

FIELD NOTES

OF THE SURVEY OF THE

W., E., and N. bdrs. of T. 10 S., R. 2 E.

E. and N. bdrs. of T. 10 S., R. 3 E. and T. 10 S., R. 5 E.

North boundary of T. 10 S., R. 4 E.

East boundary of T. 10 S., R. 6 E.

South & West bdrs. of T. 9 S., R. 6 E., T. 7 S., R. 4 E. & T. 6 S., R. 2 E.

South boundary of T. 8 S., R. 5 E.

West bdrs. of T. 9 S., R. 4 E., T. 8 S., R. 2 E. and T. 7 S., R. 2 E.

West & North bdrs. of T. 9 S., R. 2 E. and T. 9 S., R. 3 E.

Part of the North boundary of T. 8 S., R. 3 E. and

North half of the West boundary of T. 7 S., R. 3 E.

RETRACEMENT OF THE

West boundary of T. 10 S., R. 8 E. and the

South boundary of T. 7 S., R. 5 E. and

RESURVEY OF THE

South and West boundaries of T. 9 S., R. 7 E. and T. 8 S., R. 6 E.

of the Gila and Salt River Base and Meridian in the State of Arizona.

EXECUTED BY

W.H. Thorn, U.S. Surveyor and

W.K. Kierulff, U.S. Transitman

~~In the capacity of U.S. Surveyor~~, under instructions dated July 29, 1914,

issued by the United States Surveyor General to govern surveys included in

Group No. 38, which were approved by the Commissioner of the General Land

Office, September 5, 1914

Surveys, Retracements
and ReSurveys commenced December 1, 1914

Surveys, Retracements
and ReSurveys completed May 6, 1915

Executed under assignment
Instructions dated Sept. 30, 1914.

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Book "B"
Group 38 Arizona.
(Exteriors)

SEE SPECIAL INDEX DIAGRAM

INDEX DIAGRAM.

