

SOUTH- BOUNDARY

T 17 S. R 11 E

CONTRACT 65

PH. CONTZEN

U. S. D. SUR.

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1531

1531

BOOK 1531

4-671

BOOK 1531

FIELD NOTES
GENERAL LAND OFFICE.

Field Notes
Of the survey of the
South Boundary
of
Township 17 South
Range 11 East
of the
Gila and Salt River Base and Meridian
In the
Territory of Arizona
As surveyed by

Philip Contzen
U. S. Deputy Surveyor

Under his contract No. 65
Dated May 22, 1900

Survey commenced January 10, 1901
Survey completed January 13, 1901.

*Index.**D. 17 S. R. 11 E.*

31	32	33	34	35	36
21	18	16	13	10	8
6	5	4	3	2	1

South Boundary of Township 17 S.
Chains

Survey commenced January 10, 1901, and executed with a Swaley light mountain transit, No. 4609, with a Burt's solar attachment.

The instrument was examined and tested on this time meridian at Meson and found correct and was approved by the surveyor general for Arizona.

Preliminary to commencing the subdivision of Township 17 S, Range 11 East, I begin at the corner of Tps 17 and 18 S, Rcs 11 and 12 E, which is a decayed post lying on the ground. I destroy the same and reestablish the corner as follows:

Set a praphary stone 18 x 8 x 8 ins, 12 ins in the ground for cor of.

Range 11, East - Continued.

Chains S 11, 17 and 18 S, R 11 and 12 E,
 marked with 6 notches on each edge,
 dug pits 24 x 24 x 12 ins, on each line,
 N. E and W, 4 ft, and S of staves 8
 ft dist, and raised a mound of
 earth 5 ft base, 2 1/2 ft high S of
 cor, from which a tree 8 ins
 diam, bears 76° E, 70 lbs dist,
 marked P 17 S, R 12 E, S 31, B. 7.

A mesquite 8 ins diam, ⁷⁹ 79° ³⁰ 30° W,
 375 lbs dist, marked P 17 S, R 11 E,
 S 36, B. 7, No other trees in limits.

Procedure to test the polar appar-
 ratus by comparing the results of
 observations on the sun made
 during a.m. and p.m. hours, with a
 true meridian determined by ob-
 servations on Polaris, I proceeded
 as follows:

South Boundary of Township 17 S,
Chains

At the cor of Tps 17 and 18 S,
Rs 11 and 12 E, and at 3.30 p m, local
mean time, I set off $31^{\circ} 54'$ on the
latitude arc, $21^{\circ} 56'$ S on the declina-
tion arc, and mark the true me-
ridian thus determined with the
solar by a cross on a stone firmly
set in the ground, 5 chs north
of the instrument.

At 11 h 58^m p m, local ^{mean}
time, I observe Polaris at westward
elongation in accordance with in-
structions in the manual, and
mark the line thus determined
by a tack driven in a wooden
plug set in the ground, 5 chs
north of my position.

Jan. 11. At 7.15 a m I lay off the
azimuth of Polaris to the

Range 11 East - Continued

6 chains

east and mark the true meridian thus determined, by cutting a small groove in the stone set yesterday on which the true meridian falls 0.15 in west of the mark determined by the solar.

At 9.30 a.m., I set off $21^{\circ}54'$ on the lat arc, $21^{\circ}50'$ on the decl arc, and mark the true meridian determined with the solar, by a cross on the stone already described 5 chs north of my station. This mark falls 0.14 in west of the true meridian established by the Polaris observation. The solar apparatus by a.m. and p.m. observations, defines positions for true meridians, about 0.8" east and ^{0.11"} west of the meridian established by the Polaris observation.

South Boundary of Township 17 S.

Chains

Therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 9.30 a.m. is $12^{\circ}35'$ west, the angle thus determined, reduced by the table, page 100, gives the mean mag. decl. $12^{\circ}32'$ east.

NOTE: KNOWING FROM OTHER SURVEYS MADE BY ME THAT COR'S ON RND GUIDE MER. DO NOT CONNECT WITHIN LIMITS WITH COR'S. OF SURVEYS EAST OF GUIDE MER. THEREFORE I RUN FROM ABOVE DESCRIBED CORNER

West on a true line bet sees 1 and 36.

