

SOUTH and EAST BOUNDARIES
~~of~~
T. 16 N. R. 6 E
~~of~~
FRAGL. EAST AND SECTION LINE
FORMING THE TEMPORARY S. BDX.

~~of~~
FRAGL. T. 15 N., R. 6 E

GIRARD and LATIMER, U.S.D.S.
CONT. NO. 101.

1429

4-671

BOOK 1429

FIELD NOTES
GENERAL LAND OFFICE.

No. 1145 g

Field Notes
of the
Survey of the Boundary
of Twp 16 N R 6 E,
The East boundary of Twp 16
North Range 6 east -
The South boundary of
Twp 15 North Range 6 east -
The East boundary of Twp
15 North Range 6 east
of the
Columbia and Salt River Basins
and Meridian
of the
Territory of Oregon
as surveyed by
James Blair and
Cash W. Palmer under their
Contract No. 10, dated June 30, 1902 -
Survey commenced Sept. 17, 1902 -
Survey completed Oct. 7, 1902 -

Names and Duties of
Assistants.

C. J. Fritsche Chairman

T. R. Bath Chairman

G. H. Gilman Almon

J. W. Hanson Flagman

W. H. Platt Chairman

R. W. Hest Chairman

R. J. Brooke Almon

A. S. Bathwell Flagman

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T15NR6E

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22

Survey of the *Stiding* of T 16
 chains

Sept 19th 1902 at 8 A.M. cont.

I set off $34^{\circ}45'$ on the lat. arc
 and $1^{\circ}40'30''$ on the decl. arc

and determine a true meridian
 with the solar at the cross

Top 16 N By 5 and 6 E as before.

Mean mag. decl. $12^{\circ}44'E$.

fore described, hence I run

E bet sec 31 and 6 on the *Stiding*

of Top 16 N By 6 E. ascending Malpais
 slope -

- 3.40 ascend Malpais bluff.
- 10.45 Top of bluff and descend.
- 13.25 Bed of *Canin* course N.
- 26.80 Top of Malpais bluff.
- 38.50 set a Malpais stone 18 x 10 x 4 ins 12
 ins in the ground for $\frac{1}{4}$ sec on
 west $\frac{1}{4}$ on the N face where:
 a cedar 8 ins in diam bet $110^{\circ}E$:
 114 *bed* dit. west $\frac{1}{4}$ 33/137.
 a cedar 10 ins in diam bet $55^{\circ}W$.

N B. 6 E. G and S. B. Merzig
chain

280 lbs dist: wood $\frac{1}{2}$ 56 15.5

78.00

cross road hrs N E and S. W.

78.50

set a molpaie stone 18 X 12 X 6 ins 12 ins
in the ground for the long sec. 5
6, 31 and 32 wood with 1 notch on
the W and 5 notches on the E edges
Whence:

a cedar 8 ins in diam hrs 763⁰²: 60

lbs dist: wood T 16 786 E 522 15.5

a cedar 10 ins in diam hrs 535⁰²: 133

lbs dist: wood T 15 775 6 25 0 15.5

a cedar 15 ins in diam hrs 555^{0W}:

264 lbs dist: wood T 15 776 2 5 6 15.5

a cedar 8 ins in diam hrs 747^{0W}: 58

lbs dist: wood T 16 786 2 5 3 15.5

of and rough and broken -

soil, rocky & thote -

Timber, cedar and odd forest -

very rough broken country with

dense cedar timber or dense

Survey of the S. side of Top 16 N. 135 60.
chains

or brush - 28.50 chains -

cut bet sec 32 and 5 through
dense cedar timber on rolling
mass.

26.40 Top of ridge and descend -

42.00 set a molpoin stone 24 1/2 16 ins 8
ins in the ground for 1/4 sec in
wood 1/4 in of oak & hick:

a cedar 12 ins in diam br 835° W.

64 lbs dist: wood 1/4 532 B.T.

a cedar 10 ins in diam br 560° E: 150

lbs dist: wood 1/4 55 B.T.

40.90 - come some course S.E. 20 lbs wide

52.80 Top of molpoin ridge br 7 and 5

58.85 - W rim of cañon and descend

61.00 - Bed of cañon course S and ascend -

66.20 E rim of cañon -

80.00 set a molpoin stone 18 1/2 16 ins
12 ins in the ground for the coll.

