

4

150

25

W

150

25

W

150

25

150 N

25 W

FIELD BOOK
Sec. 34

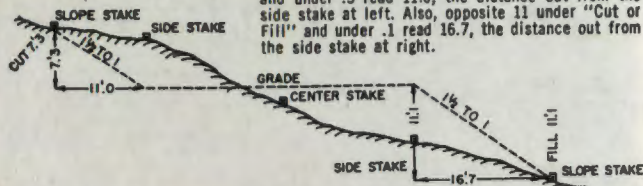
BOOK

#4

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



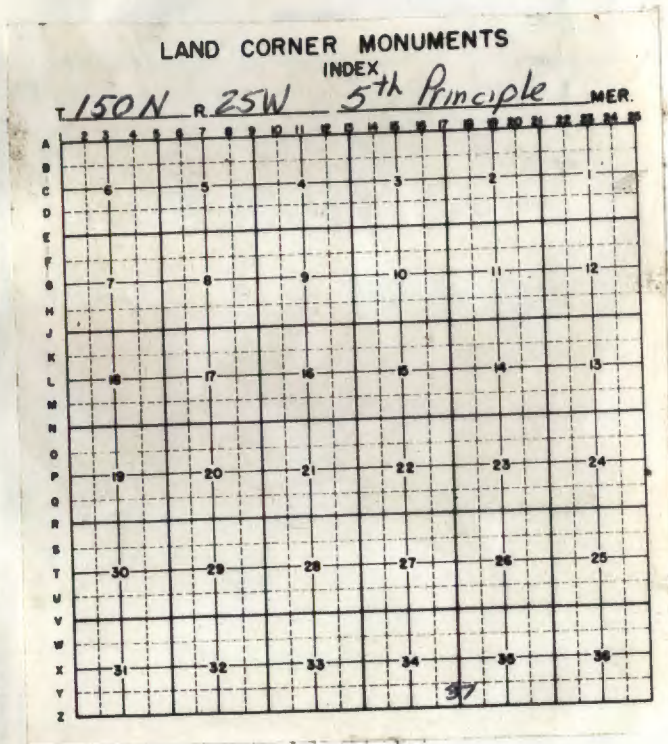
Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

Property of
 USDA Forest Service
 Deer River MN 56636



The paper in this book is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

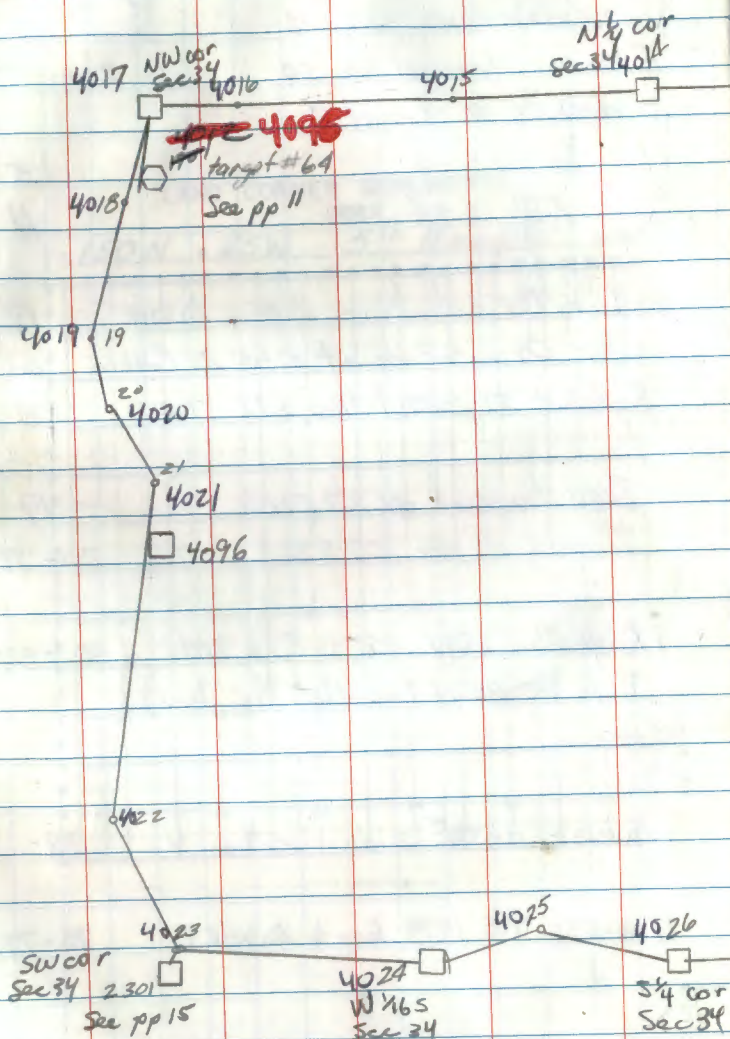
Index



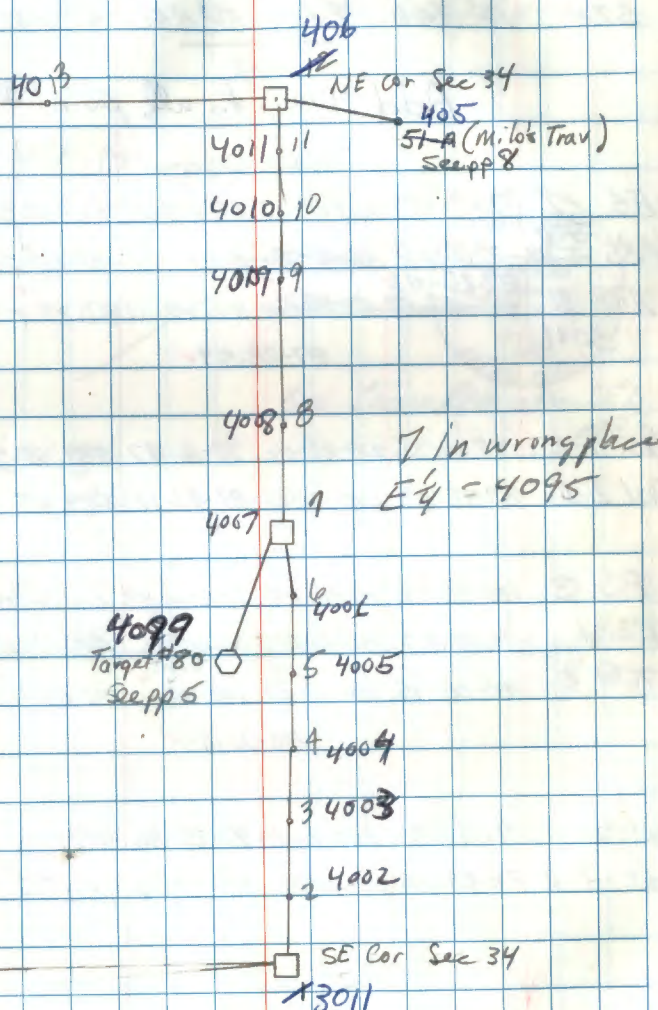
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Traverse on E side Section 4	38 -
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TRAVERSE DIAGRAM



OF SECTION 34



add 4000 to all point Nos.

TISON R25W Sec 34

Exterior traverse of sec 34

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H&D

Add 4000 to all point #s

See page 17

FS 2 87-29-03 267-29-03 87-29-17 267-29-08

~~BS 5 87-29-00-20 180-00-05 00-00-10 180-00-01~~~~TI @ 87-28-43 87-28-57 87-29-07 87-29-07~~

3011

87-28-59 ✓

Dist 1-2 90-16-35 269-43-02 90-16-47 589.68 589.67

Dist 2-1 89-46-59 270-12-37 89-47-11 589.65 589.64

FS 3 180-00-32 00-00-34 180-00-48 00-00-38

BS 1 00-00-27 180-00-27 00-00-36 180-00-26

TI @ 2 180-00-15 180-00-07 180-00-12 180-00-12

180-00-11.5 ✓

Dist. 2-3 91-35-20 268-24-09 91-35-36 454.25 454.07

Dist. 3-2 88-29-13 271-30-26 88-29-24 454.22 454.06

✓ OK CR 02/13/85

SUNNY Cold

PCT R M B. AUST

7-2 SN

G. Robertson

Ked 1A SN

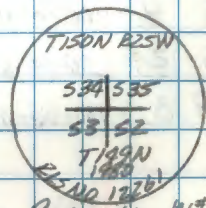
TEMP 15°F

BAR. 30.0

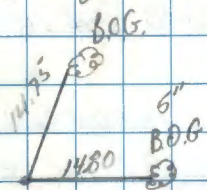
ECF = -3

STA 3011

STA 1 =

See Corner Restoration Bl' 2
pg 51

589.655 ✓



STA 2 = 60 d spike

454.065 ✓

TISON R25W Sec 34

Traverse cont'd from p. 2

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H4

FS 4 180-00-34 00-00-27 180-00-36 00-00-26

BS 2 00-00-28 180-00-19 00-00-26 180-00-18

T@ 3 180-00-06 180-00-08 180-00-10 180-00-06

180-00-08

Dist 3-4 88-43-04 271-16-45 88-43-10 442.12 442.01

Dist 4-3 91-23-35 268-35-00 91-23-48 442.10 441.97

FS 5 180-00-20 00-00-09 180-00-18 00-00-09

BS 3 00-00-15 180-00-12 00-00-18 180-00-15

T@ 4 180-00-05 179-59-57 180-00-00 179-59-54

179-59-59 ✓

Dist 4-5 89-50-35 270-09-04 89-50-46 640.64 640.64

Dist 5-4 90-12-25 269-47-17 90-12-34 640.63 640.63

✓ OK Plk 02/13/85

6" Ash
①
4" Ash
①
9.90
10.54

STA 3 = 60d spike

Feb, 7 1985

Clear cold, calm -15°F

PC @ G. Kosenko

B. Husk

G. Robertson

T-2 S/N
Redl S/N 4863

22.73

Balsam

726
① Ash

STA 4 =

640.632 ✓

4

TISON P25W Sec 34

Traverse cont'd from pg. 3

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H4

FS 6 179-47-21 359-47-18 179-47-23 359-47-13

BS 4 00-00-25 180-00-11 00-00-19 180-00-14

T@5 179-46-56 179-47-07 179-47-04 179-46-59

179-47-01.5

Dist 5-6 89-22-32 270-37-05 89-22-44 440.37 440.34

Dist 6-5 90-42-16 269-11-26 90-42-25 440.33 440.30

FS 7 173-36-13 353-36-08 173-36-12 353-36-07

BS 5 00-00-17 180-00-11 00-00-23 180-00-12

T@6 173-35-56 173-35-57 173-35-49 173-35-55

173-35-54.25

Dist 6-7 90-18-12 269-41-24 90-18-24 79.26 79.26

Dist 7-6 90-09-28 269-50-03 90-09-43 79.25 79.25

OK BA 2-13-85

2/7/85

4

10" Spruce

4" Ash



11.20' 11.73'

STA 5 = 60 d spike in
old trail

440.323 ✓

3" ash

8.94

STA 6 = 60 d spike

6" Elm

79.254 ✓

28-01-85

5

TISON R25W Sec 34

Traverse cont'd from pg 4

STA 1st HADsidelot to target by E 1/4 sec. 34

4099

FS ~~701~~ 38-31-50 218-31-37 38-31-44 218-31-42

BS 6 00-00-25 180-00-13 00-00-21 180-00-12

TO 7 38-31-25 38-31-24 38-31-23 38-31-30

38-31-25.5

4099

223.93 223.9267

7 to ~~201~~ 89-59-53 269-59-30 90-00-12 223.9381 188.25302FS 8 188-42-10 188-42-40⁵³ 188-42-04 188-42-50BS 6 00-00-17 180-00-08⁰² 00-00-19 180-00-02TO 7 188-42-53 188-42-40⁵¹ 188-42-45 188-42-43

188-42-49.25

Pit. 7-8 89-40-33 270-18-51 89-40-51 290.42 290.42

Dot. 8-7 90-26-49 269-33-04 90-26-52 290.42 290.41

OK BA 2-13-85

Feb 11, 1985

Clear, cold calm

PC to G. Kosenko

T-2 S/N 265184

TT G. Robertson

Red 1A S/N 4183

TT B. Mosk

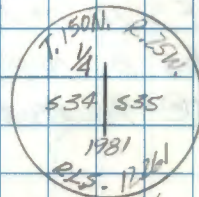
Temp +5° @ 10:00 AM

BPR = 30.1 ECF = -3

STA 701 = target

223.93 ✓

STA 75

Aluminum pipe with
aluminum cap

290.413 ✓

6

TISON R25W Sec 34

Traverse cont'd from pg 5.

