

CONTRACT 97

RETRACEMENT OF THE

5TH STD PARLL NORTH THRO

RANGE 9 EAST, 8 EAST, AND

(Survey of) PART OF 5 EAST

BOOK 1236

1236

No. 1206
4-671

FIELD NOTES
GENERAL LAND OFFICE.

No. 1236

BOOK 1236 1

See Book J. 6th Standard Meridian
R. 28. for date

Field Notes
of the survey of the
Fifth Standard Parallel North
through
Ranges Nos. 5, 8, and 9 East
of the
Gila and Salt River Base and Meridian
in the
Territory of Arizona
As Surveyed By
Carl R. Gandle and
Marvin Gandle
Under their Contract No. 97
Dated June 30, 1902.

Survey commenced Sept 25, 1902
Survey completed Dec. 1, 1902.

T. 21 N. R. 9 E.

31	32	33	34	35	36
3	7	11	15	19	23

5th. Standard Parallel North.

T. 21 N. R. 8 E.

31	32	33	34	35	36
48	45	41	35	31	27

5th Standard Parallel North

T. 21 N. R. 5 E.

31	32	33	34	35	36
	51	54	57		

5th. Standard Parallel N

Index

5th Standard North.

Through.

Range	9 E	-	3
"	8 E	--	27
"	5 E	"	51.

Sept. 25, 1902

Retracement of the 5th standard
parallel through R. 9E on
S. boundary of sec 31

For complete description and
test of instrument see book
A of this series.

51.

At 8 A.M. l.m.t. I set off
 $35^{\circ} 7' 50''$ sou lat. acc; $37'$ on decl.
acc and with the solar
transit a true meridian
Thence I run

East ~~from~~ the S.W. corner
of the town ship, previously
described on S. bdy sec. 31
Over mountainous land through
heavy pine timber

4.00

Small drain, course N.W.

14.00

Small drain course N.E

4 Retrocurrence 5th. St. Par. through R. 9 E.

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28.00 Thence over nearly level land to
Rim of canyon, bears N. and S.
Descent steep E. slope over lime
stone cliffs and ledges

33.00 Bottom of canyon course N.
Foot of 350 ft descent. Asc
steep W. slope over lime
stone ledges and boulders

39. ~~##~~¹⁸ $\frac{1}{4}$ sec. cor. bears S 45° lks dist.
Which makes the true bearing
of this line S. $89^{\circ}20'E$

I find a stone $18 \times 10 \times 8$ ins set
in a mound of stone on a
ledge of rock; marked S C
 $\frac{1}{4}$ on N. face; from which
A pinon 10 ins in diam;
bears S. $53^{\circ}W$. 28 lks dist;
mkd. $\frac{1}{4}$ S B T.

As this was the bearing tree I mark

another as follows

A pinon 10 ins in diam
bears N. $59^{\circ}12'E$ 28 lks dist
marked S C. $\frac{1}{4}$ S 31 B 77.

A pinon 10 ins in diam
bears N. $79^{\circ}30'W$. 35 lks dist
mkd S C $\frac{1}{4}$ S 31 B. T.

Thence East from cor

.50 Top of 350 ft. ascent bears N. 32.5 .

Thence over rolling land

30.00 Small drain course N.E.

36.00 Leave timber; enter dense
chopped brush

39.91 ^{to 324 51752} S.C. bears $S 61$ lks dist which
makes the true bearing of this
line $S 89^{\circ}7'E$.

I find a sand stone $20 \times 12 \times 5$
ins., loosely set and marked
5 grooves on E and 1 groove

6. Retracement 5th. St. Par. through R. 9 E.

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on W. face. I set same stone
15 ins in the ground and mark
S. C on N. face; from which

A cedar 8 ins in diam.,
bears N. $25^{\circ}40'E$. 277 lks. dist.,
mkd. S C T 21 N R 9 E S 32 B T.

A fir 6 ins in diam
bears N. $10^{\circ}45'W$. 297 lks dist
mkd S C T 21 N R 9 E S 31 B T.

Old bearing trees could not be found
Land mountainous

Soil stony; 3rd and 4th rate.

Timber 79.09 lbs fine and
dense calapparat brush.

East on S. bdy of sec. 32
Over rolling land through chap
pernal brush.

4.00 Enter timber, pine cedar and
fir; bears N. and S.

7.00 Desc. S. E. slope

14.00 Drain, course N. E. Foot of 40 ft
descent.

20.00 Ridge, bears N. and S.

30.60 Drain, course N.

0 Difference between measure-
ments of 39.93 chs by two sets
of chainmen is 6 lks. from
of middle point
by first set 39.90 chs.
by second set 39.96 chs.
mean of which is

39.93 Standard $\frac{1}{4}$ sec. cor. bears S 60 lks
dist. which makes the true

Retracement 5th. St. Par. through R. 9E.

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bearing of this line S. $89^{\circ} 8'E$.
I find a sand stone $14 \times 9 \times 9$ ins.
loosely set marked S C $\frac{7}{4}$ on
N. face. I set same stone firmly
and as no bearing trees could
be found mark two as follows:

A pinon 8 ins. in diam
bears N. $34^{\circ} 50'E$ 97 lks. dist
mkd S C $\frac{7}{4}$ S 32 B T.

