

1885
Book "A"

FIELD NOTES BOOK 1885

OF THE SURVEY OF THE

*Subdivision lines of Township 3
North Range 31 East.*

1885

1885

Of the *Gila and Salt River* Meridian,

Territory of Arizona

AS SURVEYED BY

John P. Hesse, United States Deputy Surveyor,

Under his Contract No. *121*, dated *June 17*, *1804*

Survey commenced *Sept 14*, *1804*

Survey completed *Oct 4*, *1804*

NAMES AND DUTIES OF ASSISTANTS.

George W. Cassidy

Chairman

A. A. Snyder

Chairman

W. W. Oliver

Axman

G. E. Wiswell

Axman

W. H. Post

Playman

BOOK 1885
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PRELIMINARY OATHS OF ASSISTANTS.

WE, George W. Cassidy and A. A. Snyder
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the subdivision lines of Pp. 3 N. Rg. 31 E.

George W. Cassidy, Chainman.
A. A. Snyder, Chainman.

Subscribed and sworn to before me this 1st
day of August, 1904



John P. Hesse
U. S. Dep. Surveyor

WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, Moundman.
_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189 _____



WE, W. W. Oliver and G. E. Wiswell
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of the subdivision lines of Pp. 3 N. Rg. 31 E.

W. W. Oliver, Axman.
G. E. Wiswell, Axman.

Subscribed and sworn to before me this 1st
day of August, 1904



John P. Hesse
U. S. Dep. Surveyor

I, W. H. Fort, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the subdivision lines of Pp. 3 N. Rg. 31 E.

W. H. Fort, Flagman.

Subscribed and sworn to before me this 1st
day of August, 1904



John P. Hesse
U. S. Dep. Surveyor

No notary available

Chs.

Survey commenced Sept. 14th, 1904, and executed with a W. and L. E. Gurley Solar Compass, not numbered. The horizontal limb is provided with two double verniers reading to single minutes of arc which is also the least count of the vernier of the latitude arc.

The vernier of the declination arc reads to 30 seconds of arc.

The instrument was examined, tested on the meridian at Phoenix, Arizona, March 3rd, 1904, and was approved by the Surveyor-General for Arizona.

I examine the adjustments of the Compass and find them in perfect condition. Then to test the Solar attachment, by comparing its indications made during a. m., and p. m., hours with a meridian determined by an observation on Polaris, I proceed as follows-

At the cor. of secs. 35 and 36 on the S. bdy. of Tp. 3 N., R. 31 E., heretofore established and described by me, in latitude $33^{\circ} 33' 07''$ N., Long. $109^{\circ} 05' W.$, I set off $33^{\circ} 33' N.$, on the lat. arc., $3^{\circ} 29' N.$, on the declination arc, and at 4 hours and 12 minutes, p. m., l. m. t., by my watch which is correct, determine with the Solar a meridian, and mark a point thereof, in a stone firmly set in the ground 5 chs. N. of the Cor.

At 7 hs. 54 mins. p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Surveying Instructions, and mark a point in the line thus determined, on a stone firmly set in the ground 5 chs. N. of the cor.

Sept. 14th, 1904.

Sept. 15, 1904, at 7.30 a. m., l. m. t., I lay off the azimuth of Polaris $1^{\circ} 27'$ to the West, and mark the meridian thus determined, by cutting a small groove in the stone set Sept. 14th, on which the meridian falls .32 ins., east of the mark determined by the Solar.

At 8 hours, 5 minutes, a. m., l. m. t., I set off $3^{\circ} 03' 30''$ N., on the dec. arc; $33^{\circ} 33' N.$, on the lat. arc and mark a point in the meridian determined with the Solar, on the stone already set 5 chs. N. of my station; this mark falls .26 ins., east of the meridian established by the Polaris observation.

The Solar apparatus by p. m. and a. m. observations defines positions for meridians, respectively about $0' 17'' W.$, and $0' 14''$ East of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8hs. 20 minutes a. m., is $N. 17' 15'' W.$, the angle thus determined gives the magnetic declination $17^{\circ} 15' E.$

From the cor. of secs. 35 and 36 on the South boundary of the Township, I run, $N. 0^{\circ} 01' W.$, on a true line, bet. secs. 35 and 36.

Over rough rolling mountains through dense pine timber. Descending.

1.50 Wash, 5 lks. wide, course N. W. and ascend.
18.45 Cross wash at the bottom of Humphrey's Canon, 15 lks. wide, course N. W.
39.00 Cross wash, 15 lks. wide, course S. W.
40.00 Set a limestone, 18 x 12 x 7 ins., 12 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence,

2.

Subdivisional lines in Tp. 3 N., R. 31 E., Continued.

Chs.	A pine, 18 ins., in diam. brs. S. 50 1/2° E., 69 lks. dist. mkd. 1/4 S. 36 B. T.
49.85	A pine, 34 ins., in diam. brs. N. 31 1/4° W., 42 lks. dist. mkd. 1/4 S. 35 B. T.
80.00 ✓	Cross wash, 10 lks. wide, course S. W. Set a malpais stone, 16 x 12 x 12 ins., 10 ins., in the ground for the corner of sections 25, 26, 35 and 36, marked with 1 groove on the S. and E. edges, whence, A pine, 12 ins., in diam. brs. N. 70° E., 27 lks. dist. mkd. T. 3 N., R. 31 E., S. 25 B. T. A pine, 8 ins., in diam. brs. S. 29 1/2° E., 27 lks. dist. mkd. T. 3 N., R. 31 E., S. 36 B. T. A pine, 4 ins., in diam. brs. S. 62 3/4° W., 34 lks. dist. mkd. T. 3 N., R. 31 E., S. 35 B. T. A juniper, 38 ins., in diam. brs. N. 57 3/4° W., 48 lks. dist. mkd. T. 3 N., R. 31 E., S. 26 B. T. Land rough mountains 80. chs. Soil rocky and 4th rate. Timber, pine and juniper dense, 80.00 chs. Some oak underbrush.
40.00	N. 89° 56' E., on a random line, bet. secs. 25 and 36'
80.12	Set temp. 1/4 sec. cor. Intersect the east boundary of the Tp. at 9 lks. N. of the cor. of secs. 25, 30, 31 and 36, thence, I run, WEST, on a true line bet. secs. 25 and 36. Over rough mountains through heavy pine and juniper timber.
29.55	Top of spur bears N. and S. thence over rolling mountains.
40.06 ✓	Set a limestone, 18 x 12 x 8 ins., 12 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, whence, A pine, 20 ins., in diam. brs. S. 49° E., 8 lks. dist. mkd. 1/4 S., 36 B. T. A juniper, 28 ins., in diam. brs. N. 45° W., 56 lks. dist. mkd. 1/4 S. 25 B. T. Descending.
48.75	Cross wash, 15 lks. wide, course N. W. and ascend. Ascend steep east slope through heavy pines and juniper.
80.12	The cor. of secs. 25, 26, 35 and 36. Land rough mountains and heavy juniper and pine timber 80.12 chs. Soil, rocky and 3rd to 4th rate. Some scrub underbrush.
	Sept. 15th, 1904.
32.60	Sept. 16, I set off 33° 34' N., on the lat arc. 2° 39' 00" N., on the decl. arc and at 9 hours, 16 minutes, a. m., 1. m. t., I determine a meridian with the Solar.
40.00 ✓	Thence I run, N. 0° 01' W., on a true line, bet. secs. 25 and 26. Over rough mountainous land. Descending thro. pine and juniper timber. Heavy growth. Cross wash, 10 lks. wide, course E. and ascend. Set a malpais stone, 18 x 12 x 8 ins., impossible to set in ground, in a mound of stone, marked 1/4 on the W. face, whence, A pinon, 10 ins., in diam. brs. S. 11 1/2° E., 38 lks. dist. mkd. 1/4 S. 25 B. T. A juniper, 14 ins., in diam. brs. N. 59 1/2° W., 30 lks. dist. mkd. 1/4 S. 26 B. T.

8.

Subdivisional lines in Tp. 3 N., R. 31 E., Continued.

Chs.
50.00 Cross wash, 20 lks. wide, course E.
58.00 Cross wash, 15 lks. wide, course E.
76.12 To brink of canon, course E.
77.90 Wash, 10 lks. wide, in bottom of same. *Course E.*
Ascend steep.
80.00 ~~A cross on a malpais rock in place, at exact cor.~~
point, the rock, is 4 x 4 x 4 ft. above ground, I mark
2 grooves S. and 1 groove E. of cross, whence,
A Spruce, 14 ins., in diam. brs. N. 46 1/2° E.,
113 lks. dist. mkd. T. 3 N., R. 31 E., S. 24 B. T.
A spruce, 12 ins., in diam. brs. S. 19 3/4° E.,
16 lks. dist. mkd. T. 3 N., R. 31 E., S. 25 B. T.
A spruce, 10 ins., in diam. brs. S. 80 1/2° W.,
13 lks. dist. mkd. T. 3 N., R. 31 E., S. 26 B.T.
A pine, 6 ins., in diam. brs. N. 30° W., 94
lks. dist. mkd. T. 3 N., R. 31 E., S. 23 B. T.
Land rough mountains and covered with dense pine,
juniper and spruce timber 80. chs.
Soil, rocky and 4th rate.

EAST, on a random line bet. secs. 24 and 25.
Over rough mountains.
40.00 Set temp. 1/4 sec. cor.
80.18 Fell 28 lks. N. of the cor. of secs. 19, 24, 25 and
30 on the E. boundary of the Tp. heretofore estab.
and described by me, thence I run,
N. 89° 48' W., on a true line, bet. secs.
24 and 25.
Over rough mountains through dense pine and juniper
timber.
7.12 Top of ridge bears N. E. and S. W. and descend.
15.00 Wash, 15 lks. wide, course N. W.
40.09 ✓ Set a malpais stone, 18 x 8 x 6 ins., 12 ins., in
the ground for 1/4 sec. cor. marked 1/4 on the N.
face, whence,
A juniper, 12 ins., in diam. brs. N. 84° E.,
70 lks. dist. mkd. 1/4 S. 24 B. T.
A juniper, 12 ins., in diam. brs. S. 60° E.,
9 lks. dist. mkd. 1/4 S. 25 B. T.
43.08 Wash, 15 lks. wide, course S.
63.40 Wash, 15 lks. wide, course N. E. and descend over
rolling mountains.
80.18 The cor. of secs. 23, 24, 25 and 26.
Land rough mountains covered with dense pine and
juniper timber 80.18 chs.
Soil, 4th rate.
At this cor. at 12 o'clock noon, I set off
2° 36' N., on the decl. arc and observe the sun on
the meridian the resulting latitude is 33° 35' N.

