

No 8

FIELD BOOK

1880

sta.	+S	H.I.	-S.	Rod.	Elv.
B.M.	0.25	93.82			1293.57
T.P.	3.40	90.72	6.50		87.32
0.0				4.4	86.3
1				4.5	86.2
2				5.0	85.7
3				5.7	85.0
4				5.8	84.9
5				5.7	85.0
T.P.	4.57	89.89	5.40		85.32
+25				4.7	85.2
+26				5.9	84.0
+27				4.7	85.2
6				6.0	83.9
+21				6.2	83.7
+24				6.4	83.5
W.L.				6.15	83.74

W.L. 5.90 83.99

Spike in J.P. tree. 30' R. sta. 123+70

on Hub. sta. 5+17?

Edge of Bank Dry Creek.

Bottom of creek bed.

Edge of Bank

Edge of Creek } Main Creek.
 Bottom Middle of Creek } sand Bottom

Good current in Creek
 needs clearing out.

Up stream. Opposite sta. 114 to R. 55

5/9

0

+24

6

+26

+17

○ POT.

5

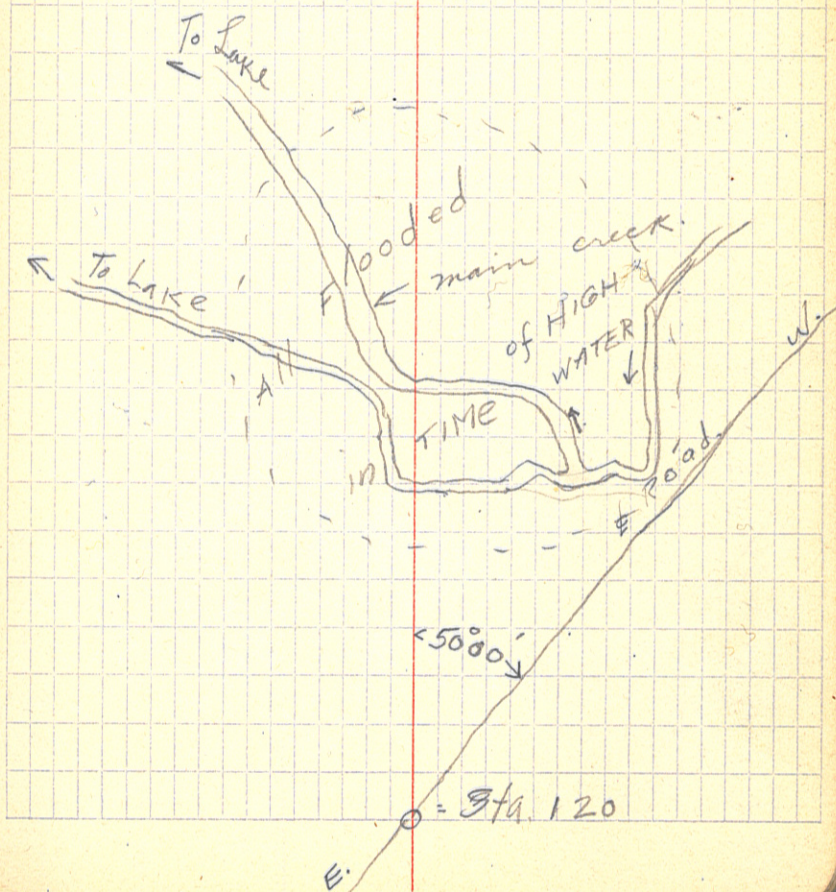
4

3

2

1

00



County Ditch #3

B.M	3.89	103.89		100.00
0+00			5.0	98.9
1			4.7	99.2
2			4.8	99.1
3			4.5	99.4
4			4.6	99.3
5			4.3	99.6
6			4.5	99.4
7			4.7	99.2
8			5.1	98.8
T.P	253	03.25	3.17	100.72
+50			4.0	99.3
9			3.6	99.7
10			4.1	99.2
11			4.5	98.6
12			4.6	98.7
13			4.0	99.3
+75			1.3	00.0
T.P	1.65	103.65	6.25	102.00
14			4.0	99.7
15			4.5	99.2
16			3.6	00.1
17			4.5	99.2
18			6.0	97.7
19			6.0	97.7

1-24-16 11

Preliminary Survey

On Pig Pen Post

R 99° 0' / R

C Road - F.R. #80

C.D. #3

103.65

20				6.0	97.7
21				6.3	97.4
22				6.3	97.4
T.P.	4.0	02.50	5.15		98.50
23				5.2	97.3
24				5.1	97.4
25				5.1	97.4
26				5.0	97.5
27				4.9	97.6
28				5.0	97.5
29				4.7	97.8
30				5.1	97.4
T.P.	3.95	02.55	3.90		98.60
41					
31				5.2	97.4
32				5.4	97.2
33				5.0	97.6
34				5.4	97.2
35				5.2	97.4
36				5.5	97.1
37				5.5	97.1
T.P.	3.15	01.93	3.77		98.78
38				4.7	97.2
39				5.0	96.9
40				4.9	97.0

Pr. Survey

1/24/16

13

Int'sec w. Line Sec. 6

C.D. #3

01.93

41				4.7	97.2
42				4.9	97.0
43				4.8	97.1
T.P.	3.34	01.43	3.84		98.09
44				4.5	96.9
45				4.8	96.6
46				5.0	96.4
47				4.9	96.5
48				5.2	96.2
49				5.0	96.4
50				5.1	96.3
51				5.2	96.2
T.P.	2.97	00.75	3.65		97.78
52				4.5	96.3
53				4.5	96.3
54				4.7	96.1
55				4.7	96.1
56				4.9	95.9
57				5.1	95.7
58				5.1	95.7
59				5.1	95.7
60				5.5	95.3
61				5.8	95.0
T.P.	1.90	47.98	4.07		96.08
62				3.1	94.9

Pr. Survey

1/24/16

15

L 50°

L 10°

C.D. #3

97.98

63

3.3 94.7

64

4.4 93.6

+30

4.94 93.04

B.M.

1.87

96.11

Q

and
1/24/16
F. J. W.

Pr. Survey

1/24/16

17

J.B.C.

G.J.W.

C.A.H.

A.W.M.

Ice Pine River

On Tag Alder 30 L 64+20

Pine River -

	10.36	110.36			100.00
100				10.4	
+40				5.4	
1				4.5	
+70				2.9	
2				7.0	
3				7.9	
4				8.7	
T.P.	3.95	05.86	8.45	0	01.91
5				4.6	
6				4.7	
7				5.2	
+35				5.88	
T.P.	4.83	04.82	5.87		99.99
T.P.	4.87	04.83	4.86		99.96
T.P.	4.80	04.86	4.77		00.06
T.P.	5.12	05.07	4.91		99.95
T.P.			5.05		100.02

1/24/16 19

From the Horse-shoe to Phil Beeler

on Ice P.R.

I.B.C.
A.I.W.
G.A.H.
aw.m

Ice - P.R.

Transit Notes on Co.

24 Δ 9°46' R.

23

22

21 ⊙ P.O.T.

20

19

18

17

16

15

14

13

12

11

10 Δ 28°40' R.

9

8

7

6

5

4

3

2

1

0+00

Ditch No 6 3/1/16
C.J.W. J.B.C. G.R.

21

• spike

• spike

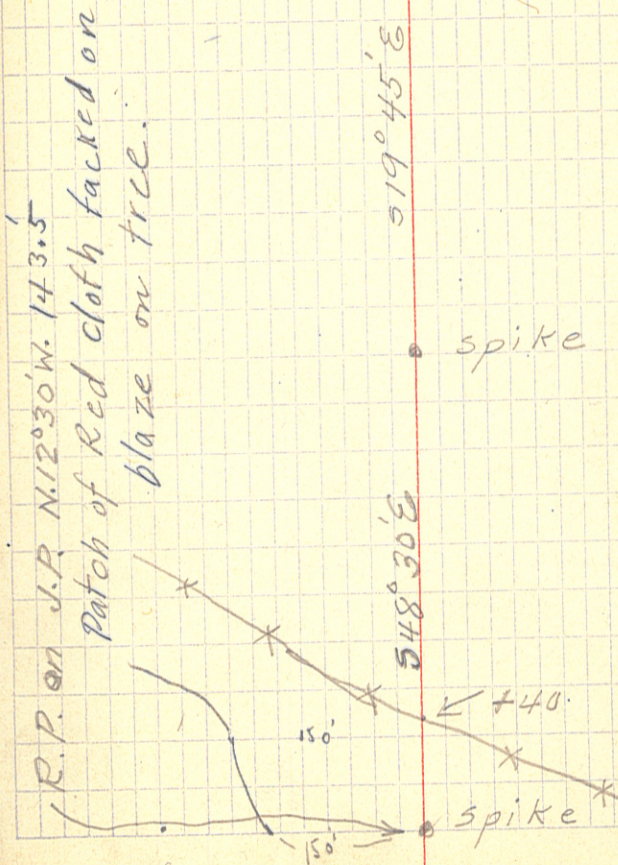
519°45'E

• spike

548°30'E

← +40

• spike



49
48
47
46
45
44
43
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25

⊙

P.O.T.