A cedar 10 ins in diam;
bears N. $64^{\circ} W$. 55 lks. dist.,
mkd. S C $\frac{7}{4}$ S 32 B T.

Thence east from corner.

23.82 Ch. to sec 4 and 5 bars 30 lks S

I find a lime stone $24 \times 14 \times 8$ ins.
set in mound of stone;
marked C. C. on S and 4 grooves
on E., 2 grooves on ^W face.

Difference between measurements

of 39.88 chs by two sets of
chain men is 2 lks; position of
middle point

by first set 39.87 chs

by second set 39.89 chs.
mean of which is

39.88 S.C. to sec. 32 and 33 bears S.

31 lks. dist., which makes the true
bearing of this line S. 89° 45' E.

I find a lime stone 18x10x6 ins
set in mound of stone; mkted.

S.C. on N. 4 grooves on E. and 2
grooves on W. faces; from which
a pinon 8 ins in diam.

bears N. 76° E. 88 lks. dist

mkted S.C. T21NR8ES33BT.

A pinon 9 ins in diam
bears N. 19° 30' W. 224 lks dist

mkted S.C. T21NR8ES32BT.

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Retracement 5th. St. Par. through R. 9E

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I found one old bearing tree
marked as follows.

A cedar 12 ins in diam.,
bears S. 59° 30' W. 56 lks. dist
mkd S C B T.

Land rolling

Soil is tough 3rd and 4th rate.

Timber ~~XXXX~~ heavy pine cedar
99.81
and pines.

East on S. bdy of sec 33
Over rolling land through dense
cedar and pinon

11.00 Desc. E. slope

25.00 Road, bears N.E and S.W. Foot
of 40ft. descent.

29.80 Ridge, bears N. and S.

37.30 Leave timber, enter dense chio and
buck brush, bears N and S.

Difference between measure-
ments of 40.15 chs by two sets of
chain men is 6 lks. position
of middle point.

by first set 40.18 chs

by second set 40.12 chs

mean of which is

40.15 Stand and $\frac{1}{4}$ sec. cor. bears N.
8 lks. dist; which make the
true bearing of the line $N. 89^{\circ} 53' E.$

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I find a small stone in mound
of stone, not marked. I re-
establish as follows at exact point

Set line stone 18x12x8 ins 12 ins
in the ground for stand and $\frac{1}{4}$
sec. cor. marked SC $\frac{1}{4}$ on N. face,
from which

a pinon 8 ins in diam.,
bears S. 40° E. 47 lks. dist.,
mkd. $\frac{1}{4}$ S B T.

No trees suitable in limits N.W.

I mark a pinon as follows

a pinon 10 ins in diam.,
bears N. 77° 45' E. 117 lks dist
mkd. SC $\frac{1}{4}$ S 33 B T.

Thence east from cor.

.20 Enter dense cedar and pinon
bears NE and SW.

200 Low ridge bears N. E and S.W.

12.00 Ridge, 40 ft. high bears N. and S.

20.65 Flat drain. course N. E. Road
bears N. E. and S. W.

23.59 C.C. to secs. 3 and 4.

I find a lime stone $10 \times 8 \times 8$ ins
above ground; mkd. C C on S.,
3 grooves on E and W. faces.

Difference between measure-
ments of 39.94 chs by two sets
of chain men is 4 lks.

position of middle point

by first set 39.92 chs.

by second set 39.96 chs.

mean of which is

39.94 S. C to secs 33 and 34. bears N.
43 lks. dist., which makes the
true bearing of this line $N. 89^{\circ} 23' E.$

I find a sand stone $10 \times 10 \times 9$ ins
above ground firmly set and

marked as described by
surveyor general; from which

A pinon 8 ins. in diam
bears N. $61^{\circ}30'W$. 51 lks. dist.
mkd. T 21. NR 9E S 33 BT.

A pinon 6 ins. in diam.
bears N. $49^{\circ}20'E$. 52 lks dist
mkd. T 21. NR 9E S 33 BT.

These are the old bearing trees.

Land rolling.

Soil stony; 3rd and 4th rate

Timber 74.20 cho dense cedar and
pinon.

At $11^{\text{h}}53'54''$ A M l m l o set off $35^{\circ}7'$
on lat. arc, $41'_{\lambda}$ on decl. arc and ob-
serve the sun on the meridian
The resulting latitude $35^{\circ}7'$ which
is the latitude nearly.

East on S. bdy of sec 34

Over rolling land through dense
cedar and pines.

36.20 Flat drain, course S. 20° E.

Difference between measure-
ments of 40.17 chs. by two sets
of chain men is 4 chs
position of middle point
by first set 40.19 chs
by second set 40.15 chs
mean of which is

40.17 Stand and $\frac{1}{4}$ sec. cor. bears ~~N~~ S
25 lks dist., which makes
the true bearing of this line
S. 89° 39' E.

I find a lime stone 12x7x5 ins
above ground, firmly set. mhd
as described by surveyor general,
from which

Retracement 5th. St. Por. through R. 9 E.

