

COMPLETION OF SURVEY OF EAST Bdy. OF

T. 15 N., R. 5 E.

and

SURVEY OF SOUTH, EAST and WEST Bdy's. OF

T. 16 N., R. 5 E.

1410

BOOK 1410

4-671

FIELD NOTES

GENERAL LAND OFFICE.

CONTRACT NO. 101.

No. 1410

Field Notes of the
completion of survey
of the East Boundary of
T. 15 N. R. 5 E. and Survey
of the W. S. and East
Boundaries of T. 16 N. R. 5
E. Gila and Salt River
Basin and Utes, Arizona.

By

James B. Girard and
Park W. Lattin
under their Cont. No 101
dated June 30, 1902 and
supplemental special
instructions dated

Survey commenced Aug. 24
" completed Aug. 27, 1902

2
 Completion of Surv. of East Bdy of T. 15

INDEX

BOOK 1410

T 16 N R 5 E

40	7							12	51
37	18							13	50
34	19							24	48
32	30							25	46
29									43

31	32	33	34	35	36
P. 14	17	19	22	24 A	24
					1 = 6

T. 15 N., R 5 E

		12	6	7
		13	6	18
		24	6	19

U. R. 5-C. Gila Salt River Basin and Mts.

BOOK 1410

3

Chs. At cor. of secs. 19-24-25 and
30 heretofore described
Set off $34^{\circ}41'N.$ on Sata arc
at 7 A.M. L. on 7. Aug 24-1902
Arc $11^{\circ}20'N.$ on Sata arc
and determined a true
meridian with the Solar.

Thru some on a true
line U. Bet. secs. 19 and 24
Over Mts land and cedar
brush, dense.

- 11.30 Summit of ridge - S. W.
13.10 Wash 30 ft deep. Course E.
17.00 Top of ridge
24.50 Cross road to Wet Beaver
Creek bears U. E. and S. W.
32.20 S. Rim of canon, 30 ft deep
course S. E.
34.80 U. Rim.
36.40 S. Rim of canon S. E. 60 ft deep

4 Completion of Survey of East Bay

- Chs. 39.30 U. rim of same cañon
40.00 Set a limestone $18 \times 18 \times 5$ ins.
10 ins in the ground, for $\frac{1}{4}$
cor. wkd $\frac{1}{4}$ on N. face
From which
A cedar, 3 ft in diam.
wkd $\frac{1}{4}$ S. 19 B. T. Bears N.
 88° to 15 lbs. dist.
A cedar 12 ins. in diam.
bears U. 40° N. 78 lbs dist
Wkd $\frac{1}{4}$ S. 24 B. T.
49.00 Begin steep descent of mesa
70.20 Walk 30 lbs wide course
S. E. and ascend.
77.90 Top of hill.
78.40 Descend to trail
80.00 Set a limestone $20 \times 14 \times$
5 ins in a mound of stone
wkd with 3 notches on
U. and S edges.

of T. 15 N. R. 5 E. - Continued.

chs.

Bedrock at surface -
unfract. to 8 ft in ground.
From which

A cedar 4 ins in diam
Bears N. 22° 45' E. 38 lbs
dist. rickd T 15 N. R. 6 E. S.

18 B. T. A cedar 10 ins in
diam. bears N. 20° W.
60 lbs dist. rickd T. 15 N.
R. 5 E. Sec 13 B. T.

A cedar 18 ins in diam.
bears S. 75° E. 34 lbs
dist. marked T. 15 N. R. 6 E. S.
19 B. T. No others were and

raise mid of stone 2 ft base
1 1/2 ft high. N. of cor. *But impracticable*
Land rickd 80 chs.

Cedar brush 80 chs.

Soil 4 rickd

Limber cedar.

6
 Completion of Survey of East

lks.	U. on a true line
	Ret. secs. 13 and 18.
	Over mountainous land and dense brush
4.90	Dry Wash course U. to S. W. 28 lks. wide.
8.20	Top of rise and descend.
14.50	Wagon Road U. to S. W.
19.00	Foot of hill and ascend.
22.70	Top of hill and descend.
32.60	Rind of canon.
36.30	Trail 20 lks wide course
40.00	Set a Malpai stone 20 x 10 x 5 ins. for $\frac{1}{4}$ cor. 13 ins in the ground with $\frac{1}{4}$ on N. face. Dig pits 18 x 18 x 12 ins. N. and S. of cor. ^{3ft dist} and raise a ridge of earth $3\frac{1}{2}$ ft face $1\frac{1}{2}$ ft high West of cor.

City of T 15 N. R. 5 E. Continued.

45.80

Top of ridge bears E & W

64.48

Wash Bds N. E. ^{Course S. W.} 20 lbs wide.

75.00

Top of ridge bears E. and W.

78.80

S. bank of dry wash.

79.60

Middle of wash 40 lbs wide
course S. W.

79.90

N. Bank of same wash.

80.00

Set a limestone 18x10x8
ins. 12 ins in the ground
for cor. of secs. T/12-13 and
18. mark 4 notches on
S. and 2 on N. edges.

From which

Acridae 4 ins in diam
marked T. 15 N. R. 5 E. Sec.
18 B. S. Bears S. 83^o 24 lbs.Acridae 10 ins. in diam
marked T. 15 N. R. 5 E. S.13 B. S. bears S. 27^o W. 83 lbs.

Acridae 3 ins in diam.

8.

Completion of survey of East

chs.

marked P 15 N. R. 5 E.
 S. 12 B. T. bears N. 50° W.
 197 lbs dist. No other
 wear. Pits intact.

✓ Raise a mound of stone
 2 ft. base, $1\frac{1}{2}$ ft high - N.
 of cor.

✓ Sand Mts. 80 chs.
 Soil gravelly and rocky
 3rd and 4th grade.