N. 0° 01' W., on a true line bet. secs. 23 and 24.
Descending steep N. E. slope of mountain, through
dense pine and juniper timber into canyon.
15.00 Cross wash, 15 lks. wide, course N. W. and ascend.
33.00 Over rolling mountains.
40. ✓ Set a limestone, 18 x 14 x 8 ins., 12 ins., in the
ground for 1/4 sec. cor. marked 1/4 on the W. face,
whence,
A juniper, 10 ins., in diam. brs. N. 87° E.,
34 lks. dist. mkd. 1/4 S. 24 B. T.
A pine, 4 ins., in diam. brs. S. 22° W., 42 lks.
dist. mkd. 1/4 S., 23 B. T.
56.05 ✓ Into breaks of canon.
77.37 I mark a cross (x) on a limestone rock in place, 4 x
7 x 5 ft. above ground, and W. C. 3 grooves on the S.
and 1 groove on the E. of cross, for witness corner

Subdivisional lines in Tp. 3 N., R. 31 E., Continued.

to the cor. of secs. 13, 14, 23 and 24, whence,
 An oak, 7 ins., in diam. brs. S. 35° W., 245
 lks. dist. mkd. W. C. T. 3 N., R. 31 E., S. 23 B.T.
 A pine, 12 ins., in diam. brs. S. 1° E.,
 37 lks. dist. mkd. W. C. T. 3 N., R. 31 E., S. 24
 B. T.
 A pine, 12 ins., in diam. brs. N. 67 1/4° W.,
 112 lks. dist. mkd. W. C. T. 3 N., R. 31 E., S. 23 B.T.
 No other trees within limits and raise a mound
 of stone, 2 1/2 ft. base, 2 ft. high, W. of the Cor. THIS IMPRACT.
 This Witness Corner, is on the edge of a cliff 75
 ft. high.
 80.00 The point for Cor. falls on an inaccessible place, a steep
 hence the witness corner, ^{shaly} slope impracticable to set cor.
 Land rough mountains covered with dense pinon, pine
 and juniper timber 80.00 chs.
 Soil, 2nd and 4th rate.

Sept. 16th, 1904.

Sept. 17th, 1904, at 7 hours, 5 minutes, a.m., l.m.t.
 I set off 33° 36' N., on the lat. arc; 2° 18' 30"
 N. on the decl. arc and determine a meridian with the
 Solar, thence I run, S. 89° 48' E., on a random line
 bet. secs. 13 and 24., from the Cor. point.
 40.00 Set temp. 1/4 sec. cor.
 80.20

Fall 40 lks. S. of the cor. of secs. 13, 18, 19 and
 24, as heretofore established and described by me.
 Thence I run, S. 89° 55' W., on a true line bet.
 secs. 13 and 24.

Over rough mountainous land through dense pine timber.
 16.00 As the point for 1/4 sec. cor. falls in Cow Creek
 Canon, where if constructed, it would be subject to
 destruction, I establish at this point on the breaks
 of Cow Creek Canon, on a limestone in place, 4 x 4
 x 8 ft. above ground, a witness point, as follows-
 Mark a cross (X) at the 16. chain point, and W.P. N.
 of cross, whence,

A pinon, 4 ins., in diam. brs. N. 55 3/4° W.,
 59 lks. dist. mkd. W. P. B. T.

A pinon, 10 ins., in diam. brs. S. 75 1/2° E.,
 70 lks. dist. mkd. W. P. B. T.

From this Witness Point, I offset N. 25.96 chs.
 thence S. 89° 48' W., on offset line, to avoid the
 Canon known as Cow Creek, where the walls are perpen-
 dicular.

45.20 Cross wash bottom of Cow Creek Canon, 15 lks. wide,
 course S. 85° W.

64.20 To a point, thence S. 25.96 chs. to the ^{PT FOR THE} Witness Cor.
~~for the~~ cor. of secs. 13, 14, 23 and 24.

Land rough mountins over breaks of Cow Creek Canon.
 Timber pine. Soil rocky and 4th rate.

I was unable to establish a witness corner within
 20 chs. of the objective corner on a surveyed line,
 or within 20 chs. off said line, hence the witness pt.

From the Cor. point for the cor. of secs. 13, 14,
 23 and 24, I run, N. 0° 01' W., on a true line,
 bet. secs. 13 and 14.

Descending into Canon of Cow Creek, through pine oak
 and fir timber.

11.50 Cross wash, course W. 15 lks. wide. and ascend.
 40.00

Set a malpais stone, 16 x 16 x 8 ins., ¹⁶ ins., in
 the ground for 1/4 sec. cor. marked 1/4 on the W.
 face, whence,

An oak, 10 ins., in diam' brs. S. 35° E. 31

5. Subdivisional lines in Tp. N., R. 31 E. Continued.

<p>Chs. 46.50 61.85 80.00</p>	<p>1ks. dist. mkd. 1/4 S. 13 B. T. A juniper, 14 ins., in diam. brs. N. 69° W., 99 lks. dist. mkd. 1/4 S. 14 B. T. Wash, 15 lks. wide, course N. W. Wash, 15 lks. wide, course W. Set a malpais stone, 24 x 6 x 6 ins., 18 ins., in the ground for the cor. of secs. 11, 12, 13 and 14, marked with 4 grooves on the S. and 1 groove on the E. edges, whence, A pine, 18 ins., in diam. brs. N. 61° E., 224 lks. dist. mkd. T. 3 N., R. 31 E., S. 12 B. T. A pine, 16 ins., in diam. brs. S. 63 1/2° E., 313 lkd. dist. mkd. T. 3 N., R. 31 E., S. 13 B. T. A pine, 14 ins., in diam. brs. S. 36° W., 43 lks. dist. mkd. T. 3 N., R. 31 E., S. 14 B. T. A pine, 4 ins., in diam. brs. N. 68° W., 30 lkd. dist. mkd. T. 3 N., R. 31 E., S. 11 B. T. Land rough and mountainous 80.00 chs. Desne pine, juniper and oak timber 80. chs. Soil, rocky and 4th rate.</p>
<p>40. 79.96</p>	<p>----- N. 89° 55' E., on a random line bet. secs. 12 and 13, Set temp. 1/4 sec. cor. ^{12 lks. N. of cor.} Intersect the east bdy. of the Tp. at the cor. of secs. 7, 12, 13 and 18. Thence I run, WEST, on a true line bet. secs. 12 and 13, over rough rolling mountains. through dense pine, juniper and oak timber. Set a malpais stone, 18 x 12 x 12 ins., 12 ins., in the ground for 1/4 sec. cor. mkd. 1/4 on the N. face, whence, A pine, 8 ins., in diam. brs. S. 54 3/4° E., 88 lks. dist. mkd. 1/4 S. 13 B. T. A pine, 18 ins., in diam. brs. N. 76° W., 100 lks. dist. mkd. 1/4 S. 12 B. T. The Cor. of secs. 11, 12, 13 and 14. Rough mountainous land 79.96 chs. Dense timber of cedar, oak and pinon 79.96 chs. Soil rocky and 4th rate.</p>
<p>79.96</p>	<p>Sept. 17th, 1904.</p>
<p>23.00 25.50 26.00</p>	<p>Sept. 18th, 1904, at 8 hours, 10 minutes, a. m., 1. m. t., I set off 1° 53' 00" N., on the lat. arc and 33° 36 1/2' N., on the lat. arc and determine a true meridian with the Solar at the cor. of secs. 11, 12, 13 and 14, thence I run, N. 0° 01' W., on a true line, bet. secs. 11 and 12, Over rolling mountains through pine and oak timber. Descending. A. R. Snyder's house bears West 2.00 chs. dist. Corner fence, same bears N.W. and S. W. Irrigating ditch, 5 lks. wide, course S. W. Thence Over bottom land through dense cottonwood timber.</p>
<p>27.75 28.30 28.60 28.95 36.70 37.30 39.50 40.00</p>	<p>Cross a wagon road bears S. W. and N. E. South side of barn. N. side of barn (boards and shake roof.) Log fence bears N. W. and S. E. Cross Blue River, 20 lks. wide, course S. W. Log fence bears E. and W. Ascending steep S. E. slope of ridge. Set a malpais stone, 30 x 12 x 6 ins., 22 1/2 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence, An oak, 20 ins., in diam. brs. S. 73 3/4° W.,</p>

Chs. ✓ 26 lks. dist. mkd. 1/4 S. 11 B. T.
 An oak, 4 ins., in diam. brs. N. 62 3/4° E., 36
 43.67 lks. dist. mkd. 1/4 S. 12 B. T.
 80.00 ✓ Over rolling mountains along gentle E. slope.
 Set a malpais stone, 18 x 10 x 4 ins., 12 ins., in
 the ground for the cor. of secs. 1, 2, 11 and 12,
 marked with 5 grooves on the S. and 1 groove on the
 E., edges, whence,
 An oak, 4 ins., in diam. brs. N. 38 1/4° E.,
 59 lks. dist. mkd. T. 3 N., R. 31 E., S. 1 B. T.
 An oak, 10 ins., in diam. brs. S. 77° E., 90
 lks. dist. mkd. T. 3 N., R. 31 E., S. 12 B. T.
 An oak, 5 ins., in diam. brs. S. 69° W., 131
 lks. dist. mkd. T. 3 N., R. 31 E., S. 11 B. T.
 A juniper, 24 ins., in diam. brs. N. 34 1/2°
 W., 285 lks. dist. mkd. T. 3 N., R. 31 E., S. 2 B. T.
 Land rough mountains or covered with heavy timber
 80.00 chs.
 Timber pine and oak.
 At this section corner at 12, o'clock, noon,
 1. m. t., I set off 1° 48' 30'' N., on the decl.
 arc and observe the Sun on the Meridian, the result-
 ing latitude is 33° 37' N.