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A pinon 17 ins in diam.,
bears S. $71^{\circ}30'W$. 21 lks. dist.

inf'd. SC $\frac{1}{2}$ S
only tree that could be found & as this was the
mark as follows

A pinon 5 ins in diam.,
bears N $26^{\circ}25'E$ 122 lks dist
marked SC $\frac{1}{2}$ S 34 B T.

A pinon 8 ins in diam.,
bears N. $19^{\circ}W$. 85 lks. dist
marked SC $\frac{1}{2}$ S 34 B T.

Thence east from cor.

29.45

C.C. to sees 2 and 3 bears N. 50 lks
dist.

I find a lime stone 15x5x4 ins.
above ground firmly set. m'ked
as described by surveyor general.
Difference between measurements
of 40.13 chs by two sets of chain men
is 4 lks; position of needle point
by first set 40.11 chs

by second set 40.15 chs
mean of which is

40.13 S.C. to secs. 34 and 35 bears N.
53 lks. dist; which makes
the true bearing of this line N
89° 15' E.

I find a lime stone 12x9x4
ins. set in ground of stone
mkd with 2 grooves on E and
4 grooves on W. faces. In addition
to which I mark S.C. on N. face;
from which

A cedar 6 ins in diam.
bears N. 84° 40' E. 109 lks dist
mkd S.C. T21NR9ES35BT.

A dead pine 9 ins in diam
bears N. 40° W. 75 lks dist
mkd S.C. T21NR9ES34BT.

This is an old bearing tree.

Retracement 5th St. Par. through R. 9 E.

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Land rolling

Soil stony 3rd and 4th rate

Timber dense cedar and pinon

- Past on S. bdy of sec 35.
 Over rolling land through dense
 cedar and pinon.
- 7.00 Enter mountainous land
 Descend SE slope of ridge.
- 15.00 Canyon 70ft deep, course ~~NE~~ foot
 Ascend W slope.
- 18.50 Top of ridge, 70ft high bears NE.
 and SW.
- 21.00 Low ridge, bears N and S.
- 25.50 A rain, course N. Aso.
- 28.00 Ridge, 40ft high, bears N and S.
 Difference between measure-
 ments of 3985 chs by two
 sets of chain men, is 6lks;
 position of middle point
 by first set 3982 chs
 by second set 3988 chs
 mean of which is

Retracement 5th. St. Por. through R. 9 E.

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39.85 Standard $\frac{1}{4}$ sec. cor. bears N.
 14 lks dist; which makes the true
 bearing of this line N. $89^{\circ}48'E$
 I find a lime stone $28 \times 4 \times 4$ ins
 set in mound of stone; mkd
 $\frac{1}{4}S$ on N. face. In addition I mark
 C on N. face; from which;
 a pinon 12 ins. in diam.,
 bears S. $42^{\circ}E$ 37 lks. dist.,
 mkd SC $\frac{1}{4}S$ B T.

As this was the only bearing tree I mark
 two others as follows.

• A pinon 12 ins in diam
 bears N. $20^{\circ}E$ 45 lks. dist.,
 mkd SC $\frac{1}{4}S$ 35 B T.

A pinon 9 ins in diam.,
 bears N $70^{\circ}30'W$ 9 lks dist.
 mkd SC $\frac{1}{4}S$ 35 B T.

Thence East from cor.

Variation $14^{\circ}15'E$.

- 5.05 Drain course N.
 11.00 Ridge, 40ft high bears N. 7 S.
 12.70 Drain, course N.
 16.00 Ridge, bears N. and S.
 30.55 Drain course N.

Difference between measure-
 ments of 39.73 chs by two
 sets of chain men is 4 lks;
 position of middle point
 by first set 39.76 chs
 by second set 39.70 chs
 mean of which is

- 39.73 S.C. to sec. 35 and 36 bears N.
 47 lks. dist. which makes the
 true bearing of this line N. 89° 19' E.
 I find a lime stone 15X12X7-ins
 firmly set and marked as
 described by the surveyor general
 from which

Retracement 5th. St. Pat. through R. 9 E.

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A pinon 9 ins. in diam.,
 bears N. $57^{\circ}30'E$. 57 lks dist
 mkd S C T 21 N R 9 E S 36 B T

A pinon 9 ins in diam.,
 bears N. $43^{\circ}45'W$ 25 lks. dist
 mkd. S C T 21 N R 9 E S 35 B T.

Old bearing trees could not be
 found.

Land rolling and mountainous

Soil stony; sod and 4th rate.

Timber dense cedar and pinon.

East on S. ddy. of sec. 36
Over rolling land through
dense cedars and pines

25.80 Drain. course N.

Difference bet. measure-
ments of 39.69 chs by two
sets of chain men is 8 lks
position of middle point
by first set 39.65 chs
by second set 39.75 chs
mean of which is

39.69 Stand and $\frac{1}{4}$ sec. cor bears
S. 50 lks dist; which makes
the true bearing of this
line S. 89° 17' E.

I find a lime stone 14X12X6 ins
set in mound of stone, mkt
 $\frac{1}{4}$ on N. face. I mark SC in
addition on N. face.

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Retracement 5th. St. Par. through R. & E.,

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from which

A pinon 10 ins in diam.,
 bears $S. 14^{\circ} 75'E$ 54 lks. dist.,
 mkd. SC & S B T.

As this was the only bearing tree
 I mark two others as follows.