Timber cedar.
 Underbrush, mesquite -
 oak and buck.

August 24 - 1902.

August 25 -

N. bet. Secs. 7 and 12.

3.30

Trail bears E. & W.

6.30

Top of ridge - E & W.

7.35

Dry Wash, bears S.W. 15-

chs. wide.

Entry of T. 15 N. R. 5 E. continued

- chsd-10.50 Top of ridge - N.E. & S.W.
 15.50 Wash - N.E. & S.W. course
 S.W. - 20 lbs wide.
 20.70 Top of ridge - N.E. & S.W.
 24.50 Wash - course S.W. - 25 lbs.
 40.00 Set a limestone 22x10x8
 ins. 14 ins in the ground
 for $\frac{1}{4}$ sec. cor. marked
 $\frac{1}{4}$ on N. face - from
 which.

A cedar 4 ins in diam,
 raked $\frac{1}{4}$ S. 12 B.L. bars
 N. $82^{\circ} 30'$ W. 35 lbs dist.
 A palo verde, raked $\frac{1}{4}$ S.
 7 B.L. bars N. $72^{\circ} 30'$ E.
 65 lbs. dist.

Accrued

35.60

Top of steep hill.

Accrued.

50.00

Top of hill 50 ft high.

- Completion of Survey of East
 Course
- chs. 54.00 Draw $\frac{1}{2}$ & $\frac{1}{2}$
- 55.50 Begin ascent of steep bluff.
- 60.30 Top of malpai ridge & descend.
- 65.00 Bottom of canon - Wash 30 lbs wide. course S. W. Canon 200 ft deep.
- 72.20 N. rim of canon
- 80.00 Set a limestone 20x14x8 ins. 12 ins. in the ground
 Bor Cor. spec. 1, 6, 7 & 12
 rkd with 1 notch on U. & 5 on south edges, from which a cedar 4 ins in diam. rkd S. 15 W. R. 5 E. S. 12 B. T. bars S. 80 W 50 lbs dist.
 A cedar 8 ins in diam rkd S. 15 W. R. 6 E. S. 70 B. T. bars S. 50 E. 147 lbs dist.

Edge of T. 15 N. R. 5 E. continued.

chs. A cedar 8 ins. in diam.
 upbd. T. 15 N. R. 5 E. S. 1 B. T.
 bears N. 25 W. 272 lbs dist.
 No others near, and
 raise a mound of stone
 2 ft base, $1\frac{1}{2}$ ft high, N of
 chr.

Pit's impract.
 Land W to 80. chs.
 Soil rocky & 4th rate.
 Timber scattering cedar.
 Underbrush cedar & oak.

N. bet. Secs. 1 & 6. over
 W to land.

Ascending

17.00 Top of Malpai ridge,
 bears E. & W.

17.60 Wagon road. from
 lower Oak Creek to

2
6
12. Completion of Survey of East

dis.

Flag staff - bears N. E. &
S. W. and begin descent.

30.60

Draw - across N. Begin
descent.

32.50

Top of ridge E. & W.
Descent

37.90

Bottom of cañon, bears
S. W. to Dry Beaver Creek.

40.00

Set a limestone $24 \times 16 \times 8$
ins 16 ins in the qrd. for
 $\frac{1}{4}$ sec. cor. wk'd. $\frac{1}{4}$ out N.
face, from which,
A cedar 30 ins. in diam
wk'd. $\frac{1}{4}$ S. 6 B. S. bears N.
 55° E. 133 lbs. dist.A cedar 12 ins in diam
wk'd. $\frac{1}{4}$ S. 1 B. S. bears S.
 47° $30'$ W. 200 lbs. dist.

44.00

Top of Malpai ridge,
and begin descent.

Diary of J. W. R. S. C. Continued. 13.

- ch. 51.50 Draw-bears W.
 Begin ascent.
 63.00 Top of hill. Thence along
 hill.
 71.10 Descend hill.
 76.40 Bottom, cross wash,
 10 lbs. wide course W.
 79.40 Wash - 10 lbs. wide -
 course S. W.
 80.00 Set temporary Town-
 ship cor. for Tps 15 + 16 N., R. 5 E.
 Uts land - 80. chs
 Soil 4th rate, very rocky.
 Timber, scattered cedar.
 Underbunk scrub cedar.
 From temporary cor.
 just established from
 W. on a random line.
 August 25-1902.

April 15/03 C. E. S.

2
14 Survey of South Edge of S.

Is Determined
 by my own instrument
 which is 50" more than
 the true calculated
 479. 72. latitude.

August 26 - at 8 A.M. - S. W. S.
 Set off $34^{\circ}45'$ on lat. arc.
 and $10^{\circ}37'30''$ on d. arc.

and determine a true
 Meridian with a solar
 gnomon on random line
 W.

Setting temporary $\frac{1}{4}$
 and sec. cor. at 40 & 80 chs.

I set 16.21 chs. S. of old
 dilapidated cor. to Tps.
 15 and 16 N. R. 4 & 5 E.

August 26 & 27 - 1902.

August 26 - at 8 hrs. S. W. S.
 set off $34^{\circ}45'$ N. on lat. arc.
 and $10^{\circ}37'30''$ W on d. arc.
 and determine true merid-
 ian with a solar.

Shew true E on a
 true line bet. sec. 6 & 31.

16 N. R. 5 E. T. & S. R. Mex. Ariz. 15

- Clus. Over Mts. land.
 7.00 Begin ascent.
 19.36 Top of high bluff, 300 ft
 above T.P. cor.
 Thence along high mesa.
 39.72 Set a limestone 20x14x6
 ins. 12 ins in the grd. to
 bed rock for $\frac{1}{4}$ cor. mksd
 $\frac{1}{4}$ on N face, from which
 Cedar 6 ins in diam.
 bears S. 42° W. 145 lbs dist.
 mksd $\frac{1}{4}$ S. 6 P.S.
 Cedar 5 ins in diam.
 bears N. 43° E. 187 lbs. dist.
 mksd $\frac{1}{4}$ S. 31 P.S.
 44.16 N. rim of canon - course
 S.W.
 48.66 Bed of same canon.
 Ascent.