G and S. B. West Ariz -
 Name

secs 4, 5, 32 and 33 used with 4
 notches on the E and 3 notches on
 the wedges - Whittle:

a cedar 12 ins in diam hrs 772°E: 73

the dist. used T 16 77 15 62 533 B.T.

a cedar 4 ins in diam hrs 528°E:

212 the dist. used T 15 77 15 62 534 B.T.

a cedar 10 ins in diam hrs 512°30'W:

107 the dist. used T 15 77 15 62 535 B.T.

a cedar 6 ins in diam hrs 750°W: 222

the dist. used T 16 77 15 62 532 B.T.

land mountainous -

Soil, rocky & the soil -

Timber, cedar and oak -

Mountainous land with very
 dense cedar and oak timber 80 hrs -

East bet secs 4 and 33 on the S side of
 Twp 16 77 15 62. ascending W slope of volcanic
 ridge -

Survey of S. side of Top 16 N. B. 62.
chains

- 11.50 Top of slope and descend -
- 40.00 Set a malpais stone 24x10x16 ins 18
ins in the ground for $\frac{1}{4}$ sec cor
noted $\frac{1}{4}$ on face - Whence:
a cedar 15 ins in diam hrs $73^{\circ}30'0''$
7 lks dist. noted $\frac{1}{4}$ 53 B.T.
a cedar 18 ins in diam hrs $54^{\circ}30'0''$
50 lks dist. noted $\frac{1}{4}$ 54 B.T.
- 45.45 cross draw and ascend - Course S -
- 60.30 Top of ridge hrs N and E.
- 75.55 descend W run of canon -
- 79.70 bed of canon course S. W. 40 ft wide
- 80.00 Set a malpais stone 18x12x4 ins 12 ins
in the ground for the W of sec 3, 4
33 and 34 and with 3 notches on the
 $\frac{1}{4}$ E and 3 notches on the W edges Whence
a cedar 24 ins in diam hrs $73^{\circ}45' 89''$
lks dist. noted T 16 N B 62 34 B.T.
a cedar 20 ins in diam hrs $52^{\circ}30'0''$
60 lks dist. noted T 18 N B 62 33 B.T.

Gard S.B. Mt Ariz -
Chains

a cedar 6 ins in diam hrs 55° 10' W: 55' lbs
dist: road T 15 N R 6 E S 4 B.T.

a cedar 6 ins in diam hrs 75° 30' W: 70
lbs dist: road T 16 N R 6 E S 3 B.T.

Gard mountains -

Soil, rocky & thorny -

Timber dense cedar and pine -

Mountainous land with very dense
cedar and pine timber 80.00 lbs -

cut on the S side of T 16 N R 6 E bet
secs 34 and 3 ascending molpaire slope

21.00

Top of ridge hrs 7 and 8.

33.00

down E slope -

40.00

Set a molpaire stone 18 1/2 x 8 1/2 ins 12 ins
in the ground for 1/4 sec cut road 1/4
on N side - at here:

a cedar 4 ins in diam hrs 72° 50' W: 7
lbs dist: road 1/4 S 34 B.T.

a cedar 12 ins in diam hrs 51° 30' W:

Survey of a Day of Twp 16 N. R. 6 E.

chains

5830

110 lho dist: wsd 11 53 15 T.
cross road hrs N.E. and S.W.

8000

Set a malpais stone 22 1/2 x 8 ins 16 in

in the ground for the corq near 34

30; 2 and 3 wsd with 2 notches on

The 2 and 4 notches on the Wedges

W. Pines:

a cedar 8 ins in diam hrs 778° E: 139

lho dist: wsd T 16 77 15 6 E 33 5 15 T.

a cedar 8 ins in diam hrs 548° 30' E: 120

lho dist: wsd T 15 77 15 6 E 5 2 15 T.

a cedar 10 ins in diam hrs 535° W: 38 lbs

dist: wsd T 15 77 15 6 E 5 3 15 T.

a cedar 15 ins in diam hrs 774° W: 36

lho dist: wsd T 16 77 15 6 E 5 3 4 15 T.

Land mountainous -

Soil, rocky 4th rate -

5 miles dense cedar and brush

Mountainous land with dense

cedar timber and dense underbrush -

8000 chains -

Gard S.R. West Trig -
Chain

Sept 19th 1902

Sept 20th 1902 at 8 A.M. I went
a set off 34045' on the lat arc and
1° 17' N on the decl arc and de-
termine a true meridian with
the solar at the end of sec 34, 35-
2 and 3 on the S side of the Twp
16 R by 6 E. Thence I run East
bet sec 2 and 35 over rolling
sura through dense cedar
timber -

- 19.65 - Descend W rim of deep canon -
26.95 - Bed of canon 200 lbs wide course S.
35.10 - E rim of canon and ascend molpa slope
40.00 - Mark a molpa as stone in place
with a cross for the exact $\frac{1}{4}$ sec
except and mark $\frac{1}{4}$ on the N face of the
a cedar 15 ins in diam. by 57' 0" W: 45'
the dist: mark $\frac{1}{4}$ 52 13.5

Chains Survey of Study of Top 16 N Bz 60.