STA	1 st H&D	2 nd H&R	3 rd H&D	4 th H&R
-----	---------------------	---------------------	---------------------	---------------------

H 4

FS	9	177-56-57	357-56-40	177-56-52	357-56-41
----	---	-----------	-----------	-----------	-----------

BS	7	00-00-24	180-00-20	00-00-31	180-00-24
----	---	----------	-----------	----------	-----------

TA@	8	177-56-27	177-56-20	177-56-21	177-56-17
-----	---	-----------	-----------	-----------	-----------

177-56-21.25

Dist 8-9	87-55-32	220-03-58	89-55-47	636.57	636.57
----------	----------	-----------	----------	--------	--------

Dist 9-8	90-07-25	69-51-52	90-07-47	636.54	636.54
----------	----------	----------	----------	--------	--------

FS 10	179-58-53	359-58-42	179-58-47	359-58-39
-------	-----------	-----------	-----------	-----------

BS 8	00-00-18	180-00-05	00-00-10	180-00-00
------	----------	-----------	----------	-----------

TA@ 9	179-58-35	179-58-37	179-58-37	179-58-39
-------	-----------	-----------	-----------	-----------

179-58-37

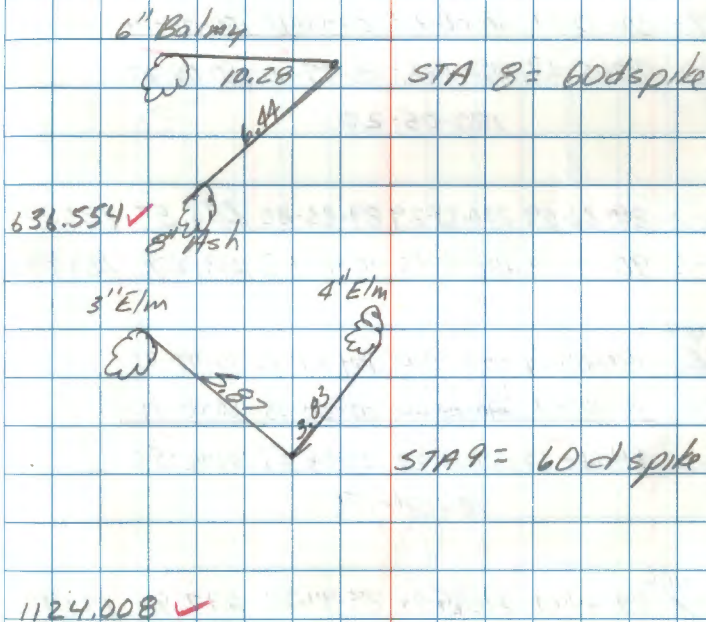
Dist 9-10	89-54-04	270-05-31	89-54-17	1124.02	1124.02
-----------	----------	-----------	----------	---------	---------

Dist 10-9	90-07-35	269-51-56	90-07-49	1124.00	1124.00
-----------	----------	-----------	----------	---------	---------

OK BR 2-13-85

Feb 11, 1985

6



OK BR 2-13-85

7

TISON R25W Sec 34

Traverse capt'd from pg 6.

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

HA

FS 11 180-05-38 00-05-27 180-05-31 00-05-26

BS 9 00-00-21 180-00-06 00-00-11 180-00-04

T@10 180-05-17 180-05-21 180-05-20 180-05-22

180-05-20

Dist 10-11 89-26-09 270-33-29 89-26-20 283.87 283.86

Dist 11-10 90-41-23 269-18-13 90-41-35 283.87 283.85

406
FS 12 184-07-14 04-07-00 184-07-15 04-07-01BS 10 00-00-21 180-00-06
270-15-06 00-00-18 180-00-11

T@11 184-06-53 184-06-54 184-06-57 184-06-50

184-06-58.5

406
Dist 11-12 89-44-21 270-15-06 89-44-38 297.98 297.98

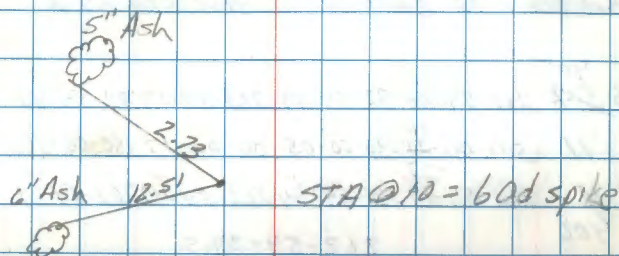
Dist 12-11 90-22-36 269-36-53 90-22-52 297.98 297.97

406

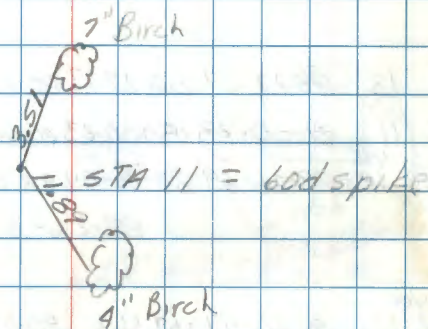
OK BA 2-13-85

Feb 11, 1985

7



283.853 ✓



297.975 ✓

OK BA 2-13-85

8

TISON R25W Sec 34

Traverse cont'd from pg 7

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H&R

Sideshot to control traverse sta 51-A

405	53				
FS 51A	262.54.50	82.54.39	262.54.59	82.54.47	

BS 11	00.00.21	180.00.05	00.00.17	180.00.10	
-------	----------	-----------	----------	-----------	--

T@ 12	262.54.29	262.54.34	262.54.42	262.54.37	
-------	-----------	-----------	-----------	-----------	--

406

262.54.37.5

406	406			286.985	286.994
DIST. 51A	89.39.14	270.20.20	89.39.27	286.99 F	87.476 M

286.990 ✓

FS 13	88.27.27	268.27.17	88.27.30	268.27.21	
-------	----------	-----------	----------	-----------	--

BS 11	00.00.28	180.00.23	00.00.29	180.00.30	
-------	----------	-----------	----------	-----------	--

T@ 12	88.26.59	88.26.54	88.27.01	88.26.51	
-------	----------	----------	----------	----------	--

88.26-56.25

406					
DIST 12-13	90.02.49	269.56.47	90.03.01	1184.52	1184.52

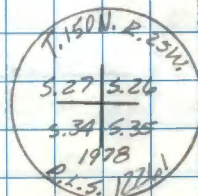
DIST 13-12	89.58.50	270.00.48	89.59.01	1184.53	1184.53
------------	----------	-----------	----------	---------	---------

1184.525 ✓

OK BA 2-13-85

Feb 11, 1985

8

405
STA 51A = Nail406
STA 12 =

2 1/2" O.D. I.P.W. BC

28 31 2 35 40

TISON R25W Sec 34

Traverse cont'd from pg. 8

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H&R

FS 14 179-58-15 359-58-05 179-58-08 359-57-59

BS ⁴⁰ 00-00-18 180-01-00 00-00-09 180-00-01

TD 13 179-57-57 179-58-05 179-57-59 179-57-58

179-58-59.75

Dist 13-14 90-01-20 269-58-10 90-01-35 1467.97 1467.97

Dist 14-13 89-59-32 269-59-55 89-59-49 1467.96 1467.96

FS 15 180-15-35 00-15-27 180-15-29 00-15-25

BS 13 00-00-26 180-00-15 00-00-23 180-00-17

TD 14 180-15-09 180-15-12 180-15-06 180-15-08

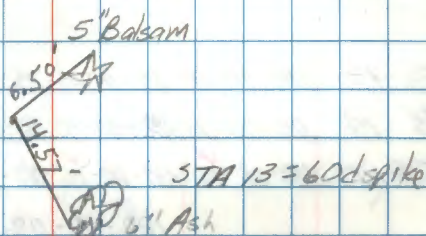
180-15-08.75

Dist 14-15 90-11-10 269-48-24 90-11-23 1048.50 1048.49

Dist 15-14 89-50-26 270-08-59 89-50-44 1048.49 1048.49

OK BA 2-13-85

Feb 11, 1985

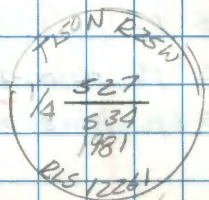


1467.965 ✓

BPR = 30.0 ECF = 3 Feb 12, 1985

Temp = 0° @ 10:00 AM same crew as yesterday

STA 14-



Aluminum cap on aluminum

1048.490 ✓

1115 48 49

10 TISON R25W Sec 34

Traverse cont'd from pg 9

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H &

FS 16 180-00-20 00-00-15 180-00-30 00-00-21

BS 14 00-00-18 180-00-10 00-00-18 180-00-10

T@ 15 180-00-02 180-00-05 180-00-12 180-00-11

180-00-07.5

Dist 15-16 90-25-41 269-34-02 90-25-50 1173.42 1173.37

Dist 16-15 89-35-30 270-24-08 89-35-41 1173.42 1173.39

FS 17 180-23-30 360-23-18 180-23-32 360-23-24

BS 15 00-00-21 ¹⁸⁰⁻⁰⁰⁻¹⁰ 270-09-44 00-00-22 180-00-15

T@ 16 180-23-09 180-23-08 180-23-10 180-23-09

180-23-09

Dst 16-17 87-47-28 270-09-44 89-49-52 425.38 425.38

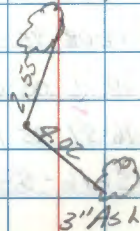
Dst 17-16 90-15-09 269-44-24 90-15-23 425.38 425.38

OK BA 2-13-85

Feb 12, 1985

10

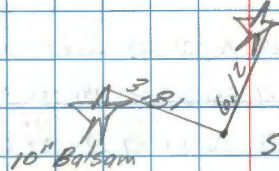
12" Balsam



STA 15 = 60d spike

1173.389 ✓

6" Balsam



STA 16 = 60d spike

425.377 ✓

OK BA 2-13-85

11 TISON R25N Sec 34

Traverse cont'd from pg 10

STA 1st H&D 2nd H&D 3rd H&D 4th H&D

H&D

Screenshot to Target by NW corner sec 34

4012
 FS ~~17~~ 95-17-16 275-17-08 95-17-¹³~~08~~ 275-17-10
 BS 16 00-00-15 180-00-11 00-00-¹⁶~~18~~ 180-00-12
 TP@ 17 95-17-01 95-16-57 95-16-⁵⁷~~47~~ 95-16-58
 . 95-16-58.25