A pinon 6 ins in diam.,
 bears $N. 1^{\circ} E$ 75 lks. dist.,
 mkd. SC & S 36 B T.

A pinon 10 ins in diam.,
 bears $N. 47^{\circ} W.$ 157 lks. dist.,
 marked SC & S 36 B T.

Hence east from cor

No difference in chaining by two
 sets of chainmen.

99.63 SC of T. 21 N. R. 9 and 10 E.
 bears 5 lks S. which makes
 the true bearing of this line
 $S. 89^{\circ} 56'E.$

Retracement 5th. St. Pat. through R. 9E.

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I find a post 4 ins square
1 1/2 ft. above ground in
small mound of stone
mhd. T21 NR 9E S31 on
N.E., SC on S. T. 21 NR 9E
S36 on NW faces with 6
notches on N.E. and W. edges
from which

A pinon 5 ins in diam
bears N. 73° 20' E. 24 lks dist.,
marked T21 NR 10E S31 B 7.

A pinon 5 ins in diam
bears N. 45° 45' W. 23 lks dist.,
mhd. T21 NR 9E S36 B T.

Lead rolling.

Soil stony; 3rd and 4th rate.

Timber 7432 chs dense cedar and
pinon

Sept. 25, 1902.

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Retracement 5th. St. Par. through R. 9E.
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The retracement of the 5th
standard parallel through
~~Township~~ 21 N, R. 9E.
shows it has a general
bearing of $S. 89^{\circ} 52' E.$ and
total length to be 478.19 ch.

Marvin Gaudle
U. S. Deputy Surveyor.

Oct 16 1902. At 8 A.M.

l.m.t. I set off $35^{\circ} 07'$ on
lat. arc. $8^{\circ} 40'$ on decl arc
and with the solar determine
a true meridian.

Thence I run

West along S. bdy of sec 36
from the S.E. cor of T 21 N
R 8 E previously described

Over mountainous land
through heavy pine timber
banyon, 100 ft deep course N.E.

550

13.85

C.C. to Tps 20 N R 8 and 9 E
bear S. 3 lks. Westward and
marked as described by
surveyor general.

26.00

banyon 75 ft deep course N.E.
Difference between measure-
ments of 37.83 chs by two

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Retracement 5th. St. Par. through R. & E.
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sets of chammun is 4 lks
position of middle point
by first set 39.81 chs.
by second set 39.85 chs
mean of which is

39.83 Standard $\frac{1}{4}$ sec cor bears S 27
lks dist., true course S. 89° 39' W.

I find a post rotted off. I re-
establish at exact point
Set lime stone 20 X 10 X 6 ins
15 ins in the ground for
standard $\frac{1}{4}$ sec cor; mkd
SC $\frac{1}{4}$ on 1 face. from which
a pine 12 ins in diam.;
bears S. 28° 45' W. 58 lks dist.,
mkd SC $\frac{1}{4}$ S B T.

a pine 38 ins in diam
bears N 10° 30' W. 21 lks dist
mkd SC $\frac{1}{4}$ S B T.

These are the original bearing trees for this cor.

Thence West from cor.

18.00 Desc. S.W. slope.

25.00 Canyon 100 ft deep course N.W.

29.00 Ridge 100 ft high bears N.W. and S.E.

Difference between measurements of 4002 chs by two sets of chain run is 4 chs; position of middle point by first set 4000 chs by second set 4004 chs mean of which is

40.02 B.C. to sec 35 and 36 bears S.

22 lbs. dist which is a post rotted off, I reestablish as follows
True course S. 89° 41' W.

Set a sand stone 20x12x7

ins. 15 ins in the ground

for B.C. to sec 35 and 36

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Retracement 5th. St. Per. through R. 8 E.

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mkd SC on N. face 1 groove
on W and 5 grooves on E. faces
from which;

A pine 36 ins. in diam.,
bears N. $19^{\circ}55'E$ 147 lks dist.,

mkd. TXXI NR VIII E XXXVI B T.

A pine 38 ins in diam.,
bears N. $59^{\circ}14'W$. 65 lks dist.,

mkd. TXXI NR VIII E XXXV B T.

Land mountainous

Soil stony; 3rd and 4th rate

Timber 79. 85 cks heavy pine.

West on S bdy of sec 35-
Over mountainous land
through heavy pine timber.

3.90 Desc. N.W. slope.

7.45 Canyon 75 ft. deep course N.E.

9.45 Small drain course S.E.

26.00 Ridge, bears N.E. and S.W.

34.80 Drain course N.W.

Difference between meas-
urements of 3980 chs by
two sets of chain men
is 10 lks. position of middle point.
by first set 3985 chs.
by second set 3995 chs
mean of which is

39.90 Stand and $\frac{1}{4}$ sec. cor. bears S. 21
lks. dist., which is a post
rotted off. I reestablish
as follows. True course S. $89^{\circ}42'$ W.

Retracement 5th. St. Por. through R. 8 E.

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Set a sand stone $20 \times 12 \times 5$ ins
15 ins in the ground for stand
and $\frac{1}{4}$ sec. cor. marked SC $\frac{1}{4}$ on
N. face., from which

a pine 30 ins in diam
bears N. $9^{\circ} 30' E$. 88 lks dist
mkd. SC $\frac{1}{4}$ S B T.