16

Survey of South Bdry. of

Chs. 50. 20

Top of ascent, and E. rim
of cañon.
Ascend

68.00. Bed of a cañon, course
S. E. bears N. W.

77.36 E. rim of cañon, and
ascend rapidly.

79.72 Set a sandstone $30 \times 24 \times 10$
ins. 20 ins in the gr. to
bedrock. for cor. of sec.
5-6-31 & 32, mkd 5 notches
on E. & 1 on W. edges,
from which,

A cedar 10 ins in diam.
bears N. $80^{\circ} 15'$ E. 145 lbs dist.
mkd. T. 16 N. R. 5 E. S. 32 R. T.

A cedar 30 ins in diam.
bears N. $72^{\circ} W.$ 177 lbs dist.
mkd. T. 16 N. R. 5 E. sec. 31 R. T.

A cedar 10 ins in diam.

2
Can

L 16 N. R. 5 E. Continued.

Chs.

ukd S. 15 N. R. 5 E. S. 6 P. S.
 bears S. $12^{\circ} 30' W.$ 119 chs.
 dist.

A cedar 12 ins in diam.
 ukd S. 15 N. R. 5 E. S. 5 P. S.
 bears S. $18^{\circ} E.$ 227 chs. dist.

Wts land 79.72 chs.

Soil 4th rate

Dense cedar & pinon
 timber.

Scrub cedar brush.

✓

East bet. sec. 5 & 32. over
 Wts land.

32.25 Canoe-course S. W.

36.00 Top of hill and descend.

40.00 Set a limestone 32x14x4
 16 ins. in the grd. for $\frac{1}{4}$ cot.
 bet sec. 5 & 32 ukd $\frac{1}{4}$ on
 N. face, from which,

Survey of South Side of

- Chs. A cedar bear U. 21° W. 4
ins. in diam. 50 lbs. dist.
ukd $\frac{1}{4}$ S. 32 B. S.
- A cedar 5 ins in diam.
bears S. 18° W. ukd $\frac{1}{4}$ S. 5
B. S. 135 lbs dist.
49. 10 Bottom of canon, course
U. W- and ~~ascend~~
56. 80 Top of bluff and descend.
74. 70 Prairie - course S. E. - bears
U. W- and ascend.
80. 00 Set a limestone $20 \times 14 \times 5$
ins. 14 ins in the grd. for
cor of sec. 4-5-32 & 33, ukd
4 notches on E. & 2 on W, edges
from which,
A cedar 4 ins in diam.
bears U. $87^{\circ} 2'$ W. 22 lbs.
dist. ukd S. 16 W. R. 5 E.
sec. 32. B. S.

T. 16 N. R. 5 E. Continued.

Chs.

A cedar 4 ins. in diam.
 rchd T. 15 N. R. 5 E. Sec.
 4 P. S. bears S. 10° E. 42 lbs.
 dist.

A cedar 5 ins. in diam.
 bears N. 52° E. 126 lbs dist.
 rchd T. 16 N. R. 5 E. S. 33 P. S.

A cedar 3 ins. in diam.
 bears S. 87° W. 74 lbs. dist.
 rchd. T. 15 N. R. 5 E. S. 5 P. S.
 Wts. land 80. chs.

Timber cedar.

Soil 4 th rate

Underbrush. cat claw.

E. bet secs. 4 & 33, over
 Wts land through dense
 cedar timber.

4.25 Top of ridge

11.70 Ravine corner S. E.

20

BOOK 1410

Survey of South Bdry of

Chs.

Ascend

16.50

Bottom of canon, course
S. W.

31.25

E. rim of canon.

46.00

Set a sandstone 20x10x6
ins, 12 ins in the grad. for
 $\frac{1}{4}$ cor. rkd $\frac{1}{4}$ of N. face.
from which,A cedar 10 ins. in diam
bears S. 50° W. 78 lbs dist.
rkd $\frac{1}{4}$ S. 4 B.S.A cedar 6 ins in diam
bears N. 48° E. 65 lbs dist.
rkd $\frac{1}{4}$ S. 33 B.S.

41.00

Top of bluff.

55.00

Ravine - course S.

66.10

"

"

"

71.65

"

"

"

72.00

"

"

"

75.60

Ridge.

S 16 N. R. 5 E. - Continued

Chs. 8000 Set a limestone 20x10x5-
ins. 12 ins in the ground
for cor of secs. 3-4-33
& 34 marked with three
notches on E. & W. edges
From which,
A Cedar, 4 ins in Diam
bears S. 40° 30' W. 58 lbs
dist. - rkd S. 15° N. R. 5 E.
S 34 P. T.

A cedar 3 ins. in Diam
bears N. 15° W. 5-7 lbs. dist.
rkd S 16 N. R. 5 E. S. 33 P. T.
No others wear.

Raise a mound of stone
2 ft base 1 1/2 ft high W.
of cor. - fits impract.
W's land 80 chs.
Timber cedar.
Soil 4 rate.

August 26.

22 Survey of the South Bdry of
Chs. " August 27-1902.

At D. W. C. m. t. set off
34° 45' on lat. arc and
100° 15' 30" on decl. arc and
determine true Mer.
with solar.

Thence E. on a true line
bet. secs. 3 & 34 - Over Mt. Island.