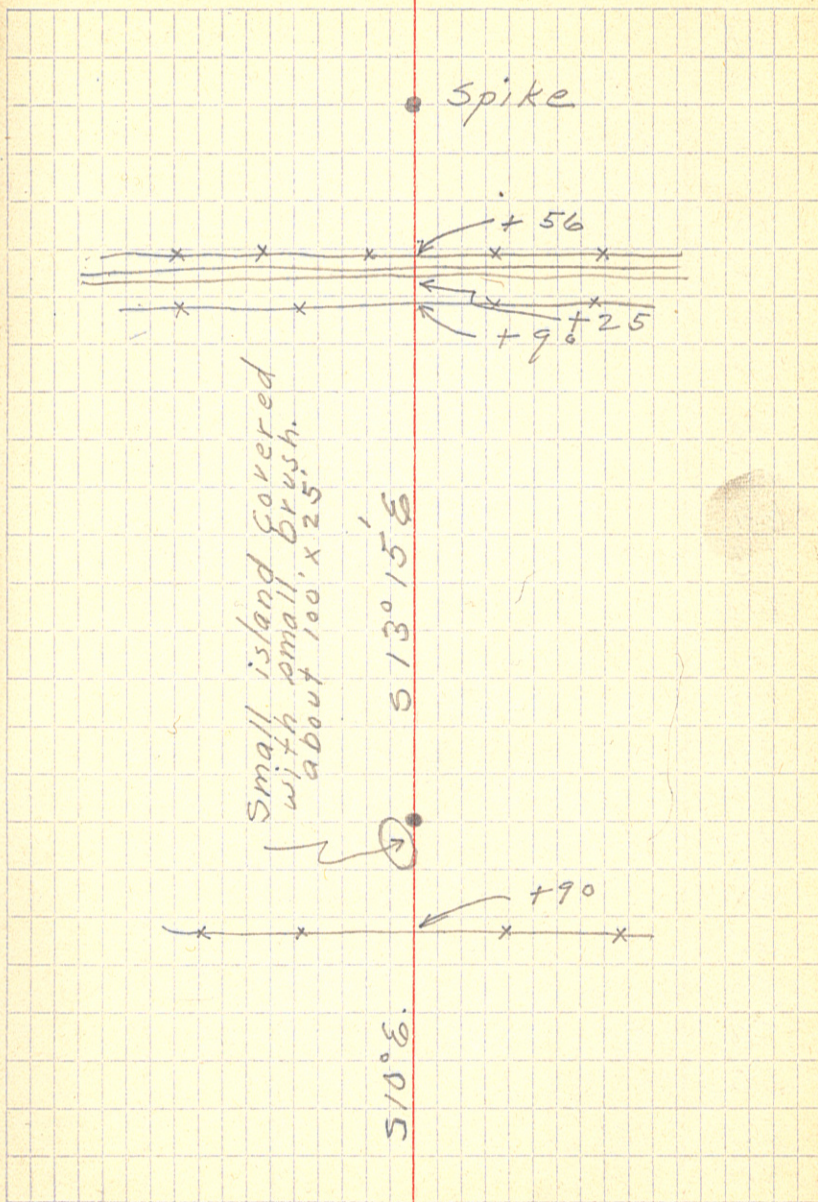
△

3°25'

S.

3/1/16

23



74

73

72 Δ $29^{\circ}34'$ L.

71

70

69

68

67

66

65

64

63

62

61

60 Δ $20^{\circ}48'$ R.

59

58

57

56

55

54

53 Δ $32^{\circ}45'$ L.

52

51

50

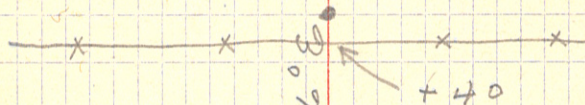
3/1/16

25

S $54^{\circ}45'E$

S $25^{\circ}15'E$

S $46^{\circ}E$



} 200'
 } 20'
 round shaped
 bay S. of 53
 about 250'
 deep.

started here 3/2/16

99

98

△ 47°32' R. S6°30'W.

97

96

95

94

93

△ 13°46' R.

92

91

90

89

88

87

86

85

84

83

82

81

80

79

78

77

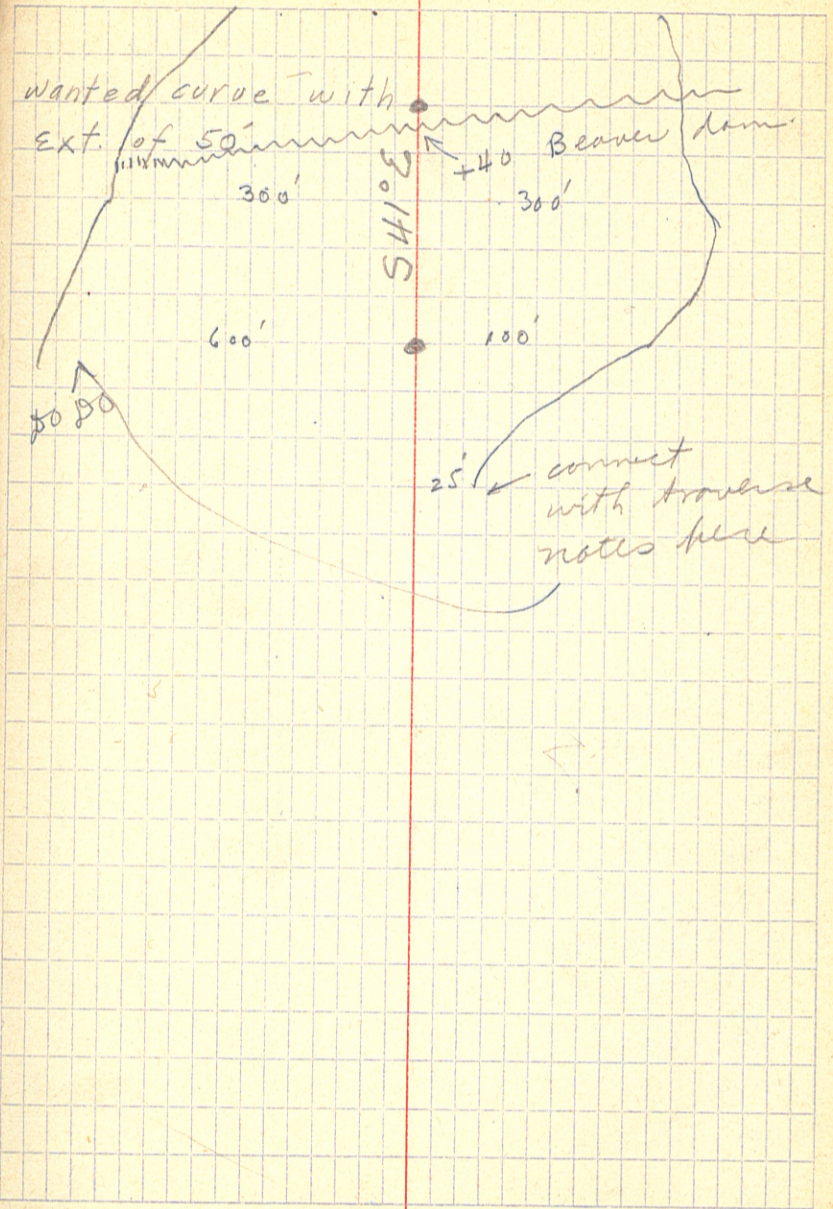
76

75

cgw. 910c.
y.k.

3/1/16

27

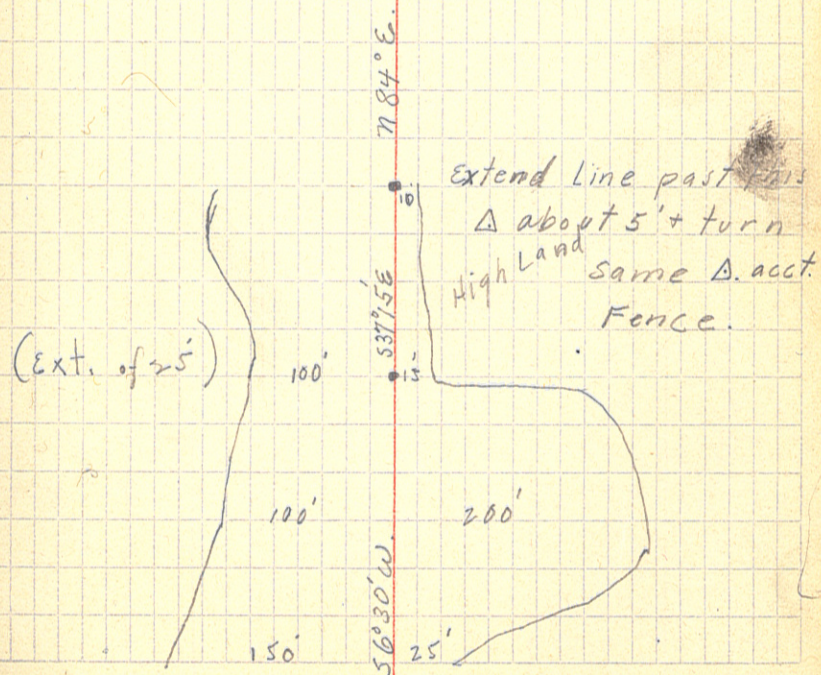


3/2/16

29

182 End. BANK of Creek.
 113
 112
 111
 110
 109
 +12² \triangle 59° 10' L.
 108
 107
 106
 +71² \triangle 43° 36' L.
 105
 104
 103
 102
 101
 100

on S. side of Road.



TRAVERSE

sta.	Brg.	Dist.	Brg.	Dist.
93-1	N73°W	388	← on Armoire.	
	S73°E.	440		
			S54°W	361
	N51°E	466		
			S87°W	650
	N718°E.	630		
			N103°30'E	290
1-2	N79°30'W	721		
			W.	640
			N80°30'W	960
2-3	N52°15'E	476		
	N40°E	375		
3-4	N12°36'W	429		
4-5	N38°30'W	601		
5-6	S46°45'W	414		
	N7°15'E.	375		
	S49°30'W	650		
6-7	N31°15'W	726		
	S67°W	745		
	S78°45'W	621		
7-8	S4°W.	421		
	S54°36'W	560		
	N146°W	240		
8-9	N57°W	453		
9-10	N64°15'W	154		

side shot from
to S.W. end of island
sta 5 on S edge
of J.P. island.
drain 100' wide
runs N. along
W + E edges of island
toward Lind
ens house.
to W. edge of
to W. edge
to W. edge tie line
to R. edge from 8.

sta 10 = sta. 64

ON CO. DITCH No 6. 3/2/11 33
Going N. using E as Base.

← side shots from sta. 1.

sta. 2 = sta. 84 on line.

S.S. from 3

actual high land is from
400 or 500' to 1000' E of sta 4,
but is higher than actual
swamp along ditch.

meadow.

from sta 6.
to sta 72 on line

Bay in here runs back 400'
on line.

sta.	R	L
Brq.	Dist.	Brq. Dist.
	57°15' W	340
	N 5° W	415

10-11 on ditch line. sta. 11 = 60 -
 From sta. 60 on line to 53
 swamp runs about 200'
 wide with ditch line
 approx in center.

sta. 49 to 53 = about 400' wide
 with L. edge about 50' from
 line

R edge swings in at 49 to
 within 60' making
 neck about ~~700~~⁵⁰ wide
 line down center
 runs this way to road.
 at road swamp is 440'
 wide. as L. side turns
 back in form of
 point it runs S
 about 100' further West
 splitting up swamp
 into 2 parts.

sta. 39 R. side = 50'
 runs from road to 39
 about 50' to R of line.

3/2/16

9.47 3.0

35

to L edge from 10.
 to R edge from 10.
 from 10 to 60 on line L edge = about 50'
 on ditch.

on L side at 39 = 100'.
 at 38 on R. = 150 on L = 100
 at 37 on L = 100' on R = 150
 at 36 on L = 200 on R = 150
 at 35 on L = 200 on R = 150
 at 34 " L = 100 on R = 150
 at 33 " L = 200' on R = 200'

new to E
 of 33 about
 1000'
 small neck
 of high land
 between
 two
 swamps.