Over mountainous land

Through dense tsetse and mesquite undergrowth

20.70 Bend, bears N and S.

27.00 Leave dense undergrowth and ascend

40.00 Set a granite stone $18 \times 10 \times 3$ ins.

Range 11 East - continued

Chains

- 12 ins in the ground for $\frac{1}{4}$ sec cor,
marked $\frac{1}{4}$ 36 on N and 1 on S faces,
and raise a mound of stones 2 ft base,
12 ft high, N of cor. Pits impracticable.
Top of ridge, bears N and S.
descend
- 48.00 Foot, head of ravine, bears N and S.
- 50.00 Ascend, top of ridge, bears N W and
S. E. descend.
- 54.00 Ravine, bears N W. joins gulch, bears
N. E. and S. W. (foot; ascend)
- 56.00 Top of N spur; descend.
- 57.80 Gulch 25 lks wide, course N easterly;
ascend.
- 58.70 Top of ridge, bears N. E. and S. W.
descend
- 60.00 Gulch, 20 lks wide, course N easterly,
ascend S. slope of ridge.

South Boundary of Township 17 S,

Chains

76.00

80.00

Gulch 20 lks wide, course S easterly.
 Set a porphyry rock 18x10x4 ins,
 12 ins in the ground for cor of sees
 1, 2, 35 and 36, marked with 1
 notch on E and 5 notches on W
 edges, and raise a mound of stone
 2 ft base, 1 1/2 ft high, W of cor.
 Pk impracticable.

Land, mountainous.

Soil, gravelly and rocky, 3rd
and 4th rate.

Timber, Oak.

Mountainous land or land covered
with dense undergrowth, 80.00 chs

West let sees 2 and 35

Over mountainous land

4.50

6.00

Top of ridge, S slope, descend
Gulch 14 lks wide, course, easterly.

Rongel II East, continued

- Chains and follow this gulch (feet)
- 9.50 Leave gulch, ascend
- 25.00 Top of N. slope of ridge; descend
- 28.00 Foot of gulch in the ridge, course N. easterly, ascend.
- 32.00 Top of ridge and ascend E. slope of steep and high ridge.
- 41.00 Set a granite stone 18 x 12 x 5 ins, 12 ins in the ground for $\frac{1}{4}$ sec cor, marked $\frac{1}{4}$ 35 on N and 2 on S faces, from which an oak 8 ins diam, bears N 33° W, 63 lbs dist, marked $\frac{1}{4}$ S 35, B. 57.
- An oak 8 ins diam, bears S $7\frac{1}{2}^{\circ}$ W, 75 lbs dist, marked $\frac{1}{4}$ S 2, B. 57.
- House of headquarters of Major Eckony, bears S 62° E, about $\frac{1}{2}$ mile. (R 270)

South Boundary of Township 17 S,

Trains

45.00

Top of slope, descend

69.00

Drop gulch, course N easterly,
ascend

80.00

Set a porphyry stone 18 x 10 x 6
ins, 12 ins in the ground for cor
of sec 2, 3, 34 and 35, marked with
2 notches on E end & 4 notches on W
edges, from which a juniper
12 ins diam, bears N 60° E, 281 lbs
dist, marked S 17 S, R 11 E, S 35, B 7.

An oak 8 ins diam, bears N 60° E,
22 lbs dist, marked S 17 S, R 11 E,
S 35 B 7, no other trees within
limit, and raise a mound of stone
2 ft base, 1 1/2 ft high, W of cor.
Pits impracticable.

Land, mountainous,

Soil, gravelly, 3rd rate,

Timber, oak, juniper, palmilla.

Range 11 East - Continued
 Plains
 Mountainous land, 8,000 lbs

Post bet sees 3 and 34

Over mountainous land

Ascending

1.00 Top of divide, bars N and S,
 descend.

14.15 Gulch 20 lbs wide, course northerly
 ascend

16.00 Top, bars N and S; descend

17.00 Foot, gulch, 10 lbs wide, course
 northerly; ascend

23.50 Top of spur, bars N and S, descend

31.20 Rush 10 lbs wide, course northerly,
 ascend

36.00 Top of spur, bars N and S;
 descend

38.00 Gulch 10 lbs wide, course northerly,
 ascend

South Boundary of Township 17 S.

Chains

4000

Set a porphyry stone 18x12x6 ins, 12 ins in the ground for $\frac{1}{4}$ sec cor, marked $\frac{1}{4}$ S 45 N and 3 on S face, from which an oak 6 ins diam, bears N $74\frac{1}{2}^{\circ}$ W, 30 lbs dist, marked $\frac{1}{4}$ S 34, B. 7.

A juniper 10 ins diam, bears S 47° E, 41 lbs dist, marked $\frac{1}{4}$ S 3, B. 7.

41.50

Top of N spur descend.

43.30

Wash 10 lbs wide, course N, westerly; ascend

44.60

Top of spur, bears N; descend

45.50

Wash 10 lbs wide, course, northerly; ascend.