- a cedar 4 ins in diam brs $N 54^{\circ} W$: 84
 Obs dist: $msd \frac{1}{4} 535.5T$
- 68.00 Top of molpaio slope and terrace.
- 74.50 descend bluff.
- 80.00 Set a molpaio stone $22 \times 12 \times 4$ ins 16
 ins in the ground for the coggers
 1, 2, 35 and 36. msd with 1 notch
 on the e and 5 notches on the wedges.
 Whence: —
- a cedar 4 ins in diam brs $N 41^{\circ} E$:
 204 Obs dist: $msd T 16 N Bz 62.5 3613T$
- a cedar 4 ins in diam brs $S 52^{\circ} E$: 231
 Obs dist: $msd T 16 N Bz 62.5 113T$
- a cedar 8 ins in diam brs $N 79^{\circ} W$: 270
 Obs dist: $msd T 16 N Bz 62.5 3513T$
- Hard mountainous-
 Soil, rocky 4th rate -
 Timber, dense cedar and green
 Mountainous land with dense
 cedar timber 80.00 chains -

Grand S. R. Mer Ariz.
Canoa

East on the S. bdy of Twp 16 N. R. 15 E. 6 E. bet
secs 1 and 36 descending molpaie slope

10.15 North rim of canon and descend rapidly -

28.15 Bed of canon 80 lbs wide course S.W.

34.30 S rim of canon and ascend molpaie
ridge -

40.00 Set a molpaie stone 24 x 12 x 8 ins 18 ins in
the ground for $\frac{1}{4}$ sec cut with $\frac{1}{4}$ with the
N face - W hence:

a cedar 8 ins in diam brs $277^{\circ}05'$: 50 lbs
dist: west $\frac{1}{4}$ 536 B.T.

a cedar 15 ins in diam brs $534^{\circ}30'E$: 80
lbs dist: west $\frac{1}{4}$ 511 B.T.

80.00 Set a molpaie stone 30 x 14 x 8 ins 22
ins in the ground for the cor of Twp
15 and 16 N. R. 15 E. 6 E.: west with 6
notches on the N, W and S edges
W hence:

a pine 4 ins in diam brs $273^{\circ}00'$.

11
 Survey of S. side of Twp 16 N R 6 E.
 chains

41 lbs dist: wood T 16 N R 6 E S 36 B.T.

a cedar & pine in diameter 5440 W: 50 lbs

dist: wood T 15 N R 6 E S 1 B.T.

Land, very rough and broken-

Soil, rocky & the soil

Timber, dense cedar and pine.

Mountainous land with very
 dense cedar and pine timber and
 dense oak brush 80.00 chains-

Sept 20th 1902-

1015' ✓

Sept 20th 1902, I set off on the decl
 arc $0^{\circ}50'5''$; and at $12^{\circ}00'22.5$ by my
 watch observe the sun on the
 meridian and obtain on the
 lat arc the reading $34^{\circ}40'$
 which is the lat nearly at
 this pt the S.E. cor of Twp
 16 N R 6 E.

Survey of E side of Twp 16 N Rg 6 E.
 chains

56'

Sept 21st 1902 at 8 A.M. L.M. to
 S. of $34^{\circ}45'$ on the lat arc and
 $0^{\circ}53'30''$ on the decl arc and
 determine a true meridian
 with the solar at the cor of Twp
 15 and 16 N Rg 6 E. - Thence I run
 north on the E side of sec 35 over
 broken country through dense
 cedar timber and oak brush -
 descend.

14.55-

A bank of canon.

19.00

Bed of canon 100 lbs wide course S.W.

24.00

N bank of canon.

39.00

Top of ledge and descend -

40.00

Martha molybdaea stone in place

$30 \times 30 \times 18$ in above ground, with cross
 for exact loc pt for $\frac{1}{4}$ sec cor and
 road $\frac{1}{4}$ on the N. side. N bank:

a cedar 10 ins in diam hrs $77^{\circ}9'0''$ S.

the dist: road $\frac{1}{4}$ 536 B.T.

Survey of 2 days of Sep 16 & 17 By 65:

chains

and I raise a mound of stone 2 ft
 high $1\frac{1}{2}$ ft high W of the cor. Peto
 impracticable -

4640

bed of conifer 50 lbs wide course SW

8200

Set a mark in stone 24 X 14 X 18 ins
 18 ins in the ground for the cor of
 sec 25 and 36 marked with notch
 on the S and 5 notches on the N
 edges. Whence:

a cedar 10 ins in diam No 5 56° 30' W: 139

The dist: marked T 16 N R 6 E S 36 B. T

a cedar 8 ins in diam No 4 60° W: 149

The dist: marked T 16 N R 6 E S 25 B. T

of land, mountainous -

Soil, rocky & the water

timber dense cedar and oak brush

Mountainous land with dense

cedar timber and oak brush 8200 etc

North on the E side of sec 25

Grand J. R. Mer ariz.

Chains

through dense cedar timber over rolling mesa-

13.75 - cross track 40 lbs wide corner SW.

40.00 set a moly in 20 x 12 x 8 ins 15 in in the ground for $\frac{1}{4}$ we cut moly $\frac{1}{4}$ on the W. side W. line a cedar 8 ins in diam br 785° W.