Sta.	R.		L.	
	Brg.	Dist.	Brg.	Dist.
00-1	N58°30'W	254		
	N16°45'W	540	S14°30'W	330
			N79°W	275
1-2	N67°30'W	580		
2-3	N33°45'W	401		
	N50°E	470	240	
			S30°W	240
	N26°30'W	390		
			S70°W	270
			N85°W	425
	N56°W	520		
			N70°30'W	545

From sta. 15 to 10 L. edge =
about 100'

from 10 to 00 swings out
to 500 ft in center
coming back at 00,
000 on edge.

Take R. edge from
Jewett as it shows
it about correct.

Traverse No. 2 3/2/16³⁷

sta. 0+00 = sta 30 on line
SS. from 1. to connect with a Swamp edge to
L. of 33.

no 2 = on edge of swamp

to R edge from 3.
to L edge from J.
to R. edge.

Section Line Ties.

Sta. Brq. Dist. Dist.
Setting on Sta 18 took mag. brq.
to approx W 1/4 Cor. of sec
which is $583^{\circ}W$.

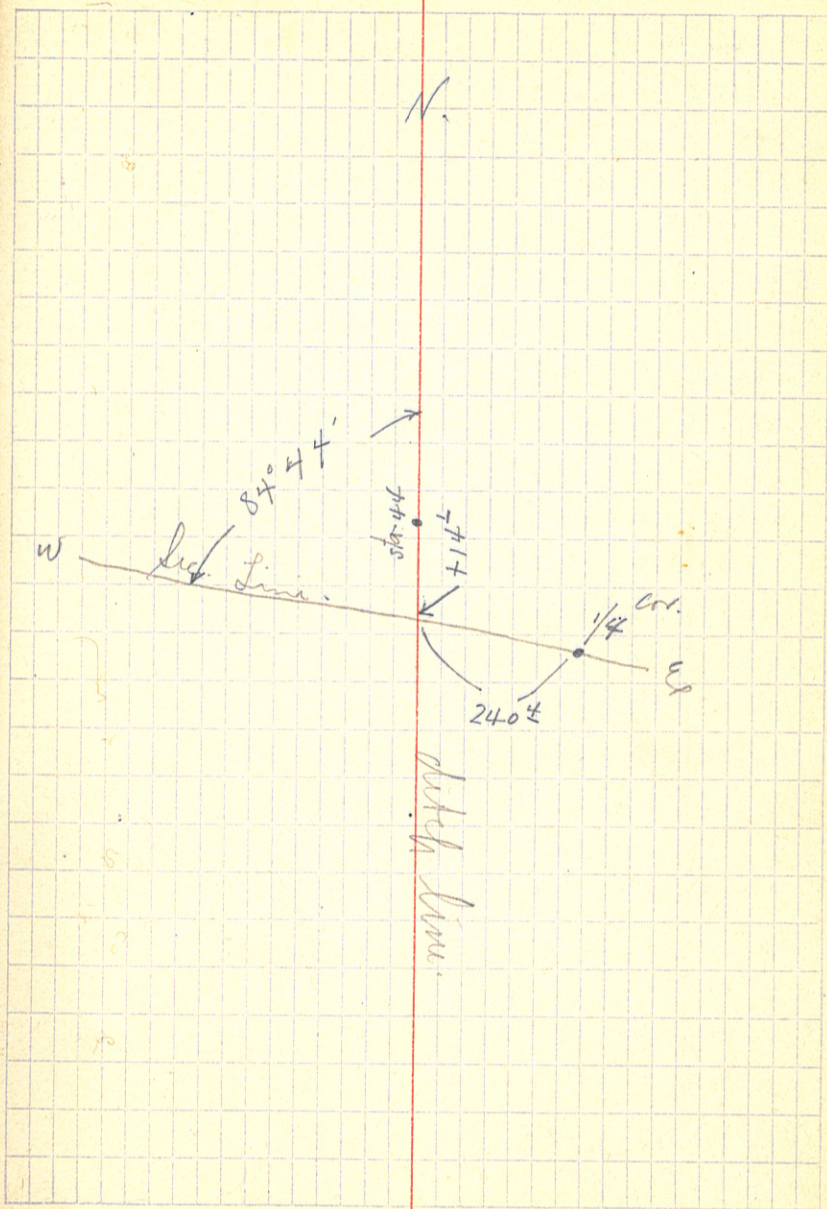
At Hamp Hamline

Line crosses E & W sec.
line 240.4 ft W. of
1/4 Cor.

Sec Line Mag Brq. = $582^{\circ}W$.

C9W. 9000 EK. 3/3/16

39



2/18/16 SEC. LINE TRANSIT NOTES
 F.N.M. - C.W.M. - CAH - JBC - ELBERT

ES. = Mildred Ditch. (Co. Ditch #4)
 PEDERSON (in P.M.)

43

24

23

22

21

20

19

18

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

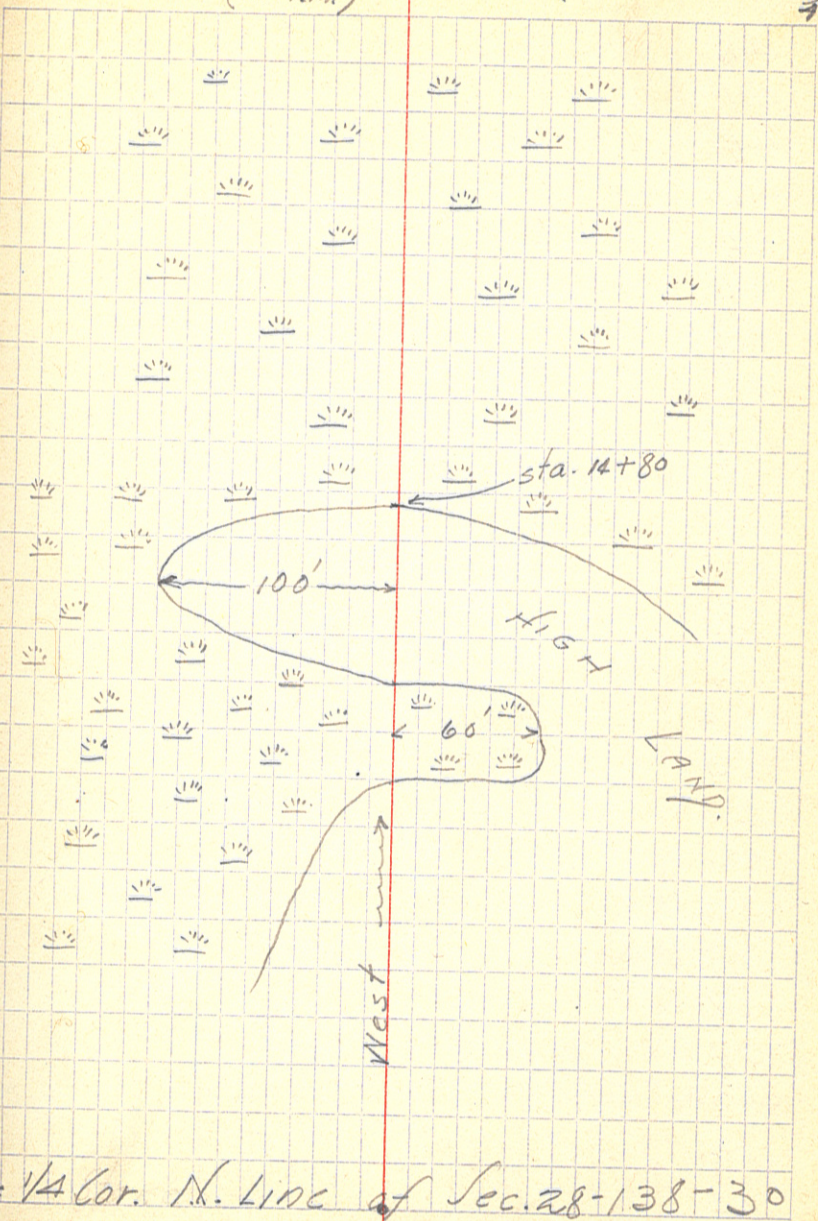
2

1

00

Correct Corner = 1 ft. L 00+27.

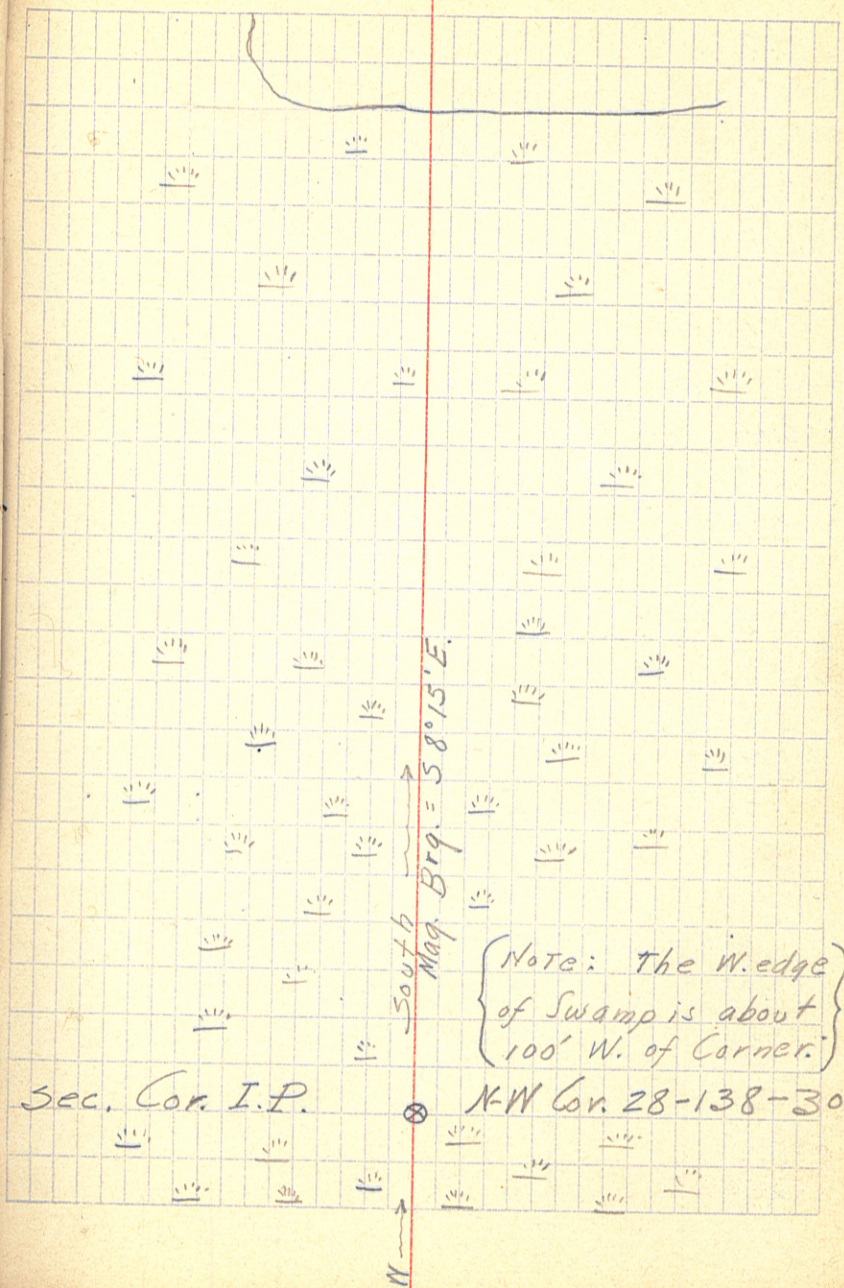
Later = Not Correct.