4.90 Ravine - course S. W.
30 lks wide.

12.00 Ridge - N. E. & S. W.

19.00 Dry wash - course S. E.
3 chs. wide.

35.00 Top of ridge - N. E. & S. W.

40.00 Sht a Walpau stone
24 x 12 x 6 ins 16 ins in
the ground for $\frac{1}{4}$ sec cor.
used $\frac{1}{4}$ on N. face,
From which

Acacia 5 ins in diam.

L 16 N. B. 5-6. Continues.

Chs.

bears S. 60° E. 66 lbs dist.
mhd $\frac{1}{4}$ S. 30° E.

A cedar 4 ins. in diam
bears N. 50° W. 7 lbs dist.
mhd $\frac{1}{4}$ S. 34° E.

41.90 Ridge - N. E. & S. W.

46.00 Dry wash - course S. E.

57.00 Old wagon road - course
N. E. & S. W.

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

77.60 Foot of ridge

80.00 Set a malpai stone 24 x 8
x 10 ins 16 ins in the ground.

for cor. of sec. 2-30 348
30" mhd. 2 notches on E & 4 notches on W
edges

dig pits - 18 x 18 x 12 ins.
in each sec. - 5 $\frac{1}{2}$ ft dist.
and raise a ridge of
earth 4 ft base 2 $\frac{1}{2}$ ft

24

Survey of the South Boundary of

Chs.

high. N. of cor.

From which

A cedar, 6 ins in diam.
 bears S. 72° E. 287 lbs. dist.
 up rd. S. 15. N. R. 5 to S 2 B. T.
 No other trees in limits.

This cor. is at foot of
 a bald Malpais ridge
 W. to land 80 chs.

Soil 3 & 4 rats

Timber scattering cedars.
 Underbrush - scrub cedar.

~~7.00~~

(See page 24 A)

East bet. sec 18 & 36

Descending to Dry
 Beaver Creek Over W. to land.

7.00

Old Road bears N. & S.

8.20

Enter breaks of Dry
 Beaver Creek

21.60
30.72

Road - bears N. & S.
 Dry Beaver Creek, 3 chs

See page 25

of 1670, 5-2-

8. bet sec. 34 & 35-
over into land-
descending
- 7.60 Dry wash course S.W.
35- lks wide.
- 17.80 Top of ridge & descend
- 22.00 Dry wash course S.W. 40
lks wide.
- 28.00 Same wash course S.W.
30 lks wide.
- 31.30 Dry wash 30 lks wide
course N.W. & begin
steep ascent.
- 40.00 Set a malpai stone
20 x 8 x 4 ins. 14 ins in
the grd for 4 cor. ricks
1/4 on N. face -
From which -
A cedar 6 ins. in diam
bear N. 5-10' W. 144 lks

dist. ruled $\frac{1}{4}$ S. 35 B. T.

A cedar 12 ins in diam.
bears S. $8^{\circ}20'$ E. 222 lbs

dist. ruled $\frac{1}{4}$ S. 2 B. T.

62.00 Top of high malpai cut. des.
N. N. E. & S. S. W.

77.60 Sup wash course S. E.

80.00 Set a malpai stone 24 X 8 X
10 ins. 16 ins in the grid for
corn p. sec. ~~25-34-42~~ marked
1 notch on E & S on west edges
Whence -

A cedar 6 ins in diam
bears S. $72^{\circ}15'$ E. 287 lbs
dist. ruled S. 15 N. R. 5 E.
S. 1 B. T.

Wothers wear

Dig pits 18 X 18 X 12 ins. in
each sec. $5\frac{1}{2}$ ft dist. &
raise a rid. of earth
4 ft base $2\frac{1}{2}$ ft high 2 ft

W. T.

W. to land 80 chs.
Timber scattering
cedar.

Undergrowth scrub
oak & cedar.

Soil 2 & 3 rate.

BOOK 1410

No. 1410

S. 16 N. R. 5 E. Continued.

BOOK 1410

25.

Clis. wide, course S.

32.00

Begin ascent of Mt. and
leave breaks of canon of
Dry Beaver Creek.

40.00

Set a Malpai stone
24x10x4 ins 18 ins in the
qd. for $\frac{1}{4}$ sec. cor. ukd
 $\frac{1}{4}$ on N. face.

From which -

A cedar 4 ins. in diam.
bears N. 16° E. 8 lbs dist.
ukd $\frac{1}{4}$ S. 36 B.T.

A cedar 8 ins. in diam.
bears S. 38° W. ukd. $\frac{1}{4}$
S. 1 B.T. 42 lbs dist.

This cor. on N. slope
of bald malpai ridge,
overlooking Dry Beaver
head.

50.00

Top of ascent & described

Survey of South Bdry of
 Chs. 8000 Point for permanent
 Township cor.

Sps 15 4/16 N. R. 5 8 6 E.

At 16.21 chs. N. of tem-
 porary cor. set a malpai
 stone 28x14x6 ins. 14 ins.
 in the grid. mkd with
 6 notches on each edge -
 Hence -

A cedar 4 ins in diam.
 bears S. 52° 25' W. 186
 lbs. dist. mkd T. 15 N. R.
 5 E. S. 1 B. T.

A cedar 6 ins in diam
 bears N. 64° 8' W. 282 lbs.
 dist. mkd T. 16 N. R. 5 E. S.
 36 B. T.

No other trees in limits.
 Raise a mound of stone
 3 ft base 2 1/2 ft high top

S. 16 N. R. 5. E. Continued

Chs.

cor. - Pits impract.

Mts land 80 chs.

Soil 4 rate

Timber cedar, ash &
sycamore in creek
bottom.

August 27-1902

Note:

I destroy all temporary
cor. herebefore set by
me at 40 & 80 chs, 16.21
chs. S. of permanent
S. Bidley, S. 16 N. R. 5 E.

Survey of the N. Bdry of T. 16

Chs.

August 28 - 1902.