A pine 30 ins. in diam.,
bears N. $26^{\circ} 30' W$. 71 lks. dist.,
mkd SC $\frac{1}{4}$ S B T.

These are the original bearing trees
Thence west from cor.

700 Ridge, bears N. and S.

2250 Ridge, bears N.W. and S.E.

Difference between measure
ments of 40.04 chs by two sets
of chain men is $\frac{1}{4}$ lks
position of middle point
by first set 40.02 chs.

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by second set 40.06
mean of which is

40.04 S.C. to secs 34 and 35 bears S
28 lbs. dist., which is a post
rotted off. I reestablish as
follows. True course S. $89^{\circ}36'$ W.

Set a sand stone $20 \times 12 \times 5$
ins 15 ins in the ground
for cor to secs 34 and 35. mkd
S.C. on N face; 2 grooves on W
and 4 grooves on E faces from which

A pine 30 ins in diam.,
bears N. $10^{\circ}41'$ E. 89 lbs. dist.,
mkd. TXXI N RVIII E XXXV B T.

A pine 30 ins in diam.,
bears N. 75° W. 17 lbs dist
mkd TXXIN RVIII E XXXIV B T.

These are the original bearing trees
Land mountainous

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Retracement 5th. St. Par. through R. 8 E.

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Soil stony; 4th rate.

Timber heavy pine 79.94 chs

✓ I set off $35^{\circ} 7'$ on lat. arc, $8^{\circ} 44'$
 on decl. arc and at $11^{\text{h}} 45^{\text{m}}$ A.M. I
 observe the sun on the meridian
 The resulting latitude is $35^{\circ} 7'$
 which is about correct.

5th St Pat. through R. 8 E.

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West from the S.C. to secs 34 and
35 on random line

14.06 C.C. to secs 2 and 3 T. 20 N.

R. 8 E. bears S. 3 lks dist
marked and witnessed as
described by surveyor general
I offset to this cor and con-
tinue random line west
setting temporary $\frac{1}{4}$ sec cor
and sec corners at intervals
of 400 chs. counting from
the S.C. to secs 34 and 35
and at 323 33 chs the cor
to T. 21 N R 7 and 8 E bears
N. 272 lks dist which is a
poor fire mound of
stone completely rotted and
destroyed. I reestablish cor
at same point as follows

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5th St Pat N. through R. & E.

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Set lime stone 22 X 12 X 8
 19 ins in the ground. mkt
 with S.C. on N. face and
 6 grooves on N and W faces,
 from which

A pine 33 ins in diam.,
 bears N. $17^{\circ}12'W$. 120 lks dist
 mkt S.C. TXXI N. RVII E. SXXXVI.

I chop out marks on NE B M.

The falling answers to a correction
 of 29' which is 8' in excess of the
 allowable limits. Therefore I
 make the random line the
 true line and from the S.C.
 of sec 34 and 35 I run

✓ S. $81^{\circ}53'W$.

On a stone line on S. side

of sec. 34

Over mount ainous land through

heavy pine timber
 14.06 C. cor. to secs. 2 and 3 T. 20 N R
 8 E., witnessed and marked
 as described by surveyor
 general.

Thence I run west

West from this cor counting the
 distance from the cor to secs
 34 and 35-

15.00 Desc. S.W. slope.

24.50 Bottom of canyon, course N.W.
 Foot of 75 ft. descent. asc.

26.00 Top of 75 ft. asc. bears N.W. and S.E.

29.50 Drain, course N.W.

31.50 Drain course N.E.

36.00 Low ridge, bears N. and S.

Difference between measure-
 ments of 40.00 chs by two sets
 of chain men is 2 lks.

5th. St Pat. N. through R. 8 E.

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position of middle point
 by first set 39.99 chs
 by second set 40.51 chs.
 mean of which is

40.00 Set sand stone 20X12X10 ins
 15 ins in the ground, for stand-
 ard $\frac{1}{4}$ sec. cor. marked SC $\frac{1}{4}$
 on N face; from which,
 a fine 6 ins in diam.,
 bears N. $7^{\circ}35'E$ 40 lks. dist.,
 mhd. SC $\frac{1}{4}$ S 34 B T.

A fine 24 ins in diam
 bears N. $17^{\circ}8'W$. 107 lks. dist.,
 mhd. SC $\frac{1}{4}$ S 34 B T.

- 48.00 Drain course N.W.
 54.00 Low ridge bears N. and S.
 55.00 Drain course S.E.
 69.00 Ridge, bears NE and S.W.
 75.00 Desc. gradually

Difference between measurements of 80.00 chs by two sets of chain men is 4 lks.

position of middle point

by first set 79.98 chs.

by second set 80.02 chs.

mean of which is

80.00

Set sand stone 22x14x12 ins
15 ins in the ground; for
S.C. to secs 33 and 34. mkd
S.C. on N., 3 grooves on E. and
W. faces. from which

A pine 6 ins. in diam.,
bears $N 11^{\circ} 15' E$. 46 lks. dist.,
mkd. S.C. T 21 N R 8 E S 34 B. T.

A pine 14 ins in diam.,
bears $N. 15^{\circ} 45' W$. 71 lks dist.,
mkd S.C. T 21 N R 8 E S 33 B. T.