EAST, on a random line, bet. secs. 1 and 12,
 40. Set temp. 1/4 sec. cor.
 80.12 Fell 12 lks. S. of the cor. of secs. 1, 6, 7 and 12
 on the East boundary of the Tp.
 Thence I run, S. 89° 55' W.,
 On a true line bet. secs. 1 and 12 Over slope of
 mountain through scattering cedar and oak brush.
 40.06 ✓ Set a limestone, 18 x 12 x 3 ins., 12 ins., in the
 ground for 1/4 sec. cor. marked 1/4 on the N. face,
 whence,
 A pine, 12 ins., in diam. brs. N. 22 1/2° E.,
 34 lks. dist. mkd. 1/4 S. 1 B. T.
 A pine, 10 ins., in diam. brs. S. 17 1/2° W.,
 42 lks. dist. mkd. 1/4 S. 12 B. T.
 46.68 Top and over rolling mountains, descending.
 54.15 Wash, 12 lks. wide, course N. W.
 58.95 Top of ridge bears N. W. and S. E. and descend.
 67.10 Enter river cottonwoods, thence over canon bottom.
 68.80 Cross Blue River 25, lks. wide, course S. and road
 on bank of same.
 75.95 Irrigating ditch, course S. W. 18 lks. wide, and leave
 Canon bottom, and begin ascent.
 80.12 ✓ The Cor. of secs. 1, 2, 11 and 12.
 Land rough mountains 80.12 chs.
 Cottonwood, ash and hackberry timber dense, in Blue
 River Canon.
 Pine and oak timber on mountain slopes.
 Some scrub cedar and oak underbrush.

N. 0° 1' W., on a random line, bet. secs. 1 and 2.
 40.00 Set temp. 1/4 sec. cor.
 80.30 ✓ To Center of Wash, 10 lks. wide, course, N. E. and
 fall 12 lks. E. of the Witness Cor. to the Cor.
 of secs. 1, 2, 35 and 36, on the north boundary of
 the Tp. said W. C. being 20 lks. W. of the true cor.
 pt.
 Thence I run, S. 0° 02' W., on a true
 line, bet. secs. 1 and 2. from the cor. pt. in wash.
 Over rough mountainous land.
 Through pine and pinon timber.
 40.30 ✓ Set a limestone, 18 x 10 x 8 ins., 12 ins., in
 the ground for 1/4 sec. cor. marked 1/4 on the W.
 face, whence,

7.

Subdivisional lines in T. 3 N., R. 31 E., Continued.

	Chs.	A pñon, 4 ins., in diam. brs. N. 70° E., 16 lks. dist. mkd. 1/4 S. 1 B. T.
		A pinon, 10 ins., in diam. brs. S. 74° W., 45 lks. dist. mkd. 1/4 S. 2 B. T.
	51.00	Cross wash, 10 lks. wide, course S. E.
	55.95	A md. of stone on line.
	70.50	Cross wash, 12 lks. wide, course E.
	80.30	The cor. of secs. 1, 2, 11 and 12. Land rough mountains 80.30 chs. Dense pine and pinon timber. 80.30 chs. Soil rocky and 4th rate. Some oak and cedar undergrowth. Sept. 18, 1904.

		At the cor. of Secs. 35 and 34 on the South boundary of the Township I set off 33° 33' N., on the Lat. arc. 1° 32' 00" N., on the Decl arc, and at 7 hours, 15 minutes, a. m., l. m. t. I determine a true meridian with the Solar thence I run, N. 0° 01' W., on a true line, bet. secs. 34 and 35.
		Along N. E. slope of rough mountains through heavy pine and juniper timber.
	40.00	Set a malpais stone, 36 x 36 x 10 ins., 10 ins., in the ground to bed rock with a mound of stones surrounding same, and marked 1/4 on the W. face, whence, A pine, 15 ins., in diam. brs. N. 54 1/2° E., 35 lks. dist. mkd. 1/4 S. 35 B. T. An oak, 5 ins., in diam. brs. N. 44° W., 23 lks. dist. mkd. 1/4 S. 34 B. T.
	44.25	Cross wash, 10 lks. wide, course N. E.
	80.00	Set a malpais stone, 36 x 18 x 5 ins., 27 ins., in the ground, for the cor. of secs. 26, 27, 34 and 35 marked with 1 groove on the S. and 2 grooves on the E. edges, whence, An oak, 4 ins., in diam. brs. N. 21° 1/2° E., 62 lks. dist. mkd. T. 3 N., R. 31 E., S. 26 B. T. A spruce, 7 ins., in diam. brs. S. 18° E., 52 lks. dist. mkd. T. 3 N., R. 31 E., S. 35 B. T. An oak, 5 ins., in diam. brs. S. 86 1/2° W., 28 lks. dist. mkd. T. 3 N., R. 31 E., S. 34 B. T. A spruce, 14 ins., in diam. brs. N. 64 3/4° W., 68 lks. dist. mkd. T. 3 N., R. 31 E., S. 27 B. T. Land rough mountains and covered with pine and juniper timber. 80.00 chs. Soil, rocky and 4th rate.

		N. 89° 56' E., on a random line, bet. secs. 26 and 35.
	40.	Set temp. 1/4 sec. cor.
	80.04	Fall 9 lks. N. of the Cor. of secs. 25, 26, 35 and 36, thence I run, WEST, on a true line bet. secs 26 and 35. Over rough mountainous land through heavy timber of pine and juniper timber.
	5.00	Descend into Canon, through scattering timber and dense oak brush.
	36.80	Dry creek, 30 lks. wide, course S. W. and ascend through heavy timber.
	40.02	Set a malpais stone, 36 x 15 x 5 ins., 27 ins., in the ground for 1/4 sec. cor marked 1/4 on the N. face, whence, An oak, 4 ins., in diam. brs. S. 66° W., 50 lks. dist. mkd. 1/4 S. 35 B. T. A pinon, 9 ins., in diam. brs. N. 36 1/2° W., 78

8. Subdivisional lines in T. 3 N., R. 31 E., Continued.

Chs.	lks. dist. mkd. 1/4 S. 26 B. T.
45.00	Top of spur bears N. E. and S. W. and descend.
55.50	Dry creek, 15 lks. wide, course S. W. and ascend.
60.00	Top of ridge bears N. E. and S. W. and descend.
71.15	Cross Lamphor's creek, running stream 8 lks. wide, course N. W. and ascend.
80.04	The cor. of secs. 26, 27, 34 and 35. Land rough mountains 80.04 chs. Dense timber of pine and pinon or heavy brush 80.04 Soil rocky and 4th rate. At 12 o'clock noon at this cor. the Sky was overcast with clouds, no observation for lat. not practicable.

	N. 0° 01' W., on a true line bet. secs. 26 and 27. Over rough mountains through heavy timber. Descending.
15.00	Lamphor's Creek, running stream, 8 lks. wide, course N. W. and ascend through scattering timber.
27.25	Top of spur bears N. E. and S. W. and descend.
30.00	Gully, 10 lks. wide, course S. W. and ascend. and enter dense oak brush.
40.00	Set a malpais stone, 36 x 24 x 8 ins., 12 ins., in the ground for 1/4 sec. cor. (to bed rock) marked 1/4 on the W. face, and surround stone with a mound of stones, whence, A juniper, 8 ins., in diam. brs. S. 5° E., 67 lks. dist. mkd. 1/4 S. 26 B. T. A juniper, 8 ins, in diam. brs. S. 42 1/4° W., 26 lks. dist. mkd. 1/4 S. 27 B. T.
49.85	Gully, 10 lks. wide, course S. W. and ascend.
54.00	Top of ridge, bears N. E. and S. W. and descend.
61.60	Dry creek, 30 lks. wide, course S. W. and ascend.
80.00	Set a malpais stone, 20 x 12 x 10 ins., 12 ins., in the ground for the cor. to secs. 22, 23, 26 and 27, marked with 2 grooves on the S. and E. edges, whence An oak, 6 ins., in diam. brs. N. 58 1/2° E., 73 lks. dist. mkd. T. 3 N., R. 31 E., S. 23 B. T. A juniper, 5 ins., in diam. brs. S. 54 1/2° E., 117 lks. dist. mkd. T. 3 N., R. 31 E., S. 26 B. T. A juniper, 4 ins., in diam. brs. S. 14° W., 35 lks. dist. mkd. T. 3 N., R. 31 E., S. 27 B. T. A juniper, 3 ins., in diam. brs. N. 29 1/2° W., 104 lks. dist. mkd. T. 3 N., R. 31 E., S. 22 B. T. Land rough mountains and covered with dense oak brush, or pine and juniper timber 80.00 chs. Soil, rocky and 4th rate.
Sept. 19, 1904.	

Sept. 20th, 1904. Cloudy all day.	

	Sept. 21, at the cor. of secs. 22, 23, 26 and 27, I set off 33° 35' N., on the Lat. arc. 0° 45' 30" N., on the Decl arc and determine a meridian with the Solar at 7 a. m., l. m. t. Thence Imrun, EAST, on a random line bet. secs. 23 and 26, Over rough mountains through scattering timber and heavy brush.
40.	Set temp. 1/4 sec. cor.
80.10	Fell 4 lks. N. of the cor. of secs. 23, 24, 25 and 26, thence I run, N. 89° 58' W., on a true line bet. secs. 23 and 26. Over rough mountainous land through scattering timber and heavy brush.
23.90	Top of ridge bears N. and S. and descend.
40.05	Set a limestone, 24 x 20 x 18 ins., 18 ins., in the

9.

Subdivisional lines in T. 3 N., R. 31 E., Continued.

Chs. ✓ ground for 1/4 sec. cor. marked 1/4 on the N. face, whence,
 A pine, 14 ins., in diam. brs. N. 61 3/4° E., 33 lks. dist. mkd. 1/4 S. 23 B. T.
 A juniper, 25 ~~lks~~ ins., in diam. brs. S. 58 1/2° E., 34 lks. dist. mkd. 1/4 S. 26 B. T.
 51.50 Dry creek, 30 lks. wide, course N. and ascend.
 75.00 Leave heavy timber.
 80.10 The cor. of secs. 22, 23, 26 and 27.
 Land rough mountains or covered with dense pine or juniper timber. 80.10 chs.
 Soil rocky and 4th rate.