At 8 A.M. l.m.t. I set
off $34^{\circ} 45'$ on lat. arc.
 $9^{\circ} 55' 30''$ on decl. arc,
and determine true
Mer. with solar.

At old delapidated cor.
of Tps 15 & 16 N. R. 4 & 5 E.
which I re-established
at original point by
setting a limestone
 $20 \times 8 \times 8$ ins 14 ins in the
grd mhd with 6 notches
on each edge and 16 N on
the N. E. 15 E. on the S. E.
15 N. on the S. W. & 4 E on
the N. W.

Dug pits - $24 \times 24 \times 12$ ins.
on each line N. E & W
4 ft & S. of stone 8 ft dist.

Chs. and raise a ridge of earth
 5 ft base 2 1/2 ft high
 S. of cor.
 # Shovel from N. over
 Mr's land bet sec. 31 &
 36 over gentle N. slope
 of Mrs Throughe cut.
 claw brush.

15.26 Dry Wash 30 lbs wide
 course W.

24.05 Gully - course S. W.
 15 lbs wide.

26.15 Road bears E. & W.

29.00 Gully - 10 lbs wide
 course S. W.

40.00 Set a line stone 16 x 10
 x 6 ins 10 ins in the
 grid for 1/4 cor. wk'd
 1/4 out N. face.

Dig pits 18 x 18 x 12 ins.

30

BOOK 1410

Survey of the N. Ridge of

Chs. N. & S. of stone - 3 ft dist.
and raise a mound of
earth $3\frac{1}{2}$ ft base $1\frac{1}{2}$ ft
high N. of cor.

5-7.80 Cross Ravine, course N.
and ascend S. W. slope
of Mt. through cedars

6/20 Same ravine 25 lbs
wide, course S. E.

6.285 Same ravine - course
S. W.

80.00 Set a Malpai stone
20 x 16 x 6 ins. for cor of
secs. 25-30. 31 & 36, marked
with 5 grooves on S. &
1 on N. edges

Whence. -

A cedar 10 in diam
bear S. 33° E. 72 lbs.
dist. wkt S. 16 N. R. 5 E.

T. 16 N. R. 5 E. Continued

BOOK 1410

31.

Chs.

S. 31 B. T.

A cedar 18 ins in diam
bear S. 81° 30' W. 23 lbs
dist. wk'd T. 16 N. R. 4 E.
S. 36 B. T.

An oak 3 ins in diam
bear N. 30° 45' W. 47 lbs
dist. wk'd T. 16 N. R. 4 E.
S. 25 B. T.

No others near.

Raise a mound of
stone W. of cor.

Pit impract.

land Mrs 80 chs.

Timber cedar -

Soil 4 rats -

Catlaw brush.

Survey of the N. B. Bay of

Chs 11 N. bet 25 & 30 over into
land.

Ascending rough broken
S. slope of det. through
dense cedar & ironwood
brush.

3.00 Wash 20 chs. wide course
S. E.

3.90 Same wash - N. E.

8.00 " " - course S.

10.50 " " - " S. E.

39.70 Cross wash - " S. W.

40.00 Set a Malpai stone
24x10x5 ins, 16 ins in
the grid, rckd. $\frac{1}{4}$ on N.
face for $\frac{1}{4}$ sec. cor.
Whence -

A cedar 8 ins in diam
Tears N. $41^{\circ}15'$ E. 19 lbs
dist. rckd $\frac{1}{4}$ S. 30 B.T.

Chs. A cedar 12 ins. in diam
 bears S. $21^{\circ}26'$ W. 116 lbs.
 dist. rwd $\frac{1}{4}$ S. 25 P.S.

70.00 Wash. course S. W.

80.00 Set a walpai stake
 28x14x8 ins. 18 ins in
 grid. for cor. of sec.

19-24-25 & 30, rwd with
 4 grooves on N. & 2 on S
 ledges.

W. W. W. -

A cedar 12 ins in diam
 bears N. $53^{\circ}33'$ E. 77 lbs.
 dist. rwd S. 16 N. R. 5 E.
 S 19 P.S.

A cedar 5 ins in diam
 bears S. $7^{\circ}56'$ E. 118 lbs
 dist. rwd. S. 16 N. R. 5 E.
 S. 30 P.S.

A cedar 4 ins in diam

34

Survey of the N. End of
 Chs. bears S 47° 16' W. 174 lks.
 dist. rkd. S. 16 W. R. 4 C. S
 25 B. S.

A cedar 4 ins in diam.
 bears N. 24° 30' W. 150
 lks. dist. rkd. S. 16 W. R. 4 C.
 S. 24 B. S.

Land rkd 80 chains.
 Soil rocky & 4 rate.
 Timber Cedar - murder.
 brush & iron wood.

7.00

N. bet. sec 19 & 24 over
 rkd land, ascending
 rough Southern slope
 of rkd. through cedar
 land iron wood brush.
 Top of ridge bears N. E.
 & S. W. and along rough
 N. slope.

T. 16 N. R. 5 E. Continued.

- Chs. 19.00 Ravine-course S. W.
bears N. E.
- 40.00 Set a Malpai stone
20 x 16 x 5 ^{14 ins in gird} ins. for $\frac{1}{4}$ cor.
rkd $\frac{1}{4}$ on N. face
Warner -
A cedar 16 ins in
diam. bears S. $52^{\circ}30'$ W.
33 lbs dist. rkd $\frac{1}{4}$ S. 24
B. J.
- A cedar 10 ins. in diam
bears S. $65^{\circ}30'$ E. 267 lbs
dist. rkd $\frac{1}{4}$ S. 19 B. J.
- 52.15 Cross Ravine-course W.
20 lbs wide.
- 75.00 ~~Cross~~ Ravine Course N. W.
- 80.00 Set a Malpai stone 20 x 8 x
6 ins. 14 ins in the gird
for cor of sec's 18 & 19
424 rkd 3 grooves on N.

