024 Struck line 5 paces W. of corner post (480)
8.57 A.M.

78

W. 1st line

S.






11

T.

44

R.

32

-38	412	Old	(460)
	423	Burning	(475)
48	408		(450)
		Old	
58	413	Burning	(475)
	408		(450)
68	4188		(480)
	417		(495)
	435		(515)
-79	427		(500)

W. set line of 11.44, 32 beginning N & running S 9. AM

0. Old burning (460) var $1\frac{1}{2}^{\circ}$ E
 200 (473) var 1° E
 300 var 1° E
 425 Pomecrack swamp (460) var 1° E
 600 " " " var 1° E

143 Old burning
 1000 9.30 AM (473) var 1° E

1313 Mixed soft wood ^{some hemlock} ~~gyp~~ (480)
 1330 Marsh (480) var $1\frac{1}{2}^{\circ}$ E

1350 Old burning
 1700 (493) var 1° E

1800 ^{Swamp} ~~Hedera~~ ^{chrysomela} (515) var $1\frac{1}{2}^{\circ}$ E

2010 Stack line & corner post (Bod) 9.38 AM.

B.M. at 1/4 Stake 411.65-

Aneroid 490

80 E 1/2 A

S. 10

T. 44

R. 32

-107

409

(430)

-13

388

(405)

413

(430)

426

(440)

-8

423

(435)

428

(440)

-4

407

(415)

402

(410)

407

(415)

426

(430)

-10

407

(415)

to $\frac{1}{4}$ A of Sect 10.44 32 beginning 5 T
 running N 10.12 AM

B. M. 411.65 28.86 = 0 ft

0. Hemlock (good)	(411)	Var $\frac{1}{2}^{\circ}$ E
163 Barnt Hemlock	(430)	Var 1° E
400	(415)	Var 1° E
536 Swamp tamarack	(410)	
600 Old burning	(415)	Var $3^{\circ}\frac{1}{2}$ E
800	(440)	Var $1^{\circ}\frac{1}{2}$ E
1000	(435)	
1200 Hardwood	(440)	Var 2° E
1370	(430)	Var $1^{\circ}\frac{1}{2}$ E
1480 Tamarack & deciduous		
1595	(405)	Var 1° E
1700		Var 1° E
2031 Stuck in 100 yards E of $\frac{1}{4}$ A stake	(430)	

12.25 P. M.

82

E 1/4

S.

3.

T.

44

R. 32

-51

429

(480)

433

(480)

440

(480)

422

(460)

34

386

(430)

412

(430)

406

(430)

414

(430)

409

(430)

409

(430)

409

(430)

-17

E 1/2 M of Loc 3. 44, 32. beginning S. set line
+ running W 12.25 P.M.

0. Dead timber. (430) var 30° E

150 Tamarack swamp (430)

184 var 30° E

310 Creek 15 ft wide (430)

420 var 30° E

460 Gate road to Crystal Falls

605 Old burning (430) var 3 1/2° E

700 " " with poplars. 435 var 30° E

825 (430) var 30° E

950 var 50° E

1030 Marsh

1200 Dead timber. (460) var 2 1/2° E

1345 Road 3 ft wide

1305 (380)

1700 (470) var 40° E

1800 Tamarack swamp (430)

1880 Old burning

2012 Struck set line 22. paces W. 1/2 M stake.

B.M. 429.87

Turn 480.

2.25 P.M.

51.