Land mountainous.

70

5th. St. Pat. N. through R. 8E.

BOOK 1236

Soil stony; 3rd and 4th rate.

Timber 80.00 cks heavy pine.

Oct. 16, 1902.

Oct. 17, 1902. At 8 a.m. I set off $35^{\circ} 7'$ on lat. arc, $90^{\circ} 3' S$ on decl arc and with the solar determine a true meridian

Thence I run.

West on S. bdy. of sec. 33

Desc mountainous land through heavy pine timber.

5.75 Bottom of canyon course N. foot of 100 ft. descent. Asc. W slope.

21.00 Top of 100 ft. ascent bears N. and S.

23.00 Desc. W. slope

29.00 Bottom of canyon, course N.W.

Foot of 100 ft descent. ascend.

31.50 Top of 75 ft ascent bears N.E. and S.W.

Desc steep N.W. slope of Walnut Canyon.

Difference between measurements of 40.00 chs by two sets

of chain men is 10 lks.
position of middle point
by first set 40.05 chs
by second set 39.95 chs.
mean of which is

40.00 Set a sand stone 18X18X10 ins
12 ins in the ground for stand-
ard $\frac{1}{4}$ sec. cor. mkd SC $\frac{1}{4}$ on
N. face: from which

A spruce 6 ins in diam
bears N. $50^{\circ}15'E$. 78 lks dist.,
mkd. SC $\frac{1}{4}$ S 33 B. T.

As there are no other trees suit-
able in limits I raise a
mound of stone 2 ft base $\frac{1}{2}$
ft. high N. of cor.

Asc. from from cor.

49.60 Spruce 125 ft. high. Bears N. and S.
Desc. steep W. slope over lime stone

cliffs and ledges

64.00 Bottom of Walnut Canyon course
N.E. foot of 350 ft. descent.

Ascend steep S.E. slope through

lime stone ledges and boulders
78.00 Top W. Rim of canyon bro. S & N.E. 350 ft above
Difference between measure ^{fracture} _{bottom}

ments of 80.00 chs by two sets
of chain men is 6 lks.

position of middle point

by first set 79.97 chs.

by second set 80.03 chs.

mean of which is

80.00 Point for cor falls on steep slope
facing N., on south side of
side canyon, ^{Walnut Canyon}

Set sand stone 20x12x8 ins 15
ins in the ground for S.C to
use 32 and 33. mkd S.C on
N. 4 grooves on E and 2 grooves

44

5th. St. Par. through R. 8 E.

BOOK 1236

on W. faces., from which.

A pine 8 ins. in diam.,
 bears $N. 56^{\circ} 50' E.$ 75 lks. dist.,
 mkd SCT 21 NR 8 E S 33 B T.

A pine 12 ins. in diam.,
 bears $N. 53^{\circ} 55' W.$ 31 lks. dist.,
 mkd SCT 21 NR 8 E S 32 B T.

Land mountainous

Soil stony; 4 ch. rate.

Timber 8000 lbs heavy pine.

West on S. bdy of sec. 32.

Over mountainous land
through heavy pine timber.

3.00 Carry on 60 ft. deep, course N. 8. to E.

6.20 Low ridge bears N.E. and S.W.

thence over nearly level land

Difference between measurements
of 40.00 chs by two sets of chainmen
is 4 lks. position of middle point.

by first set. 39.98 chs

by second set 40.02 chs.

mean of which is

40.00 Set sand stone 30x14x12 ins 20
ins in the ground for standard
4 sec cor. mkd SC $\frac{1}{2}$ on N face
from which

An oak 6 ins in diam.
bears N. 62° E. 89 lks. dist.

mkd SC $\frac{1}{2}$ S 32 B T.

46

5th St. Par. N. through R. 8 E.

BOOK 1236

A pine 12 ins. in diam.,
 bears N. $65^{\circ}15'W$. 83 lks. dist.,
 mkd SC 4S 32 B T.

75.00

Gradually desc. W. slope

Difference between measurements
 of 80.00 chs by two sets of chainmen
 is nothing.

80.00

Set a lime stone $24 \times 10 \times 8$ ins
 12 ins in the ground for SC
 to sec 31 and 32., mkd. SC
 on N. 5 grooves on E and 1 groove
 on E faces., from which,

A pine 8 ins in diam
 bears N. $51^{\circ}10'E$. 64 lks. dist.,
 mkd SC T 21 N R 8 E S 32 B T.

A pine 30 ins in diam
 bears N. $17^{\circ}20'W$. 69 lks. dist.,
 mkd SC T 21 N R 8 E S 31 B T.
 Land rolling and mountainous

5th. St. Pat through R. 8 E.

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BOOK 1236

Soil stony; 3rd and 4th rate.

Timber 80.00 chs. heavy pine

Oct 17 At this cor at 11^h 46' AM.

I. m't I set off $35^{\circ} 7'$ and lat

arc. $9^{\circ} 6' 30''$ on decl arc and

observe the sun on the meridian

The resulting latitude is

$35^{\circ} 7'$ which is about correct.