4012
 Dist 17-~~17~~ 91-20-40 268-38-53 91-20-53 129.544 129.520
 129.557 ✓ 32493 m

FS 18 96-01-35 276-01-20 96-01-29 276-01-¹⁸~~35~~
 BS 16 00-00-23 186-00-14 00-00-25 180-00-15
 TP@ 17 96-01-12 96-01-06 96-01-04 96-⁰¹~~08~~-03
 96-01-06.25

Dist 17-18 90-32-05 269-27-13 90-32-26 490.81 490.79
 Dist 18-17 89-31-49 276-27-47 89-32-01 490.82 490.80

OK-BA 2-13-85

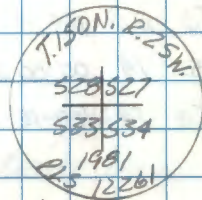
Feb 12, 1985

11

4012
 STA ~~17~~ = target # 64

129.557 ✓

STA 17 =



Alum pipe w/ alum cap

490.796 ✓

12

T150 N R25W Sec 34

Traverse cont'd from pg 11

STA 1st H&R 2nd H&R 3rd H&R 4th H&R

H&R

FS 19 200-44-47 200-44-42 200-44-51 200-44-46

BS 17 00-00-23 180-00-12 00-00-19 180-00-17

T@ 18 200-44-24 200-44-30 200-44-32 200-44-29

200-44-28.75

Dist 18-19 90-23-59 269-35-35 90-24-12 519.44 519.43

Dist 19-18 89-39-51 270-19-45 89-40-03 519.44 519.43

FS 20 169-13-05 349-12-55 169-13-03 349-12-49

BS 18 00-00-27 180-00-13 00-00-19 180-00-11

T@ 19 169-12-38 169-12-42 169-12-44 169-12-38

169-12-40.5

Dist 19-20 ⁹⁰⁻²¹⁻⁵¹ ~~89-39-51~~ 269-37-45 90-22-03 475.86 475.85

Dist 20-19 89-42-14 270-17-03 89-42-36 475.86 475.85

OK-BA 2-13-85

Feb 12, 1985

12

STA 18 = 60d spike on
Beaver Dam

519.429 ✓

STA 19 = 60d spike
another Beaver Dam

475.852

13 TISON R25W Sec 34

Traverse cont'd from pg 12

STA 1st H40 2nd H4R 3rd H40 4th H4R

HA

FS 21 107-59-51 287-59-40 107-59-45 287-59-45

BS 19 00-00-26 180-00-19 00-00-29 180-00-22

T@ 20 107-59-25 107-59-23 107-59-21 107-59-23

107° 59' 23" ✓

Dist 20-21 89-43-35 270-22-47 89-40-24 578.84 578.831

Dist 21-20 90-19-44 269-39-30 90-29-07 578.87 578.860

FS 22 241-52-11 61-51-58 241-52-09 61-51-37

BS 20 00-00-20 180-00-13 00-00-21 180-00-08

T@ 21 241-51-51 241-51-45 241-51-48 241-51-49

241° 51' 48" 25 ✓

Dist 21-22 90-06-44 269-52-44 90-07-00 2508.47 2508.465

Dist 22-21 89-53-44 270-05-40 89-54-02 2508.50 2508.496

MAR 31/85

Feb 14, 1985

13

Clear cold, calm

PC TTR B. Kosento

T-2 SN 265184 W K. Whitcomb

Red-A SN 4863 W G. Robertson

BPR=29.8 ELF=-3

Temp = ^{+5°}@ 9:45 AM

STA 20 = 60d spike

578.845 ✓

4" Balmy



9.35



18" spray

STA 21 = 60d spike

North side Bigfork River

2508.480 ✓

14

TISON R25W Sec 34

Traverse cont'd from pg 13

STA 1st HAD 2nd HAD 3rd HAD 4th HAD

HX

FS 23 148-07-22 323-07-05 148-07-09 323-07-06

BS 21 00-00-30 180-00-21 00-00-24 180-00-17

TQ 22 148-16-52 148-06-44 148-06-45 148-06-49

148° 06' 48.5"

Dist 22-23 89-42-43 270-16-47 89-42-58 1076.89 1076.876

Dist 23-22 90-18-55 269-40-38 90-19-09 1096.87 1096.853

FS 24 118-29-34 298-29-22 118-27-³¹27 298-29-17BS 22 00-00-19 180-00-05 00-00-²¹26 180-00-03TQ 23 118-29-15 118-29-17 118-29-¹⁰10 118-29-14

118° 29' 14"

Dist 23-24 89-56-13 270-03-21 89-56-26 1331.44 1331.439

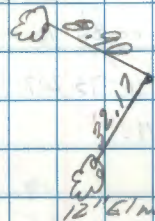
Dist 24-23 90-05-12 269-54-24 90-05-24 1331.45 1331.448

148-35-185

Feb 14, 1985

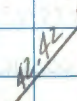
14

2" B of G

STA 22 = bad spike
South side Bigfork River

1096.865

Power Pole

STA 23 = PK nail in
north shoulderSection
See next pg

1331.444

15 TISON R25W Sec 34

Trav cont'd from pg 14

STA 1st H&R 2nd H&R 3rd H&R 4th H&R

H&R

Sketch to SW corner sec 34

FS 2301 207-11-53 27-11-37 207-11-44 27-11-34

BS 22 00-00-19 180-00-05 00-00-26 180-00-03

TA@ 23 207-11-34 207-11-32 207-11-15 207-11-31

• 207°11'30.75" ✓

19.940 meters

Dist 23-239 94-05-57 265-53-30 94-06-14 65.42 ft

FS 25 175-17-09 355-16-53 175-17-08 355-16-57

BS 23 00-00-49 179-59-59 00-00-01 179-59-47

TA@ 24 174-16-49 174-17-03 175-17-07 175-11-10

175°17'06.75" ✓

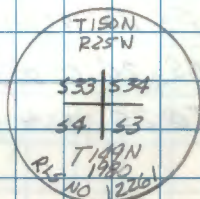
Dist 24-25 89-32-00 270-27-33 89-32-13 645.97 645.949

Dist 25-24 90-30-57 269-28-25 90-31-16 645.98 645.953

✓ W.P. 3/15/85

Feb 14, 1985

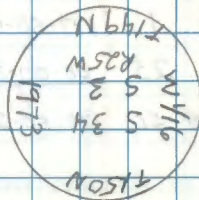
15



STA 2301 =

Aluminum pipe w/ Alum cap
south side of Highway

65.252 ft



STA 24 =

645.951

16 T150N R25W Sec 34

Traverse cont'd from pg 15

STA 1st H&D 2nd H&D 3rd H&D 4th H&D

H&D

FS 26 183-41-10⁰⁵ 183-41-05⁶⁵ 183-41-05⁶⁵ 183-41-05⁶⁵

BS 24 00-00-17²² 180-00-15 00-00-18 180-00-08

T @ 25 183-40-55⁴³ 183-40-36 183-40-47 183-40-44⁴⁶

183-40-42.5

Dist 25-26 90-08-05 269-57-17 90-08-24 686.42 686.418

Dist 26-25 89-54-33 19²⁷⁰ 04-53 89-54-50 686.40 686.399

FS 1 177-50-48 357-50-32 177-50-42 357-50-30

BS 25 00-00-21 180-00-06 00-00-08 270¹⁸⁰⁻⁰⁰ 0-00

@ 26 177-50-27 177-50-26 177-50-34 177-50-30

177°50'29.25"

Dist 26-1 89-55-48 270-03-55 89-55-57 2625.41 2625.408

Dist 1-26 89-54-30 270-04-52 89-54-49 2625.40 2625.397

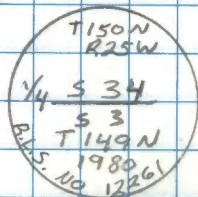
✓ 1/10 3/5/1985

Feb 14, 1985

16

STA 25 = PK nail on S. side
of highway

686.409



STA 26 =

aluminum cap

2625.403

TISON R25W Sec 34

Traverse continued from pp 16 "

STA 1st H+D 2nd H+R 3rd H+D 4th H+R

FS 2 87-29-29 267-29-22 87-29-35 267-29-25

BS 26 00-00-16 190-00-06 05-00-16 180-00-05

T3 87-29-13 87-29-16 87-29-19 87-29-20

3011

87° 29' 17"

END OF TRAVERSE

Go to pp 2 This Book

1/11/25/85

3011

STA 1 = Sec Corner

See pp 2 this book

Solar Orientation NGS Sta
Wirt to E 1/4 cor. Sec 31

Feb 27, 1985

reset PK nail at E 1/4 corner
from 3 tie trees





SWIRT Lat: $47^{\circ} 46' 04.9941''$

Long: $93^{\circ} 52' 58.9863''$

UT1 - UTC = -0.2 Sec

HP 41 Time module 0.31 sec Fast

compared WWV via phone (double Tick 9:10.40)

	Horiz \times	CST Clock Time
AT@Wirt		
BS	0-00-30	
 D	326-49-42	9:45:44.64
 R	146-58-15	9:46:20.68
BS	180-00-39	
MEAN	326-53-24.0	9:46:02.66
BS	0-00-34	
 D	327-23-45	9:48:07.62
 R	147-31-48	9:48:41.71
BS	180-00-45	
MEAN	327-27-07.0	9:48:24.67

Feb 27, 1985

Gunny/Light Breeze

T J. Allison

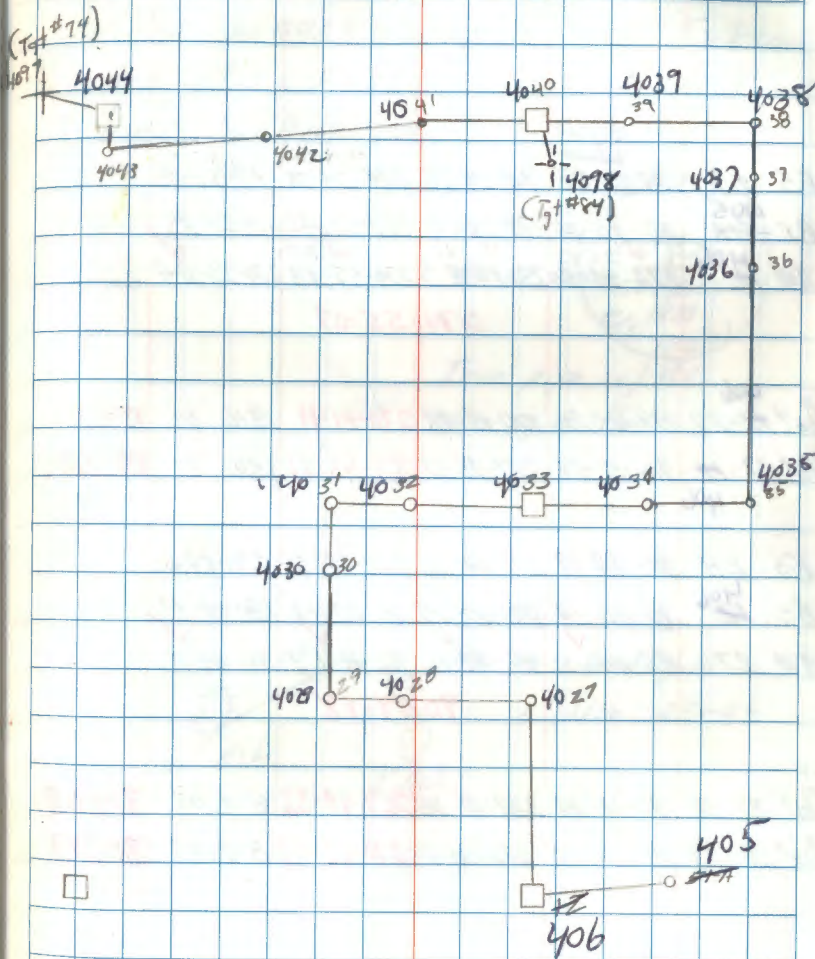
M K. Whitehorn

Cold - 0° F

TIMER G. BRAMA

ϕ C. Krause

	Horiz \times	CST Clock Time
AT@WIRT		
BS	0-00-37	
 D	327-54-13	9:50:14.20
 R	148-02-41	9:50:50.52
BS	180-00-46	
Mean	327-57-45.5	9:50:32.36
BS	0-00-42	
 D	328-23-15	9:52:15.69
 R	148-33-04	9:52:56.68
BS	180-00-49	
Mean	328-27-24.0	9:52:36.19