 North 0° 01' W., on a true line bet. secs. 22 and 23. Over rough mountainous land through heavy timber.
 3.00 Top of ridge bears E. and W. and descend.
 17.25 Dry creek, 30 lks. wide, course N. E. and ascend.
 26.00 Top of spur bears E. and W. and descend.
 40.00 ✓ Set a malpais stone, 22 x 12 x 12 ins., 16 1/2 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence,

A pine, 9 ins., in diam. brs. S. 40 1/2° E., 51 lks. dist. mkd. 1/4 S. 23 B. T.
 A pine, 20 ins., in diam. brs. N. 16° W., 68 lks. dist. mkd. 1/4 S. 22 B. T.
 53.00 Cross Dry creek, 50 lks. wide, course N. W.
 64.00 Top of ridge bears E. and W. and descend. 16 1/2
 80.00 ✓ Set a malpais stone, 22 x 14 x 12 ins., 15 1/2 ins., in the ground for the cor. of secs. 14, 15, 22 and 23, marked with 3 grooves on the S. and 2 grooves on the E. edges, whence,
 A pine, 18 ins., in diam. brs. N. 77° E., 69 lks. dist. mkd. T. 3 N., R. 31 E., S. 14 B. T.
 A pine, 15 ins., in diam. brs. S. 65° E., 72 lks. dist. mkd. T. 3 N., R. 31 E., S. 23 B. T.
 An oak, 4 ins., in diam. brs. S. 54° W., 21 lks. dist. mkd. T. 3 N., R. 31 E., S. 22 B. T.
 An oak, 7 ins., in diam. brs. N. 21° W., 26 lks. dist. mkd. T. 3 N., R. 31 E., S. 15 B. T.
 Land rough mountains and covered with dense pine or juniper timber 80.00 chs.
 Soil rocky and 4th rate.
 Some oak brush.

 S. 89° 58' E. on a true line bet. secs. 14 and 23. as the cor. of secs. ~~(22)~~ 13, 14, 23 & 24, falls in an ~~inac.~~ place, and is witness by a W. C. Cor. 2.63 chs. S. Gully, 10 lks. wide, course N. W.

24.30
 40.00 ✓ Set a malpais stone, 24 x 16 x 8 ins., 18 ins., in the ground for 1/4 sec. cor. mkd. 1/4 on the N. face, whence,

A pine, 5 ins., in diam. brs. S. 32° E., 20 lks. dist. mkd. 1/4 S. 23 B. T.

A pine, 30 ins., in diam. brs. N. 39 1/2° W., 159 lks. dist. mkd. 1/4 S. 14 B. T.

41.00 Top of ridge bears N. and S. and descend.
 52.50 Dry creek, 30 lks. wide, course N. W. and ascend.

76.22 I mark a cross (x) on a malpais rock in place, 10 x 6 x 2 ft. above ground, and 3 grooves S. of cross and W. C. 1 groove E., whence,

A pine, 15 ins., in diam. brs. S. 46 1/2° E., 101 lks. dist. mkd. W. C. T. 3 N., R. 31 E., S. 24 23 B. T.

A pine, 14 ins., in diam. brs. S. 58° W., 74 lks.

10. Subdivisional lines in T. 3 N., R. 31 E., Continued.

40. ~~X~~ S. 89° 58' E., on a random line, bet. secs. 11 and 14.
Set temp. 1/4 sec. cor.
80.05 Fall 11 lks. S. of the Cor. of secs. 11, 12, 13 and 14, thence I run,
S. 89° 57' W., on a true line, bet. secs. 11 and 14.
Over rough mts. land through juniper and pinon timber. Ascending.
37.40 Enter Cottonwood, ash and walnut timber and oak brush.
38.09 Wagon road bears N. and S.
38.37 Log fence bears N. E. and S. W. and enter enclosure.
38.72 Blue River, 15 lks. wide, course S. W. running water.
40.02 ✓ Set a malpais stone, 26 x 12 x 14 ins., 20 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, whence,
A Cottonwood, 10 ins., in diam. brs. N. 6 1/2° W., 38 lks. dist. mkd. 1/4 S. 11 B.T.
A Cottonwood, 6 ins., in diam. brs. S. 24 1/4° W., 11 lks. dist. mkd. 1/4 S. 14 B.T.
40.46 Irrigating ditch 40 lks. wide, course S.W. and leave cottonwoods.
52.00 Thomas house bears South 4 chs. dist.
54.15 Log fence bears N. and S., and leave enclosure.
56.80 Bush creek, dry 25 lks. wide, course S. E.
80.05 The cor. of secs. 10, 11, 14 and 15.
Bottom land 15.78 chs. Land rough mts. covered with heavy pine and juniper timber. 64.27 chs.
Soil 1st to 4th rate.
40. ✓ ~~S. E., and leave bottom.~~
Set a malpais stone, 36 x 24 x 10 ins., 27 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence,
A Cottonwood, 16 ins., in diam. brs. S. 52 1/2° E., 38 lks. dist. mkd. 1/4 S. 14 B. T.
A Walnut, 10 ins., in diam. brs. N. 62 1/2° W., 43 lks. dist. mkd. 1/4 S. 15 B. T.
42.00 Ascend over rough mountains.
43.00 Top of spur bears E. and W. and descend.
57.30 Dry creek, 40 lks. wide, course S. E.
80. ✓ Set a malpais stone, 24 x 12 x 11 ins., 18 ins., in the ground for the cor. of secs. 10, 11, 14 and 15, marked with 4 grooves on the S. and 1 groove on the E., edges, whence,
A juniper, 14 ins., inn diam. brs. N. 46° E., 57 lks. dist. mkd. T. 3 N., R. 31 E., S. 11 B..T.
An oak, 9 ins., in diam. brs. S. 59 1/2° E., 108 lks. dist. mkd. T. 3 N., R. 31 E., S. 14 B.T.
An oak, 15 ins., in diam. brs. S. 10° W., 40 lks. dist. mkd. T. 3 N., R. 31 E., S. 15 B.T.
A juniper, 18 ins., in diam. brs. N. 78 1/2° W., 53 lks. dist. mkd. T. 3 N., R. 31 E., S. 10 B. T.
Mts. or land covered with heavy timber of pine, juniper, oak or cottonwood 70.50 chs.
Plowed land open 9.50 chs.
Soil, 1st to 4th rate.
Oak brush 27.00 chs.
- ~~X~~
~~The line bet. secs. 11 and 14, is rough and precipitous and its survey is not necessary under my insts. hence on account of its roughness, I run,~~
N. 0° 1' W., on a true line. bet. secs. 10 and 11, over rough mountainous land, thro. heavy timber, ascending.
2.00 Top of ridge bears E. and W. and descend.

11.

Subdivisional lines in T. 3 N., R. 31 E., Continued.

Chs.	
6.95	Gully, 5 lks. wide, course S. E. and ascend.
11.00	Top of ridge bears E. and W. and descend.
19.05	Gully, 5 lks. wide, course E. and ascend.
26.00	Top of ridge bears E. and W. and descend.
39.70	Dry creek, 35 lks. wide, course N. E. and ascend.
40.00	Set a malpais stone, 19 x 12 x 7 ins., 12 1/2 ins., in the ground, for 1/4 sec. cor. marked 1/4 on the W. face, whence, An oak, 15 ins., in diam. brs. S. 83 1/2° E., 121 lks. dist. mkd. 1/4 S. 11 B. T. An oak, 11 ins., in diam. brs. N. 51 1/2° W., 48 lks. dist. mkd. 1/4 S. 10 B. T. Land rough mountains 40.00 chs. Soil, 3rd and 4th rate. Dense timber, of pine, pinon, oak and juniper 40. chs. The survey of this line was discontinued at this 1/4 sec. cor. on account of the roughness of the topography and its survey is not necessary to comply with my instructions. Sept. 24th, 1904.

	Sept. 26, 1904, at 9 hours, 10 minutes, a. m., l.m.t. I set off 33° 33' N., on the lat. arc and 1° 14' 00" S, on the decl. arc and determine a meridian with the Solar at the cor. of secs. 33 and 34 on the S. boundary of the Tp. Thence I run. N. 0° 2' W., on a true line bet. secs. 33 and 34 ascending along W. slope of mountain through dense timber of pine oak and juniper.
24.87	Top of spur bears E. and W. and descend.
31.50	Old road bears E. and W.
32.00	Gully, 10 lks. wide, course N. W. and ascend.
40.00	Set a malpais stone, 24 x 12 x 10 ins., 18 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence, A juniper, 12 ins., in diam. brs. N. 28° E., 151 lks. dist. mkd. 1/4 S. 34 B. T. A pine, 13 ins., in diam. brs. S. 30° W., 65 lks. dist. mkd. 1/4 S. 33 B. T. Ascending.
54.90	Top of spur bears bears E. and W. and descend.
80.00	Set a malpais, 26 x 16 x 12 ins., 19 1/2 ins., in the ground for the cor. of secs. 27, 28, 33 and 34 marked with 1 groove on the S. and 3 grooves on the E. edges, whence, An oak, 4 ins., in diam. brs. N. 23° E., 26 lks. dist. mkd. T. 3 N., R. 31 E., S. 27 B.T. A pine, 20 ins., in diam. brs. S. 18° E., 42 lks. dist. mkd. T. 3 N., R. 31 E., S. 34 B.T. A pine, 16 ins., in diam. brs. S. 26° W., 66 lks. dist. mkd. T. 3 N., R. 31 E., S. 33 B.T. An oak, 4 ins., in diam. brs. N. 28° W., 42 lks. dist. mkd. T. 3 N., R. 31 E., S. 28 B.T. Land rough mountains covered with dense pine, pinon, oak and juniper timber 80. chs. Soil 4th rate. Some oak and scrub cedar brush.

40.	N. 89° 56' E., on a random line, bet. secs. 27 and 34,
80.10	Set temp. 1/4 Sec. cor. Intersect the Cor. of secs. 26, 27. 34 and 35. Thence I run, S. 89° 56' W., on a true line bet. secs. 27 and 34 Over rough mts. thro. heavy timber.

12. Subdivisional lines in Tp. 3 N., R. 31 E., Continued.

Chs.	
17.00	Top of ridge bears N. and S. and descend.
33.00	Dry creek, 40 lks. wide, course N. W. and ascend.
38.00	Top of spur bears N. and S. and descend.
40.05	Set a malpais stone, 48 x 26 x 12 ins., 10 ins., in the ground to bed rock, surrounded by a mound of stones, for 1/4 sec. cor. marked 1/4 on the N. face, whence, An oak, 8 ins., in diam. brs. N. 29° E., 22 lks. dist. mkd. 1/4 S. 27 B.T. A pine, 7 ins., in diam. brs. S. 25 3/4° W., 24 lks. dist. mkd. 1/4 S. 34 B.T.
40.50	Gully, 10 lks. wide, course N. and ascend.
43.00	Top of spur bears N. and S. and descend.
51.35	Dry creek, 40 lks. wide, course N. E. and ascend.
60.00	Top of spur bears N. and S. and descend.
80.10	The cor. of secs. 27, 28, 33 and 34. Land rough mts. 80.10 chs. Dense timber of pine, pinon, spruce juniper and oak. 80.10 chs. Some brush. Soil, 4th rate.
	Sept. 26th, 1904.