- West on S. bdy of sec. 31
 Over mountainous land through
 heavy pine timber.
- 4.50 Ravine 40ft. deep, course S.
 14.50 Ravine 70ft. deep, course S.
 17.25 Rim of Walnut Canyon bears N.W.
 and S.E. Desc. steep S.W. slope
 over numerous ledges and cliffs
- 34.00 Bottom of Walnut Canyon, course
 S.E. foot of 40ft. dis. thence
 over bottom of canyon over large
 lime stone boulders.
- 40.00 Set sand stone 24X12X8 ins 1 cins
 in the ground for stand and 4
 sec. cor. mkt'd SC $\frac{1}{4}$ on N. face
 from which
 A point + on a lime stone
 ledge 50 ft high bears N. 138
 lks dist
 As there are no trees suitable

5th. St. Por. N through R. 8E.

49

BOOK 1236

in limits I raise a mound of
stone 2 ft. base $1\frac{1}{2}$ ft high N. of cor.

Pits unpracticable

45.00 Asc. steep N.E. slope

56.00 S fur beams N and S. 150 ft high

Desc. steep W. slope.

64.00 Walnut Canyon course N.E.

Ascend steep S.E. slope over
lime stone ledges and boulders

82.00 Top of 400 ft ascent bears N.E. and
S.W. thence over nearly level land

83.33 The S.C. to T. 21 N. R. 7 and 8 E.

bears N. 272 lks dist. I change
the markings and witnesses to
refer to T. 21 N. R. 7 E. only

Set a lime stone $30 \times 14 \times 6$ ins 20
ins in the ground for C.C. to

T. 21 N. R. 8 E. mkd C.C. on E

six grooves on N and E. faces.

50 5 St. Pat. N. through R. 8 E.

BOOK 1236

from which

A pine 36 ins in diam.,
bears N. 44° 9'E, 137 lks. dist
mkd. CCT21NR8ES31BT

Land mountainous

Soil stony 4th rate.

Timber 87.33 chs heavy pine.

Oct. 17. 1902

Marvin Gaudle

U.S. Deputy Surveyor.

5th. St. Pat. N. through R. 5E.

5-1

see BK. 1236 FOR RESURVEY

Dec. 1, 1902. At 8^h 30' A.M. l.m.t.
I set off 21° 41' 2" S on decl. arc
35° 7' 10" N. on lat. arc and determine
a true meridian with the
solar at the standard cor.
of secs. 31 and 32 T. 21 N. R.
5E. which is a post greatly
decayed m.k.d. and witnessed
as described by surveyor general
I therefore set a lime stone
14 x 10 x 6 ins. 10 ins. in the ground
for standard cor. to secs. 31 and
32 m.k.d. S. C. on N with 1
groove on W. and 6 grooves on E. faces.
Thence I run
East, along S. bdy. of sec. 32
over mountainous land through
heavy pine timber. Ascend
from cor.

5-2 5 ch. St. Par. N. through R. 5 E

BOOK 1236

15.25 Ridge, 50 ft high bears N. 10' W
S. 10' E.

20.85 Bottom of gulch, course S. 18' W.
Ascend.

27.85 Ridge, bears N. and S.

Difference between measure-
ments of 40.00 chs. by two sets
of chain men is 10 lbs.
position of middle point
by first set 39.95 chs
by second set 40.05 chs.
mean of which is

40.00 Set a sand stone 16 x 12 x 7 ins.
11 ins. in the ground for
standard 4 sec. cor. mkd S.C.
4 on N. face; from which
A pinon, 15 ins. in diam. bears N. 56° E.
7 lks. dist mkd. S.C. 4 S 32 B T.
As other trees in limits suitable

for bearing trees I saw a
mound of stone 2 ft. base, $1\frac{1}{2}$ ft.
high N. of cor. Pits Impracticable

56.90 Descend bears N.W. and S.E.

58.85 Gulch, course S.E. ascend.

63.65 Ridge bears N. 15° W. S. 15° E.

67.05 Gulch, course S. 10° E.

Difference between measure-
ments of 80.00 chs by two sets
of chain men is 12 lks;
position of middle point
by first set 79.94 chs.
by second set 80.06 chs.
mean of which is

80.00 Set a lime stone 28 x 10 x 9 ins. 15 ins
in the ground for S. C to secs. 32
and 33 incl S.C. on N. with 2
grooves W. and 4 grooves on E. faces;
from which

54

5th. St. Pat. N. through R. 5E.

BOOK 1236

A pinon, 18 ins. in diam, bears N ^{17°45'} 30' W.

6 4 lks. dist. mkd S.C. T 21 N R 5 E S 3 2 B T.

A pine, 32 ins. in diam, bears N 57° E.

70 lks. dist. mkd S.C. T 21 N R 5 E S 3 3 B T.

Land, mount. aridous

Soil, stony; 4th. rate.

Timber, pine.

Mount. aridous and heavily
timbered land 80,000 chs.

East. along S. bdy. of sec. 33

Over mount. aridous land
through heavy pine timber.

10.00 Canyon, course S.

12.00 Edge of bluff, descend. bears
N.W. and S.E.24.25 Same canyon 300 ft deep, course
S. 80° W. thence along canyon.

28.75 Leave canyon, course from S.E.

to W. ascend

37.60

Spur 200 ft. high bears N. and S.