Survey of the N. Side of
Chs. & S. Edges -

Whuder -

Cedar 10 ins in diam.
bears N. $89^{\circ}32'$ E. 92 lbs
dist. rock S. 16 N. R. 5 E.
S. 18 B. S.

Cedar 8 ins in diam.
bears S. $61^{\circ}44'$ E. 50 lbs
dist. rock S. 16 N. R. 5 E. S.
19 B. S.

No others near.

Raise a rod of stone $2\frac{1}{2}$
ft base $1\frac{1}{2}$ ft high $\frac{1}{2}$
of cor. - Pits impract.

Wt's land 80 lbs.

Spil rocky 4 rate

Timber Cedar

Underbrush dense
ironwood.

T. 16 N. R. 5 E Continues

Chs. N. bet. sec. 13 & 18 over
 into land, along rocky
 broken N. slope of 7th
 through dense con-
 wood brush & cedar
 timber.

14.30 Ravine course N.

40.00 Set a Malpai stone

20 x 12 x 8 ins., 14 ins. in
 the pit for $\frac{1}{4}$ sec. cor-
 ructd $\frac{1}{4}$ on N. face.
 Whence

A cedar 6 ins. in diam.
 bears S. $53^{\circ}16'$ E. 52 lbs.
 dist. ructd $\frac{1}{4}$ S. 18 P.T.

A cedar 4 ins. in diam.
 bears N. $31^{\circ}48'$ W. 52 lbs.
 dist. ructd $\frac{1}{4}$ S. 13 P.T.

80.80 Ravine course N.
 15 lbs wide.

38

BOOK 1419

Survey of the N. Bdry of
 Chs. 72.50 Ravine - course N. W. 20
 lbs. wide

80.00

Set a Malpai stone
 24 x 14 x 4 ins. 18 ins in the
 grid for cor. of secs. 7-12-
 13 & 18, with 4 grooves on
 S. 2 grooves on N. edges.
 Whence

A Pinion 12 ins in diam
 bears N. $81^{\circ}27'$ E. 32 lbs.
 dist. whd. S 16. N. R. 5 E. S
 7 B. T.

A cedar 10 ins. in diam
 bears S. $38^{\circ}25'$ E. 20 lbs
 dist. whd. S 16 N. R. 5 E. S.
 18 B. T.

A pinion 10 ins. in
 diam. bear S. $41^{\circ}30'$ N.
 32 lbs dist. whd. S. 16 N.
 R. 4 E. S. 13 B. T.

T. 16 N. R. 5 E. Continued.

Chs.

A pinion 8 ins in diam
bear N. $10^{\circ}56'W$. 44 lbs
dist. recd. T. 16 N. R. 4 E.

S. 12. B. S.

Land mts. 80 chs.

Soil rocky. 4 rats

Timber Cedar & pinion

Underbrush - ironwood.

40 Survey of the W. Bdry of T16.

Chs. W. bet sec 7 & 12 over
rough Mts land on W.
slope of Mt. through
cedar & oak brush,
descending into a ravine

4.30

cross ravine. course W.

17.00

Top of ridge bears E &
W. & descend.

40.00

Set a malpais stone

20x12x5 ins. 14 ins in the
grid. for $\frac{1}{4}$ cor. wkd $\frac{1}{4}$
on W. face.

Thence -

A cedar 4 in in diam
bears N. $44^{\circ}24'$ W. $45'$

Chadist. wkd $\frac{1}{4}$ S. 120 B.T.

A cedar 24 ins in diam
bears S $1016'$ E. 90 lbs
dist. wkd. $\frac{1}{4}$ S. 7 B.T.

66.80

Left bank of Oak Creek,

N. R. 5 E. Continued.

Chs. running water, course
S. W.

69.00 Right bank

72.00 River-bears E.

75.26 Intersect 4th Standard

Parallel N. at N. 89°

30° W. 11.25 chs. from
Standard cor. of Sec.

$3/8$ 32^{T. 17 N. R. 5 E.} which is

A delapidated mid of
stone marks almost
obliterated. - No bearing
trees.

At point of intersection
set a sand stone $20 \times$
 12×6 ins. 13 ins. in the quad.
for closing cor. which
6 grooves on S. E. & W.
edges & closing cor. on
S. face.

42

BOOK 1410

Survey of N. B. dry of T. 11

Chs.

Where-

A cedar 8 ins in diam
 bears S 75° 39' W. 190 lbs
 dist. up rd. S. 16 N. R. 4 E.
 S. 12. B. T. - No others near.

Raise a rid of stone
 2 ft base 1/2 ft high
 S. of cor.

Pit's impact.

Sand Wt. - 75.26 lbs.

Soil rocky - 4 rats.

Timber cedar, ash, sycamore
 & cotton wood on
 Oak creek bottom.

Under brush oak and
 pale woods.

August 28 - 1902.

W. R. 5 E. Concluded

Chs.

East Bdry of Town-
ship. 16 W. R. 5 E.

From the cor. of
Towns 15 & 16 W. R. 5 & 6 E.
previously established
by me.

August 29 1902 at 8 A.M.
l. m. 7. Set off $34^{\circ}45'$ W.
on the lat. arc $9^{\circ}34'30''$
on the decl. arc and
determine true mer.
with the solar.

I then turn

W. bet sec. 31 & 36.

over into land
along W. slope of a
small pair ridge.

3.00

Descend E. Slope into
ravine.

44

East Bdry of T. 16 N. R.

Chs.

8.20

Ravine-course N. N. 15-
lks wide.

16.20

Ravine-course N. N. 15-lks
wide.

23.80

Ravine-course N. N. 15-lks
wide.