	Sept. 27th. At the Cor. of secs. 27, 28, 33 and 34, at 7 hours, 5 minutes, a. m., 1. m. t. I set off 33° 34' N., on the lat. arc and 1° 33' 30' N., on the decl. arc and determine a true meridian with the Solar. Thence I run, N. 0° 2' W., on a true line bet. secs. 27 and 28 over rough mts. land thro. heavy timber. Ascending.
31.90	Top of spur bears S. E. and N. W. and descend.
40.00	Set a malpais stone, 36 x 12 x 12 ins., 27 ins., in the ground for 1/4 sec. cor. mkd. 1/4 on the W. face, whence, An oak, 6 ins., in diam. brs. S. 13 1/2° E., 41 lks. dist. mkd. 1/4 S. 27 B. T. A pine, 14 ins., in diam. brs. S. 89° W., 22 lks. dist. mkd. 1/4 S. 28 B. T.
40.50	Dry creek, 30 lks. wide, course N. E. and ascend.
62.95	Top of spur bears E. and W. and along E. slope of same.
78.20	Dry creek, 40 lks. wide, course N. W. and ascend.
80.00	A Malpais stone, 24 x 14 x 5 ins., 18 ins., in the ground for the cor. of secs., 21, 22, 27 and 28, marked with 2 grooves on the S. and 3 grooves on the E. edges; whence, A juniper, 12 ins., in diam. brs. N. 7 1/2° E., 18 lks. dist. mkd. T. 3 N., R. 31 E., S. 22 B.T. A juniper, 8 ins., in diam. brs. S. 35° E., 46 lks. dist. mkd. T. 3 N., R. 31 E., S. 27 B.T. A pine, 30 ins., in diam. brs. S. 60° W., 77 lks. dist. mkd. T. 3 N., R. 31 E., S. 28 B.T. An oak, 6 ins., in diam. brs. N. 40 1/2° W., 36 lks. dist. mkd. T. 3 N., R. 31 E., S. 21 B.T. Land rough mountains. 80.00 chs. Timber dense pine, juniper and oak 80. chs. Soil, rocky and 4th rate.

40.	N. 89° 56' E., on a random line bet. secs. 22 and 27.
80.28	Set temp. 1/4 sec. cor. Fall 23 lks. N. of the cor. of secs. 22, 23, 26 and 27, thence I run, N. 89° 54' W., on a true line, bet. secs. 22 and 27. Over rough mts. through scattering timber.
9.00	Top of spur bears N. and S. and descend.

13.

Subdivisional lines in T. 3 N., R. 31 E. Continued.

Chs.	
28.00	Through very heavy timber.
35.25	Gully, 10 lks. wide, course S. W. and ascend.
37.50	Top of spur bears N. E. and S. W. and descend.
40.14 ✓	Set a malpais stone, 30 x 20 x 12 ins., 23 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, whence, A pine, 11 ins., in diam. brs. S. 0° 30' E., 39 lks. dist. mkd. 1/4 S. 27 B.T. A juniper, 11 ins., in diam. brs. N. 10° W., 25 lks. dist. mkd. 1/4 S. 22 B.T.
44.00	Over bottom land, through dense brush and cottonwoods.
51.75	Cross Lamphor's Creek, 10 lks. wide, running stream, course N. W.
53.	Leave bottom land and brush and ascend over rough mts.
68.00	Top of ridge bears S. E. and N. W. and descend.
80.28	The cor. of secs. 21, 22, 27 and 28. Land rough mts. 71 chs. Bottom land covered with dense brush 9.00 chs. Timber pine, juniper and some oak. 80.28 chs. Dense.
	----- No 2' W.
	North bet. secs. 21 and 22.
	Over rough mountainous land through heavy timber.
7.00	Loof fence bears E. and W.
17.00	Top of ridge bears S. E. and N. W. and descend.
40.00 ✓	Set a malpais stone, 24 x 12 x 8 ins., 18 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence, A juniper, 5 ins., in diam. brs. N. 89° E., 89 lks. dist. mkd. 1/4 S. 22 B.T. A juniper, 8 ins., in diam. brs. N. 67 1/2° W., 18 lks. dist. mkd. 1/4 S. 21 B.T.
56.00	To a pt. whence, the S. W. Cor. of Kahee's house, bears S. 75° E., 2.95 chs. dist.
56.75	Over cultivated land, fence bears E. and W.
62.65	Irrigating ditch, course W. 10 lks. wide, thence through scattering timber.
63.45	Log fence bears E. and W. Leave field and thro dense brush.
66.10	Road bears E. and W.
70.35	Cross Blue River, running water, 40 lks. wide, course W., and leave bottom land begin ascent over mts.
80.00 ✓	land through heavy timber. Set a malpais stone, 36 x 15 x 10 ins., 27 ins., in the ground for the cor. of secs. 15, 16, 21 and 22, marked with 3 grooves on the S. and E. edges, whence, A pinon, 8 ins., in diam. brs. N. 65 1/2° E., 106 lks. dist. mkd. T. 3 N., R. 31 E., S. 15 B.T. An oak, 6 ins., in diam. brs. S. 36 1/2° E., 115 lks. dist. mkd. T. 3 N., R. 31 E., S. 22 B.T. A juniper, 5 ins., in diam brs. S. 69° W., 10 lks. dist. mkd. T. 3 N., R. 31 E., S. 21 B.T. An oak, 4 ins., in diam. brs. N. 60° W., 14 lks. dist. mkd. T. 3 N., R. 31 E., S. 16 B.T. Land rough mts. 63.40 chs. Cultivated land open. 62.70 chs. Bottom land 9.90 chs. covered with dense timber or brush. Timber pine, juniper and pinon. Sept. 27th, 1904.

14. Subdivisional lines in Tp. 3 N., R. 31 E. Continued.

Chs.	At the Cor. of secs. 15, 16, 21 and 22, at 8 hours 10 min. a. m., 1. m. t. Sept. 28th, 1904, I set off 33° 36' N., on the lat. arc. 2° 01' 0" S., on the decl. arc and determine a meridian with the Solar, Thence I run, S. 89° 54' E., on a random line. bet. secs. 15 and 22.
40.	Set temp. 1/4 sec. cor.
80.12	Fall 37 lks. S. of the Cor. of secs. 14, 15, 22 and 23, thence I run, S. 89° 50' W., on a true line bet. secs. 15 and 22.
34.10	Over rough mts. thro. heavy timber.
34.20	Leave mts. land and cross log fence bears N. & S.
38.25	Cross Blue River, running stream, 60 lks. wide, course S. W.
40.06	Cross wagon road course N. E. and S. W. Clifton to Luna.
43.50	Set a malpais stone, 26 x 14 x 10 ins., 19 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, whence, A pine, 38 ins., in diam. brs. N. 54° E., 21 lks. dist. mkd. 1/4 S. 15 B.T. A pine, 40 ins., in diam. brs. S. 74° E., 53 lks. dist. mkd. 1/4 S. 22 B.T.
44.15	Cross Blue River, running stream, 60 lks. wide, course N. W.
48.10	Wagon road bears S. E. and N. W.
49.95	Wagon road bears N. E. and S. W.
51.15	Cross Blue River, running stream, 60 lks. wide, course S. W.
80.12	Leave Canon, and ascend mts. land. " " " " The Cor. of secs. 15, 16, 21 and 22. Land rough mts. or land covered with dense pine, juniper and oak timber. 80.12 chs. Soil 1st to 4th rate. Oak brsh and brush of smaller growth of pine, pinon and oak along canon bottom.
16.00	2' W. N. bet. secs. 15 and 16. Over rough mts. land through dense timber of pine, juniper, xxx cedar, and oak.
28.85	Top of ridge bears E. and W. and descend.
40.00	Cross Cedar Springs Creek, 40 lks. wide, course S. W. and ascend. creek carries small amt. of water.
52.55	Set a malpais stone, 18 x 14 x 5 ins., 12 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence, A Cedar, 5 ins., in diam. brs. N. 26° E., 15 lks. dist. mkd. 1/4 S. 15 B.T. A pinon, 8 ins., in diam. brs. S. 77° W., 10 lks. dist. mkd. 1/4 S. 16 B.T.
64.00	Gully, 10 lks. wide, course S. E.
68.30	Top of ridge bears E. and W. and descend.
71.05	Gully, 10 lks. wide, course N. E. and ascend.
76.85	Top of spur bears N. E. and S. W. and descend.
80.	Dry creek, 20 lks. wide, course N. E. and ascend.
	Set a malpais stone, 18 x 16 x 10 ins., 12 ins., in the ground for the cor. of secs. 9, 10, 15 and 16, marked with 4 grooves on the S. and three grooves on the E. edges, whence, A pinon, 9 ins., in diam. brs. N. 30° E., 33 lks. dist. mkd. T. 3 N., R. 31 E., S. 10 B. T. A pinon, 5 ins., in diam. brs. S. 25° E., 36 lks. dist. mkd. T. 3 N., R. 31 E., S. 15 B. T. A pinon, 7 ins., in diam. brs. S. 16° W., 46 lks. dist. mkd. T. 3 N., R. 31 E., S. 16 B. T. A pinon, 6 ins., in diam. brs. N. 5 1/2° W., 52 lks. dist. mkd. T. 3 N., R. 31 E., S. 9 B. T.

15.

Subdivisional lines in T. 3 N., R. 31 E. Continued.

Land rough mts. 80. chs.
Soil, 4th rate.
Timber dense, pine, pinon, juniper cedar, and oak
timber 80. chs.

40.00 N. 89° 50' E., on a random line bet. secs. 10 and
80.15 15.
Set temp. 1/4 sec. cor.
Intersect the Cor. of secs. 10, 11, 14 and 15.
Thence I run, S. 89° 50' W., on a true line. bet. secs.
10 and 15.