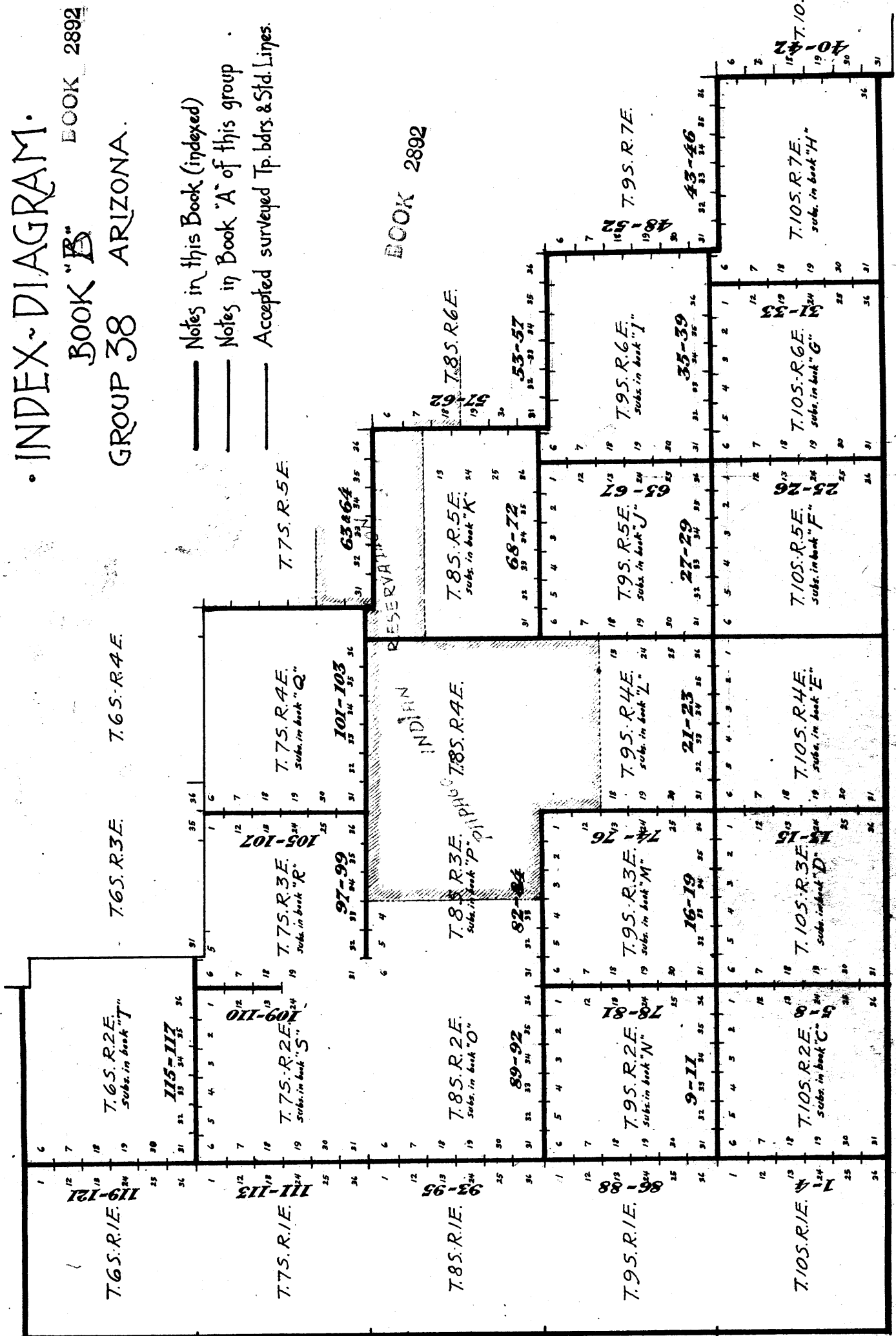
Township _____, Range _____

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
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INDEX-DIAGRAM.

BOOK "B" BOOK 2892
 GROUP 38 ARIZONA.

- Notes in this Book (indexed)
- Notes in Book "A" of this group
- Accepted surveyed Tp. bdrs. & Std. Lines.



Survey of West boundary of Township 10 South Range 2 East 18
Chains.

Retracement, Resurvey and Survey of township boundaries described in the field notes in this book were executed by W.H.Thorn, U.S. Surveyor, and W.K.Kierulff, U.S. Transitman, under instructions for Group No.38, Arizona; Young and Sons' light mountain transit No.8592 with Smith's solar attachment, was used by W.H.Thorn, U.S. Surveyor; Young and Sons' light mountain transit No. 8492 was used by W.K.Kierulff, U.S. Transitman. The horizontal limb on each of these instruments is provided with double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. These instruments were approved Sept. 30, 1914, by the Assistant Supervisor of Surveys for Arizona and California, subject to satisfactory field performance. Field tests of both these instruments are hereinafter described.

Throughout the following notes, the initials "W.H.T." or "W.K.K." are inserted at the beginning and end of the notes describing the retracement, resurvey or survey of each township boundary indicating the execution of same by W.H.Thorn, U.S. Surveyor, or W.K.Kierulff, U.S. Transitman, respectively.

W.K.K.

Survey commenced Dec.1, 1914.

From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment. At 2h. p.m., l.m.t., I set off 32° 30' N. on the lat.arc; 21° 46' S. on the decl.arc; and determine a meridian with the solar, at the standard cor. of T.10 S., Rs.1 and 2 E., reestablished by W.H.Thorn, U. S. Surveyor, and described in Book "A." Magnetic decl. at this cor. is 13° 45' E.

Thence I run, North, bet. secs.31 and 36. Over stony land.

- 8.30 Rocky ravine, 50 lks.wide, 10 ft. deep, course N.45° W. Ascend gradual S. slope to
- 10.00 Ascend steep S.slope, 50 ft. to
- 14.75 Top of hill; descend N.slope, 100 ft. to
- 24.00 Foot of descent; enter rolling land.
- 29.00 Ravine, 100 lks.wide, 15 ft. deep, course N.20° E.
- 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for 1/4 sec.cor., with brass cap, marked
 - 1/4 S 36 in W., and
 - S 31 in E.half;
 - 1914 on S.rim.

Build a mound of earth and stone, 3 ft. base, 2 ft. high, W.of cor.

Dec. 1, 1914.

Dec.2, 1914: At 10h. a.m., l.m.t., I set off 32° 31' N. on the lat.arc; 21° 53' S. on the decl.arc; and determine a meridian with the solar at this 1/4 sec.cor.

Thence continue measurement north.

- 46.60 Ravine, 140 lks.wide, 20 ft. deep, course N.45° E.
- 52.00 Ascend S' slope, 75 ft. to
- 61.60 In saddle between two hills, about 150 ft. high. Descend 75 ft. to
- 80.00 Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 25,30,31 and 36, with brass cap, marked
 - T 10 S on N.half;
 - R 2 E S 30 in NE.,
 - S 31 in SE.,
 - S 36 in SW., and
 - R 1 E S 25 in NW. quadrants;
 - 1914 on S.rim;

build a mound of stone 3 ft.base, 1 1/2 ft. high, W.of cor.