49.50

Top of N spur (ridge); descend

54.20

Wash 20 lbs wide, course northerly; ascend N slope

57.10

Trail, bears N and S

Range 11 East - Continued

(chains)

- 57.40 Spur, bears N and S; descend.
 61.70 Wash in lbs wide, course N westerly;
 63.00 Ascend
 70.00 Top of spur, bears N E and S W,
 ascend steep

8.000 Set a granite stone 18 x 8 x 5 ins, 12
 ins in the ground, for cor of sec
 3, 4, 33 and 34, marked with 3
 notches on E and 3 notches with edges,
 from which an oak 4 ins diam, bears
 N $80\frac{1}{2}^{\circ}$ E, 100 lbs dist, marked S 17 S,
 R 11 E, S 34, B. 7.

An oak 8 ins diam, bears S 17° E 70
 lbs dist, marked S 18 S, R 11 E, S 3 B. 7.

An oak 14 ins diam, bears S 85° W,
 26 lbs dist, marked S 18 S, R 11 E, S
 4, B. 7.

An oak 6 ins diam, bears N $32\frac{1}{2}^{\circ}$
 W, 108 lbs dist, marked S 17 S, R 11 E,

S. 33 B. T.

South Boundary of Township 17 S,
Chains

S 33, B. T.

Land, mountainous

Soil, gravelly and rocky; 3^d and
4th rate

Timber, oak,

Mountainous land 80.00 chs

West bet sees 4 and 33.

Over mountainous land

Ascending

3.00 Top of divide, bears N and S;
descend along S slope of ridge,
bears E and W.

4.00 Head of Hawley gulch, course
S westerly

18.30 Wash 20 chs wide, course southerly,
ascend

19.50 Top of spur; descend

26.80 Wash 10 chs wide, course southerly;

Range 11 East - Continued

- Chain
- ascend
- 35.20 Top of slope, bears N and S, descend.
- 40.00 Set a granite stone 18x8x6 ins,
12 ins in the ground for $\frac{1}{4}$ sec
cov, marked $\frac{1}{4}$ 33 on N and 4 on
S faces, from which an oak 16
ins diam, bears N $77\frac{1}{2}^{\circ}$ E, 15 lks dist,
marked $\frac{1}{4}$ S 33 B.T. no other
trees within limit, and raise a
mound of stone 2 ft base $1\frac{1}{2}$ ft
high, N of cov. It's impracticable.
- 54.00 Foot, wash 20 lks wide, course N
mostly ascend
- 73.00 Top of slope
- 78.60 Descend
- 80.00 Set a porphyry stone 18x8x6 ins,
12 ins in the ground for cov of
secs 4, 5, 32 and 33, marked with 4
notches on E and 2 notches on W,

South Boundary of Township 17 S.
Chains

9 degs, from which an oak 12 ins
diam, bears S 89° W, 165 lks dist,
marked S 18 S, B 11 E, S 5, B. T., no
other trees within limit, and raise
a mound of stone 2 ft base, 2½ ft
high, W of cov. Pk impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3^d rate.
Timber, oak.

Mountainous land, 80.00 chs

Rest bet sees 5 and 32

Over mountainous land

Descending

7.50

Foot; wash 20 lks wide, course N
westerly; ascend

10.00

Top of spur, N slope; descend

19.00

Foot; wash 8 lks wide, course N
westerly; ascend.

Range 11 East - Continued

- Chains
 21.80 Tunnel in wash, bears 2 chs N
 22.00 Top of low ridge, bears NW and S.E.
 29.50 Wash 10 chs wide, course, N westerly;
 ascend
 37.00 Top of divide; descend
 40.00 Set a granite stone 18x12x5 ins,
 12 ins in the ground for 1/4 sec cor.
 marked 1/4 321 on N and 5 on S
 faces, from which an oak 12 ins
 diam, bears S 45° E, 168 chs dist,
 marked 1/4 S 5, B. 77; no other trees
 within limit, and raise a mound
 of stone 2 ft base, 1 1/2 ft high, N of
 cor. Pit impracticable
 42.00 Descend gradually along S slope.
 52.50 Foot; wash 10 chs wide, course S
 westerly.
 60.80 Wash 5 chs wide, course S westerly;
 ascend

South Boundary of Township 17 S,
 Chain

63.00

Runing, bears N and S

75.50

Rash 20 lks wide, course S westerly

80.00

Set a granite stone 18 x 12 x 8 ins,
 12 ins in the ground for cor of secs
 5, 6, 31 and 32, marked with 5 notches
 on E and 1 notch on W edges, from
 which a mesquite 12 ins diam, bears
 S $49\frac{1}{2}^{\circ}$ E, 276 lks dist, marked P
 18 S, P 11 E, S 5, B. 7.