40.00

Seta malpai stone
 30 x 12 x 6 ins 20 ins in
 the grd for $\frac{1}{4}$ cor. raked
 $\frac{1}{4}$ on N. face.
 Thru —

A cedar 12 ins. in diam
 bears N. $38^{\circ} 40'$ N. 110 lbs.
 dist raked $\frac{1}{4}$ S. 36 B. S.

No other trees near. Pits Imppt.

43.40

Ravine-course N. 10 lks wide.

49.90

" " " 12 " "

72.30

" " " " " "

E. G. & S. R. W. Arizona

Chgs.
80.00

Set a real pair stoupe
40 x 15 x 8 ins 20 ins in
the grid for cor. of sec.
25-30-34 & 36. ruled 5-
grooves on N. & 1 on S. edges.
Whence-

A sycamore 6 ins. in
diam. bears N. $37^{\circ}15'W$
47 lbs. dist. ruled S. 16 N
N. P. 5 E. S. 25 P. S.

A sycamore 12 ins. in
diam. bears S. $81^{\circ}45'W$
162 lbs. dist. ruled S. 16
N. P. 5 E. S. 36 P. S.

No other trees near. Pita Impt.

East Body of T.

Chs.

mts. or land covered
with cedar timber
rocks.

Soil rocky & 4 rats.
Underbrush oak &
iron wood.

~~~~~

U. betweens 25 & 30.

over mts land-  
descending W. slope of  
cut through to oak bush.

2.00 Dup wash - 10 lbs wide - S.W.

40.00 Set a sandstone 24x10  
13 ins. 18 ins. in the ground  
for 1/4 sec. cor. rock 1/4 on  
W. face

Dig pits 18x18x12 ins.  
N. & S. of stone 3 ft dist.

## W. R. &amp; E. Continued

Chs. and raise a mud of  
earth 3 ft base 2 ft high  
N. of cor.

No bearing trees available

44.00 Dry wash - 10 lks wide - S. W.

49.50 " " " " " "

58.00 " " 125' " " - S. W.

58.00 Set a sandstone 36 x  
14 x 5 ris. 27 ris. in the  
grad. for cor of secs. 19 -  
24. 35 & 30. 2 chd 4 grooves  
on N. & 2 on S. edges

Dig pits 18 x 18 x 12 ris.

in each sec. 5 1/2 ft dist.

& raise a mud of earth

4 ft base 2 1/2 ft high

N. of cor. No bearing trees <sup>available</sup>

W. to land - 80 chs.

Soil rough + rocky - 4 rate.

Timber scattered ~~edges~~

## East Dry of T. 16

Chs.

- W. bet sec 19 & 24.  
 overcut land through  
 scattering timber & dense  
 oak brush
- 9.50 Gully - 13 lks wide - S. W.  
 13.50- " " " " " "  
 32.25- Dry wash 10 lks wide - S. W.  
 40.00 Set a sandstone 20x12x  
 4 ins. 15 ins. in the qrd.  
 for  $\frac{1}{4}$  sec. cor. rock  $\frac{1}{4}$   
 on W. face.  
 Dig pits 18x18x12 ins.  
 W. & S. of cor. <sup>3 ft. dist.</sup> & raise a  
 rid of earth 3 ft base  
 2 ft high W. of cor.  
 44.00 Dry wash <sup>120 yds. approx.</sup> 13 lks wide - S. E.  
 57.85- " " " " " " - S. W.  
 80.00 Set a malpai stone  
 24x14x8 ins. 18 ins in  
 the qrd. for cor of sec.

U. R. 5 - E. continued

cls.

18-18-19 + 24 whid 3  
grooves on N. + S. rdg so.  
Dig pits 18 x 18 x 12 ins.  
2 in each sec. 5 1/2 ft dist.  
+ raise a rid of earth  
4 ft. base 3 ft high N.  
of cor.

No bearing trees  
available.

Sand pits - or covered  
with dense oak brush  
so cls.

Soil rocky + sandy.  
3 & 4 rate.

Scattering cedar timber  
Oak brush.

U. bet sec. 13 & 18

new pits laid through the  
dense oak brush.

50

BOOK 1410

Chg. 24.00  
40.00

East Edge of T. 16  
 Dig Wash Course SW  $50\frac{1}{2}$  lbs wide  
 Set a sandstone  $15 \times 15 \times 18$  ins. 10 ins. in the grid.  
 for  $\frac{1}{4}$  sec. cor. run  $\frac{1}{4}$  on  
 N. face. No bearing trees.

Dig pits  $18 \times 18 \times 12$  ins.  
 N. & S. of stone, <sup>3 ft. dist.</sup> - raise a  
 mud of earth 3 ft base  
 2 ft high N. of cor.

70.00

Set a sandstone  
 $18 \times 12 \times 4$  ins. 12 ins. in the  
 grid for cor of secs. 7-12-  
 $13 \frac{1}{2} / 18$  run 4 rows on  
 S. & 2 on N. ledges.

Dig pits  $18 \times 18 \times 12$  ins.  
 in each sec.  $5\frac{1}{2}$  ft dist. -  
 raise a mud of earth  
 4 ft base - 2 ft high  
 N. of cor.

No bearing trees available.  
 Wt or land covered

W. R. & E. - Continued -

Chs.

with dense oak brush -  
80 chs.

Soil sandy - 2 rats.  
No timber.

W. bet. sec 7 & 12

ascending S. slope of put  
through oak brush.

1.25

Wash. course S. E. 10 lks wide

15.00

cut in cedar & pine  
timber.

16.85

cross wash course E.

15-lks. wide.

33.95

Wash. course S. E. 15-lks. wide

40.00

Set a sandstone 20x20x  
6 ins. 15 ins in the q. rd.

for  $\frac{1}{4}$  cor. rchd  $\frac{1}{4}$  SW W.  
face.

Whence -

Acedarobius. in diam



East Bdy of T16

Chs

beav N.  $60^{\circ}$  W. 9 lbs.  
 dist. ruled  $\frac{1}{4}$  S. 12 B. T.  
 No other trees near. Pits Imp.

78,35-. Intersect 4<sup>th</sup> Stand  
 Par. U. at a pt. S. 89<sup>o</sup>  
 39 W. 2.06 chs off Stand.  
 cor. of sec. 31432-  
 T. 17 N. R. 6 E.

This pt. falls on bed of  
 solid sandstone, 100 ft  
 N. & S. + 60 ft. E. & W.  
 I. mk a X at exact cor.  
 pt. with 6 grooves E.  
 N. & S. + E. & W. S. of X  
 W. W. W.