20 T. 150N R. 25W Sec 27 Sub

Traverse for section 27

STA 1st 400 2nd 400 3rd 400 4th 400

400

FS 27 ⁵⁵⁻⁰³ ~~274-55-00~~ 94-54-55 ⁵² 274-54-54 74-54-49

BS STA ⁴⁰⁵ ~~00-00-00~~ 179-58-42 357-59-45 179-59-45

TO ⁴⁰⁶ ~~274-55-00~~ ⁵⁵⁻⁰³ 274-55-03 ⁰⁷ 274-55-07 274-55-04

274-55-07

⁴⁰⁶ Dist 12-27 89-45-26 270-13-48 270-14-11 1316.02 1316.01

Dist 27-12 ⁴⁰⁶ 90-15-55 269-43-37 269-43-51 1316.01 1316.00

FS 28 90-44-49 270-44-30 90-44-33 270-44-32

BS ⁴⁰⁶ ~~00-00-34~~ 180-00-19 00-00-19 180-00-11

TO 27 90-44-15 90-44-16 90-44-19 90-44-21

90-44-18

Dist 27-28 90-11-04 269-48-08 269-48-32 814.08 814.08

Dist 28-27 89-50-59 270-08-33 270-08-47 814.07 814.07

JRR 2/27/85

Feb 20, 1985

Clear, warm, windy

T-2 SIN 265184

PG T T T G. Kosenko

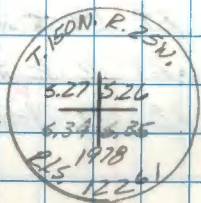
Red 1A s/w 4863

Aides J. Jackson

BPR=29.3 ELF=0

B. Ausk

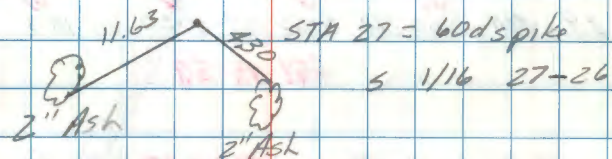
Temp = 30°F @ 10:00 AM



STA 12 =

Iron pipe w/ B.C.
See pg 8 this book

1316.00



814.07

21 TISON R25W Sec 27 Sub

Traverse cont'd from pg 20

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H&A

FS 29 180-00-13 00-00-07 180-00-06 00-00-05

BS 27 00-00-15 180-00-07 00-00-10 180-00-10

TP 28 179-59-58 180-00-00 179-59-56 179-59-55

179-59-57

Dist 28-29 90-13-36 269-45-47 269-46-06 511.97 511.97

Dist 29-28 89-44-38 270-14-35 270-14-54 511.97 511.97

FS 30 269-19-07 89-18-55 269-18-57 89-18-47

BS 28 00-00-17 180-00-02 00-00-07 180-00-02

TP 29 269-18-50 269-18-53 269-18-50 269-18-47

269-18-50

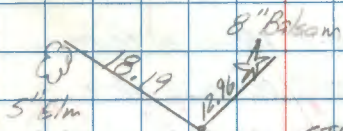
Dist 29-30 89-44-38 270-09-20 89-47-39 887.32 887.31

Dist 30-29 90-16-58 269-42-23 90-17-18 887.37 887.36

VJK 2/15/85

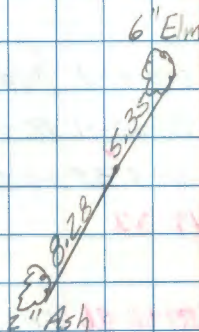
Feb 20, 1985

21



STA 28 = 60d spike

511.97



STA 29 = 60d spike

SE 1/16

887.34

22

TISON R2SW Sec. 27 Sub

Traverse cont'd from pg 21

STA 1st H&D 2nd H&D 3rd H&D 4th H&D

H4

FS 31 180-00-17 00-00-07 180-00-20 00-00-12

BS 29 00-00-29 180-00-19 00-00-26 180-00-18

T@ 30 179-59-57 179-59-48 179-59-54 179-59-56

119-59-53

Dist 29-31 90-08-32 269-50-41 90-08-56 431.12 431.12

Dist 31-30 89-54-41 270-04-41 89-54-57 431.16 431.16

FS 32 270-47-50 90-47-38 270-47-46 90-47-36

BS 30 00-00-15 180-00-07 00-00-11 180-00-06

T@ 31 270-47-35 270-47-31 270-47-35 270-47-30

270-47-33

Dist 31-32 ~~89-42-03~~ 270-17-16 89-42-26 583.88 583.87

Dist 32-31 90-21-02 269-38-15 90-21-24 583.88 583.87

JWR 3/5/95

22

Feb 21, 1985

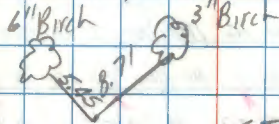
Cloudy, warm, calm

T-2 SPI 265184 PC to T T G. Koenig

Roll A S/N 4863 Aides - J. Jackson

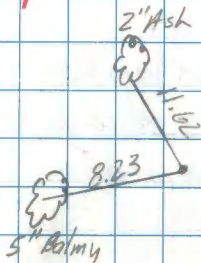
BPR = 29.4 ECF = -1 - G. Schultz

Temp = 33°F @ 9:00 AM



STA 30 = 60d spike

431.14



STA 31 = 60d spike

CE 1/16 corner

Approx

583.87

23 TISON R25W Sec 27 Sub

Traverse cont'd from pg 22

STA 1st H&R 2nd H&R 3rd H&R 4th H&R

H&R

FS 33 180-00-18 00-00-14 180-00-15 00-00-08

BS 31 00-00-20 180-00-15 00-00-19 180-00-14

PI 32 179-59-58 179-59-59 179-59-56 179-59-54

∴ 179-59-57

Dist 32-33 89-56-32 270-02-57 89-56-47 741.16 741.16

Dist 33-32 90-05-59 269-53-29 90-06-15 741.16 741.16

FS 34 183-08-41 03-08-28 183-08-38 03-08-27

BS 32 00-00-26 180-00-18 00-00-30 180-00-19

PI 33 183-08-15 183-08-10 183-08-08 183-08-08

183-08-10

Dist 33-34 ~~89-36-23~~ 270-22-57 89-36-43 624.56 624.55

Dist 34-33 90-26-31 269-33-00 90-26-45 624.56 624.54

✓ H&R 3/5/85

Feb 21, 1985

23

8" Balsam

2.99

STA 32 = 60d spike

5" Balsam

741.16

5" Balsam

21.76

STA 33 = 60d spike

1/4 26 - 27

6" Balsam

624.54

24 TISON P35W Sec 27 Sub

Traverse, cont'd from pg. 23

STN 1st HAD 2nd HAD 3rd HAD 4th HAD

H X

FS 35 180-00-07 00-00-00 180-00-06 359-59-53

BS 33 00-00-17 180-00-05 00-00-14 180-00-00

TO 34 179-59-50 179-59-59 179-59-52 179-59-50

179-59-52

Dist 34-35 90-47-22 267-11-53 90-47-44 1698.64 698.57

Dist ~~34-34~~ 89-¹⁵⁻¹⁸~~17-19~~ 270-04-12 89-15-33 1698.61 698.55

FS 36 86-04-30 266-04-17 86-04-25 266-04-13

BS 34 00-00-21 180-00-06 00-00-15 180-00-05

TO 35 86-04-09 86-04-11 86-04-10 86-04-08

86-04-10

Dist ~~34-35~~ ³⁵⁻³⁶ 89-04-39 270-14-44 89-04-58 1631.66 1631.64

Dist 36-35 90-16-26 269-45-05 90-16-40 1631.66 1631.64

JXR 3/5/85

24

Feb 22, 1985

P.C. # 6. Kanko

TT G. Robertson

Artes B. Ausk

Cus. Schutte

D. Ojman

T-2 SW 265184

Roll A 4863

BPR = 29.5 CF = -1

Temp = 30°F @ 9:00 AM

4" Ash

2.15

9.97

8" Balsam

STA 34 = 60d spike

698.56

12.17

5.18

STA 35 = 60d spike

CW 1/16 Sec 26

8" Palmy

4" Birch

1631.64

25

T150N R25W Sec 27

Traverse cont'd from pg 24

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H&R

FS 37 180-00-28 00-00-10 180-00-29 00-00-14

BS 35 180-00-30 180-00-21 00-00-29 180-00-18

TQ 36 179-59-58 179-59-49 179-59-56 179-59-56

179-59-55

Dist 36-37 89-28-38 270-30-42 ~~89-28-56~~ 578.12 578.10

Dist 37-36 90-35-28 269-24-00 90-35-44 578.18 578.15

FS 38 180-00-55 00-00-31 180-00-54 00-00-45

BS 36 00-00-30 180-00-23 00-00-35 180-00-24

TQ 37 180-00-25 180-00-18 180-00-19 180-00-21

180-00-21

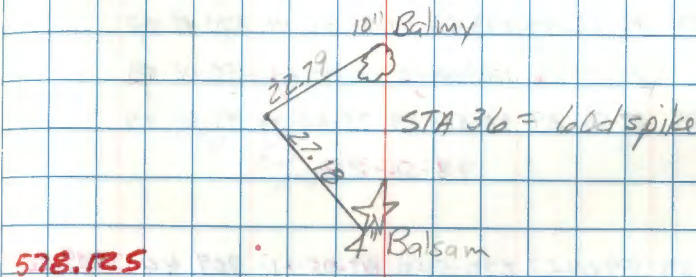
Dist 37-38 90-20-52 269-38-35 90-21-09 421.82 421.81

Dist 38-37 89-43-48 270-15-37 89-44-06 421.81 421.81

CK-BA 3-8-85

25

Feb 22, 1985



578.125

6" ASPEN

Feb 26, 1985

6.80

E

STA 37 = 60d spike

7.46

E

8" H&R

B. AUST

J. JACKSON

K. ZIMMERMAN

421.81

T-2 SN/ 265184

Red 1A 4863

BPR 29.5

TEMP 25°K

EEF-1

26

TISON R25W Sec 27

Traverse, cont'd from pg. 25

STA 1st HSD 2nd HSD 3rd HSD 4th HSD

HA

FS 39 93-56-47 273-56-39 93-56-46 273-56-37

BS 37 00-00-18 180-00-10 00-00-22 180-00-08

T@ 38 93-56-29 93-56-29 93-56-24 93-56-29

93-56-28

Dist. 38-39 89-04-57 270-54-36 89-05-11 909.44 909.32

Dist. 39-38 90-57-02 269-02-28 90-57-17 909.44 909.31

FS 40 179-32-27 359-32-19 179-32-29 359-32-17

AS 38 00-00-16 180-00-02 00-00-12 180-00-01

T@ 39 179-32-11 179-32-17 179-32-17 179-32-16

179-32-15

Dist. 39-40 90-04-21 269-55-05 90-04-38 414.58 414.58

Dist. 40-39 90-00-38 269-58-58 90-00-53 414.58 414.58

CK BA 3/8/85

26

MAR. 6, 1985

9.59 6" Ash

Approx N 1/4

STA 38 = 60d spike

17.32

6" Ash

909.32

MAR. 7, 1985

B. AUSK

J JACKSON

K. ZIMMERMAN

SAME Inst.