6.15 Over rough mts. through heavy timber.
10.40 Top of ridge bears N. and S. and descend.
40.08 Dry creek, 30 lks. wide, course S. E. and ascend.
40.015 Set a malpais stone, 24 x 14 x 10 ins., 18 ins., in
the ground for 1/4 sec. cor. marked 1/4 on the N.
face, whence,
An oak, 7 ins., in diam. brs. N. 20 1/2° E.,
67 lks. dist. mkd. 1/4 S. 10 B.T.
An oak, 13 ins., in diam. brs. S. 32° E.,
84 lks. dist. mkd. 1/4 S. 15 B.T.

~~XX.~~
42.15 Top of ridge bears S. E. and N. W. and descend.
45.20 Gully, 5 lks. wide, course S. E.
63.15 Top of spur bears S. E. and N. W. and des.
80.15 The cor. of secs. 9, 10, 15 and 16.
Land rough mts. 80.15 chs.
Dense timber of oak, juniper and pine 80.15 chs.
Soil 3 to 4th rate.
Some oak brush.

Sept. 28th, 1904.

At the Cor. of secs. 32 and 33 on the South boundary
of the Tp. at 7 hours, 18 minutes, a. m., l. m. t.,
I set off S. 2° 55' 30" on the decl. arc, and 33° 33'
N., on the lat. arc and determine a meridian with
the Solar, thence I run, N 0° 2' W., on a true line
bet. secs. 32 and 33.

4.15 Descending over rough mts. through heavy timber.
9.00 Gully, 10 lks. wide, course N. W.
20.10 Top of spur bears S. E. and N. W. and descend.
23.05 Gully, 10 lks. wide, course N. E. and ascend.
23.15 Top of ridge, bears N. E. and S. W. and descend.
39.80 Cross Creek, course N. W. and ascend.
40.00 A pt. whence, the N. W. Cor. of the Forest Ranger's
house bears N. 51° E., 6.00 chs. dist. 15 ins. in the ground.
Set a malpais stone, 20 x 11 x 6 ins. for 1/4 sec.
cor. marked 1/4 on the W. face, whence,
A pine, 30 ins., in diam. brs. N. 78° E., 19
lks. dist. mkd. 1/4 S. 33 B.T.
A pine, 20 ins., in diam. brs. N. 62° W., 29
lks. dist. marked 1/4 S. 32 B.T.
40.90 Wagon road bears E. and W.
44.48 A pt. on line, whence N. W. Cor. of Forest Rangers
house bears S. 72° E., 4 chs. dist.
48.00 Top of ridge bears S. E. and N. W.
51.80 Dry creek, 40 lks. wide, course N. W. and ascend.
54.00 Top of ridge bears S. E. and N. W. and descend.
57.50 Dry creek, 35 lks. wide, course N. W. and ascend.
66.00 Top of ridge bears E. and W. and descend.
80.00 Set a malpais stone, 38 x 18 x 10 ins., 28 1/2 ins., in
the ground for the cor. of secs. 28, 29, 32 and 33,
marked with 1 groove on the S. and 4 grooves on the
E., edges, whence,

Subdivisional lines in Tp. 3 N., R. 31 E., Continued.

Chs.	<p>A pine, 16 ins., in diam. brs. N. 75° E., 65 lks. dist. mkd. T. 3 N., R. 31 E., S. 28 B.T. A pine, 22 ins., in diam. brs. S. 30 1/2° E., 25 lks. dist. mkd. T. 3 N., R. 31 E., S. 32 B.T. A pine, 18 ins., in diam. brs. S. 72° W., 20 lks. dist. mkd. T. 3 N., R. 31 E., S. 32 B. T. A pine, 17 ins., in diam. brs. N. 55° W., 74 lks. dist. mkd. T. 3 N., R. 31 E., S. 31 B.T. Land rough mts. and covered with heavy pine, oak and juniper timber 80.00 chs. Soil, 2nd to 4th rate.</p> <p style="text-align: center;">-----</p> <p>N..89° 56' E., on a random line, bet. secs. 28 and 33. Over rough mts. land thro. heavy timber.</p>
40. 80.04	<p>Set temp. 1/4 sec. cor. Fall 9 lks. N. of the cor. of secs. 27, 28 and 33 & 34. Thence I run, WEST, on a true line, bet. secs. 28 and 33. Over rough mts. land through heavy timber.</p>
23.50 32.60 40.02	<p>Dry creek, 35 lks. wide, course N. W. and ascend. Top of spur bears N. and S. and descend. Set a malpais stone, 28 x 14, x 15 ins., 21 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, An oak, 18 ins., in diam. brs. N. 60° E., 17 lks. dist. mkd. 1/4 S. 28 B.T. An oak, 15 ins., in diam. brs. S. 54° E., 54 lks. dist. mkd. 1/4 S. 33 B.T.</p>
48.45 53.45 56.25 60.00 62.00 66.00 67.95 71.00 74.40 77.00 80.04	<p>Dry creek, 30 lks. wide, course N. W. and ascend. Top of spur bears S. E. and N. W. and descend. Gully, 10 lks. wide, course N. W. and ascend. Top of spur bears S. E. and N. W. and descend. Gully, 10 lks. wide, course N. W. and ascend. Top of ridge bears S. E. and N. W. and descend. Gully, 10 lks. wide, course N. W. and descend. Top of ridge bears S. E. and N. W. and descend. Gully, 10 lks. wide, course N. W. and ascend. Top of ridge bears S. E. and N. W. and descend. The cor. of secs. 28, 29, 32 and 33. Rough mts. land and dense pine, oak and juniper timber. 80.04 chs. Some bruah of scrub oak and cedar. Soil, 4th rate. Sept. 29th.</p> <p style="text-align: center;">-----</p> <p>At the cor. oof secs. 28, 29, 32 and 33, at 7 hours 12 minutes, a. m., 1. m. t. Sept. 30th, I set off on the lat. arc 33° 34' N., and on the decl. arc 2° 44' 30' S., and determine a meridian with the solar at the cor. described. Thence, N0° 2' W., on a true line. bet. ses. 28 and 29, descending over rough mts. thro. heavy timber.</p>
12.15 14.00 16.65 19.00 27.35 33.40 40.	<p>Gully, 10 lks. wide, course N. W. and ascend. Top of ridge bears S. E. and N. W. and descend. Gully, 10 lks. wide, course N. W. and ascend. Top of ridge bears S. E. and N. W. and descend. Dry creek, 20 lks. wide, course N. W. and ascend. Top of ridge bears S. E. and N. W. and descend. Set a malpais stone, 24 x 18 x 6 ins., 18 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence,</p>

17. Subdivi visional lines in Tp. 3 N., R. 31 E., Cont.

Chs.	A juniper, 16 ins., in diam. brs. N. 73° E., 111 lks. dist. mkd. 1/4 S. 28 B.T.
	A pine, 28 ins., in diam. brs. N. 40° W., 101 lks. dist. mkd. 1/4 S. 29 B.T.
52.80	Dry creek, 35 lks. wide, course N. W. and ascend.
66.00	Top of ridge bears N.W. and S. E. and descend.
79.50	Dry creek, 40 lks. wide, course N. W. and ascend.
80.00	Set a malpais stone, 26, x 18 x 4 ins., 19 1/2 ins., in the ground for the cor. of secs. 20, 21, 28 and 29, marked with 2 grooves on the S. and 4 grooves on the E. edges,
	A pinon, 5 ins., in diam. brs. N. 59 1/2° E., 40 lks. dist. mkd. T. 3 N., R. 31 E., S. 21 B.T.
	An oak, 5 ins., in diam. brs. S. 45° E., 27 lks. dist. mkd. T. 3 N., R. 31 E., S. 28 B.T.
	A pine, 15 ins., in diam. brs. S. 79° W., 57 lks. dist. mkd. T. 3 N., R. 31 E., S. 29 B.T.
	A juniper, 10 ins., in diam. brs. N. 19 1/2° W., 108 lks. dist. mkd. T. 3 N., R. 31 E., S. 20 B.T.
	Land rough mts. 80. chs.
	Timber of dense pine, pinon, oak and juniper 80 chs.
	Soil, 3rd to 4th rate.
	Some oak and scrub cedar brush.

	EAST, on a random line, bet. secs. 21 and 28.
40.	Set temp. 1/4 sec. cor.
80.26	Fall 10 lks. S. of the Cor. of secs. 21, 22, 27 and 28.
	Thence, I run, S. 89° 56' W., on a true line, bet. secs. 21 and 28.
	Over rough mts. through heavy timber.
4.13	Dry creek, 40 lks. wide, course N. W. and ascend.
24.28	Top of ridge bears N. and S. and descend.
40.13	Set a malpais stone, 24 x 16 x 12 ins., 18 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face,
	A pinon, 4 ins., in diam. brs. S. 50° W., 23 lks. dist. mkd. 1/4 S. 28 B.T.
	A pinon, 4 ins., in diam. brs. N. 23° W., 36 lks. dist. mkd. 1/4 S. 21 B.T.
41.30	Dry creek, 35 lks. wide, course N.W. and ascend.
45.27	Top of spur bears N. and S. and descend.
50.	Dry creek, 35 lks. wide, course N. and ascend.
74.40	Top of ridge bears S. E. and N.W. and ascend.
80.26	The cor. of secs. 20, 21, 28 and 29.
	Land rough mts. 80.26 chs.
	Timber dense pine, pinon and juniper 80.26 chs.
	Soil 4th rate.
	Some brush.

	North 0° 2' W., on a true line. bet. secs. 20 and 21.
	Over rough mts. and through heavy timber.
7.00	Top of spur bears S. E. and N. W. and descend.
7.60	A pt. on line, whence the S. E. Cor. of Thompson's house bears N. 67° W., 18 chs. dist.
18.75	Over bottom land, ditch, 12 lks. wide, course W.
18.80	Log fence bears E. and W. thence thro. scattering timber.
22.00	Irrigating ditch, course W. 10 lks. wide.
24.70	Log fence bears E. and W.
25.15	Road from Clifton, E. and W.
26.50	Cross Blue River, running stream, 60 lks. wide, course W.
27.35	Old road bears E. and W.
29.75	Over mts. land through heavy timber.

18.

Subdivisional lines in T. 3 N., R. 31 E., Continued.