Flagstaff Pond

43.72 89 lbs diet: moly $\frac{1}{4}$ S 25° E cross road br E and W $\frac{1}{4}$ to Flagstaff

80.00 set a moly in 20 x 18 x 12 ins 10 ins in the ground for the on gus 24 and 25 on the E. side of T. 6 moly with 2 notches on A and 4 notches on B edge. W. line: a cedar 6 ins in diam br 540° W.

155 lbs diet: moly T 16 N R 6 E S 25° E

a cedar 10 ins in diam N 60° W.

162 lbs diet: moly T 16 N R 6 E S 24° E

ground, rolling - soil, rocky & th. note - Timber dense cedar -

Survey of E. edge of Twp 16 N R 6 E
Chains

Mountainous land with
dense cedar timber 8000 ch.

North on the E. edge of sec 24
over rolling mesa through dense
cedar timber -

1400 cross wash 3.5 lks wide course SW.

4600 set a malpais stone 22 x 10 x 8
16 ins in the ground for $\frac{1}{4}$ sec
on north $\frac{1}{4}$ on the W. face. Where
a cedar 8 ins in diam bcs N 67° W.
6 lks dist: north $\frac{1}{4}$ S 24 15 T.

8000 set a malpais stone 20 x 18 x 4
ins 15 ins in the ground north
with 3 notches on the S and N.
edges for cor of secs 13 and 24 on
the E. edge of the Twp. Where
a cedar 12 ins in diam bcs N 29° W.
36 lks dist: north T 16 N R 6 E S 13 15 T.
a cedar 8 ins in diam bcs S 20 W.

Grand A.R. Mes Ariz -
Chams

209 lbs dirt: marked T16 N16 E 524 FT

of sand, rolling -
soil, rocky at the rate -

Timber dense cedar -

Mountainous land with
dense cedar timber 80.00 chs -

North on the edge of sec 13 over
rolling mesa through dense
cedar timber -

4.00 Sid of canon course W.

8.50 N. rim of canon -

27.00 Top of ridge -

40.00 Set a molperis 20 x 12 x 8 ins 10-in
in the ground for $\frac{1}{4}$ sec east marked
 $\frac{1}{4}$ on the W face - W. line:

a cedar 8 in in diam brs N 65° W:

281 lbs dirt: marked $\frac{1}{4}$ 51313.1.

80.00 Set a molperis stone 24 x 18 x 16 ins
18 ins in the ground for cor of

17

Survey of E body of Twp 16 NR 6E:
 Chains

aces 12 and 13 in the E body of the
 Twp - marked with 4 notches on the
 S and 2 notches on the N edges
 otherwise:

a cedar 10 ins in diam bcs $N 24^{\circ} W$.

187 lbs dist. marked T 16 NR 6E 5125T

a cedar 12 ins in diam bcs $S 62^{\circ} W$

147 lbs dist. marked T 16 NR 6E 3135T.

Grass, mountain anemone -

soil, rocky & the rock -

Timber, dense cedar -

Mountainous land with dense
 cedar timber 80.00 chains -

Sept 21st 1902.

Sept 22 1902 at 8 a.m. l.m.t.

set off $34^{\circ} 45'$ on the lat arc

and $0^{\circ} 33'$ on the decl arc

and determine a true meridian
 with the solar at the end of

S. and S. B. West Ariz -
Chains

recs 12 and 13 on the E side of
Tp - Hence I run North on
the E side of rec 12 over roll-
ing into country through dense
cedar timber -

4.55 - S bank of canon and descend -

8.07 Bed of canon 175 ths wide course SW

40.00 set a molpaire stone 22 x 28 x 8 in
flat $\frac{1}{4}$ rec on west $\frac{1}{4}$ on the W
face - Whence:

a cedar 8 ins in diam br $74^{\circ} 50' W$:

45 ths dist. marked $\frac{1}{4}$ S. P. T.

50.32 Bed of canon course S. W. 50 ths wide

50.00 Top of ridge br 75 .

74.14

intersect the 4th standard
 $N 88^{\circ} 48' W$
parallel 4.65 ch. of the stand

$\frac{1}{4}$ rec. cor. of recs 33 and of Tp 17
N. B. of E. end. mark a molpaire
stone in place with cross for
exact cor. pt for the cor. of Tp 16

Survey of 5 days of Sept 16 1862.
chains

11 Pys 6 and 7E and wtd with 6
notches on the S, E, and W face -
and C.C. on S. face.
Whence:

a cedar 12 ins in diam hrs $586^{\circ}E$.

243 lbs dit: wtd T16 NR 7E 56 BT

a cedar 6 ins in diam hrs $561^{\circ}W$.

153 lbs dit: wtd T16 NR 6 E 512 BT

and I raise a mound of stone

2 ft tall $1\frac{1}{2}$ ft high S of cor.

land mountainous

Sail, rocky 4th rate -

Timber deciduous and oak brush.

Mountainous land heavily timbered.