Land, rolling and hilly.
Soil, stony, 4th rate..

2. Survey of West boundary of Township 10 South, Range 2 East.

Chains.

Timber scattering scrub palo verde and ironwood.
Undergrowth, greasewood brush and cacti.

North, bet. secs. 25 and 30.
Over rolling, rocky land, through scattering undergrowth.

25.00 Ascend steep SE. slope to
33.00 Change to east slope, thence descend NE. slope to
39.00 Wash, 30 lks. wide, 3 ft. deep, course SE.
Ascend S. slope.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in the
ground, to solid rock, in a mound of stone 3 ft. base,
2 ft. high, for $\frac{1}{4}$ sec. cor., with brass cap, marked
S 25 on W., and
S 30 on E. half;
1914 on S. rim;
pits impracticable. Build a mound of stone, 2 $\frac{1}{2}$ ft.
base, 2 ft. high, W. of cor.

52.00 Top of ridge, brs. E. and W. Descend N. slope.
68.60 Foot of descent in draw; general slope to the east.
69.00 Ascend S. slope, 120 ft. to
76.00 Top of spur, brs. E. and W. Descend gradual N. slope.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in
the ground, to solid rock, in a mound of stone, 2 ft.
base, 6 ins. high, for cor. of secs. 19, 24, 25 and 30,
with brass cap marked
T 10 S on N. half;
R 2 E S 19 in NE.,
S 30 in SE.,
S 25 in SW., and
R 1 E S 24 in NW. quadrants;
1914 in S. rim;
pits impracticable. Build a mound of stone, 3 ft. base,
2 ft. high, W. of cor.

Land, rolling.
Soil, stony, 4th rate.
Timber, scattering scrub palo verde and ironwood.
Undergrowth, greasewood brush, ocotillo and cacti.

North, bet. secs. 19 and 24.
Over rolling land, through scattering timber and under-
growth.

Along N. slope.

15.10 Wash, 20 lks. wide, 2 ft. deep, course NW.
Thence over rolling, rocky land, to

40.00 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in
the ground to solid rock, in a mound of stone 2 ft.
base, 1 $\frac{1}{2}$ ft. high for $\frac{1}{4}$ sec. cor., with brass cap, marked
S 24 on W., and
S 19 on E. half;
1914 on S. rim.
Build a mound of stone 3 ft. base, 2 ft. high, W. of cor.
At this cor., I set off 21°54'S. on the decl. arc; and at ap-
parent noon, observe the sun on the meridian; the re-
sulting latitude is 32° 32' N.

Dec. 2, 1914.
Dec. 4, 1914: At 10h. a.m., l.m.t., I set off 32°32' N. on
the lat. arc; 22°11'S. on the decl. arc, and determine
a meridian with the solar at this $\frac{1}{4}$ sec. cor.
Thence continue measurement, North.
Over rolling land.

49.50 Wash, 30 lks. wide, 2 ft. deep, course W.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 13, 18, 19 and 24, with
brass cap, marked
T 10 S on N. half;
R 2 E S 18 in NE.,
S 19 in SE.,

West boundary of Township 10 South, Range 2 East. 3.

Chains.

S 24 in SW., and
 R 1 E S 13 in NW. quadrants;
 1914 on S.rim.
 Build a mound of stone 3 ft. base, 2 ft. high, W. of cor.
 Land, rolling.
 Soil, stony, 4th rate.
 Timber, scrub palo verde and ironwood.
 Undergrowth, ocotillo and cacti.

North, bet. secs. 13 and 18.
 Over rolling land, through scattering undergrowth.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
 ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 13 on W., and
 $\frac{1}{4}$ S 18 on E. half;
 1914 on S.rim;
 dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist.,
 and raise a mound of earth and stone, 3 ft. base, 2 ft.
 high, W. of cor.
 42.00 Wash, 30 lks. wide, 2 ft. deep, course N. 80° W.
 68.50 Adobe Indian hut, 10x15 ft. on line.
 75.00 Leave rolling land, and enter level land.
 79.00 Indian hut brs. W. 2 $\frac{1}{2}$ chs.
 80.00 Indian hut brs. E. 7 $\frac{1}{2}$ chs.
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for cor. of secs. 7, 12, 13 and 18, with brass
 cap, marked
 T 10 S on N. half;
 R 2 E S 7 in NE.,
 S 18 in SE.,
 S 13 in SW., and
 R 1 E S 12 in NW. quadrants;
 1914 on S.rim;
 no trees within limits; dig pits 18x18x12 ins. in
 each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4
 ft. base, 2 ft. high, W. of cor.
 At this cor. I set off 22° 12' S. on the decl. arc; and at
 apparent noon observe the sun on the meridian; the re-
 sulting latitude is 32° 34' N.
 Land, 75 chs., rolling, 5 chs. level.
 Soil, gravelly and rocky, 3rd rate.
 Timber, scattering scrub palo verde and ironwood.
 Undergrowth, ocotillo and cactus.