Difference between measurements
of 40.00 chs. by two sets of chain-
men is 16 lks; position of mid-
dle point.

by first set is 40.08 chs

by second set is 39.96 chs.

mean of which is

40.00

Point for $\frac{1}{4}$ sec. cor. falls in bottom of
canyon. course from S.E. to S.W.

Set a lime stone 16 x 12 x 8 ins
11 ins. in the ground for ~~stone~~
land $\frac{1}{4}$ sec. cor. mkd S C $\frac{1}{4}$ on
N face; from which.

A pine, 26 ins. in diam., bears N. 79° E.

158 lks. dist mkd S C $\frac{1}{4}$ S₃₃ B T.

An aspen, 5 ins. in diam., bears N. 63° E.

20 lks. dist mkd S C $\frac{1}{4}$ S 33 B T.

5 ch. St. Pat. N. through R 5 E.

BOOK 1236

Ascend from car.

49.65 Spur, 100 ft. high, bears N. and S.

50.25 Canyon, course S.

64.25 Ridge, 200 ft. high bears N. and S.

Descend.

65.90 Canyon, 3 chs. wide course N. W.

69.00 Ascend, bears N. W. and S. E.

Difference between measurements
of 80.00 chs. by two sets of chain-
men is 18 lks.

position of middle point

by first set 80.09 chs.

by second set 79.91 chs.

mean of which is

80.00

Set a malpais stone 20 x 10 x 8 ins

15 ins. in the ground for S.C.

→ of 200 33 & 34
 N. of S.C. on N., with 2 grooves
 on E. and W. faces, from which

A pine, 30 ins. in diam, bears N. 27° E

5th St. Pat. through R. 5E.

57

BOOK 1236

80 lks. dist. incl. S.C. T21 N R 5 E S 34 B T.

A fine, 34 ins. in diam. brass N. 65° W.

57 lks. dist. incl. S.C. T21 N R 5 E S 34 B T.

Land, mountainous

Soil, stony; 4th. rate.

Timber, heavy pine.

Mountainous and heavily timbered
land 50.00 chs.

Dec 1 at this cor. at 11^h 48' 53" A.M.

✓ I. m. t. I set off 21° 44' S. on
decl. arc and observe the sun
on the meridian. The resulting
latitude is 35° 7' N. which
is correct.

East. on a random line along

S. bdy. of sec. 34

Difference between measurements
of 36.09 chs. by two sets of chainmen

is 12 lks. position of middle point
 by first ^{set} is 36.03 chs.
 by second set is 36.15 chs.
 mean of which is

36.09 The old stand and $\frac{1}{2}$ sec. cor. bears
 N. 7.86 chs. dist. which is a
 post 4 ins. square. rkt. and
 witnessed as described by sur-
 veyor general.

Thence I run

S. 77° 43' W. on a true line along
 S. bdy of sec. 34

Over mountainous land through
 heavy pine timber and oak brush.

31.00 Descend. bears N.E. and S.W.

36.94 The S.C. of secs 33 and 34
 Land mountainous

5 ch. SE. Cor. N. through R. 5 E.

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BOOK 1236

Soil, stony; 4 ch. rate.

Timber, heavy pine and oak
brush.

Mountainous and heavily
timbered land 36.94 chs.

From the standard 4 sec. cor I return

S. bdy of Sec. 34

East, retracing S bdy of sec 34.

Over mountainous land through
heavy pine timber and oak brush.

30.67 C.C. to secs. 2, 3 T. 20 N. R. 5 E. bears

N. 12 lks. dist. which is a post
greatly decayed I reestablish
as follows.

Set a malpais stone 16 x 9 x 9 ins.

10 ins. in the ground for C.C. to Secs.

2 and 3 mkd C.C. on S. with 2 grooves

on E. and 4 grooves on W. faces; raise a

BOOK 1236

mound of stone 2 ft base 1 1/2 ft high
S. of cor. Pits unpracticable.
from which

A pine 10 ins. in diam. bears S. 70° W.

29 lks. dist mkt. CC T 20 N R 5 E S 3 B T.

Difference between measurements
of 40.03 chs. by two sets of chammers
& 8 lks. position of middle point
by first set is 39.97 chs.
by second set is 40.07 chs.
mean of which is

40.03

The S.C. of secs. 34 and 35 bears N. 15°
lks. dist. which is a post 3 ins square
set in mound of stone witnessed
and mkt. as described by surveyor
general.

Land, mountainous.

Soil, stony; 4th rate

Timber, pine and oak brush 40.03 chs

Dec. 1, 1902.

A P P R O V A L.

Office of the
 United States Surveyor-General,
 Phoenix, Arizona.

April 25th 1904

The foregoing field notes of the ~~sur-~~
~~vey~~ of retracement of the 5th Stand. Par-
 N-thro: R 998 & a part of 5 East
 of the Gila and Salt River Base and Me-
 ridian, in the Territory of Arizona,
 executed by *Candle & Candle*
 United States Deputy Surveyor, under his
 contract No. 97, dated June 30 1902,
 having been critically examined, and the
 necessary corrections and explanations
 made, the said field notes, and the sur-
 veys they describe, are hereby approved.

Frank A. Adams
 U.S. Surveyor-General.