- used - 74, 14 chains -

Sept 22, 1902

29'

Sept 22 1902: I set off $0^{\circ}27'9''$ north
the sid arc and at $11^{\circ}55'10''$
by my watch observe the sun
on the meridian and
obtain on the lat arc the

reading $34^{\circ}49'$ which is the
lat nearly - This observation
taken at the N.E. cor of T 16
R B 6.C. I observe the mag-
bearing of the meridian to
be $N 14^{\circ}25'W$ at 2 P.M. which
reduced by the table given on
page 102 of the manual
the mean mag decl is
 $14^{\circ}28.4'$

E. side of the trail Top 15 N By 6 E.
chains

127'

Oct 5th 1902 at 7 a.m. I went to. I set off 34045 on the lat arc and 40285 on the dial arc and determine a true meridian with the solar at the cor of Top 15 and 16 N By 6 E. as here before described. Then I run South on the E side of Top 15 N By 6 and 7 E bet secs 1 and 6. over rolling snow through dense cedar timber.

15.50

enter very dense cedar timber

19.50

cross rock 60 lbs wide course W.

47.00

Top of mulpain slope and strand.

55.80

cross brow course N.W.

56.21

set a mulpain stone 20 x 10 x 8 ins 15 ins in the ground and $\frac{1}{4}$ sec end W $\frac{1}{4}$ on the W face of which a cedar 15 ins in diam lies N 35° W. 76 lbs dist. - W $\frac{1}{4}$ 51.55

Grand A. R. Mer Trig -
Chain

- 62.00 Top of malpais ridge to 3 W.
 84.00 cross mark count W.
 94.00 Top of ridge and descend -
 96.21 Set a malpais stone 20 x 12 x 8 in
 16 in in the ground for the cor
 sec 1 and 12 on the E side of the
^{mid with 1 notch on N and 5 on S edges.}
 Top of hill:

a cedar 6 in in diam to 753° W.

73 lbs dist. mid T 15° N R 62 S 15 E.

a cedar 6 in in diam to 834° W. 85-

lbs dist. mid T 15° N R 65 S 12 E.

Grand rolling mesa -

Soil, rocky 4th rate -

Timber, cedar -

Rolling mesa land with very
 dense cedar timber 9621 lbs

South on the E side of sec 12
 over into country through very
 dense cedar timber -

Edge of the fault Top 15 N Bz 6 E:
 chains

- 10.00 cross rock 100 lbs wide course NW.
- 22.00 enter very dense timber-
- 40.00 Set a molpais stone 18 x 12 x 4 ins
 12 ins in the ground for 2 $\frac{1}{4}$ sec
 on west $\frac{1}{4}$ on the W face W. Hence:
 a cedar 6 ins in diam hrs N 64° W.
 20 lbs dist: west $\frac{1}{4}$ S 12° E.
- 44.00 Top of ridge hrs E and W.
- 57.70 Rim of cañon and descend-
- 60.65 Bed of cañon course W.
- 72.00 Top of ridge hrs E and W.
- 80.00 Set a molpais stone 20 x 12 x 4 ins
 15 ins in the ground for the
 of sec 12 and 13 on the E edge of
 the top west with 2 notches on
 the N and 4 notches on the S edges.
 W. Hence:
 a cedar 4 ins in diam hrs S 81° W.
 73 lbs dist: west 75° N R 6 E S 13 B. T.
 a cedar 6 ins in diam hrs N 25° W.

G and S. R. Merz Ariz -
Chains

267 lbs. dist: west T 15 77 R 6 E S 12 B T.

Land, mountainous -

Soil, rocky & the rate -

Timber, dense cedar

Mountainous land with very
dense cedar timber - 8000 chs

11 South on the E. side of sec 13
descending Malpais slope through

dense cedar timber
Ridge, bears E. and W.

cross wash ^{and arroyo} course W -

15.20.

23.53 -

4300

Set a Malpais stone 20 x 12 x 4 ins 15 ins

in the ground for $\frac{1}{4}$ sec east and $\frac{1}{4}$

on the W face. Whence:

a cedar 10 ins in diam. brs 71570 W. 15

lbs dist: west $\frac{1}{4}$ 313 B T.

5750

Top of ridge brs E and W -

5400

Descend Malpais slope rapidly -

5390

cross brush fence brs E and W.

5000

Set a Malpais stone 20 x 18 x 8 ins 22

Survey of E. side of gravel Top 15 N. P. 6 E.
chains -

ins in the ground for the con g acc.
13 and 24 on the E. side of the Top m. b. d.
with 3 notches on the N. and 3 notches
on the S. edge - at the end:

a cedar 8 ins in diam. No. 27710 W.