A mesquite 7 ins diam, bears S
 $15\frac{3}{4}^{\circ}$ W, 156 lks dist, marked P 18 S,
 P 11 E, S 6, B. 7; no other trees within
 limits, and raised a mound of stone
 2 ft base, $1\frac{1}{2}$ ft high, N of cor. Pits
 impracticable.

Land, mountainous.

Soil, gravelly and rocky; 4th rate
 timber, scattering oak, ocotilla ^{and} yucca
 Mountainous land, 80.00 chs.

Range 11 East - Continued

Chairs

Post bet sees 6 and 31

Over mountainous land.

Ascending

- 1.30 Top of ridge; bears N.E. and S.W.;
descend
- 4.50 Foot; wash 20 lks wide, course S
westly; ascend
- 6.30 Top of ridge, bears N.E. and S.W.; descend
- 8.50 Foot; wash 10 lks wide, course S
westly; ascend.
- 14.50 Top of spur, bears N.E. and S.W.; descend
- 15.80 Foot; wash 10 lks wide, course southerly
ascend.
- 23.00 Top of S slope; descend
- 37.00 Foot; wash 10 lks wide, course S
westly; ascend.
- 38.00 Top of ridge, bears N.E. and S.W.;
descend
- 40.00 Set a granite stone 18x12x6 ins

South Boundary of Township 17 S.
Chain

12 ins in the ground for $\frac{1}{4}$ sec cor,
marked $\frac{1}{4}$ 36 on N and 6 on S faces,
from which a mesquite 15 ins diam
bears $N 49^{\circ} W$, 59 lbs dist, marked
 $\frac{1}{4}$ S 36, B. T.

A mesquite 5 ins diam, bears $S 8^{\circ} E$,
79 lbs dist, marked $\frac{1}{4}$ S 6, B. T.

40.40 Foot; wash 20 lbs wide, course S
westerly; ascend.

46.00 Top of spur, S slope.

59.00 Top of high ridge; descend N slope.

69.64 Intersect Second Guide Meridian
8.23 chs S of cor of Tps 17 and 18 S,
R 11 E,

Set a granite stone $18 \times 10 \times 8$ ins,
12 ins in the ground for closing cor
of Tps 17 and 18 S, R 11 E, marked
C. C. on E, with 6 grooves on N, E
and S faces, from which a mesquite

Range 11 East - Canebrard
 Chains

18 ins diam, bears 39° 20', 134 lbs dist,
 marked S 17 S, R 10 E, S 36, B. 7; no
^{pro} other bears within limit, and raised
 a mound of stone 2 ft base, 1 1/2 ft
 high, E of ea. Pits impracticable
 Land, mountainous.

Soil, gravelly and rocky; 3rd and
 4th rats.

Timber, scattering mesquite; under-
 growth, ocotilla and yucca
 Mountainous land, 69.84⁶⁴ chs.

General Description.

This line runs over mountainous
 land. There is an abundant growth
 of nutritious grasses. Oak grows
 on the higher ridges, there are
 some juniper. The undergrowth ^{consists}

mainly of *trisetum* and *yucca*.
Indications of mineral are found
along the line.

The land south of the line is
principally mountainous.

Philip Cortez
U. S. Deputy Surveyor

Preliminary Oaths of Assistants.

We, *G. A. Hawley*, *B. F. De Chastain*
Arthur Cogue and *Manuel Salazar*
do solemnly swear that we will well and faithfully
execute the duties of Chain Carriers; that we will
level the chain upon even and uneven ground, and
plumb the tally pins, either by sticking or dropping
the same; that we will report the true distance 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 and the survey of resurvey
of exterior lines of
T. 17 S. R. 11 E and
T. 18 S. R. 20 E.
of the Gila and Salt River Base and Meridian in
the Territory of Arizona.

H *G. A. Hawley* Chainman.
W. C. *B. F. De Chastain* Chainman.
Arthur Cogue Chainman.
Manuel Salazar Chainman.

Subscribed and sworn before me, this *10th*.....

day of *January* 18*81*

Philip Courtzen
J. B. Deputy Notary Public

[SEAL.]

No notary available

We, Chas. Pogue ^{and} 26

John M. Trayer BOOK 1531

do solemnly swear that we will well and truly perform the duties of flagman ^{and}
axemen —

in the establishment of corners and other duties, according to instructions given us, and to the best of our skill and ability, in the survey of the.....

subdivision lines and the
survey & resurvey of exterior
lines of T. 17 S. R. 11 E and
T. 18 S. R. 20 E

of the Gila and Salt River Base and Meridian, in the Territory of Arizona.

Chas Pogue, Flagman
John M. Trayer, Axeman

Subscribed and sworn to before me this 10th

day of January 1891

Phillip Contzen

U. S. Deputy Notary Public

No notary available