17
2
34

84

✓ 29.08

539

1/4

1/4 line

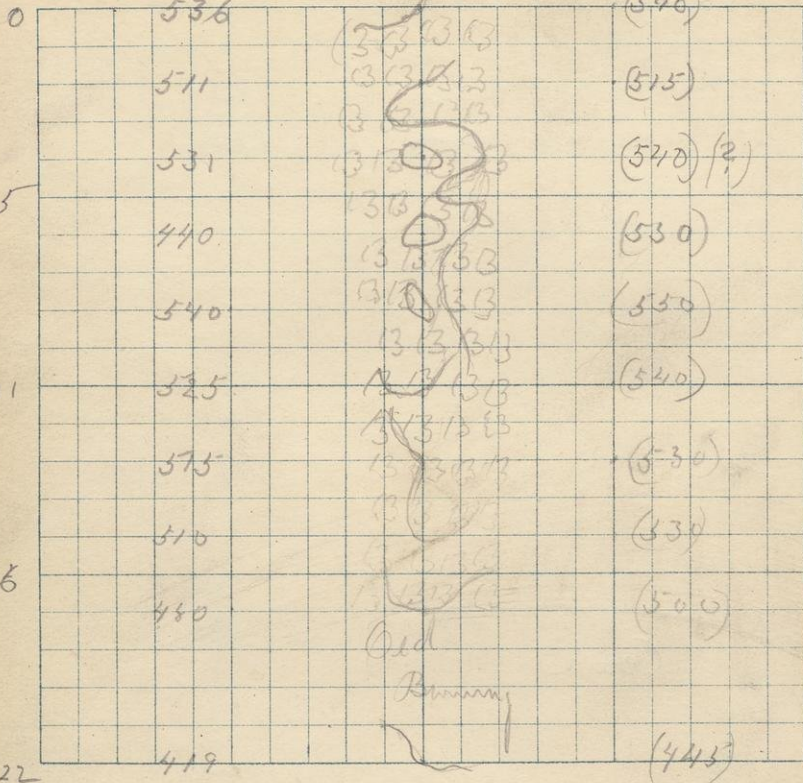
S.

47

T.

44

R. 32



Run at variation 10 E

85

$\frac{1}{4}$ Line / Set 4. 44. 32 beginning N
 $\frac{1}{4}$ part & running S. 7. 15 A M

B. M: 539. 18 Tunnel set 29. 08 = 0.

0. Hardwood (540)

200 (515)

400 (540) (?)

600 (530)

800 (330)

1000 (540)

1200 (530)

1400 (530)

1600 Old burning (500)

2000 (540)

Set line tunnel no close. 8.30 A M

86

✓ 1/4

S.

T.

R.

22	419	1316.	(445)
	409		(438)
	388		(430)
38			
	380		(440)
56	416	1313 1314 1315	(416)
		Browning	
	418		(450)
73	397		(2170)
	387		(460)
	386	Old Browning	(480)
70	380		

1513, N. 1000 W. 1000. Strike N 45° W Dip 45° S (?)
 Strata of soft chloritic rock grading into
 1314 to much harder & darker colored rock.
 The knob is cut by a dyke of chlorite (?) 1315
 Outcrop 75 paces long 30 wide & 50 ft high.

$\frac{1}{4}$ of Sect 9. 44. 32 beginning N
 Sec A. line(?) running S. 8:50 AM
 N.B. The sect line has been
 burned over so we start from $\frac{1}{4}$
 post determined by our last line.

0.	Old burning.	(445)	
200		(435)	
400	Cedar swamp	(430)	var 2° E
625	Old burning		var 2° E
825			var 16° W
900		(440)	
925			var 18° W
1313		(470)	var 2° E
1314	1000	(480)	
1315	1300	(470)	
✓	1500	(460)	
	1580	(480)	
	1800		
	1900		