200 lbs. dist. m. b. d. T. 15 N. P. 6 E. S. 13 1/2 T.

a cedar 10 ins in diam. No. 5520 W. 65

the dist. m. b. d. T. 15 N. P. 6 E. S. 24 1/2 T.

land mountainous -

Soil, rocky 4th rate -

Timber cedar and oak brush -

Mountainous land with very

dense cedar timber - or very

dense oak brush 80.00 chains -

Oct 5th 1902

Having found it necessary to produce
this line further 5 on Oct 5 1902 -

at 2 P. M. L. m. b. d. & out of 240

42' on the lat. ac. and $5^{\circ}11'23''$

on the decl. ac. and determine

✓ 4036

a true meridian with the solar
at the end sec 13 and 24 on
the E side of the Top - Grand Canon
15 on the E side of sec 24 ascending

Slope of Volpeis ridge -

44.26

Top of ridge bet E and W.

Then descend and cross several
small canyons and along the
W side of Wet Beaver Cañon &
over some of the roughest
country in Arizona

48.32

Cross cañon 40th side course SE

52.10

Top of point and descend

58.00

Cross cañon course E.

40.00

Top of Volpeis point bet E.

Set a sandstone 2 x 8 x 4 in 15 in
in the ground for $\frac{1}{4}$ sec eastward
 $\frac{1}{4}$ on the W face. Whence:

a pin in 8 in in diam bet 588° W.

40th dist. mhd $\frac{1}{4}$ 524 BT

- 41.00 Declined rapidly -
- 43.20 cross coun course ϵ , S E.
- 48.33 cross Bolcanum 40 lbs wide course ϵ
- 58.30 Whit Bevee coun course SW.
- 80.00 Set a sandstone $20 \times 8 \times 4$ in 15 in
in the ground after the evg sees 24
and 25 mhd with 2 notches on S
and 4 notches on W edges. Whence
a grain 4 in in diam has $N 65^{\circ} W$. 43
lbs dit: mhd T 15 NR 62 S 24 BT.
- a grain 4 in in diam has $58^{\circ} 30' W$.
22 lbs dit: mhd T 15 NR 62 S 25 BT.
- Land very rough and broken - soil rocky
with some Tinker cedar and pine -
very rough broken country with
dense scrub brush 8000 chains
-
- Three or four south ascending very
steep ridges through dense brush -
- 30.00 Top of bluffs
- 40.00 Set trap 4 sec cor

Study of fact Top 15 MRg 6 E:
chains

Oct 6th 1902 at 7 A.M.
l.m.t. S. of 34°42' on the
lat arc and 4°50'30" S.M. The decl
arc and determine a true mer-
-idian with the solar at the
edge sees 13 and 24 on the E. side of
Top 15 MRg 6 E. Thence I run W
bet sees 13 and 24 ascending steep
E slope through dense oak brush.

35.30

39.00

40.00

Top of slope -

Descent into gulch.

Set a malpais stone 20 X 12 X 4 ins 15
ins in the ground for $\frac{1}{4}$ sec cor-
-ner $\frac{1}{4}$ in the N face and I raise
a mound of stone 2 ft base $1\frac{1}{2}$
ft high N of the cor. Pits
impracticable.

61.40

Cross corvine course N.W. 30 ft wide

Top of ascent and

62.55

Enter dense cedar timber -

80.00

Set a malpais stone 30 X 12 X 4 ins

22 ins in the ground for the cor

Survey of S. side of fract T₁₅-N₇R₆E.
 chains

of sec 13, 14, 23 and 24. with 3
 notches on the S and 1 notch on the
 S. edge - W. line:

a cedar 8 ins in diam brs N 54° E: 120

the dist: marked T₁₅-N₇R₆E S 13° BT

a cedar 12 ins in diam brs S 31° E: 184

the dist: marked T₁₅-N₇R₆E S 24° BT

a cedar 15 ins in diam brs S 23° W: 50

the dist: marked T₁₅-N₇R₆E S 20° BT

a cedar 8 ins in diam brs N 41° W: 80

the dist: marked T₁₅-N₇R₆E S 14° BT

land, very rough and broken
 soil, rocky with water

Timber, cedar and oak brush

Very rough broken country with
 dense oak brush & s. s. o. chs -

West bet sec 14 and 20 ascending

W slope of molypais butte -

Top of slope and descend -

Grand S. B. Mt. Ariz.

Chains

20.00

34.25-

40.00

E. Rim of Cañon and descend
Bed of cañon course SW. 25. ^{1/2} m wideSet a molpino stone 30 X 12 X 6 ins 22 ins
in the ground for ^{1/4} sec SW marked
^{1/4} on the W face - W. line:

a cedar 8 ins in diam brs 76°W: 107

The dist.: marked ^{1/4} 514 B.T.

a cedar 6 ins in diam brs 552°E: 147

The dist.: marked ^{1/4} 523 B.T.

57.50

Rim of Wet Beaver cañon -

60.00

Enter dense cedar timber -

50.00

Set a molpino stone 20 X 12 X 6 ins

15 ins in the ground for the
end of runs 14, 15, 22 and 23 marked
with 3 notches on the S and 2
notches on the E edges - W. line:

a cedar 6 ins in diam brs 75°E: 82

The dist.: marked T 1577 176 E S 14 B.T.

a cedar 6 ins in diam brs 540°E: 102

The dist.: marked 578 775 6 E S 23 B.T.

a cedar 8 ins in diam brs 542°W:

Survey of Abney of fault Top 15 N by 6 E.
chains

57 the dist. : north T 15 N R 6 E S 22 B.T.

a cedar 4 ins in diam brs 748° W. #9

the dist. : north T 15 N R 6 E S 15 B.T.

land, very rough and broken -
soil, rocky & th rate -

Timber, cedar and oak brush.