BPR 29.5

TEMP 30°F

ECF = -1

*

*

-5.50

3.66

STA 39 = 60d spike

414.58

27

TISON R25W SEC 27

TRAVERSE CONT FROM Pg 26
 STA 1st H&R 2nd H&R 3rd H&R 4th H&R
 H&R

FS Target 79-32-03 259-31-49 79-31-55 259-81-43

BS 39 00-00-19 180-00-00 00-00-07 179-59-55

TP 40 79-31-44 79-31-49 79-31-48 79-31-48
 79-31-47

(4098)

Dist. 40-TAK9 89-43-35 270-16-02 89-43-47 238.86 238.86

Dist. ~~_____~~

FS 41 176-23-21 356-23-18 176-23-34 356-23-21

BS 39 00-00-29 180-00-12 00-00-29 180-00-12

TP 40 176-23-17 176-23-06 179-23-05 176-23-09
 176-23-07

Dist. 40-41 90-05-29 269-54-14 90-05-38 724.26 724.26

Dist. 41-40 89-56-54 270-02-35 89-57-09 724.24 724.24

✓ H&R 3/22/85

March 11, 85 27

T2 SN/ 265184

REA TASN/ 4863

Temp = 35°

BPR = 29.5

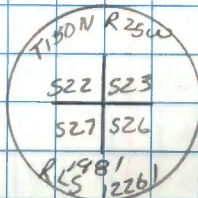
ECF = -1

B. Auck

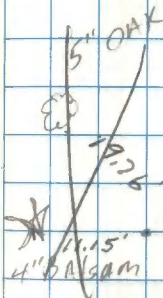
G. Robertson

G. Shultz

STA 4040 =



4098 = Target # 84



SAME

STA 40 = 60 d spike

724.25

29 TISON R25W Sec 34 MC#13

Angle at Sta 2 to set MC201 So.
shore of Bigfork River E Line of Sec 34

STA 1stH&D 2ndH&R 3rdH&D 4thH&R
H&R

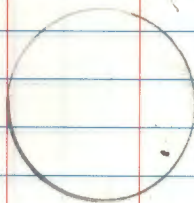
4201
FS MC201 181-42-23 01-42-30

BS 3211 00-00-28 18-00-37

TC 2 181-41-55 181-41-54

4002 181-41-54

Dist. 103.02



See Bk 1 Pg 19

3/8/85

partly cloudy, 30°F

29

G. Robertson

G. Shultz

K. Zimmerman

Wild T2 # 265184

18.07

6" Balmy

17.85

24" Balmy

30

TISON R25W Sec 24

Angle at sta 3 to set MC301 No.
shore of Bigfork River

STA 1st H&D 2nd H&R 3rd H&D 4th H&R
HA

FS MC301 352-55-29 174-52-58 352-55-29 172-56-06

BS MC201 00-00-06 171-57-53 00-00-21 180-00-12

$\pi @ 3$ 352-55-23 3 05 352-55-50 352-55-48

Dist 54.42

Ash , , ,
Ash , , ,

3/8/85

same instruments

30

screw as previous
page

5' ash

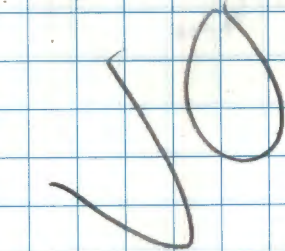
5' ash

0

0

44.72

65.00



Wrong Δ was computed

31 T150N R25W Sec 34

Angle at existing corner to set
E 1/4 co. at proper position

STA 1st H&D 2nd H&R 3rd H&D 4th H&R
HA

4095

FS EX4 255-04-16 75-04-02

BS Target 00-00-25 179-59-51

X@ 7 255-03-51 255-04-11

255-04-01

Dist 23.27

See Bk 1 Pg 21

3/8/85

Sunny, windy, 30°F 31

G. Robertson

G. Shultz

K. Zimmerman

Wild T2 #265184

5' ash

⊙

29.84

13.10

⊙

ash BT

32

T/150N R25W

MC#8

Angle at sta 3 to set MC 301

N. shore Bigfork River



FS MC301

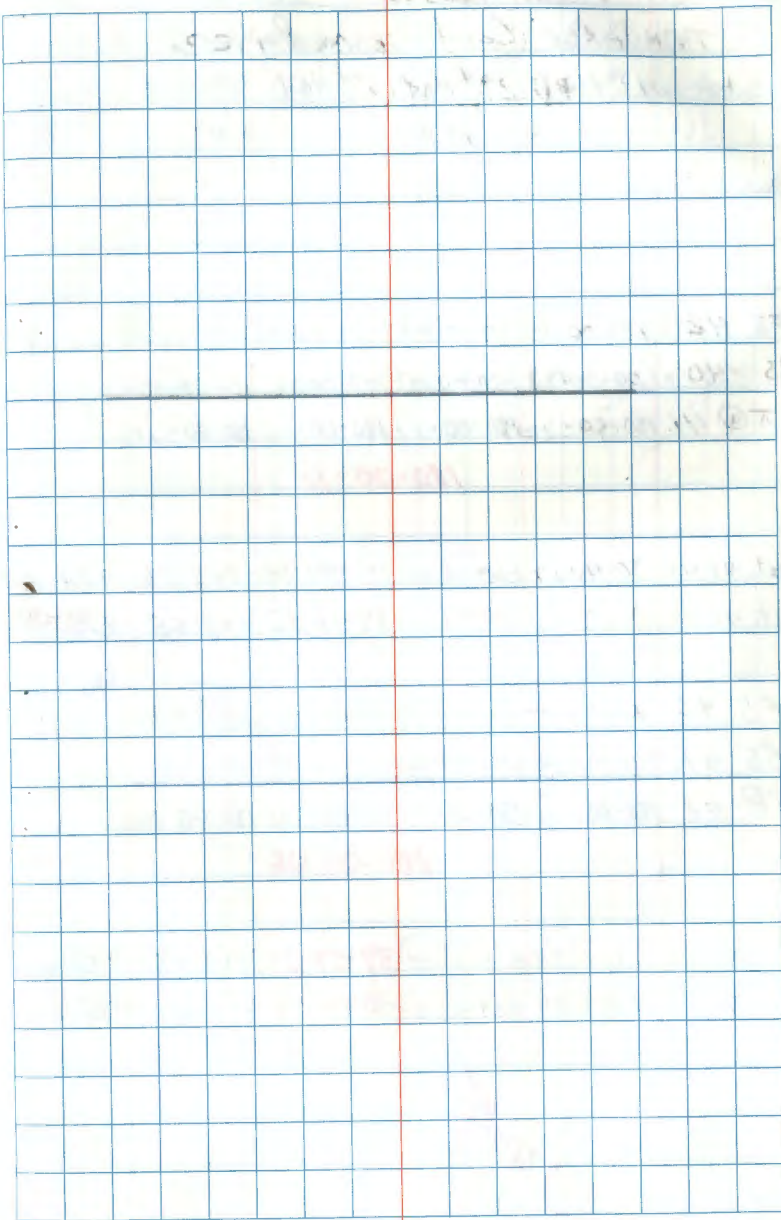
BS MC201

$\pi @ 3$ 355-55-23 :

Dist 54.42

Info found in BK1 Pg 20

32



33

T150N R25W SEC. 27

TRAVERSE Cont. from Pg 27

STA	1 st H&D	2 nd H&R	3 rd H&D	4 th H&R
		H&R		

FS 42 180-00-35 00-00-27 180-00-36 00-00-29

BS 40 00-00-23 180-00-15 00-00-26 180-00-18

T@ 41 180-00-12 180-00-12 180-00-10 180-00-11

180-00-11

Dist. 41-42 90-44-17 269-15-10 90-44-34 928.56 928.48

Dist. 42-41 89-17-43 270-41-51 89-17-56 928.55 928.48

FS 43 180-00-⁴⁵~~47~~ 06-07-³⁴~~34~~ 180-00-43 00-00-33BS 41 00-00-³⁹~~37~~ 180-00-26 00-00-38 180-00-27T@ 42 180-00-⁰⁶~~12~~ 180-00-08 180-00-05 180-00-06

180-00-06

Dist. 42-43 89-59-16 270-00-27 89-59-25 992.63 992.63

Dist. 43-42 90-02-30 269-56-55 90-02-48 992.60 992.60

180-00-06
3/22/85

3-1-85

33

SAME INSTRUMENTS

TEMP = 30°

BPR. = 29.4

ECF = -1

B. AUSK

G. ROBERTSON

G. SHULTZ

K. ZIMMERMAN

5" OAK

⊙

19.76'

4" BALSAM

★ 11.15'

Sta 41 = 60 d spike

928.48 1 1/2" SPRUCE

★

7.23'

⊙ 6.90'

6" ASH

Sta 42 = 60 d spike

992.61

992.64

34

TISON R25W Sec. 27

TRAVERSE Cont. from Pg. 33

STA	1 st H&D	2 nd H&K	3 rd H&D	4 th H&R
		H &		

FS 44 268-57-07 88-58-56 268-59-10 88-58-55

BS 42 00-00-24 180-00-10 00-00-28 180-00-10

X@ 43 268-58-43 268-58-46 268-58-42 268-58-45

268-58-44

Dist. 43-44 89-26-17 270-33-15 89-26-31 45.72 45.72

Dist. 44-43 91-23-08 268-36-22 91-23-23 45.74 45.73

FS Target 91-37-47 271-37-32 91-37-44 271-37-31

BS 43 00-00-24 180-00-14 00-00-21 180-00-17

X@ 44 91-37-23 91-37-18 91-37-23 91-37-14

91-37-20

4044

Dist. F-4097 90-23-39 269-35-55 90-23-52 374.97 374.96

Dist. 4097 90-40-44 89-41-51 270-17-46 89-42-03 374.97 374.96

✓ 8/23/22/85

3-14-85

34

SAME Instruments

Temp. 30°

BPR = 29.8

ECF = -1

B. Ausk

G. Schultz

J. Jackson

6" Maple

6"

8" 1'

2" Ash

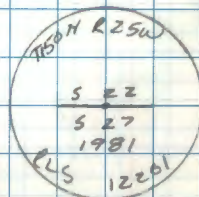
6"

11.25'