A pine 10 ins. in  
 diam. beav S.  $60^{\circ}$  56' E.  
 120 lbs. dist. ruled T. 16 U.

1 R 5-E Continued.

Chs

R. 6 E. S. 7 C. C. B. T.

A. pinon brush. in diame  
brass S. 21° 30' W. 16 silks  
dist. rkd S. 16 N. R. 5 E.  
S. 12 C. C. B. T.

Sandstone 78.35-chs.

Soil rocky + sandy -  
4 rats.

Pinon cedar timber -  
63.35-chs.

Opuntia brush.

~~run August 29 1902~~

General Description  
The U. C. S. & W. B. dips  
of this slip run over  
steep mt. & malpais,  
sandstone & limestone  
ridges, which are cut  
by many deep cañons

and ravines. The land  
is unfit for anything  
but grazing purposes.

There is water in pools  
along the Southern  
portion of the E. Side  
of T. 16 N. R. 5-E.

James B. Girard  
Park W. Patimer  
U. S. Deputy Surveyors.

Latitudes, Departures, and Closing Errors.  
 B. drift of S. 16 N. R. 5 E. G. & S. R. 21.

55

BOOK 1410

| Line designated        | Distance | N.     | E.     | S.     | W.    |
|------------------------|----------|--------|--------|--------|-------|
| E. B. drift N.         | 398.35   | 398.35 |        |        |       |
| W. B. drift S.         | 395.26   |        |        | 395.26 |       |
| S. B. drift E.         | 479.72   |        | 479.72 |        |       |
| North <del>drift</del> |          |        |        |        |       |
| S. 89° 39' W.          | 27.94    |        |        | 17.65  | 27.94 |
| S. 84° 35' W.          | 40.78    |        |        | 3.15   | 40.78 |
| N. 89° 51' W.          | 40.30    | .11    |        |        | 40.30 |
| S. 89° 51' W.          | 40.50    |        |        | .11    | 40.50 |
| N. 80° 54' W.          | 40.00    | .07    |        |        | 40.00 |
| N. 89° 58' W.          | 40.18    | .07    |        |        | 40.18 |
| W.                     | 40.30    |        |        |        | 40.30 |
| S. 88° 28' W.          | 39.65    |        |        | 1.07   | 39.65 |
| W.                     | 40.05    |        |        |        | 40.05 |
| W.                     | 39.75    |        |        |        | 39.75 |

|               |       |        |        |        |        |
|---------------|-------|--------|--------|--------|--------|
| N. 89° 38' W. | 40.29 | .63    |        |        | 40.29  |
| N. 89° 30' W. | 37.25 | .45    |        |        | 37.25  |
| Course in way |       |        |        |        | .41    |
| Totals        |       | 399.47 | 479.72 | 380.27 | 481.50 |
| Differences   |       | 399.68 |        | 399.45 | 479.72 |
| Error in lat. |       |        |        | .58    |        |
| Error in Dep. |       |        |        |        | 1.78   |

BOOK 1410

copied

56

PRELIMINARY OATHS OF ASSISTANTS.

We,

*Ol. Fritsche*

and

*T. R. Bath*

do solemnly swear that we will well and faithfully execute the duties of chainmen; 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 length 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

*western boundaries of townships No 16 North Ranges 5, 6 and 7 East and <sup>fractional</sup> townships No 15 North Range 5 East*

BOOK 1410

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

*Ol. Fritsche*

, Chainman.

*T. R. Bath*

, Chainman.

, Chainman.

, Chainman.

Subscribed and sworn to before me this

*20<sup>th</sup>*

day

of *August*, 190*2*

*W. S. Ferndou*

Notary Public.

SEAL.]

We,

*J. M. Hanson*

57

and

*G. G. Gilmore*

do solemnly swear that we will well and truly perform the duties of  
flagman and 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 ~~Eastern boundaries of~~  
*township No 16 North Range 5, 7*  
*and 6 East and of <sup>fractional</sup> township*  
*No 15 North Range 5 East*

BOOK 1410

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

*J. M. Hanson*, Flagman.

*G. G. Gilmore*, Axman.

\_\_\_\_\_, Axman.

\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 20<sup>th</sup> day

of August, 1902

*W. S. Andrews*

Notary Public.

My Commission expires April 16, 1905.

Office of U. S. Surveyor General.

Phoenix, Arizona, Apr. 14, 1908

The foregoing field notes of the  
 Survey of the completion of East. Bdy. of  
 T. 15-21, R. 5 E. and Survey of the South  
 East and West Bdys. of T. 16 N., R. 5 E.  
 Gila and Salt River Base and Meridian, in  
 Arizona, executed by Girard and  
 Latimer, U. S. Deputy Surveyor un-  
 der contract No. 101 dated June 30, 1902  
 having been critically examined, the nec-  
 essary corrections and explanations made,  
 the said field notes and the surveys they  
 describe are hereby approved.

*Hugh H. Price*

U. S. Surveyor General for  
 District of Arizona.