Very rough broken country with
dense cedar timber & oak brush.

8000 chains

West bet sec 15 and 27 over roll-
ing mesa through dense cedar
timber -

4000

Set a molybdis stone 18 1/2 x 10 ins 12
ins in the ground for 1/4 ac on

west 1/4 on the N face, W. bench.

a cedar 4 ins in diam brs 711° S: 42

the dist. : north 1/4 31875.5

a cedar 6 ins in diam brs 338° E:

57 the dist. : north 1/4 S 22 B.T.

Gard J. B. Murr
Chain

47.00

Top of slope and descend

62.00

Rim and descend rapidly

80.00

Set a molpaio stone 20 x 12 x 6 ins 15
ins in the ground for the corner
marked with 3 notches in the sand edges
nos 15, 16, 21 and 22 at angle:

a cedar 4 ins in diam nos 52/05/207

the dist. marked T 15 N 15 6 2 S 22 15 T

a cedar 6 ins in diam nos 55 3° W: 111

the dist. marked T 15 N 15 6 2 S 21 15 T

a cedar 6 ins in diam nos 74/0 W: 205

the dist. marked T 15 N 15 6 2 S 16 15 T

and I saw a mound of stone 2
ft tall 1/2 ft high W of the corner

Pits impracticable -

Ground rough and broken -

Soil, rocky 4th sort

Timber, cedar and oak brush -

Rough broken country or

Heavily timbered land 8000 the

Survey of Sdry of trail Top 15 NB, 62.

Chains

- What bet sees 16 and 21 over rolling
mountainous land -
- 20.00 cross ravine course S.W. 15 lbs wide
- 21.50 cross ravine 30 lbs wide course S.W.
- 40.00 Set a malpais stone 24 X 18 X 10 ins 18 ins
in the ground for $\frac{1}{4}$ sec cut marked
 $\frac{1}{4}$ on the N face. Whittle:
a cedar 6 ins in diam bet N 16°: 95
lbs dist. marked $\frac{1}{4}$ S 16 1/3 T
a cedar 18 ins in diam bet 368 E: 65
lbs dist. marked $\frac{1}{4}$ S 21 1/3 T
- 44.50- Descent E brink of dry creek -
- 47.50 bed of cañon 90 lbs wide course S.W.
- 51.30 ascend W brink of cañon -
- 58.50- Top of ridge bet N & E.
- 61.55 cross road bet N and S.
- 63.20 cross ravine course S.E. 25 lbs wide
- 65.15 cross ravine course S.E. 15 lbs wide
- 68.60 cross ravine course S.E. 20 lbs wide
- 77.10 Top of ridge bet N and S.

Land S.B. Mex Ariz -
Chavis

8000

Set a sandstone $20 \times 18 \times 10$ ins 15 ins
in the ground for the cor of sec
16, 17, 20 and 21 and raise a mound
of stone 2 ft base $1\frac{1}{2}$ ft high
w/ the cor. Pats impracticable -
Land, mountainous -
Soil, rocky 4th rate -

Timber, scattering cedar and
dense oak bush -

Mountainous land with very
dense oak bush and scattering
cedar timber 8000 Chavis -

Oct 6th 1902

Oct 7th 1902 at 9 a.m. l.m.t. I
set off $34^{\circ} 42'$ on the lat arc and
^{5 1/4 - 24}
 $6^{\circ} 14' 24''$ on the decl arc and
determine a true meridian
with the solar at the cor of
secs 16, 17, 20 and 21. Thence I

Survey of Spdy of fract Top 15 N. 75. 65.

Chain

- run W bet sees 17 and 21 was
rolling into country through
scattering cedar timber-
- 4.00 Top of ridge hrs N.E.
- 14.30 cross wash course 5.15 hrs wide
- 20.00 Top of ridge hrs N.E.
- 27.95 cross wash 25 lbs wide course S.
- 34.55 Top of ridge hrs S.
- 40.00 Set a sandstone 18 x 10 16 ins 12 ins
in the ground for $\frac{1}{4}$ sec cor. set
 $\frac{1}{4}$ in the N face; dug pits 18 x 18 x 12
ins E and W of stone 3 ft dist. and
raised a mound of earth $\frac{3}{4}$ ft
base $1\frac{1}{2}$ ft high N of cor.
- 40.10 cross road hrs N.W.
- 48.40 Top of ridge hrs N.W.
- 62.90 cross wash course S.W.
- 63.80 cross same course N.W.
- 65.90 cross same wash course S.W.
- 66.40 ✓ cross same wash course N.W.