STA 43 = 60d SPIKE

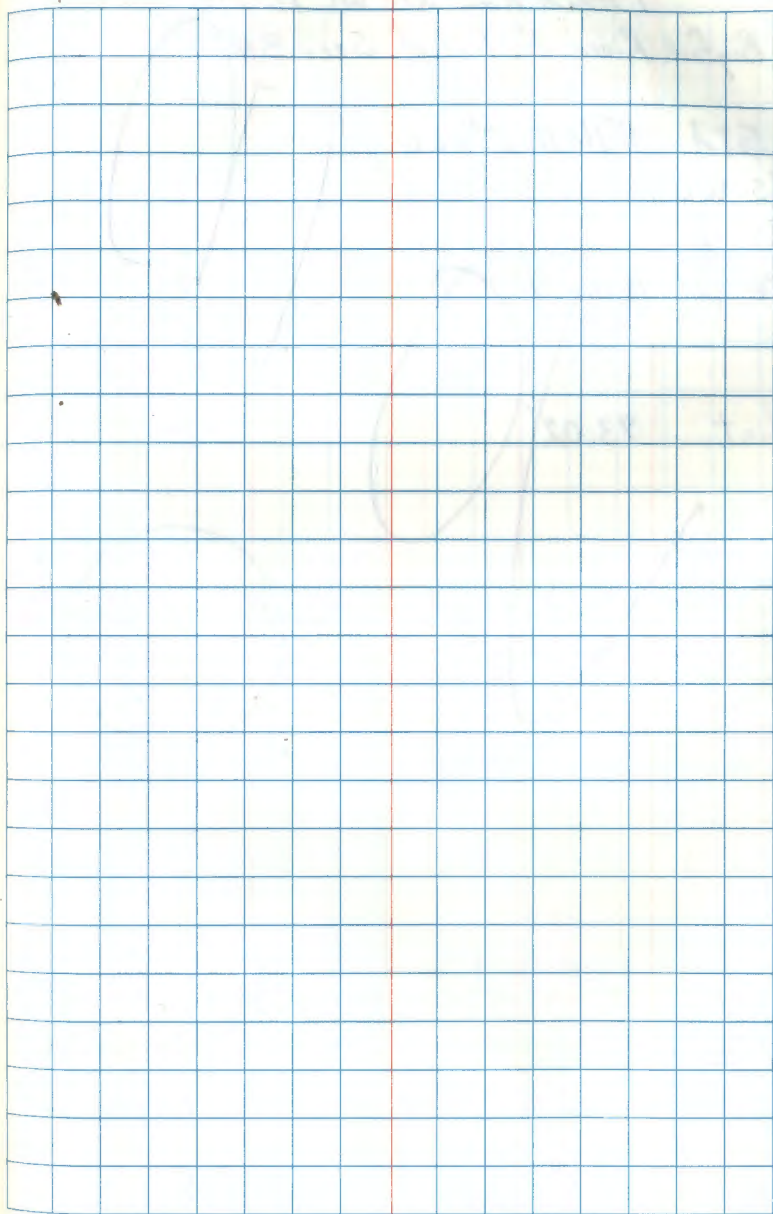
45.72

4044 =



374.96

4097 = Target # 74



36

T150N R25W WC TO MC So. shore

Bigfork River E. line of Sec. 34

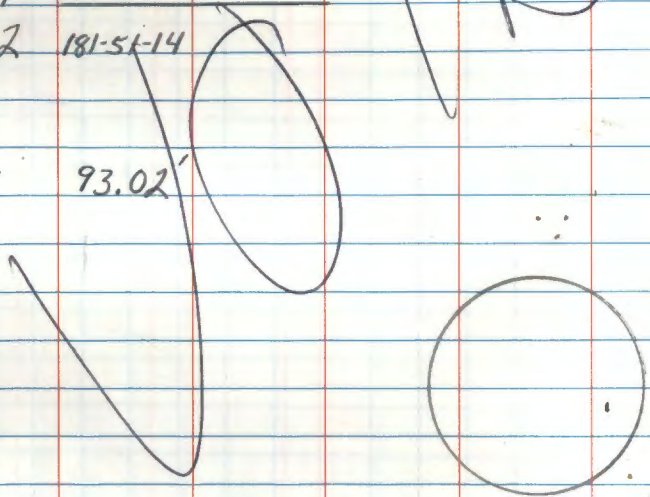
STA 1st H&D 2nd H&R

FS WC

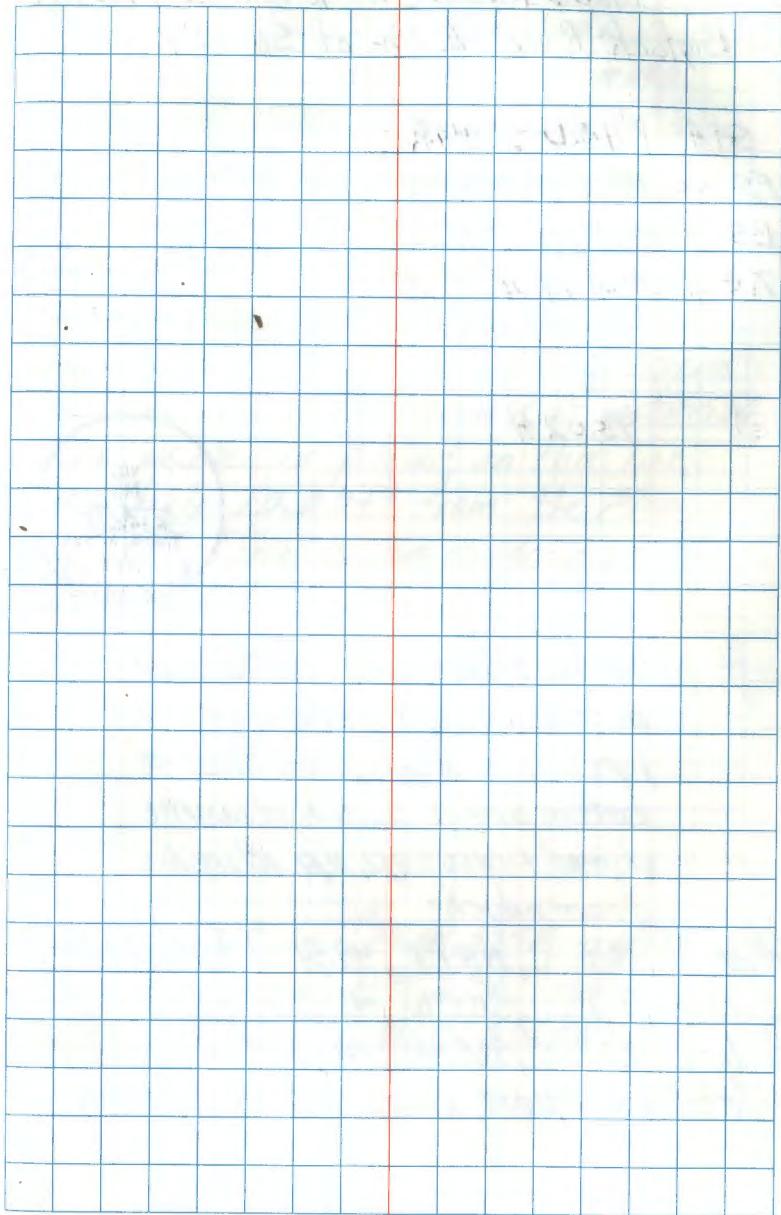
BS 1

TP 2 181-51-14

Dist. 93.02'



36



37 T150N R25W wc to MC South shore
Bigfork River E. line of Sec. 34

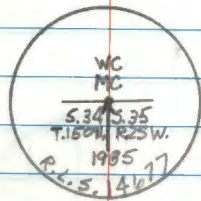
STA 1st H4.0 2nd H4R

FS wc 181-51-14 01-51-00

BS 1 00-00-00 179-59-50

TE 2 181-51-14 181-51-10
181-51-12

Dist 93.02 ft



Set a 5 foot long by 2 1/2 inch
outside diameter galvanized iron
pipe with a magnetized break-off
bottom and a 3 inch diameter
domed brass cap, up 18 inches
from which:

Ash 7.5" N84°E 44.51 ft to 16d nail in N
Balmy 9.7" S05°W 46.48 ft to 16d nail in W
Balmy 7.2" S68°W 28.43 ft to 16d nail in N
Metal fence post, south, 3.0 ft, w/ 54-9

August 23 1985 37

Drizzle, cool

PC on G. Kosirko

T600 S/N 158827 T G. Robertson

The Meander corner was established
on a straight line at proportionate
distance between the SE section corner
and the NE section corner of section 34.
The WCMC is placed on this line,
southerly 10.00 ft from the Meander
corner. There is no evidence of the
Government survey.

P. Kosirko
8/23/85

flag, double blaze, sci: "WCMC 535BT" w/60d spike
flag, double blaze, sci: "WCMC 534BT" w/60d spike
flag, double blaze, sci: "WCMC 534BT" w/60d spike

38

T150N R25W

Traverse down the E side Section 4.

STA 1stH&D 2ndH&R 3rdH&D 4thH&R
HX

FS

BS

TP

Dist

Dist

FS

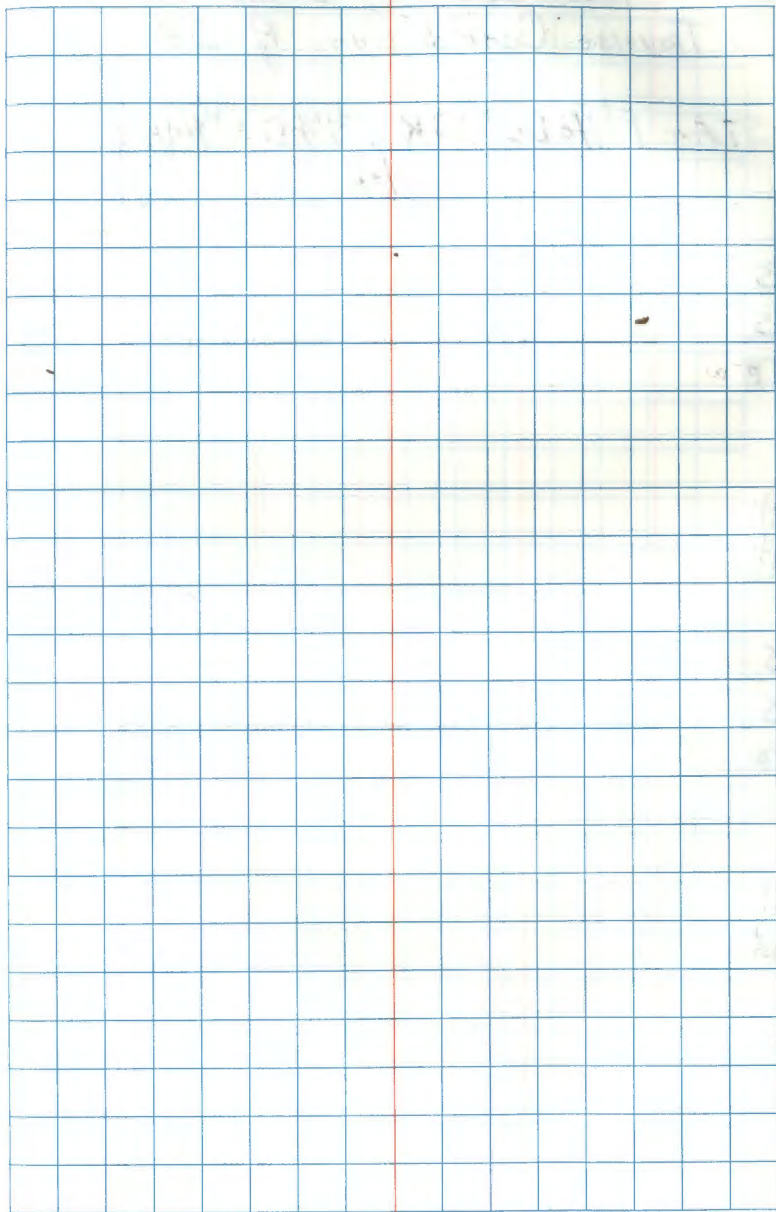
BS

TP

Dist

Dist

38



39 T150N R25W E. Side Sec 4

Traverse Cont'd from Pg 38.