2/18/16

48
47
46
45
44
43
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
+836
26
25

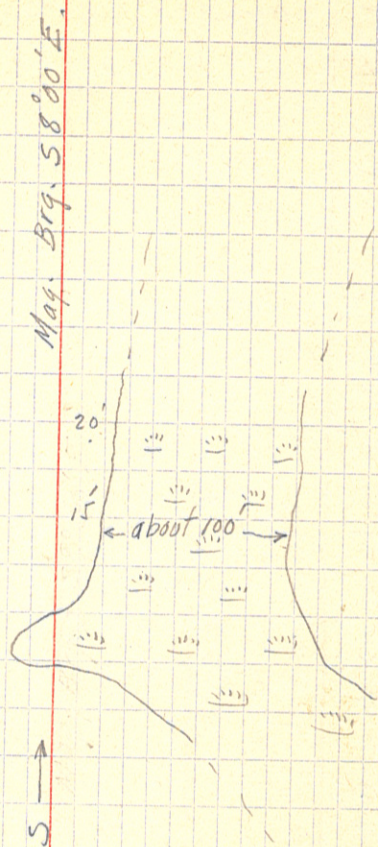
45



2/18/16

72
71
70
69
68
67
66
65
64
63
62
61
60
59
58
57
56
55
54
+33⁺
53
52
51
50
49

47



W¹/₄ Sec. 28-138-30 ⊗ I.P.

2/18/16

95 L offset here = 29.27 W. (M.B.)

94

93

92

91

90

+789

89

88

87

86

85

84

83

82

81

80

79

+614

78

77

76

75

74

73

RANDOM LINE



Mag. Brq. = $58^{\circ}45' E.$

Hub. Nail in ground.

← Cut out Random Line.

↘ Angle between Random + True Line = $0^{\circ}42'$.

SW. Cor. 28-138-30 ⊗ Spike & Wooden Stake.

2/18/16

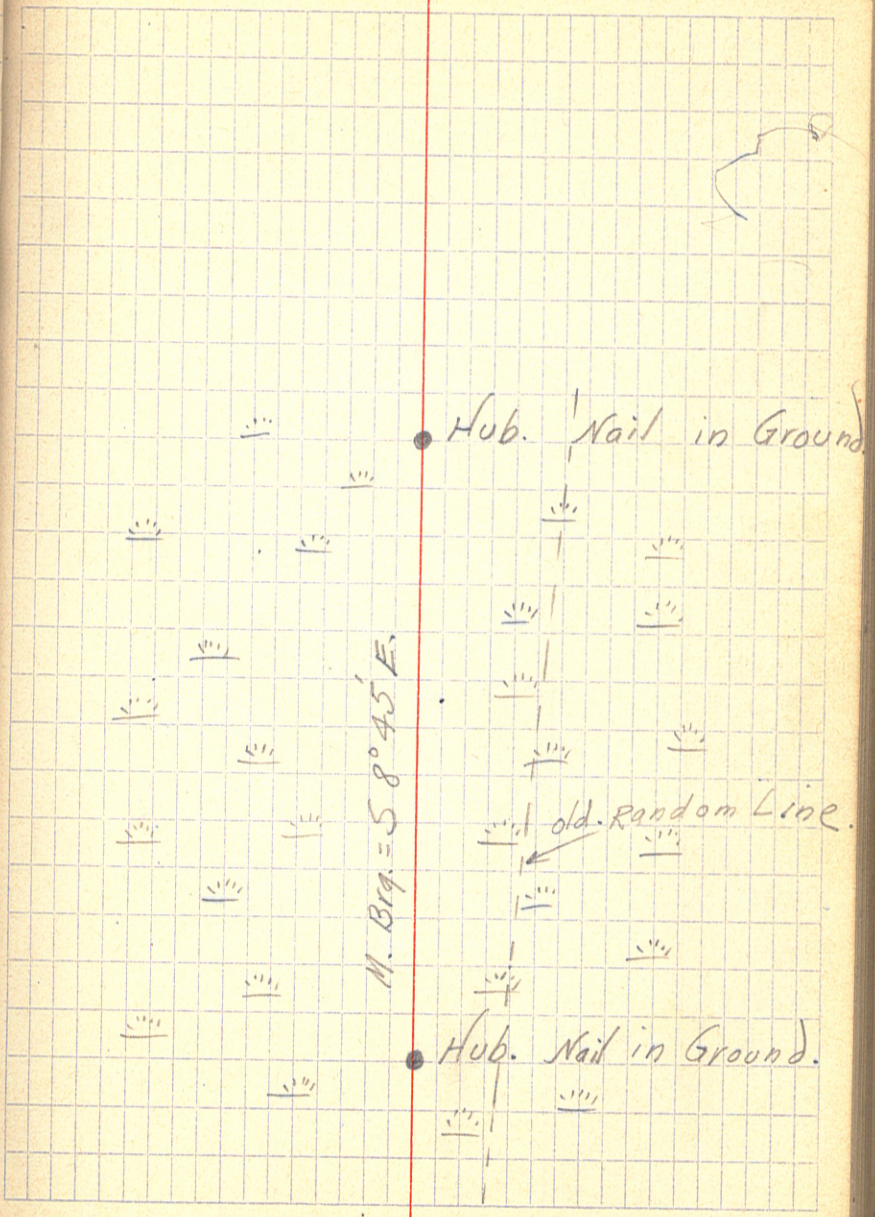
51

+06⁵
110
109
108
107
106
105
104
103
102
101
100
99
+59²
98
97
96

RANDOM LINE

↖ Off-set to True Line here = 56.24
to Due N. (Mag. Brq.)

True Line runs to Sta. 175+14.1
= Sec. Cor. End of Line.



Transit Notes
"A" Branch.

24.
23
22
21
20
19
18
17
16
15
14
+93² Δ
12
11
10
9
8
7
6
5
4
3
2
1
00

28°53' R.

~~28°52' R~~
~~28°53' R~~

Main Ditch.

2/19/16 33

F.N.M. = Field Eng'r.

C.J.W. = Transit

C.A.H. = } chainmen.
J.B.C. = }

NELBERT PEDERSON
Axemap.

Weather rather
cold in A.M.

thawing in P.M.
Snow-shoeing
pretty heavy.

• 80 d. Spike.

Mag. Brng. = S 54°00' W.

Mag. 5 25°00' W.

• 80 d. spike.

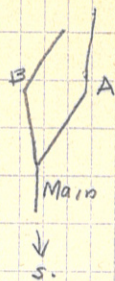
~~28°52' R~~
~~28°53' R~~

"A" Branch.

2/19/16

57

777
C9W
CAH
QPC
N.P.



Stopped here to go N-W and
run out "B" branch, to connect
here.

Intersection with "B" Branch.

107°



32

31

30

29

28

27

26

25

"B" Branch.

+ 37⁵ A

34° 43' R.

22

21

20

19

18

17

16

15

14

13

12

+ 31⁵ Δ

42° 05' L.

11

10

9

8

7

6

5

4

3

2

1

00

~~42° 04' L.~~

2/19/16
Same crew!

Intersection with

1st Course S. after 57
Intersection.

"A" Branch.

M.B. = S 4° 00' E.

spike in ice.

Mag. Brq. = S 38° 15' W.

Main Ditch with Stationing of "A" Branch Continued - 61
 2/19/16

55
 54
 +438 Δ 50° 56' R.
 53
 52
 51
 50
 49
 48
 47
 46
 45
 44
 43
 42
 41
 40
 39
 38
 37
 36
 35
 34
 33
 32+07 Δ 23° 06' L.

sec. Line
 15'
 5810 45' W
 M

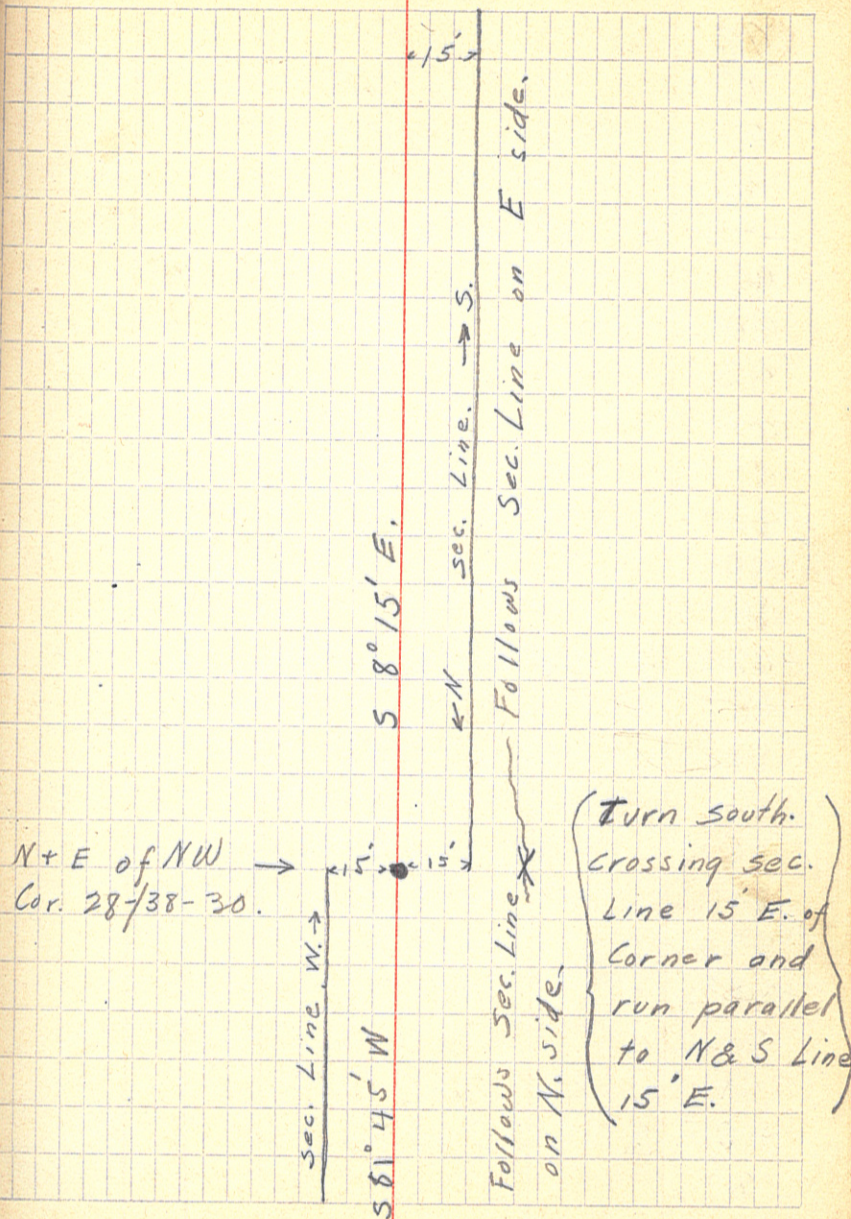
M.B. = S 31° 00' W

79
 78
 77
 76
 75
 74
 73
 72
 71
 70
 69
 68
 67
 66
 65
 64
 63
 +14^E Δ
 62
 61
 60
 59
 58
 57
 56

90° 04' L.