North, bet. secs. 7 and 12.
 2.75 Brush fence brs. E and W.
 Enter small cultivated field, about 15 chs. wide.
 17.50 Leave field and brush fence.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 12 on W., and
 $\frac{1}{4}$ S 7 on E. half;
 1914 on S.rim.
 No trees within limits. Dig pits 18x18x12 ins., N. and S.
 of cor., and raise a mound of earth 3 ft. base, 1 $\frac{1}{2}$ ft.
 high, W. of cor.
 57.10 Wash, 25 lks. wide, 8 ft. deep, course N. 10° E.
 63.30 Wash, 50 lks. wide, 4 ft. deep, course N. 80° E.
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for cor. of secs. 1, 6, 7 and 12, with brass
 cap, marked
 T 10 S on N. half;
 R 2 E S 6 in NE.,
 S 7 in SE.,
 S 12 in SW., and
 R 1 E S 1 in NW. quadrants;
 1914 in S.rim.
 No trees within limits. Dig pits 18x18x12 ins. in each

4. West boundary of Township 10 South, Range 2 East.

Chains.

sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.

Soil, sandy adobe, 1st rate.

Timber, scattering palo verde and mesquite.

Undergrowth, greasewood.

North, bet. secs. 1 and 6.

Over level land.

10.00 Small knoll, brs. 1 ch. west.

16.30 Wash, 30 lks. wide, 3 ft. deep, course E.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 1 on W., and
 S 6 on E. half;
 1914 on S. rim;

dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

61.00 Road brs. S. 70° E. and N. 70° W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 9 and 10 S., Rs. 1 and 2 E. with brass cap, marked

T 9 S on N. half;

R 2 E S 31 in NE.,

S 6 in SE.,

S 1 in SW., and

R 1 E S 36 in NW. quadrants;

T 10 S in S. half;

1914 on S. rim;

no trees within limits. Dig pits 24x24x12 ins. on each line, N., E. and W. 4 ft., and S. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.

Land, level.

Soil, adobe, and sandy, 1st rate.

Timber, scattering palo verde and mesquite.

Undergrowth, greasewood.

W.K.K.

Dec. 4, 1914.

Survey of East boundary of T.10 S.R.2 E.

W.K.K.

Survey commenced Dec. 5, 1914, and completed with a Young and Smith light and A. S. A. transit No. 21 33 as described in Book "A."

I examine the adjustments of the transit and also the solar apparatus and find them satisfactory.

Dec. 5, 1914.

At 9 h., a.m. l.m.t., I set off 32° 30½' N. on the lat. arc; 22° 18' S. on the decl. arc and determine a mer. with the solar at the std. cor. of T. 10 S. Rs. 2 and 3 E. on 2nd Standard Parallel S. reestablished by W. H. Thorn, U.S. Surveyor, as described in Book "A."

Thence I run,

North, bet. secs. 31 and 36.

Over gently rolling land.

- 4.85 Wash 15 lks. wide 2 ft. deep, course E.
- 31.90 Road to Copperosity copper mine brs. SE. and NW.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.
 - ¼ S. 36 on W. half;
 - S. 31 on E. half;
 - 1914 on S. rim.,

from which,

An iron wood 8 ins. in diam. brs. N. 60¼° E. 102 lks. dist. mkd. ¼ S. 31 B.T.

An iron wood 16 ins. in diam. brs. S. 59¾° W. 34 lks. dist. mkd. ¼ S. 36 B.T.

- 62.00 Wash 50 lks. wide, 3 ft. deep bourse NE.
- 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.
 - T. 10 S. on N. half;
 - R. 3 E. S. 30 in NE.
 - S. 31 in SE.
 - S. 36 in SW. and
 - R. 2 E. S. 25 in NW. quadrants,
 - 1914 on S. rim.

No trees within limits,

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land, level.

Soil, rocky 3rd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood.

North, bet. secs. 25 and 30.

Over slightly rolling land.

- 9.80 Wash 15 lks. wide 2 ft. deep, course E.
- Thence over level land.
- 20.50 Road brs. SE. and NW.
- 23.30 Wash 50 lks. wide 3 ft. deep, course E.
- 26.00 Wash 280 lks. wide, 5 ft. deep, course E.
- 39.50 Road brs. E. and W.
- 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.
 - ¼ S. 25 on W. half;
 - S. 30 on E. half;
 - 1914 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.