1316 N 30° W 1000 Strike N 60° W Dip 60° SE.
 Schistose rock.

2060. Struck line 22 paces W. $\frac{1}{4}$ post
 B. M. 380.96. 11:25 AM
 Arrived 470.

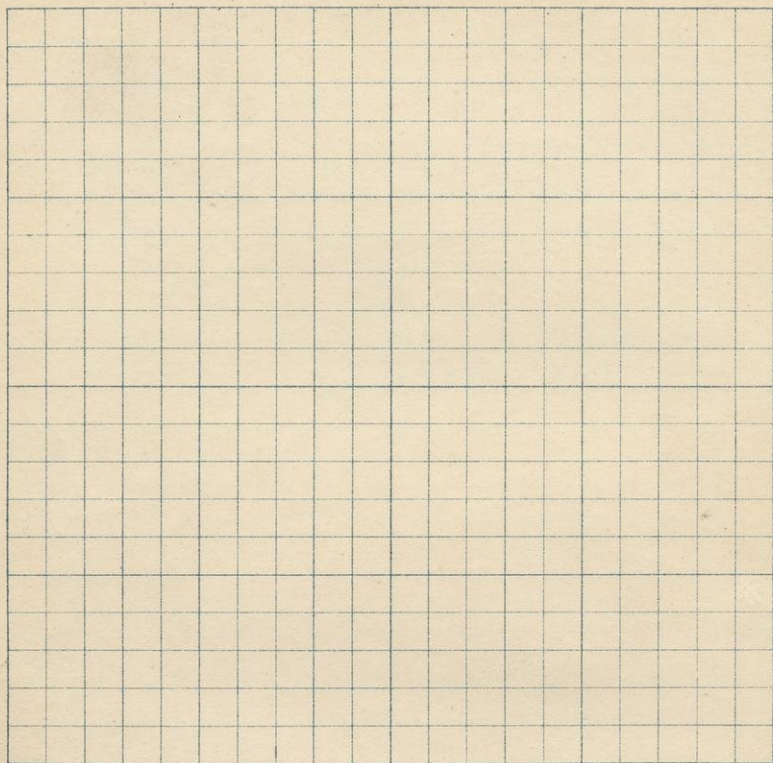
90

42

S.

T.

R.



90

W 1/2 N. line 9

S. 10

T. 44

R. 32

-10

446

426

(440)

(340)

433

(445)

-7

419

(430)

403

(415)

410

(415)

444

(435)

-5

406

393

(415) (2)

(400)

-2

375

(380)

375

(370)

-10

373

(377)

W. X. A. Set 10, 44, 32 - beginning S. not
line & running N. 12:13 P.M.

B. M. 377.28. Arrived at 28.88 = 0

0. Cedar swamps (377.) Jan 4 E

60 Old burning

200

(380)

300 swamps

(380)

Jan 4 E

400

Jan 4 E

470 Creek 10 ft wide

340 Offset 180 yards E to avoid Lake -

700

(400) Jan 7 E

790 swamps

(415) (2)

900 Old burning

1030 Burnt white birch

(435)

1200 Marsh

(418)

1230 Offset back to line

1330 Burnt timber

1470

(430)

1700

(445)

Jan 6 E

1940 Creek 2 ft wide

(440)

Jan 6 E

2000

(460)

Jan 6 E

Set line burned no to blaze the line
journal.

1:45 P.M.

92

W 1/2 th.

S.

4

T.

44

R.

32

-203

493

xxx
xxx
xxx

(320)

500

xxx
xxx

(325)

497

xxx
xxx

(320)

-18

468

xxx
xxx

(490)

-16

455

xxx
xxx

(475)

452

xxx
xxx

(470)

-13

453

xxx
xxx

(471)

445

xxx
xxx

(460)

-10

446

xxx
xxx

(460)

W $\frac{1}{4}$ sec line Sect 4. 44. 32 beginning
5+ running N. 1. 45 P.M.

($\frac{1}{2}$ A part + rest line burned.)

0. Burned timber	(460) var 60° E
200	(460) var 60° E
400	(470) var 60° E
428 Swampy Cedar	(460)
800 Burnt timber	(470) var 50° E
1000	(475)

1220 Swampy Cedar

1100 Creek 3 ft wide

1300 Hardwood

1500 (490) var 50° E

1800 520

1860 (325)

1870 Swampy cedar

2102 struck line 50 paces W of $\frac{1}{4}$ sec stake

B.M. 447.36

turn 520.