2/19/16

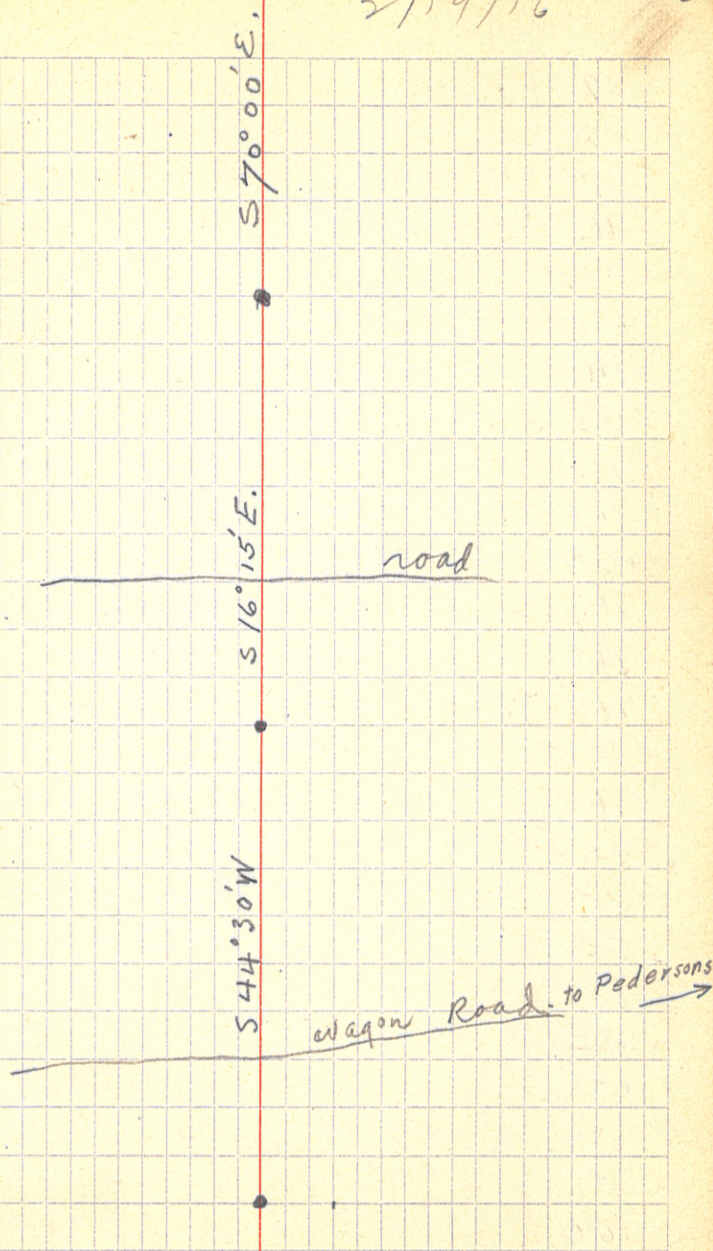
63



99
 98
 97
 96
 +44¹ Δ 53° 41' L.
 95
 94
 93
 92
 91
 +60
 90
 89
 +62⁸ Δ 60° 43' L.
 88
 87
 86
 85
 84
 83
 +24³
 82
 81
 +07⁵ Δ 52° 30' R.
 80

2/19/16

65



~~53° 11' R.~~
~~545° 00' W.~~

121
120
119
118
117
+18° Δ 55° 03' L.
116
115
114
113
+17° Δ 53° 11' R.
112
111
110
109
108
107
106
105
104
103
102
+68° Δ 62° 03' R.
101
100

2/19/16

67

S 10° 00' E

S 45° 00' W.

S 8° 00' E.

57°

143
142
+019 Δ 57° 23' R.
141
140

139
+584 Δ 49° 52' L.

138
137
136
135
134

+133
+703 Δ 6° 33' L.
132

131
130
129
128
127
126
125
124
123
122

6° 33'

From 141+019
to 155+106
Ditch Line
runs parallel
to and 15' to
W. of N&S
section Line.

↓
This means
the Random
sec: Line run
first.

From sta. 141+019
to End of ditch
it will be
changed.

59° 00' E.
56° 30' E.
516° 30' E.

2/19/16

69

← This Δ = 15' W. of
sta. 95 on N. & S
sec Line Random

+75² ①

166

165

164

163

+75³ ①

162

161

160

159

158

157

156

155

154

153

+26⁶

152

151

150

149

148

147

146

145

144

①

P.O.T. Spike

① P.O.T. Spike

(153+2+8) by chain

Cor = 80⁴ W. of line
Redwood

2/19/16.

71

Following Random
Line.

M.B. 59⁰⁰ E.

15' W. of Sta. 110+00
on Sec. Line

← 15' W. of Sta. 110+06⁵

+18² ○ 80.4 Dne E. of Corner.

175

174

173

172

171

+99⁵ ○ POT. Spike.

170

169

167

old line follows
109 Random
Line.

Levees - Proposed Co. Ditch #4

			1347.33	
2.15	1349.48	12.95	1336.53	
4.12	40.65	5.56	35.09	
1.50	36.59	9.94	26.65	
1.41	1328.06	9.05	1319.01	
1.20	1320.21	1320.21		
0+00		3.6	1316.6	
1		4.7	15.5	
2		4.7	15.5	
3		4.8	15.4	
4		4.9	15.3	
5		4.9	15.3	
6		4.6	15.6	
7		4.8	15.4	
8		4.8	15.4	
9		4.9	15.3	
10		4.9	15.3	
11		4.8	15.4	
T.P.	4.18	1319.91	4.48	15.73
12		4.6	15.3	
12+92.3		4.53	15.36	
13		4.7	15.2	
14		4.7	15.2	
15		4.7	15.2	
16		4.7	15.2	

2/21/1916 81

F.N. Molyment, level.
C.H. Hall, rod, Fine dayB.M. spike in paper tree at Sta 0+00 of
main ditch

Top of knob, Ang. R.

17		1319.91	4.8	13 15.1
18			4.8	15.1
19			4.6	15.3
20			4.6	15.3
21			4.6	15.3
22			4.8	15.1
T.P.	4.70	1320.16	4.45	13 15.46
23			4.9	15.2
24			5.0	15.1
25			4.7	15.4
26			4.7	15.4
27			4.8	15.3
28			4.8	15.3
29			5.0	15.2
30			4.7	15.4
31			4.8	15.3
32			4.8	15.3
TOT T.P.			4.68	1315.68

Continued on page 86

T.P.				1315.58
22+37.5	5.12	132070	5.3	15.4
22			5.3	15.4
21			5.4	15.3
20			5.4	15.3
19			5.2	15.5
18			5.2	15.5
17			5.1	15.6
16			4.8	15.9
15			4.7	16.0
14+60			2.27	1318.43
+8.5			3.5	17.2
14			4.7	16.0
13			4.6	16.1
12			4.6	16.1
11+31 T.P.	4.70	132110	4.30	1316.70
11			5.1	16.0
10			5.1	16.0
9			5.1	16.0
8			5.1	16.0
7			5.6	15.0
6			5.1	16.0
5			5.1	16.0
4			5.1	16.0
3			5.0	16.1
2			5.0	16.1
1			5.0	
0			5.6	

Molyneux
Hall.

T.P. 32+07 Main Ditch

B.M. 50' R., Spike in Oak Tree 10" Diam
On Bearer Dam

Aug L. on ice

Main DITCH - Cont from page 82

T.P. 32+07 4.96 1320.54 ~~1315.58~~ 1315.58

33			5.7	15.1
34			5.4	15.1
35			5.4	15.1
36			5.4	15.1
37			5.4	15.1
38			5.4	15.1
39			5.4	15.1
40			5.7	14.8
41			5.6	14.9
T.P.	4.65	1320.05	5.14	1315.40
42			5.1	14.9
43			5.1	14.9
44			5.0	15.0
45			5.1	14.9
46			5.1	14.9
47			5.3	14.7
48			5.4	14.6
49			5.0	15.0
50			5.4	14.6
51			5.4	14.6
52			5.5	14.5
53			6.0	14.0
+438	5.16	1319.65	5.56	1314.89
54			5.7	14.0
55			5.7	14.0

54
55
→
Sec. 4165

56		1319.65	5.7	1314.0
57			5.4	14.3
58			5.2	14.5
59			5.1	14.6
60			5.1	14.6
61			5.0	14.7
62			5.0	14.7
+14.5			4.53	15.10
TP				
TP	3.62	1319.77	3.50	1316.15
63			4.5	15.3
64			4.6	15.2
65			3.7	16.1
66			4.9	14.9
67			4.9	14.9
68			5.0	14.8
69			5.2	14.6
70			4.1	15.7
TP	3.55	1319.11	4.21	1315.56
71			4.5	14.6
72			4.5	14.6
73			4.8	14.3
+80			2.63	1316.48
74			5.1	14.0
75			4.9	14.2
76			5.1	14.0

15' N. of Sec. Line
 13830
 18429
 15' E. of Sec. Line Btm - Secs.
 1319.11

Marsh Open
 ↓

Arig. LA

Top of I. M. Sec. Cor - B. M. (Secs $\frac{20}{29} \frac{21}{28}$)

B. M. 80 R. Spike in Black Pine Tree.

96	Co. Ditch # 4			
77		1319.11	5.3	1313.8
78			5.0	14.1
79			5.1	14.0
80			5.8	13.3
+07.5	4.90	1318.25	5.76	1313.35
81			4.9	13.4
82			4.5	14.8
+20			3.3	15.0
83			4.9	13.4
84			5.0	13.3
85			4.4	13.9
86			4.6	13.7
87			4.8	13.5
88			4.8	13.5
+62.8	5.55	1318.41	5.39	1312.86
89			5.6	12.8
90			5.3	13.1
+75			3.1	15.3
91			5.0	13.4
92			5.9	12.5
93			4.9	13.5
+50			5.2	13.2
+50			3.69	1314.72
94			6.0	12.4
95			6.4	12.0
T.P. +44'	7.95	1316.83	6.03	1312.38

← 15' E. of Sec line

2/21/16

91

△ Ang. R.