Chs.	
40.	Set a malpais stone, 18 x 12 x 9 ins., 12 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face, whence, A pinon, 10 ins., in diam. brs. N. 45° E., 30 lks. dist. mkd. 1/4 S. 21 B.T. A pinon, 5 ins., in diam. brs. S. 14° W., 117 lks. dist. mkd. 1/4 S. 20 B.T.
40.92	A pt. on line, whence the S. E. cor. of Thompsons house bears S. 50° W.,
51.00	Top of ridge bears E. and W. and descend.
57.75	Gully, 10 lks. wide, course N. E. and ascend.
61.00	Top of ridge bears N. E. and S.W.
63.20	Gully, 10 lks. wide, course N. E. and ascend.
67.00	Top of ridge bears N. E. and S.W. and desc.
73.90	Dry creek, 30 lks. wide, course E.
80.	Set a malpais stone, 20 x 15 x 7 ins., ¹⁵ 14 ins., in the ground for the cor. of secs. 16, 17, 20 and 21, marked with 3 grooves on the S. and 4 grooves on the E. edges, whence, A pinon, 9 ins., in diam. brs. N. 10 1/2° E., 15 lks. dist. mkd. T. 3 N., R. 31 E., S. 16 B.T. A pinon, 7 ins., in diam. brs. S. 61 1/2° E., 35 lks. dist. mkd. T. 3 N., R. 31 E., S. 21 B.T. A Cedar, 5 ins., in diam. brs. S. 45 3/4° W., 54 lks. dist. mkd. T. 3 N., R. 31 E., S. 20 B.T. A pinon, 13 ins., in diam. brs. N. 50° W., 55 lks. dist. mkd. T. 3 N., R. 31 E., S. 17 B.T. Bottom land 11.00 chs. Mts. land 69. chs. Dense brush and scattering timber in bottom 11.00 chs. Dense pine, pinon, oak and juniper 69 chs Soil, 1st to 4th rate.
	Sept. 30th, 1904.

	Oct. 1st, 1904, at the cor. of secs. 16, 17, 20 and 21, I set off 33°36' N., on the lat. arc and 3° 9 1/2' S., on the decl arc and at 8 hours, 30 min. a. m., 1. m. t., determine a meridian with the Solar. Thence I run, N. 89° 56' E., on a random line, bet. secs. 16 and 21.
40.	Set temp. 1/4 sec. cor.
80.30	Intersect the Cor. of secs. 15, 16, 21 and 22. Thence I run, S. 89° 56' W., on a true line bet. secs. 16 and 21.
19.80	Over rough mts. through heavy timber.
39.07	Top of ridge bears N. E. and S.W. and descend.
40.15	Gully, 8 lks. wide, course N. and asc. Set a malpais stone, 20 x 14 x 4 ins., ¹⁵ 14 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, whence, A pinon, 5 ins., in diam. brs. N. 6 1/2° E., 24 lks. dist. mkd. 1/4 S. 16 B.T. A pinon, 5 ins., in diam. brs. S. 46° W., 21 lks. dist. mkd. 1/4 S. 21 B.T.
42.14	Top of ridge bears N. & S., and des.
51.17	Cross Cedar's spring canon, running water, 5 lks. wide, course S. W. and des. <i>ascend</i>
51.67	Top of ridge bears S. E. & N.W. and des.
69.37	Cross Foote Creek, running stream, 15 lks. wide, course S. E. and ascend.
80.30	The Cor. of secs. 16, 17, 20 and 21. Land rough mts. 80.30 chs. covered with dense timber of pine, pinon, cedar, and oak. Soil, 3rd to 4th rte. Some scrub cedar and oak brush. At this sec. cor. at 12 o'clock, noon, 1.m.t., I set off 3° 14' S., on the decl. arc and observe the Sun the resulting latitude is 33° 36' N., the true lat.

19.

Subdivisional lines in Tp. 3 N., R. 31 E., Continued.

Chs.

Oct. 1st, 1904.

I discontinue, the survey at this cor. as the country or sects. N. and E. are very rough and mts. land and the survey of the country is not necessary to include any settlers, agricultural or grazing lands called for in my special insts.

Oct. 2nd, At the cor. of secs. 31 and 32 on the S. bdy. of the Tp. at 8 hours, 16 minutes, a. m., l. m. t., I set off $33^{\circ} 33' \sqrt{N.}$, on the lat. arc and $3^{\circ} 32\frac{1}{2}' S.$, on the decl. arc and determine a meridian with the Solar, thence, I run,

N. $0^{\circ} 3' W.$, on a true line, bet. secs. 31

and 32.

Over rough mts. descending, thro. heavy timber.

5.60

Dry creek, 35 lks. wide, course N.W. and asc.

9.00

Top of ridge bears S. E. and N. W. and des.

20.15

Gully, 10 lks. wide, course N.W. and asc.

32.00

Top of ridge bears S. E. and N. W. and des.

40. ✓

Set a malpais stone, 18 x 12 x 10 ins., 12 ins., in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on the W., face, whence,

An oak, 6 ins., in diam. brs. S. $21^{\circ} E.$, 25 lks. mkd. $\frac{1}{4}$ S. 32 B.T.

A juniper, 4 ins., in diam. brs. S. $27^{\circ} W.$, 49 lks. dist. mkd. $\frac{1}{4}$ S. 31 B.T.

40.20

Dry creek, 25 lks. wide, course N.W. and ascend.

48.00

Top of ridge bears S. E. and N. W. and des.

52.00

Gully, 10 lks. wide, course N. W. and asc.

59.00

Top of ridge bears S. E. and N.W. and des.

69.00

Dry creek, 30 lks. wide, course N.W. and asc.

72.00

Top of spur bears E. and W. and des.

74,45

Dry creek, 25 lks. wide, course N. W. and ascend.

80. ✓

Set a malpais stone, 24 x 12 x 10 ins., 18 ins., in the ground for the cor. of secs. 29, 30, 31 and 32, marked 1 groove on the S. and 5 grooves on the E. edges, whence,

A juniper, 7 ins., in diam. brs. N. $32^{\circ} E.$, 56 lks. dist. mkd. T. 3 N., R. 31 E., S. 29 B.T.

A juniper, 18 ins., in diam. brs. S. $46^{\circ} E.$, 74 lks. dist. mkd. T. 3 N., R. 31 E., S. 32 B.T.

A juniper, 20 ins., in diam. brs. S. $84^{\circ} W.$, 41 lks. dist. mkd. T. 3 N., R. 31 E., S. 31 B.T.

A pinon, 7 ins., in diam. brs. N. $17^{\circ} W.$, 81 lks. dist. mkd. T. 3 N., R. 31 E., S. 30 B.T.

Land rough mts. and covered with dense timber of juniper, pine, pinon and oak.

Soil 3rd to 4th rate.

Some crub cedar and oak brush.

N. $89^{\circ} 56' E.$, on a random line bet. secs. 29 and 32 over rough mts.

40.

Set temp. $\frac{1}{4}$ sec. cor.

79.92 ✓

Fell 01 lks. N. of the Cor. of secs. 28, 29 32 and 33, thence I run, S. $89^{\circ} 56' W.$, on a true line bet. secs. 29 and 32.

Over rough mts. land through heavy timber.

1.95

Gully, 15 lks. wide, course N. W. and asc.

3.92

Top of ridge bears S. E. and N.W.

15.85

Gully, 10 lks. wide, course N. W. and asc.

17.40

Top of ridge bears S. E. and N. W. & desc.

19.92

Dry creek, 30 lks. wide, course N.W.

25.70

Road bears S. E. and N. W.

28.

Top of ridge, brs. S. E. and N. W. and desc. ¹⁵

39.96

Set a malpais stone, 20 x 14 x 8 ins., ~~13~~ $1\frac{1}{2}$ ins., in the ground for $\frac{1}{4}$ sec. cor. mkd. $\frac{1}{4}$ on the N. face, whence,

<p>Chs.</p> <p>42.12</p> <p>43.00</p> <p>49.92</p> <p>72.</p> <p>79.92</p>	<p>A pinon, 14 ins., in diam. brs, N. 14° E., 42 lks. dist. mkd. 1/4 S. 29 B.T.</p> <p>A juniper, 18 ins., in diam. brs. S. 85° W., 76 lks. dist. mkd. 1/4 S. 32 B.T.</p> <p>Dry creek, 40 lks. wide, course N. W. and asc.</p> <p>Gully, 10 lks. wide, course N.</p> <p>Top of ridge bears S. E. and N. W. and desc.</p> <p>Top of ridge bears S. E. and N. W. and desc.</p> <p>The cor. of secs. 29, 30, 31 and 32.</p> <p>Land rough mts. and covered with dense pinon, pine, juniper and oak timber. 79.92 chs.</p> <p>Soil 3rd to 4th rate.</p> <p style="text-align: right;">Oct. 2nd.</p> <p style="text-align: center;">-----</p> <p style="text-align: center;"><i>8¹/₂ m. Am at</i></p> <p>Oct. 3rd, at the cor. of secs. 29, 30, 31 and 32, I set off 33° 34' N., on the lat. arc and 3° 53' 30" S., on the dec. arc and determine a meridian with the Solar.</p> <p>Thence I run, S. 89° 56' W., on a random line bet. secs. 30 and 31.</p> <p>Set temp. 1/4 sec. cor.</p> <p>Fall 26 lks. S. of the Cor. of secs. 25, 30, 31 and 36, thence I run, S. 89° 53' E., on a true line, bet. secs. 30 and 31.</p> <p>Over rough mts. thro. heavy timber.</p> <p>Top of ridge bears N. and S. and desc.</p> <p>Cross Blue River, 40 lks. wide, course S. and over bottom land through oak brush, cottonwood and, ash, and hackberry timber.</p> <p>Road bears N. and S.</p> <p>Set a malpais stone, 20 x 16 x 10 ins., ¹⁵ 14 ins., in the ground for 1/4 sec. cor. mkd. 1/4 on the N. face,</p> <p>A juniper, brs. N. 22 1/2° E., 13 lks. dist. mkd. 1/4 S. 30 B.T. (tree 16 ins., in diam.)</p> <p>An oak, brs. S. 85° E., 70 lks. dit. mkd. 1/4 S. 31 B.T. (tree 8 ins., in diam.)</p> <p>Leave bottom and ascend over mts. land.</p> <p>Timber becomes heavier.</p> <p>The cor. of secs. 29, 30, 31 and 32.</p> <p>Land mts. 6965 chs. and covered with pine, pinon, oak and juniper.</p> <p>Bottom land covered with dense brush and river trees such as cottonwood, ash, etc. 11.40 chs.</p> <p>Soil, 1st rate in bottom, 4th rate on mts.</p> <p style="text-align: center;">-----</p> <p>N. 0° 3' W., on a true line, bet. secs. 29 and 30.</p> <p>Over rough mts. land through heavy timber.</p> <p>Top of ridge bears E. and W. and descend.</p> <p>Dry creek, 50 lks. wide, course N. W. and descend ^{ascend}.</p> <p>Top of ridge bears S. E. and N. W. and desc.</p> <p>Set a malpais stone, 24 x 14 x 12 ins., 18 ins., in the ground for 1/4 sec. cor. marked 1/4 on the W. face,</p> <p>A pine, 9 ins., in diam. brs. S. 80° E., 45 lks. dist. mkd. 1/4 S. 29 B.T.</p> <p>An oak, 11 ins., in diam. brs. S. 67 1/2° W., 33 lks. dist. mkd. 1/4 S. 30 B.T.</p> <p>Top of ridge bears S. E. and N. W. and desc.</p> <p>Old road bears N. W. and S. E.</p> <p>Old road bearing to the N. E.</p> <p>Over bottom land through scattering cottonwoods, ash and hackberry through dense oak brush.</p> <p>Road bears E. and W.</p> <p>Dry creek, 35 lks. wide, course N.W.</p> <p>Cross Blue River, running water, 40 lks. wide, course S.W.</p>
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21. Subdivisional lines in T. 3 N., R. 31 E. Cont.