B.M. 492.36

3.13 P.M.

94

W. Setlin

S.

41

T.

44

R.

32

0	542	13 3 13 13	(542)
		13 13 13 13	
	525	13 13 13 13	(530)
		13 13 13 13	
	513	13 13 13 13	(520)
-3		13 13 13 13	
	508	13 13 13 13	(515)
		13 13 13 13	
	500	13 13 13 13	(510)
		13 13 13 13	
-7		13 13 13 13	
	500	13 13 13 13	(510)
		13 13 13 13	
	489	13 13 13 13	(500)
		13 13 13 13	
	475	13 13 13 13	(490)
-11		13 13 13 13	
	460	13 13 13 13	(485)
		13 13 13 13	
	454	13 13 13 13	(470)
-14		13 13 13 13	
	452	13 13 13 13	(470)

W. Setlin

June 25/91

95

W. Set line Set 4.44.32, beginning N +
running S. 7.52 A.M.

B. M. 342 8'1. Birch 29.13 = 0

O. Hardwood Good. (542.)

300 " Maple. (335)

400 (320)

600 (515)

800 (510)

1000 (310)

1200 (300)

1400 (490)

1600 (485)

1700 Dead unless from fall + swamp

1800 (470)

2013 Strip set line + Corner post 9.13 A.M.

(470)

96

W. Sect line

S.

19

T.

44

R. 32

-14	432	xac-xxx -xx-xx	(470)
		xxx-xxx -xxx-xx	
	447	xxx-xx -xxx	(465)
		xxx- -xxx -xxx	
-16	435	xxx- -xx- -xxx	(455)
	424		(445)
	424		(445)
-18	408		(430)
	403		(425)
	391		(415)
-20	391		(415)
		xxx-xx- -xx-xx xx-xx- -xx-xx -xx-xx -xx-xx	
-23	473		(400)

W. Sect line 10.4432 beginning N
 Sect line running S 9.13 AM
 O. Celarswamp (470)
 230 Old burning (465)
 300 (455)
 650 Creek 1/2 mile (443)
 800 (443) var 2° E
 1000 (430) var 2° E
 1200 (425) var 2° E
 1400 (413)
 1600 (413) var 2° E
 1720 Swamp (400) var 2° E
 2010 Struck Sect line 10 paces E corner.
 B.M. 377.29 10.20 AM.
 Arrived 400. —

98

25 1/4 A

S.

8

T.

44

R.

32

10

486

(500)

485

(500)

484

(495)

-13

486

(490)

-7

439

(450)

434

(438)

-3

413

(420)

403

(410)

383

(390)

-10

376

(400)

E 1/4 A



W $\frac{1}{4}$ Sec 8. 44. 32 beginning S sec
line & running N. 10. 3571 m

B. M. 399.84 (Hawkins) 29. 11 = 0 ft.

0. Cedar Swamp. (400) var 2 $\frac{1}{2}$ ° E.

40. ^{Deep} Pine 30 ft wide (380) var 2° E

120 Cedar Swamp (390) var 2 $\frac{1}{2}$ ° E

300 Old Farming

500 Swampy Cedar (420)

720 Pines 30 paces wide. (445) var 4° E

770 Hemlock Swampy

1000 Old Farming (450) var 4° E

1050 Cedar Swampy

1200

var 3 $\frac{1}{2}$ ° E

1360 Burnt Cedar (470)

1430

var 8° E

1600 Good cedar & maple. (490)

1800

(505)

1930 Shrub line 22 paces W $\frac{1}{2}$ sec post

(505)

1.25 P. M.

100 ~~12 1/2~~

S.

5

T.

44

R.