Road on old Beaver Dam

△ Ang. L.

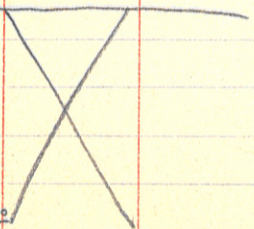
On Road.

B.M. 15' L., Spike in Black Pine, 8" Diam.

△ Ang. L.

↑ 96		1316.83	4.5	1312.3
97			4.9	11.9
98			5.1	11.7
99			4.9	11.9
100			4.5	12.3
101			4.8	12.0
TP, +68.3	5.45	1317.58	4.70	1312.13
02			5.6	12.0
03			5.2	12.4
04			5.4	12.2
05			5.1	12.5
06			5.2	12.4
07			6.0	11.6
08			6.6	11.0
09			6.7	10.9
108450	2.77	1314.61	5.74	1311.84
09			3.9	10.7
110			4.0	10.6
11			4.0	10.6
12			4.5	10.1
+17.9			4.33	10.28
13			5.0	09.6
14			5.3	09.3
15			6.6	09.
16			6.0	08.6
16 +18.2			5.56	13 09 05

15' W. of Sec. Line



△ Ang R

(50' R. - R.R. 5.7 - Elev. 1311.9)

Enter Tam. Sw 10

B.M. 10' R. Spike in Tam. Tree

△ 15 15' W. of Sta 69 on Sec. Line, Ang R



Along Sec. Line

169		1314.61		1310.1
70			3.5	11.1
71			2.3	12.3
72			3.0	11.6
73			4.4	10.2
T.P.	2.98	1313.32	4.27	1310.34
74			5.1	08.2
75			5.2	08.1
76			4.0	09.3
78			5.1	08.2
78			5.3	08.0
+61.4			5.5	07.8
79			6.1	07.2
80			6.3	07.0
81			6.1	07.2
82			4.9	08.4
T.P.	4.13	1312.54	4.91	1308.71
83			5.2	07.3
84			5.1	07.7
85			4.1	08.4
86			5.3	07.2
87			5.0	07.5
88			5.7	06.8
89			5.3	07.2

Ridge

Sec. Cor. - Sec. S.

29	28
31	32

15' W. of Sec. line

TP. +28.9		1312.54	4.90	1307.64
90	358	1311.22	3.8	07.4
91			4.3	06.9
92			4.3	06.9
93			5.6	05.6
94			6.6	04.6
95			7.6	03.6
TP.			7.46	1303.76 ✓

Quit for the day.
F.N. Molyneux

2/22/16 1 P.M.
F.N. Molyneux, level
C.H. Hall, rods.

138+17.9	2.85	1306.11		1303.76
9			3.0	03.1
140			3.6	02.5
1			3.5	02.6
2			5.3	00.8
3			5.9	00.7
4			6.0	00.1
5			6.2	1299.9
6			6.2	99.9
TP.	3.18	1303.59	5.70	1300.41

Δ { Sta. 141+01.9 of Main Ditch Line (First run) }
 { " 138+17.9 " " " " Corrected. } 289

147			1300.41
147	1303.59	3.8	99.8
8		4.5	99.1
9		4.5	99.1
150		4.8	98.8
1		4.7	98.9
2		4.8	98.8
3		4.8	98.8
TP	3.96	1303.28	4.27 1299.32
4		3.75	99.53
4		4.4	98.9
5		5.3	98.0
6		6.8	96.5
+100		8.2	95.1
7		8.5	94.8
8		8.3	95.0
+20 B.M		6.73	1296.55
9		8.9	94.4
160		9.0	94.3
TP. 160+	4.75	1298.90	9.13 1294.15
1		4.9	94.5
2		4.7	94.2
3		5.1	93.8
4		5.9	93.0
5		6.1	92.8
6		7.4	91.5

x

Ridge

△ On Sec. Line
100 ft N. to low ground

Natural channel.

Ditch to cross from N. side to E. side

High ground 50' L. ^{8.6} 105' R (Elev 30' L. 1294.7)
Pine Ridge Pine Ridge
70' L. spike in back Pine Tree.

Elev 50' L. ^{9.2} 1294.1

△

100' L. channel, ^{6.3} 1292.6
^{6.7}
105' L. " 1292.2

100

167		1298.90	7.7	1291.2
T.P.	1.88	1294.38	6.40	1292.50
8			4.3	90.1
9			6.5	87.9
170			8.1	86.3
+30			8.3	86.1
71			8.4	86.0
71+50			8.5	85.9
72			8.8	85.6
T.P.	4.38	1289.96	8.80	1285.58
73			4.7	85.3
74			4.7	85.3
+60			5.7	84.3
+75			5.7	84.1
F80			4.5	85.5
75			4.6	85.4
+14.1			7.7	85.6
			3.3	86.1
			6.36	83.60

2/22/16

75' Channel. ^{5.7} 1288.7

Channel crosses to W. side

Point of Sand Ridge to East

Bank of old channel

Center "

Blk.

Sec. Cor.

Bank of Pine River - 125 S. of Sec. Cor.

Top of ice Pine River, 1.6' Water.

Sta.	Levels		for Rod.	Co. E/v.
	+S	H.I. -S		
B.M.	4.53	104.53		100.00
113+82			11.83	92.7
"			11.55	92.9
113			8.6	95.9
112			6.0	98.5
111			2.5	102.0
+40			2.8	101.7
110			4.8	99.7
109			6.3	98.2
108			6.2	98.3
T.P.	6.45	105.03	5.95	98.58
107			6.6	98.4
106			5.8	99.2
105			6.0	99.0
104			5.4	99.6
103			5.2	99.8
102			4.9	100.1
101			3.8	101.2
100			3.6	101.4
99			3.3	101.7
98			2.7	102.3
T.P.	6.32	108.90	2.45	102.58
+60			6.6	102.3
+40			4.5	104.4
+20			6.3	102.6

105.03
2.45
102.58

Ditch No 6. C. Jew. - J.B.C. - J.K. 3/4/10.
1"

Spike in 7" Pop tree across Cr. from end
of line, = about 40' S. of Bridge.
→ ^{Top of ice.}
→ ~~Bottom of Cr.~~ 1.6 water.
Top of Cr. Bank.

92.7
91.1

Bearer Dam

Sta.	+S	H.I.	-S.	Rod.	E/v.
97		108.90		7.2	101.7
96				6.4	102.5
95				5.8	103.1
94				5.1	103.8
93				5.0	103.9
B.M.			1.11		107.79
92				5.0	103.9
91				4.6	104.3
90				4.4	104.5
89				4.4	104.5
88				4.5	104.4
87				4.4	104.5
T.P.	5.30	109.70	4.50		104.40
86				5.5	104.2
85				5.4	104.3
84				5.3	104.4
83				5.2	104.5
82				5.2	104.5
81				3.8	105.9
80				4.3	105.4
79				5.2	104.5
78				5.4	104.3
T.P.	5.31	109.61	5.40		104.30
77				5.0	104.6
76				5.3	104.3

23

3/4/16

On 3" J.P. 100' R. sta. 93.

some what lower
150' R.

3/4/16

Sta.	+S	H.I.	-S	Rod.	E/V.
75		109.61		5.1	04.5
74				5.0	04.6
73				5.0	04.6
72				5.1	04.5
B.M.			1.37		108.24
71				5.2	04.4
70				5.2	04.4
69				5.1	04.5
68				4.9	04.7
67				5.2	04.4
T.P.	5.53	109.96	5.18		104.43
66				5.6	04.4
65				5.6	04.4
64				5.2	04.8
63				5.2	04.8
62				5.1	04.9
61				4.2	05.8
60				5.2	04.8
59				4.6	05.4
58				4.2	05.8
57				3.5	06.5
56				4.9	05.1
55				4.6	05.4
54				4.9	05.1
53				4.8 4.5	05.5

On 4" J.P. 100' R. 72

about 1' lower 100'L.

Sta.	+S	H.I.	-S	Rod.	E/v.
T.P.	6.00	111.59	4.37		105.59
52				5.9	05.7
51				5.7	05.9
50				5.6	06.0
49				4.8	06.8
48				4.8	06.8
47				4.6	07.0
46				4.8	06.8
45				4.3	07.3
44				3.5	108.1
B.M.			110		110.49
44				4.0	107.6
T.P.	2.35	112.84			
43				5.1	07.7
42				4.7	08.1
41				4.2	08.6
40				3.6	09.2
39				4.0	08.8
T.P.	5.30	114.17	3.97		108.87
38				5.7	08.5
37				5.8	08.4
36				5.4	08.8
35				5.4	08.8
34				5.4	08.8
33				5.4	08.8

108.1
42.7
15.4

109.96
4.37
105.59

110.49
2.35
112.84

3/4/16

104.5
11.8
92.7

on E+W road.

Sp. in Tel. pole to R. of 44.

starting from Last B.M. after dinner.

sta.	+s	H.I.	-s	Rod.	Elv.
32		114.17		5.5	08.7
31				5.4	08.8
30				5.5	08.7
29				5.4	08.8
T.P.	5.95	114.78	5.34		108.83
28				5.9	08.9
27				5.6	09.2
26				5.8	109.0
25				5.7	109.1
24				5.2	09.6
23				5.1	09.7
B.M.			2.15		112.63
22				4.8	110.0
21				5.0	09.8
20				5.1	09.7
19				4.6	110.2
T.P.	6.35	116.55	4.58		110.20
18				6.1	110.5
17				5.5	11.1
16				5.3	11.3
15				5.4	11.2
14				5.0	11.6
13				5.1	11.5
12				5.3	11.3
11				5.2	11.4

69W 930
E.K.