<p>Chs. 81.25 80.00</p>	<p>knaxxbokkxmxiandxandxovrxmxiandxxxx Set a malpais stone, 24 x 16 x 13 ins., 18 ins., in the ground for the cor. of secs. 19, 20, 29 and 30. marked with 2 grooves on the S. and 5 grooves on the E., edges, whence, A walnut, 7 ins., in diam. brs. N. 30° E., 1.50 lks. dist. mkd. T. 3 N., R. 31 E., S. 20 B.T. A cottonwood, 8 ins., in diam. brs. S. 43 1/4° E., 231 lks. dist. mkd. T. 3 N., R. 31 E., S. 29 B. T. A pine, 7 ins., in diam. brs. S. 25° W., 448 lks. dist. mkd. T. 3 N., R. 31 E., S. 30 B.T. A walnut, 6 ins., in diam. brs. N. 23 1/2° W., 64 lks. dist. mkd. T. 3 N., R. 31 E., S. 19 B.T. Land rough mts. and covered with pine, pinon, oak and juniper timber 56.40 chs. Bottom land covered with dense oak and river brush, and cottonwood, walnut, hackberry, and ash timber. 23.60 chs. Soil, 1st rate in bottom, over mts. and 4th rate.</p>
<p>40. 79.80</p>	<p>N. 89° 56' E., on a random line bet. secs. 20 and 29 Set temp. 1/4 sec. cor. Fall 07 lks. S. of the cor. of secs. 20, 21, 28 and 29. Thence I run, S. 89° 53' W., on a true line bet. secs. 20 and 29. Over mts. land thro. heavy timber.</p>
<p>.15 7.80 23.00 39.90</p>	<p>Dry creek, 30 lks. wide, course N. W. and ascend. Top of ridge bears S. E. and N. W. and desc. Gully, 10 lks. wide, course N. W. and asc. Set a malpais stone, 24 x 14 x 11 ins., 18 ins., in the ground for 1/4 sec. cor. mkd. 1/4 on the N. face, whence,</p>
<p>69.80</p>	<p>A pinon, 11 ins., in diam. brs. S. 48 1/2° W., 20 lks. dist. mkd. 1/4 S. 29 B.T. A juniper, 15 ins., in diam. brs. N. 30° W., 64 lks. dist. mkd. 1/4 S. 20 B.T. Leave mts. land and enter bottom land covered with oak brush and cottonwood, ash, walnut and hackberry timber.</p>
<p>74. 79.80 79.90</p>	<p>Cross Blue River, running stream 40 lks. wide, course S. W. The Cor. of secs. 19, 20, 29 and 30. Land mts. covered with pine, pinon, oak and juniper 69.80 chs. Land bottom, covered with dense brush, cottonwood, pine, pinon, ash, hackberry, walnut and oak. 10 chs. Soil 1st rate in bottom, 4th rate on mt. Oct. 3rd. 1904.</p>
<p>2.65 5.80 40.00</p>	<p>Oct. 4th, at the cor. of secs. 19, 20, 29 and 30 on Oct. 4th, I set off 33° 35' N., on the lat. arc, 4° 17' S., on the decl arc and at 7 hs. 20 m, a.m. l. m. t. I determine a meridian with the Solar. Thence I run, S. 89° 53' W., on a true line, bet. secs. 19 and 30. Over Bt. land through dense oak brush and cottonwoods ash, pine, pinon, walnut, etc. Road bears N. and S. Leave bottom land and over mts. land, ascending. Set a malpais stone, 26 x 14 x 7 ins., 20 ins., in the ground for 1/4 sec. cor. marked 1/4 on the N. face, whence,</p>

Chs.

A pine, 20 ins., in diam. brs. N. 55 1/2° E.,
32 lks. dist. mkd. 1/4 S. 19 B.T.
A pine, 16 ins., in diam. brs. S. 66° W., 36
lks. dist. mkd. 1/4 S. 30 B.T.
Bottom land covered with heavy brush 5.80 chs.
Mts. land covered with heavy pine, pinon, juniper
& oak timber 34.20 chs.
Soil, 1st to 4th rate.

N. 0° 3' W., on a true line bet. secs. 19 and 20.
Over bottom land thro. scattering timber and river
brush and debris.

12.70
13.80
19.05
33.85
39.
40.

Road bears N. E. and S.W.
Over mts. land thro. heavy timber.
Top of ridge bears E. and W. and descend.
Enter Fish Hook creek, course S.E.
Leave same.
Set a malpais stone, 28 x 12 x 8 ins., 21 ins., in
the ground for 1/4 sec. cor. mkd. 1/4 on the W.
face,

A Cedar, 6 ins., in diam. brs. N. 86° E., 34
lks. dist. mkd. 1/4 S. 20 B.T.
A Cedar, 8 ins., in diam. brs. N. 84 1/2° W.,
26 lks. dist. mkd. 1/4 S. 19 B.T.
Land rough mts. 26.20 chs.
Bottom covered with brush and debris 13.80 chs.
Timber, cottonwood, willow, cedar, ash and walnut
in bottom, on mt. ridge pine, pinon, cedra and juniper.
Soil, 1st and 4th rate. Oct. 4, 1904.

Note, my reasons for discontinuing the survey of the
balance of the Tp. is that my instructions only
authorize me to survey the agricultural and grazing
lands lying along or within the Canon of the Blue
River which I have done, and in so doing have
included all settlers claims within the Tp.

GENERAL DESCRIPTION.

This township contains Canon bottom land and
mts. land. The soil ranges from rich alluvial
to barren mountain boulders and rock slides.
The surveyed portion of the township is suitable
for grazing puprposes on the uplands, along the
Canon Bottom of the Blue River, the land in places
is cleared and planted into crops of alfalfa, corn,
and wheat, barley and oats.

Cottonwood, ash, sycamore and other kinds of
timber which grow along streams well watered are
found in the Canon bottom. The uplands or Mt.
slopes and tops are covered with pine, pinon, juniper
cedar and oak, of a commercial value. Many of the
tres are beautiful specimens of their specie.

The township is well watered by the Blue River
and its many small tributaries.

John P. Kisse
U. S. Deputy Surveyor.

Oct. 4, 1904.

LATITUDES, DEPARTURES, AND CLOSING ERRORS:

Bound'y.	Course.	Distance.	N.	S.	E.	W.
S. Bdy.	N. 89° 56' E.	481.45 ✓	.56 ✓		481.45 ✓	
E. Bdy.	North,	480.00 ✓	480.00 ✓			
North	West,	80.00 ✓				80.00 ✓
and	S. 0° 2' W.	80.30 ✓		80.30 ✓		.09 ✓
West	S. 0° 2' E.	80.00 ✓		80.00 ✓	.05 ✓	
Bdys.	S. 89° 57' W.	80.05 ✓		.07 ✓		80.05 ✓
	S. 1' E.	80.00 ✓		80.00 ✓	.02 ✓	
	S. 89° 50' W.	80.14 ✓		.23 ✓		80.17 ✓
	S. 89° 56' W.	80.30 ✓		.09 ✓		80.30 ✓
	S. 0° 2' E.	80.00 ✓		80.00 ✓	.04 ✓	
	S. 89° 53' W.	79.80 ✓		.16 ✓		79.80 ✓
	S. 0° 3' E.	80.00 ✓		80.00 ✓	.07 ✓	
	N. 89° 53' W.	81.05 ✓	.16 ✓			81.05 ✓
	S.	80.00 ✓		80.00 ✓		
Convergency,						.47 ✓

~~480.85~~ ~~481.65~~
 480.72 ~~480.69~~ 481.67 481.67
 .09 ~~480.72~~ 481.63
 .05 Error in Dep. .11

Error in lat.

LIST OF NAMES.

BOOK 1885

A list of the names of the individuals employed by John P. Hesse

....., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivision lines of Twp. 3 N. Rg. 31 E. showing the respective capacities in which they acted:

George W. Cassidy, Chainman.

A. A. Snyder, Chainman.

....., Moundman.

....., Moundman.

W. W. Oliver, Axman.

G. E. Wiswell, Axman.

W. H. Fort, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John P. Hesse

....., United States Deputy Surveyor, in surveying all

those parts or portions of the the subdivision lines of Twp. 3 N. Rg. 31 E.

..... of the Gila Salt River meridian, Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Arizona.

George W. Cassidy, Chainman.

A. A. Snyder, Chainman.

....., Moundman.

....., Moundman.

W. W. Oliver, Axman.

G. E. Wiswell, Axman.

W. H. Fort, Flagman.

Subscribed and sworn to before me this 4th day of October, 1891904



John P. Hesse
U.S. Dep. Surveyor

No notary available

86
25
BOOK 1885

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John P. Hesse United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 17 day of June 1904, 1894, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision lines of Pp. 3 n. Pg. 31 C

of the Gila and Salt River meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John P. Hesse
United States Deputy Surveyor.

Subscribed by said John P. Hesse, and sworn to before me }
this 17th day of June, 1894.

Frank S. Ingalls
U.S. Sur. Genl.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Thomas A. April 21 1905
The foregoing field notes of the survey of the Subdivisional lines of T. 3 n. R. 31 E of the Gila and Salt River Base and Meridian in the Territory of Arizona

executed by John P. Hesse under his contract No. 121, dated June 17, 1904, 1894, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.