STA 1stHAD 2ndHAR 3rdHAD 4thHAR
HA

FS

BS

TO

Dist

Dist

FS

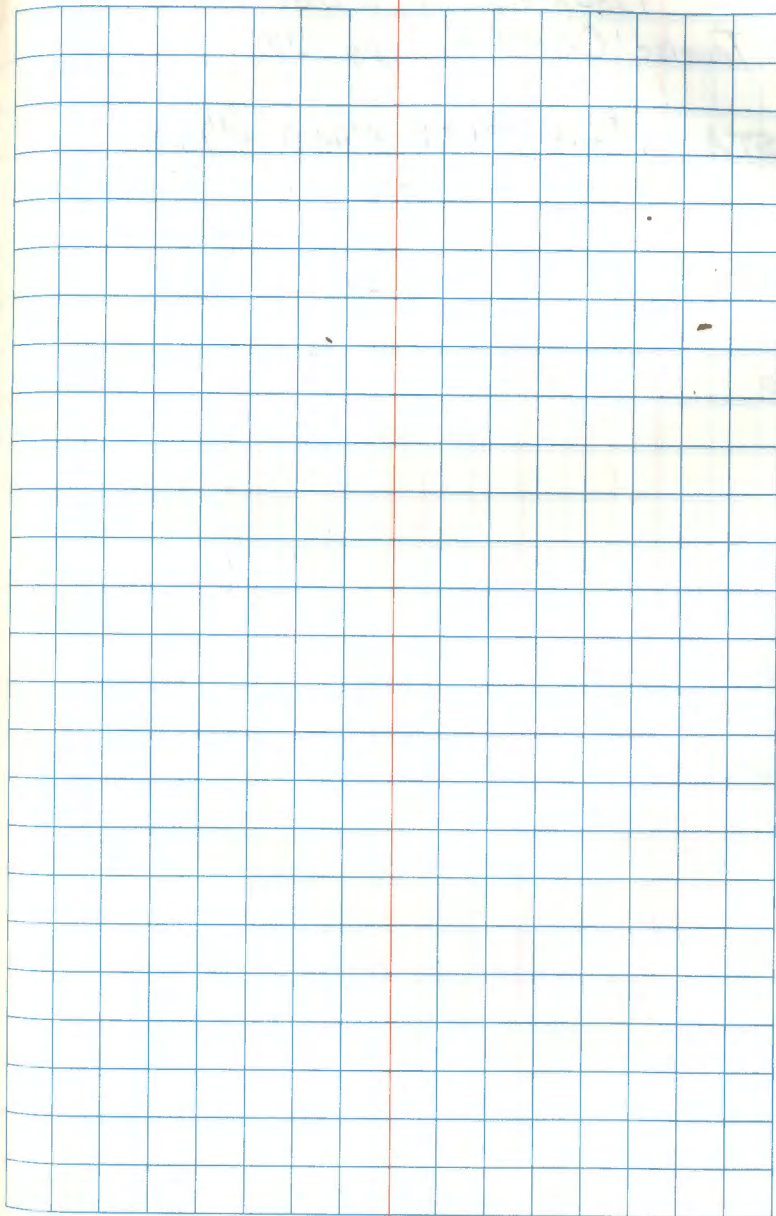
BS

TO

Dist

Dist

39



T150N R25W E Side Sec 4

Traverse Cont'd from pg 39

STA 1stH&D 2ndH&R 3rdH&D 4thH&R
H&R

FS
BS
AE

Dist
Dist

FS
BS
AE

Dist
Dist

Plains

Pages

41 thru 50

Blank

50 TISON R25W Twp Sub.

TRaverse starts SE Cor. Sec. 25 to

Sta ~~205~~ North side of Sec. 24

Sta 1st HAR 2nd HAR 3rd HAR 4th HAR

MEAN H_g

Dist. 67-68 89-52-05 270-07-45 89-52-10 2621.89 2621.88

Dist. 68-67 ~~90-09-00~~ ⁹⁰⁻⁰⁸⁻³⁶ ~~269-54-57~~ ²⁶⁹⁻⁵¹⁻⁰⁵ 90-08-45 2621.88 2621.87

FS 69 ~~180-40-12~~ ³⁹⁻⁵⁵ ~~00-40-26~~ ³⁹⁻³⁷ 180-40-08 00-40-00

BS 67 ~~00-00-34~~ ¹⁶ ~~180-00-34~~ ¹⁷⁹⁻⁵⁹⁻⁵² ~~00-00-42~~ ²² 180-00-41

T@ 68 ~~180-39-32~~ ³⁹ ~~180-39-42~~ ⁴⁵ 180-39-46 180-39-46

180-39-44

Dist. 68-69 89-54-~~34~~ ⁰⁰ 270-05-~~29~~ ⁵⁰ 89-54-06 2615.12 2615.12

Dist. 69-68 90-06-49 269-53-05 90-06-52 2615.15 2615.14

FS 70 179-56-11 359-55-53 179-55-59 359-55-54

BS 68 ~~00-00-21~~ ~~180-00-01~~ ~~00-00-11~~ 180-00-00

T@ 69 179-55-50 179-55-52 179-55-48 179-55-54

179-55-51

Dist. 69-70 89-16-52 270-42-51 270-42-60 1320.79 1320.69

Dist. 70-69 90-44-39 269-15-17 269-15-19 1320.80 1320.69

JHR 3/22/85

50 First day of Spring

Temp ~~50~~ ⁴⁰ °F

BPR 29.6

ELF -1

3-21-85

B. Ausk

G. Robertson

T-2SN/ 265184

RedIASN/ 4863

2621.875

Sta 67 = SE Cor. S. 25

E 1/4 Sec. 25

Sta 68 = PK Nail

2615.13

NE Cor. Sec. 25

Sta 69 = PK Nail

1320.69

51

TISON R25W

TRAVERSE Cont From Pg 50

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

MEAN H&R

FS 71 ⁰⁰⁻⁰⁰⁻⁰³ 180-00-19 ⁰⁰⁻⁰⁰⁻⁰⁰ 180-00-~~19~~²⁰ 00-00-10BS 69 ⁰⁰⁻⁰⁰⁻⁰⁸ 00-00-20 ¹⁸⁰⁻⁰⁰⁻¹³ 180-00-~~13~~¹⁵ 180-00-10T @ 70 ¹⁷⁹⁻⁵⁹⁻⁵⁹ 179-59-59 ¹⁷⁹⁻⁵⁹⁻⁵⁵ 179-59-~~55~~⁵⁷ 180-00-00

179-59-57

Dist 70-71 89-25-01 270-34-37 89-25-12 1323.08 1323.01

Dist 71-70 90-36-44 269-23-00 90-36-52 1323.09 1323.01

~~71 to 70~~ Side ShotFS ~~71 to 70~~ ²⁰⁰⁸ 60-43-~~50~~⁴⁸ 240-43-32 60-43-~~28~~²⁶ 240-43-36BS 70 ⁰⁰⁻⁰⁰⁻²⁸ 00-00-28 ¹⁸⁰⁻⁰⁰⁻⁰⁷ 180-00-~~07~~⁰⁹ 180-00-16T @ 71 ⁶⁰⁻⁴³⁻²² 60-43-22 ⁶⁰⁻⁴³⁻²⁵ 60-43-~~24~~²² 60-43-20

60-43-22

chained

Dist ^{71 to} ~~71 to 70~~ ²⁰⁰⁸ Azimuth Mark 49.31

Dist.

✓ AR 3/22/85

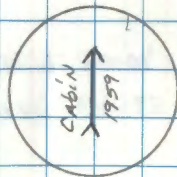
3-20-85 51

S 1/16 East Sec. 24
STA 70 = PK Nail

1323.01

E 1/4 Sec. 24
STA 71 = PK Nail

Azimuth Mark to Cabin

~~71 to 70~~ =
2008

52

TISON R25W

TRAVERSE Cont. From Pa 51

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

MEAN Hg

FS 7101 178-46-26 358-46-17 178-46-31 358-46-10

BS 70 00-00-22 180-00-12 00-00-24 180-00-07

K@ 71 178-46-04 178-46-05 178-46-07 178-46-03

178-46-05

Dist. 71-7101 89-57-38 270-02-08 89-57-45 1034.81 1034.81

Dist. 7101-71 90-04-24 269-59-19 90-02-33 1034.78 1034.78

2007	51	51	51	51	51
FS CABIN	189-51-05	09-51-02	189-50-24	09-51-15	50-40

BS 71	00-00-26	180-00-30	269-53-05	00-00-22	180-00-55
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K@ 7101	189-50-39	189-50-32	189-50-23	189-50-20	30
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189-50-33

Dist. CABIN 7101 90-06-36 269-53-05 90-06-46 717.27 717.27

Dist. CABIN 7101 89-56-27 270-03-25 89-56-31 717.24 717.24

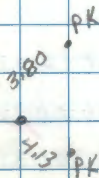
✓ DR 3/22/85

3-21-85 52

E 1/4 Sec 25

STA 71 = PK NAIL

1034.79



STA 7101 = 60d spike

West Side Road

717.25

53

T 150N R 25W

TRAVERSE Cont. from Pg 52

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

MEAN H &

FS 7102 152-35-52⁴⁴ 332-35-32⁴² 152-36-07 332-35-52BS 7101 ~~759-57-46~~ 179-59-~~35~~⁴⁵ 00-00-08 179-59-45X @ Cabin 152-36-~~40~~⁰⁶ 152-35-57 152-35-59 152-36-07

2007

152-36-02

CABIN

Dist. 7102 89-49-41 270-10-21 89-49-40 269.63 269.63

Dist. CABIN 7102 90-18-35 269-41-15 90-18-40 269.63 269.63

FS 72 197-13-23 17-13-05 197-13-19 17-13-07

BS CABIN 2007 00-00-24 180-00-18 00-00-30 180-00-16

X @ 7102 197-12-59 197-12-49 197-12-49 197-12-51

197-12-52

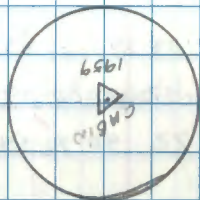
Dist. 7102 24-43 90-27-59 269-35-10 71-24-46 694.12 694.10

Dist. 7102 72 89-38-24 270-21-25 89-38-30 694.08 694.07

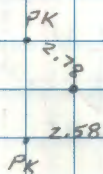
JHR 3/25/85

3-21-85 53

2007 =



269.63

STA 7102 = 60d spike
East Side of Road

694.08

TRAVERSE Cont. from Pg 53

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

MEAN H&R

FS 7103 90-31-~~03~~³⁰⁻³¹ 270-31-~~06~~⁴⁶ 90-30-59 270-30-~~40~~BS 7102 00-00-09 179-59-~~47~~³² 00-00-05 179-59-~~46~~⁴²

T@ 72 90-30-54 70-30-59 90-30-54 270-31-04

70-30-58

Dist. 72-7103 90-35-36 269-24-06 70-35-45 438.38 438.36

Dist. 7103-72 89-29-10 270-30-41 89-29-15 438.34 438.32

FS 7104 180-02-49 00-02-35 180-02-50 00-02-34

BS 72 00-00-10 179-59-59 00-00-07 179-59-47

T@ 7103 180-02-39 180-02-36 180-02-43 180-02-47

180-02-41

Dist. 7103-7104 89-43-34 270-16-20 89-43-37 1031.84 1031.83

Dist. 7104-7103 90-18-24 269-41-25 70-18-30 1031.83 1031.815

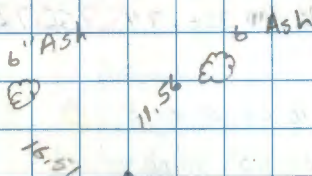
✓ 2R 3/25/85

56	78
32	46
28	04
31	
59	

NE COR. SEC. 24

STA 72 = PK NAIL

438.34



STA 7103 = LOD SPIKE

1031.82

TRAVERSE Cont from Pg 54

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

MEAN H&R

FS 7105 180-01-⁴31 00-01-39 180-01-48 00-01-42BS 7103 00-00-13 180-00-07 00-00-20 180-00-⁰⁵27T @ 7104 180-01-~~38~~ 180-01-32 180-01-28 180-01-³⁷29