3/4/16

Sp. in 7" Tam. Tree. 150' R 22

Sta.	+S	H.I.	-S	Rod.	Elv.
10		116.55		4.1	12.5
T.P.	2.80	115.28	4.07		112.48
9				2.9	12.4
8				3.5	11.8
7				3.6	11.7
6				3.7	11.6
5				4.5	10.8
4				5.25	110.03
3				5.2	10.1
2				6.1	09.2
1				5.9	09.4
00				5.5	109.8
T.P.	6.43	116.33	5.38		109.90
B.M.			3.31		113.02

109.8
~~12.9~~
 16.9

Junction of Lateral with M. ditch.

Sp. in 6" JP. N. of 00 near R.P. tree.

Sta.	+S	H.I.	-S	Rod.	Elv.
16+67	8.50	118.53			110.03
16				8.5	10.0
15				8.6	09.9
14				7.1	11.4
13				6.3	12.2
+45				5.2	13.3
12				5.0	13.5
11				6.3	12.2
10				4.7	13.8
9+74*				4.7	13.8
T.P.	5.00	118.98	4.55		113.98
9				6.5	12.5
8				7.2	11.8
7				7.0	12.0
6				6.1	12.9
+30				5.7	13.3
5				6.6	12.4
+40				6.1	12.9
4				4.9	14.1
+50				6.4	12.6
3				6.7	12.3
2				6.8	12.2
1				6.7	12.3
00				6.9	112.1
B.M.			2.00		116.98

Lateral N^o 1.

119.00
6.9
112.1

Sta. 4 on M. Ditch.

on 4" Poplar tree 25' R. 3+50

sta.	+S	H.I.	-S	Rod.	Elv.
T.P.	5.73	114.73			109.0
T.P.			5.40		109.33

Levels E. of Sta 26 up into
Tam. swamp.
Elv. sta 26.

TRANSIT NOTES

21
 20
 19
 18
 17
 +90⁵ 0
 16
 15
 14
 +23
 13
 12
 11
 10
 9
 +32⁴ Δ
 8
 7
 6
 5
 4
 3
 2
 1
 00

sta 8-9 = short sta = 679
long.

100° 54' R. ext 50' ↑

changed to ↓

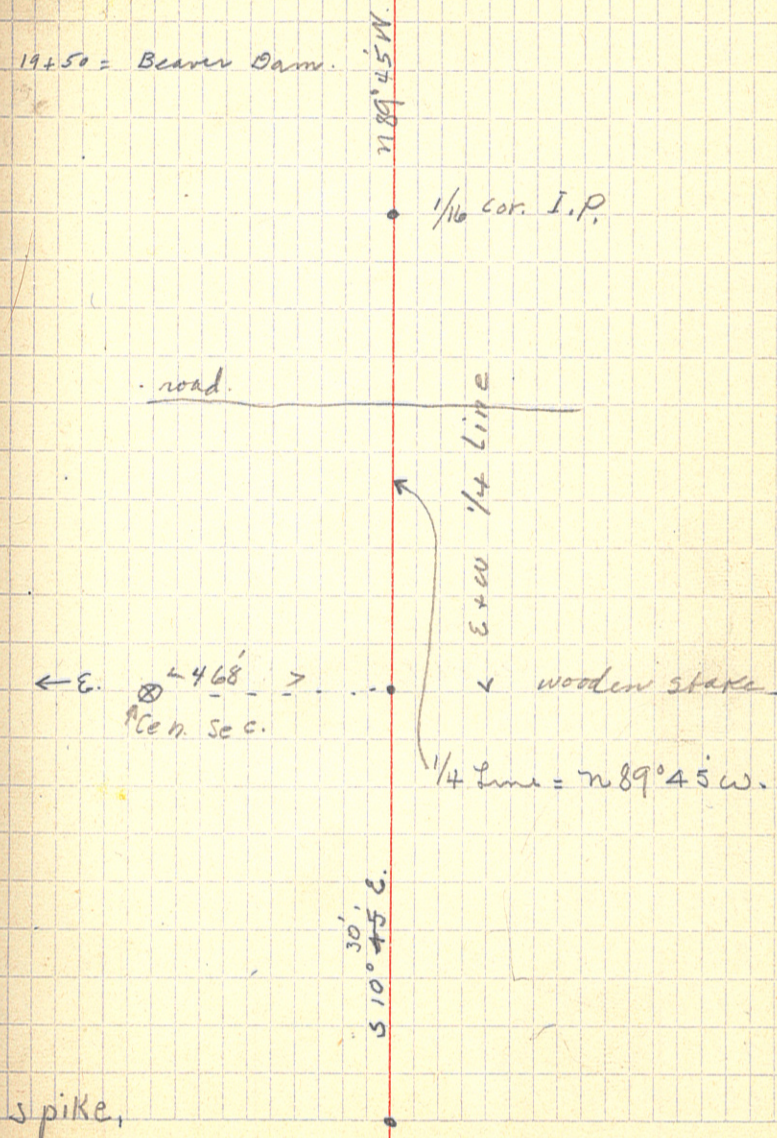
Run on E + W
 1/4 line. 800' E
 8732'

var. = 8° 30'

CO. DITCH No 3

C.J.W. 930-911 3/17/16

119



48+36.8 = 1/16 Cor.
42+30
1+068

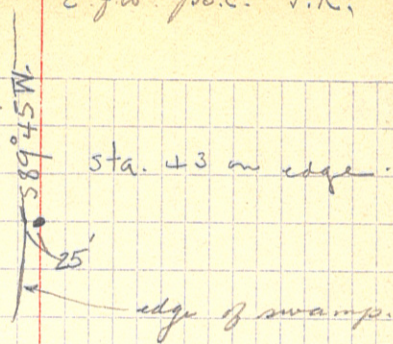
44		
43		
+30	△	90°00' R.
42		
41		
40		
39		
38		
37		
36		
35		
34		
33		
32		
31		
+09°	△	90°58' L.
30		
29		
28		
27		
26		
25	○	P.O.T.
24		
23		
22		

ROUTE No. 1 ↑

3/17/16

C.G.W. J.B.C. Y.R. 121

1/16 Cor. = 1068.5.



50° 15' E.


W 1/4 Cor. I.P.

spike.

68
67
66
65
64
63
62
61
60
59
58
57
56
+ 50
55
54
53
52
51
50
49
48
47
46
45

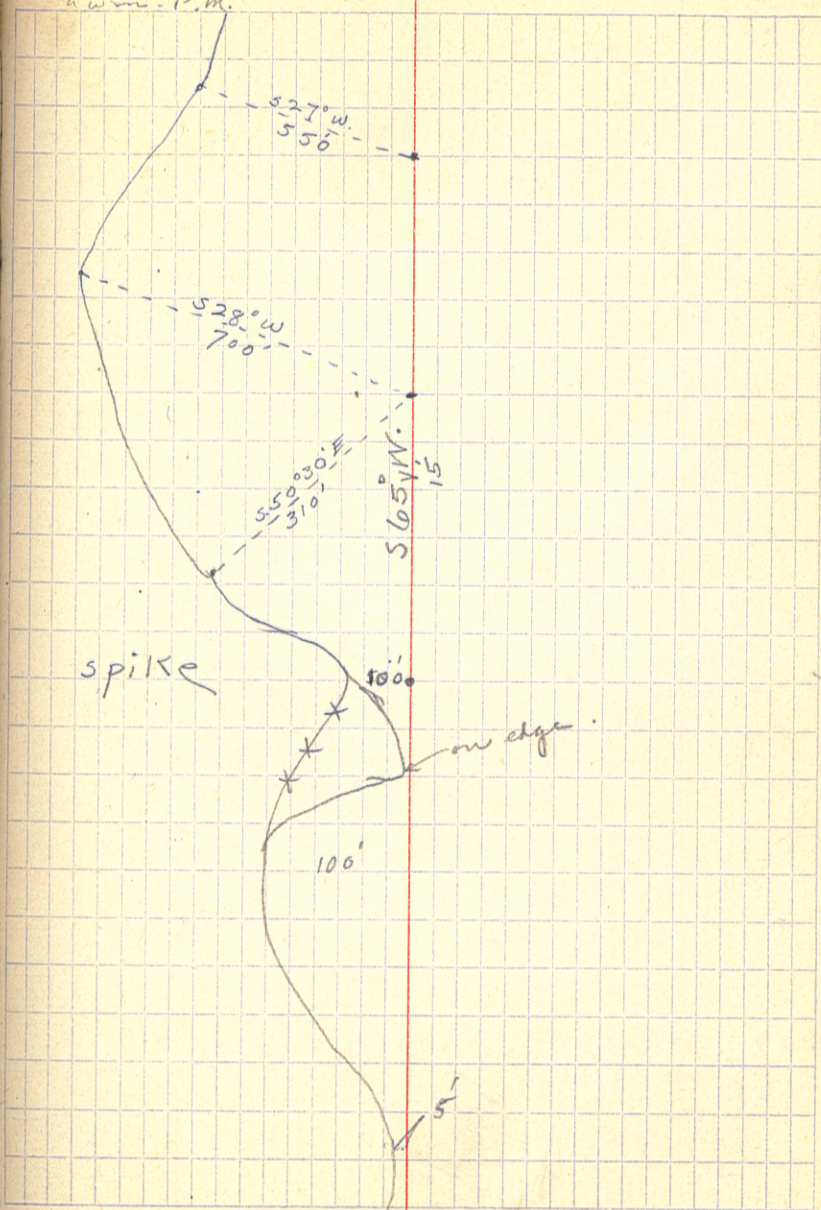
△ 24° 26' L.

ROUTE No. 1



white
crossman 3/17/16
Kline
a.w.m. - P.M.

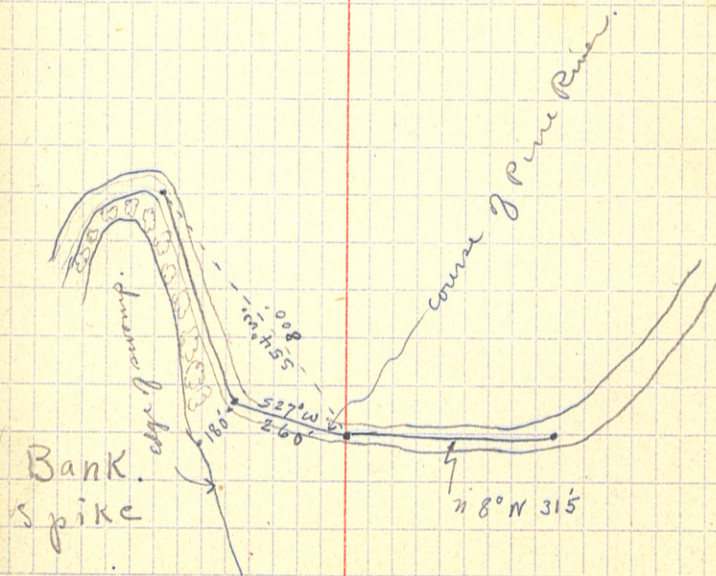
89° 45'
65° 00'
24° 45'



+70 middle of River.
 +40 End. o
 +25 o
 69

3/17/16.

cgw GK.
 gbc a.w.m. in P.M.