Land S. B. Mer Ariz -

Chains

6760 cross same wash course S W.
 6950 cross road course S W.
 8000 set a molars stone 18 x 12 x 10 ins 12
 ins in the ground for the cor of sec
 17, 18, 19 and 20 with 5 notches on
 the E and 3 notches on the S edges -
 Whence:

a cedar 6 ins in diam has $S 34^{\circ} W: 62$

the dist: ~~with~~ T 15° R 62 S 15 B.T.

a cedar 8 ins in diam has $N 82^{\circ} W: 114$

the dist: ~~with~~ T 15° R 62 S 15 B.T. and

I raise a mound of stone 2 ft base
 $1\frac{1}{2}$ ft high W of the cor. Pits in-
 -practicable.

land mountainous -

Soil, very 4th rate

Timber, cedar and oakbrush -

Mountainous land with

scattering cedar timber and dense

oakbrush - 80.00 chains -

Survey of S. Body of Great Top 15th Bg 6E.

Chains

Topography

Reverse

Sice Line

Went on a ~~survey line~~ line bet secs

18 and 19.

40.00

~~Set temp 1/4 sec cor~~

78.70

The cor. of secs. 18 & 19. on W. Body.

78.70

~~Set out the W. Body of the Top 45~~~~the S. of the S. of secs 18 and 19 on the~~~~W. Body. There is a run 5890.40's on~~~~a true line bet secs 18 and 19 over~~~~mountainous country through~~~~scattering cedar timber.~~

44069.90 cross road bet N. W.

420066.70 Top of ridge bet N. W.

190065.70 cross draw corner S.

232040.50 Top of ridge bet N and S.

387040.00 Set a vulcan stone 18x10x10 ins 12

ins in the ground for 1/4 sec cor

weld 1/4 on the N. side. At this

a cedar 10 ins in diam bet S 43° E. 167

the dist. weld 1/4 519.5. and I

raise a mound of stone 2 ft high

Grand A. B. Mer. Ariz.

chains

^{m. of cov.}
 $\frac{1}{2}$ ft height, ^{to} ~~is~~ impracticable -

6036 18.35 cross draw course S.

14.70
 64.00 Top of ridge hrs S.

2020 8.40 cross draw course S.

7270 6.00 Top of ridge hrs Sand S.

~~2570~~ 0.00 The engines 17, 18, 19 and 20.

found, rolling mountains -
 soil, rocky 4th rate.

Timber, cedar and oakbrush -

Rolling mountainous land with
 scattering cedar timber 78.70 chains.

Oct 7th 1902

50219

Oct 7th 1902; I set off 5^h 6.53^m on the del arc
 and at 12^h 00' 36" observe the sun
 on the meridian and obtain on
 the lat arc the reading 34° 41' ~~in~~
 which is the lat, nearly -

These lines traverse country which is of about the same character throughout - The country is very rough and mountainous and is covered with very dense cedar timber or with oak brush - The soil is rocky & the water and offers but poor grazing facilities - There are no streams of water gained over by these lines, but in a few instances there are pools of water in the beds of canyons - The general formation is Molpaia - The general slope of the land is towards the south and West as is the course of all ravines, canyons etc -

This land is well timbered
with a dense growth of
cedar timber

James B. Girard

Park W. Latimer

U.S. Deputy Surveyor

Latitude Departure and Closing Errors

Bottom Sp 6.27 Pg 65: Grand S.R. Mer

	N	E	S	W
Sum of Departures				
North				
589°30'E	412.06		3.45	
558°50'E	66.79		1.33	
Entry S	394.14			478.50
Sum of W				
Convergence	398.63			
W. Entry	398.53			
Total	398.53	479.36	358.92	478.50
Difference		478.50	398.65	
Errors in Days		.86	.37	

checked by W. H. C. 11/10/10

Latitude Departures and Closing Errors

Days 25p 15 P 6 E. 9 and S.R. M

Direction	Distance		Σ	5	W
W	478.00		478.00		
E	256.21			256.21	
S	336.21			336.21	
W	478.70				478.70
W	256.21				
S	336.21				
W	478.70				478.70
Convergence		34	478.70	256.21	
Total				336.21	
Difference			478.70		
Excess in Lat				0.00	
Sum in deg			.14		

checked by Pearson
21/08/02

Office of U. S. Surveyor General,

Phoenix, Arizona. *Apr. 14, 1903*

The foregoing field notes of the survey of the South and East Bdy. of T. 16 N., R. 6 E. and the frac. East Bdy, and sectional line forming temporary S. Bdy of T. 15 N., R. 6 E. Gila and Salt River Base and Meridian, in Arizona, executed by Girard and

Katimer U. S. Deputy Surveyor under Contract No. 101, dated *June 30, 1902* having been critically examined, the necessary corrections and explanation made, the said field notes and the surveys they describe are hereby approved.

Franklin
U. S. Surveyor General
for District of Arizona.