180-01-34

Dist. 7104-7105 89-36-12 270-23-31 89-36-21 756.74 756.72

Dist. 7105-7104 90-26-36 269-33-16 90-26-40 756.74 756.72

7106

FS ~~7104~~ 180-16-³²22 00-16-18 180-16-²²22 00-16-15

BS 7104 00-00-57 180-00-44 00-00-55 180-00-45

T @ 7105 180-15-³⁵35 180-15-34 180-15-²⁷27 180-15-30

180-15-32

Dist. 7105-7106 89-48-48 270-10-55 89-48-57 432.84 432.84

Dist. 7106-7105 90-17-50 269-41-55 90-17-58 432.83 432.82

180-31-25/185

4.13
 2.90
 13" ASPEN
 7" BALSAM

STA 7104 = 60d SPIKE

756.72

3" BALSAM

★

5.46

STA 7105 = 60d SPIKE

3.46

★

4" BALSAM

432.83

56 TISON R25W

Traverse cont'd from pg 55

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H&D

7107 FS 179-32-11 359-32-02 179-32-08 359-31-58

7105 BS 00-00-10 179-59-51 00-00-01 179-59-50

7106 T 179-32-01 179-32-11 179-32-07 179-32-08

179-32-07

Dist 7106-7107 89-40-06 270-19-34 87-40-16 788.69 788.68

Dist 7107-7106 90-22-37 269-37-15 90-22-41 788.67 788.65

FS 7107 180-34-32 00-34-22 180-34-27 00-34-16

BS 7106 00-00-20 180-00-04 00-00-18 180-00-03

7107 180-34-12 180-34-18 180-34-09 180-34-13

180-34-13

Dist 7107-7106 89-47-02 270-12-50 89-47-06 541.37 541.37

Dist 7106-7107 90-16-33 269-43-15 90-16-39 541.33 541.32

JDR 3/25/85

March 22, 1985

56

Clear, warm, calm

PC to T to G. Kasenko

T-2 S/N 265184

Aides - G. Robertson

Red IA S/N 4863

- G. Schulte

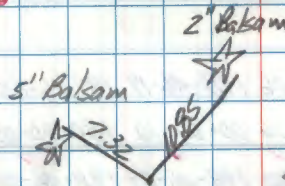
BPR=29.6 ECF=0

Temp=55°F @ 10:00 AM

OK
 STA 7106 = $\frac{1}{4} \frac{5.13}{5.24}$
 1978
 P.S. 12261

2" IP w/ BC

788.66



STA 7107 = 60d spike

541.34

57

TISON R25W

Traverse cont'd from pg 56

STA 1st H&R 2nd H&R 3rd H&R 4th H&R

H&R

FS 7109 137-03-44 317-03-39 137-03-43 317-03-24

BS 7107 00-00-30 180-00-22 00-00-~~27~~ 180-00-09T@ ~~7108~~ 137-03-14 137-03-17 137-03-16 137-03-15

73

137-03-16

Dist ~~7109-7110~~ ⁷³ 90-08-37 269-51-19 90-08-37 306.99 306.99Dist ~~7109-7108~~ ⁷³ 89-58-40 270-01-00 89-58-50 306.96 306.96

FS 7110 198-46-26 18-46-06 198-46-19 18-46-25

BS ~~7108~~ ⁷³ 00-00-23 180-00-06 00-00-10 180-00-03

T@ 7109 198-46-03 198-46-00 198-46-09 198-46-02

198-46-04

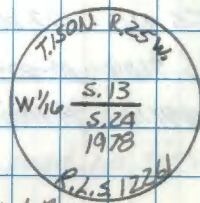
Dist ~~7109-7110~~ 90-45-12 269-14-31 90-45-21 534.56 534.51

Dist 7110-7109 89-18-37 270-41-05 89-18-46 534.51 534.47

JDR 3/25/85

March 22, 1985

57

73
STA 1208 =

2 1/2" IP W/BC

306.97

STA 1209 = 60d spike in
road - no ties available

534.49

58

TISON R25W

Traverse cont'd from pg 57

STA 1st H&D 2nd H&R 3rd H&D 4th H&R

H4

FS 7111 197-00-57 17-00-45 197-00-50 17-00-43

BS 7109 00-00-25 180-00-15 00-00-29 180-00-11

T@ 7110 197-00-32 197-00-30 197-00-21 197-00-32

197-00-29

Dist 7110-7111 90-58-19 269-01-34 90-58-22 413.02 412.96

Dist 7111-7110 89-06-21 270-53-31 89-06-25 412.98 412.93

FS 208 142-02-⁵⁰~~49~~ ³²²~~272~~-02-47 142-02-53 322-02-45BS 7110 00-00-¹¹~~15~~ 180-00-00 00-00-11 180-00-04T@ 7111 142-02-⁴⁹~~34~~ 142-02-47 142-02-⁴²~~41~~ 142-02-41

39

142-02-42

Dist 7111-208 90-47-03 269-12-56 90-47-04 290.23 290.20

Dist 208-7111 89-20-14 270-39-44 89-20-15 290.22 290.20

142R 3/25/85

March 22, 1985 58

STA 7110 = bad spike south
side of road, no ties

412.945

STA 7111 = bad spike
no ties

290.20

ES 205 225-39-03 45-38-47 225-39-05 45-38-53

BS 7111 00-00-22 180-00-06 00-00-15 180-00-02

T@ 204 225-38-41 225-38-41 225-38-50 225-38-51

225-38-46

Dist 204-205 90-17-48 269-42-21 90-17-44 359.39 359.39

✓ JPP 3/25/15

60 TISON R25W

Closing Δ for contrale traverse

STA 1stHAD 2ndHAR 3rdHAD 4thHAR
HA

BS 670 179-35-00 359-34-44 179-34-58 359-34-50

Fs 68 00-00-29 180-00-20 00-00-30 180-00-20

IC 67 179-34-31 179-34-24 179-34-28 179-34-30

179-34-28

4/09/85

60

Kasenko, Robertson

61

T150N R25W

Solar Observation

T@ NGS sta Cabin, BS 7102, FS \odot

Set #1

$^{\circ}$	'	"	$^{\circ}$	'	"	OS
H	A		C	S	T	

T@Cabin

BS 7102 00-00-25

 \odot D 149-28-46 09-52-05.15 ~~9-52-26.56~~
 \odot R 329-40-49 09-52-47.97

BS 7102 180-00-06

Mean 149-34-32 9-52-26.6

Set #2

T@Cabin

BS 7102 00-00-11

 \odot D 150-09-03 09-54-28.24

 \odot R 330-23-00 09-55-20.18

BS 7102 180-00-01

 Mean ~~150-11-08~~ 9-54-54.20
 150-15-55.5

61

April 9, 1985

T G. Robertson

TR @ G. Kosenko

Watch time is correct

T-2 S/N 265184

OUT 1 = -0.3 sec

Lat. 47-48-02.2418

LAPLACE = -2 sec.

Long. 93-46-32.1356

Set #3

T@Cabin

BS 7102 00-00-19

 \odot D 151-02-07 09-57-34.47

 \odot R 331-08-17 09-58-03.86

BS 7102 180-00-04

 Mean ~~150-04-00.5~~ ^{150-04-00.5} 9-57-49.20
 00.5

1st set was thrown out and the 2nd & 3rd set
 (closest) were measured
 Mean = 339° 33' - 26.43"

NGS STA CABIN

Mean Sol Az - 341-12-58.7

Mean Geod Az - 341-13-00.7

Mean Grid Az - 341-43-01.5

CABIN
A
1989

Pages

62 thru 70

Blank

70 TISON R25 W Sec 27 Sub.

Solar Orientation

T @ BS, " FS ~~XX~~

Set # Position H₀ Time

1

Target

D

R

BS

MEAN

2

Target

D

R

BS

MEAN

3

Target

D

R

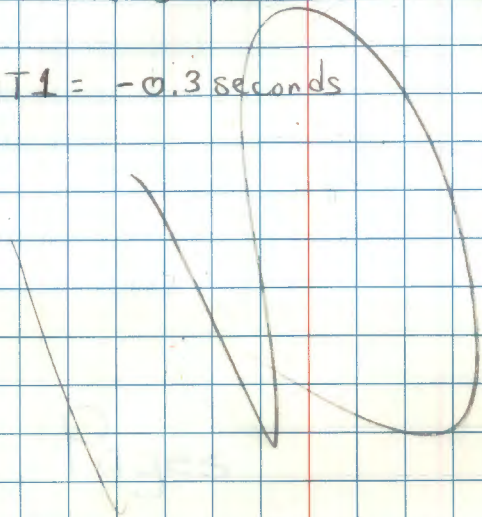
BS

MEAN

3-14-85⁷⁰

CX Timer is 7.2 sec. Slow @ AUSK

DUT1 = -0.3 seconds



Pages

71 thru 78

Blank

78

T150N R25W Sec 31 & 32

Tie 1979 Photo Control traverse

through NGS Δ WIRT1st2^d4th

90-15-39

90-08-06

32-31 90-23.2 269-51.9 2631.61 ft 802.118 2631.586 ✓

FS 3201 89-51.6 179-43.1 359-25.7

BS 31 0-00.0

TB 32 89-51-26 ✓

3

77-54-36

32-3201 70-08.9 270-05.4 1572.310m 5158.49 ft 5158.488 ✓

3201-32 90-07.8 270-07.1 1572.307m 5158.47 ft 5158.487

FS 2004 150-01.8 300-03.4 240-06.9

BS 32 0-00-00

TB 3201 150-01-44 ✓

3201-2004 90-41.7 269-33.1 74.751m 74.747m 245.233 ft

2004-3201 89-42.2 ⁸⁹⁻²⁷⁻⁵⁴ 270-32.1 245.21 ft 245.204 ft

78

17 July 1985

cloudy humid

Breezy

73° F

30.30 in Hg

0 PPM

K. WHITEHORN

B. Ausk

A T600 (SN: 158827)

R Red 1A (SN 4863)

5158.485 ✓

245.218 ft ✓

TRISON R 25W Sec 31 1/2 32
TRAVERSE CONT FROM PP 78

1st x 2 x 4

FS 33 288-56.0 217-42.0 75-23.9

~~FS 3201~~ 0-00-00

~~TR 2004~~ 288-50-59 ✓

FS 33 89-11-15

~~TR 2004~~ 89-48.5 271-26.0 111.22 ft 111.209 ft

~~TR 2004~~ 91-45-02 268-29.7 33.903M 33.889m 111.185 ft

FS 34 100-57.1 201-94.3 43-48.9

~~FS 2004~~ 0-00-00

~~TR 33~~ 100° 57' 14" ✓

FS 34

~~TR 2004~~ 90-05-06

~~TR 34~~ 90-12.2 270-02-00 1610.736m 1610.734m 5284.550 ft

34-33 89-57.5 270-17.2 5284.60 ft 5284.578 ft

- 31 89-50-00

34-33

END OF TRAVERSE

17 July 1985

WHITENORN
AUSK

77° F

30,30 in Hg

0 ppm

111.197 ft ✓

See pp 46 of loose leaf field
book for Twp Photo Control

5284.564 ft ✓

See pp 46 & 70 of loose
leaf field book for Liberty
Twp Photo Control