32

-159

526

3 3 13

(570)

537

43 13 13

(555)

538

13 13 13

(550)

528

43 13 13

(549)

539

3 13 13

(550)

539

3 13 13

(550)

529

3 13 13

(540)

520

3 13 13

(540)

520

3 13 13

(540)

504

3 13 13

(523)

485

3 13 13

(505)

-15

3 13 13

3 13 13

3 13 13

3 13 13

3 13 13

3 13 13

3 13 13

3 13 13

1/5

E $\frac{1}{8}$ A Sect 5-44.32 beginning
at S net line & running N. 1030 A.M.

O. Cedar bush & maple	(505)	var 6° E
175	(525)	var 50 E
400	(540)	var 40 E
600	(540)	
800	(570)	
1000	(530)	var 30 E
1200	(550)	
1400	(540)	
1600	(550)	
1650		var 5° E
1800	(550)	

2040 struck line 100 paces W. $\frac{1}{8}$ A part.
(570)

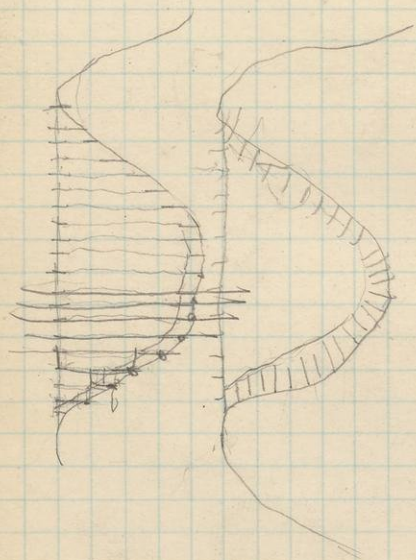
B. M. on $\frac{1}{8}$ part. 301.24

Arrived 320.- 2.55 P.M.
19.

Blank Pages

102-111

Skipped



116

1313. Outcrop knob of soft chloritic rock
grading into (?) 1314 a much harder
to darker colored rock.

Strike N. 43 W. Dip 63° S 45 E (?)
N. 1000 W. 1000.

The knob is cut by a ^{Diorite} gabbro dyke.

1315.

Outcrop 75 paces long + 30 wide
Height 50 ft

1346. Schistose rock. gray.

Strike N. 60° W. S 10° W 65°

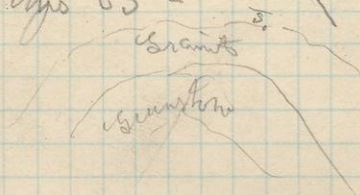
30 N 1000 W.

1311 Outcrop of granite very extensive

1312 Inclusion of soft green rock containing
Amphibole 900 N 1300 W Sect V
Inclusion

1313

1314. Gneiss apparently underlying the
granite dips $65^{\circ} \pm$ $125^{\circ} W$ $65^{\circ} 45^{\circ} E$



1301 1302 1303

Mason with apparent red granite
quartz veins + hematite

~~1300 W~~ N. trend 580.

130 W. + 1300 N from S E corner S.

1303 1305

Granite trend with intrusion of No 1304.

General trend N. + S. dip into straining

shale 30 paces E of 1/2 pt.

75 ft broad.

1304

On top Green shistose rock with mica in
it + quartz veins general trend N + S

75 ft long + 30 broad

735 North + 500 paces W of S E corner

See 9.

1305 coarse grain

1306 Coarse grained grain or granite

75 N + 1000 E Sect 9
about 75 ft long + 30 broad.

1307 granite 1309

1309 granite 1310

8 120 W Sect line 2 28 m pine stub 1/2 W corner
corner in swamp 386.88

311 1/8 Pine stub 30 S W corner 384.38

12 B. M. W. Line 100 ft E corner 404.0

1/8 8 ft W corner 428.71

313 B. M. S. 1/4 9. 7 m Balsam 1/2 W corner
402.93

314 1/8 9. 24 m Bals Wood 25 E corner 480.66

from S. Sect. 8 14 m cedar 18 S. W. corner 455.96

1/8 8 ft 10 ft NE corner 472.57

S. E. 12. corner Tamarack 413.42

1/8 Birch 396.03