Route No. 2.

53

52

51

50

49

48

47

46

45

44

+29

△

90°00'L

43

42

41

40

39

38

37

36

35

34

33

32

31

30+09

△ 0°58'L.

Co. DITCH
cg.w. awm
gbc d.k.

No. 3. 3/18/16

4230
~~7009~~
1242
4329
~~5100~~

50°45'E.

approx 1/16 Cor.

599°15'W.

W 1/4 Sec. 6.

3/18/16

+50 Δ = 55 + 50 on Route No. 1.

55

54

Sta.	TRAVERSE	LINE.
	Brg.	Dist.
6-7	N 40° 30' W	476
J.	N 31° 15' W.	300
5-6	N 11° 15' E.	561
4-5	N 23° 15' E.	686
I.	N 46° 30' E.	515
H.	N 71° 15' E.	380
G.	S 68° 30' E.	265
F.	S 8° W.	428
E.	S 68° W	460
3-4	N 86° 45' E	506
2-3	S 2° 30' E.	471
1-2	S 34° 30' E.	214
00-1	S 18° W.	329
D. 4 th	S 56° W.	185
C. 3 rd	N 87° 45' W. S 69° 15' W.	250
B. 2 nd	N 83° 15' W.	415
A. 1 st	S 69° 15' W.	470
00	Traverse No 2.	

Continued on Page 40.

4-5.	N 25° 15' E.	244
3-4	N 9° 30' E.	353
3+95 ft.		
2-3	N 41° 30' E.	384
1-2	N 39° 15' E	611
00-1	S 88° 30' E.	406

Traverse No 1.

CO. DITCH No 3.

3/18/16

Plat from J to 7. 7 on edge.
Plat from 6 to J. (Bearing + distance to J. taken from 6.)

6 = on edge.

Sta. 5 = on edge.

Plat from I. to 5.

side shots from Sta 4.
Plat from 3 to E.

Sta. 4 = on small island lying N + S. 100 x 75

3 = on edge.

2 = on edge.

Sta. 1 = on edge. Plat from D to 1.

Note: Plat edge from point A. to D.
From C. to D. is across mouth of bay.
side shots from 00 to points on
W. edge of swamp. S. of Cemetery.
(Plat in order)

= Sta. 8 + 32' on ditch line.

Sta. 5 = Sta. 18 on ditch. Edge of swamp = at 1/16 Cor. East.
Edge = 100' R. Sta. 4. Ridge or Beaver dam = 40 L. 4.

Edge of swamp crosses to R.

Edge = 30' L. Sta. 3.

on edge.

Sta. 00 = S 1/16 Cor. on W. Line sec. 6.

→ Swamp edge = 100' L. Sta. 1.

Traverse entire swamp
just on E. edge of
Beaver dam

Sta.	Brg	Dist
------	-----	------

End of Traverse 702.

Q	S 4° 30' E	700
P	S 1° E	295
O	S 64° 30' W.	270
N	N 80° W.	175
8-9	S 89° W.	454
M	N 80° W.	305
L.	N 42° W.	255
K.	S 85° 30' E.	250
7-8	N 46° 15' W.	301

Remarks.

3/18/16

Connect Point Q with point C.
which closes the traverse.

} taken from sta. 9=00. Plat from ⁷⁵North
of 00 to N.

Plat from M to 75 N. 900.

9 = Sta. 00 on ditch. Edge = 75 N. of 00

taken from 8. Plat L to M.

taken from 8. plat 8 to L.

Bearing + dist. to K from 8. Plat from 7 to K +
from K to 8.

Page 40.
Sta. Bearing Dist.

14-15	n. 79° 30' W.	374
14+150		
13-14	S 76° W.	246
12-13	S 54° 15' W.	219
11-12	n 84° 45' W.	166
10-11	S 71° 30' W.	253
9-10	n 48° 15' W.	145
8-9	n 57° 30' W.	396
D	n 26° W.	170
7-8	n 46° 45' W.	436
6-7	n 42° 15' W.	531
C	n 29° 45' W.	370
B.	n 11° E.	270
A.	n 37° E.	430
5-6	n 29° 15' W.	361

Traverse No 1. Continued.
Remarks.

Edge = 30' L. 15
= Hay Road Running SW + NE.
14 = on edge.
13 = on edge.
Edge = 40' L. of 12
Sta. 11 = on edge.
Edge = 75' L. of Sta. 10
Plat D-9.
Taken from 8. Plat 8-D.
8 on edge.
Plat C-7. Top edge
Taken from 6. Plat B-C. C = end beaver dam.
Taken from 6. Plat A-B.
Taken from 6. Plat edge from 1/16 Cor. to A.
Sta. 6 = on Beaver Dam.

sta	+S	Levels H.I.	-S	0 n Rod.	E/v.
B.M.	6.83	1295.90			1289.07
T.P.	1.92	1293.27	4.55		1291.35
T.P.	2.73	1284.19	11.81		1281.46
B.M.			3.27		1280.92
00				5.0	79.2
1				4.9	79.3
2				5.0	79.2
3				5.4	78.8
4				5.4	78.8
5				5.2	79.0
6				5.4	78.8
7				5.5	78.7
8				5.4	78.8
T.P.	6.24	86.88	3.55		1280.64
9				8.4	78.5
10				8.5	78.4
11				8.4	78.5
12				8.6	78.3
+50				8.2	78.7
13				5.9	81.0
+30				5.9	81.0
+60				7.8	79.1
14				8.2	78.7
+60				8.0	78.9
15				6.5	80.4

CO. DITCH No 3 3/20/16
C.J.W. - J.B.C.
G.K.

B.M. on S.R.H. No 80. (changed to Govt Elev.)

spike
On Fence, post of Pig Pen: 25 R. 00

NOTE:-

From sta. 30+09
to 55+50 is by way
of Route 2.

} sta 8-9 = 67' long.

Road.

sta.	+S	H.I.	-S	Rod.	Elv.
+50		86.88		7.0	79.9
16				7.3	79.6
+30				7.8	79.1
17				8.0	78.9
B.M.	2.05	82.58	6.35		1280.53
18				4.9	77.7
19				4.9	77.7
+40				3.9	78.7
20				4.9	77.7
21				5.2	77.4
22				5.3	77.3
23				5.3	77.3
24				4.8	77.8
25				5.1	77.5
T.P.	4.92	82.57	4.93		77.65
26				5.0	77.6
27				4.8	77.8
28				5.3	77.3
29				5.0	77.6
B.M.			2.67		1279.90
30				5.1	77.5
31				5.2	77.4
32				5.4	77.2
33				5.1	77.5
34				5.5	77.1

Sp. in J.P. tree 10' L $\frac{1}{16}$ Cor.

sp. in 3" Tam. 5' L. 29+60

Sta	+S	H.I.	-S	Rod.	Elev.
		82.57			
T.P.	5.30	82.35	5.52		77.05
35				5.4	77.0
36				5.3	77.1
37				5.4	77.0
38				5.6	76.8
39				5.6	76.8
40				5.2	77.2
41				5.6	76.8
42				5.5	76.9
43				5.7	76.7
T.P.	4.83	81.95	5.23		77.12
B.M.			1.96		1279.99
44				5.2	76.8
45				5.2	76.8
46				4.7	77.3
47				5.1	76.9
48				5.2	76.8
49				4.9	77.1
T.P.	2.87	81.62	3.20		78.75
50				4.4	77.2
51				4.9	76.7
52				5.2	76.4
53				4.9	76.7
54				5.1	76.5

Sp. in 3" Tam. 40 W. 43+29.

Sta.	+S	H.I.	-S	Rod	E/V.
53		81.62			
55				5.0	76.6
B.M.	2.27	81.83	2.06		1279.56
+50				4.93	1276.90
56				5.3	76.5
57				5.5	76.3
58				6.0	75.8
59				6.2	75.6
60				6.7	75.1
61				6.8	75.0
62				6.9	74.9
63				6.7	75.1
T.P.	4.30	79.43	6.70		75.13
64				4.7	74.7
65				4.8	74.6
66				5.0	74.4
67				4.8	74.6
68				5.3	74.1
69				5.4	74.0
+39				5.7	73.7
				6.2	1273.2
B.M.			2.50		1274.93

sp. in $\frac{1}{4}$ Tam. 40' N-W 55+50
on Hub. spike.

Edge of Bank. Pine River.
On Ice.

8' water. Mud bottom.
sp. in Bushy Willow 30' L. End of line.

Sta.	Levels			on Rod.	Elv.
	+S	H.I.	-S		
+50	4.87	81.77			1276.90
55				5.0	76.8
54				5.0	76.8
53				5.2	76.6
52				5.2	76.6
51				5.0	76.8
50				4.9	76.9
49				5.2	76.6
T.P.	5.32	81.89	5.20		76.57
48				4.9	77.0
47				5.1	76.8
46				4.9	77.0
B.M.			1.52		1280.37
45				5.1	76.8
44				4.7	77.2
43				5.0	76.9
T.P.	4.80	82.21	4.48		77.41
42				5.3	76.9
41				5.2	77.0
40				5.0	77.2
39				5.1	77.1
38				5.0	77.2
37				5.2	77.0
36				5.2	77.0
35				4.9	77.3

Route No 1.

on Hub spike.

Sp. in J.P 20' L. 45 + 50

sta.	+S	H.I.	-S	Rod.	E/v.
		82.21			
34				5.2	77.0
T.P.	3.09	82.48	2.82		79.39
33				5.4	77.1
32				5.0	77.5
31				5.2	77.3
B.M.			2.51		1279.97

should be 1279.90

{ Rod Read. 5.45 at sta. 8+32ⁱ
 and up in Bay to S.E. Rod
 read. 5.50 showing swamp
 to be level. }
 - c.f.w.

1300
 904

 392

1300
 852

 448

99.11
 32.1

 67.9

5.52

 54.01
 00.81

1300
 790

 510

1300
 6.55

 6.45

1300
 120

 1180

1299.56
 1107.44

 192.12
 1096.95

 1289.07

1311.84
 2.77

 1314.61
 3.5

 1318.11

175

79.2
 77.4

 2.1

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.
 FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.