- 44.10 Wash 20 lks. wide 2 ft. deep, course SE.
- 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30 with brass cap mkd.

East boundary of T.10 S.R.2 E.

T.10 S. on N. half;
R.3 E.S.19 in NE.
S.30 in SE.
S.25 in SW. and
R.2 E.S.19 in NW. quadrants,
1914 in S. rim.

No trees within limits; pits impracticable.
Raise a mound of stone 3 ft. base 2 ft. high W. of cor.
Land, level.
Soil, gravelly loam, 2nd rate.
Timber, scattering scrub palo verde and ironwood.
Undergrowth, greasewood.
At this cor. at 2 h.31 m. p.m. l.m.t., I observe Polaris
at E.E. and lay off the azimuth $1^{\circ} 21'$ to the W.
The line thus established checks with the twp.
boundary being run.

North, bet. secs. 19 and 24.

Over slightly rolling land,
15.50 Wash 15 lks. wide 1 ft. deep, course, $S.15^{\circ}E$.
21.50 Road brs. E. and W.
40.00 Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. with brass cap, marked

$\frac{1}{4}$ S. 24 on W. end;
S. 19 on E. half;
1914 on S. rim.

No trees within limits, pits impracticable.
70.00 Build a mound of stone $2\frac{1}{2}$ ft. base 2 ft. high W. of cor.
Enter small rolling foot hills.
78.00 Ascend gradual slope to the SW.
80.00 Set an iron post 3 ft. long 3 ins. in diam. in a mound of
stone 3 ft. base $2\frac{1}{2}$ ft. high (could not set in the
ground on account of solid rock) for cor. of secs.
13, 18, 19 and 24, with brass cap mkd.

T.10 S. on N. half;
R.3 E.S.18 in NE.
S.19 in SE.
S.24 in SW. and
R.2 E.S.13 in NW. quadrants,
1914 on S. rim.

No trees within limits, pits impracticable.
Build a mound of stone 3 ft. base 2 ft. high W. of cor.
Land, general slope to the S. and SE.
Soil, rocky 3rd rate.
Timber, scattering scrub palo verde, and ironwood.
Undergrowth, greasewood and small cactus.

Dec. 5, 1914.

Dec. 7, 1914.

At 9 h., a.m. l.m.t., I set off $32^{\circ}33'N$ on the lat. arc;
 $22^{\circ}33'S$ on the decl. arc and determine a mer. with the
solar at the cor. of secs. 13, 18, 19 and 24.

Thence I run,

North, bet. secs. 13 and 18.

Ascend S. slope.
3.50 Top of small hill. Descend 50 ft. to
7.00 Rolling land.
8.25 Road brs. SE. and NW.
20.00 Wash 75 lks. wide 6 ft. deep, course SE.
23.30 Wash 50 lks. wide, 3 ft. deep, course SW.
40.00 Set an iron post 3 ft. long 1 in. in diam. in mound of
stone 3 ft. base $2\frac{1}{2}$ ft. high (could not set deeper
on account of solid rock) for $\frac{1}{4}$ sec. cor. with brass
cap mkd.

$\frac{1}{4}$ S.13 on W. end;
S.18 on E. half;
1914 on S. rim.

East boundary of T.10 S.R.2E.

No trees within limits, pits impracticable.
 Build a mound of stone 3 ft. base 2 ft. high W. of cor.
 45.00 Ravine 60 lks. wide 10 ft. deep, course SE.
 52.00 Ascend SE. slope, 900 ft. to
 80.00 Shaft of Opton Mining Claim brs. S.45° E. 150 lks. dist.
 Set an iron post 3 ft. long 3 ins. in diam. in a mound of
 stone 3 ft. base 2½ ft. high (impracticable to set
 deeper on account of solid rock) for cor. of secs.
 7, 12, 13 and 18, with brass cap mkd.
 T.10 S. on N. half;
 R.3 E.S.7 in NE.
 S.18 in SE.
 S.13 in SW. and
 R.2 E.S.12 in NW. quadrants,
 1914 on S. rim.

No trees within limits, pits impracticable.
 Build a mound of stone 3 ft. base 2 ft. high W. of cor.
 Land, mountainous.
 Soil, rocky 4th rate.
 Timber, scattering scrub palo verde, iron wood and
 mesquite.
 Undergrowth, greasewood and small cactus.
 At this cor. I set off 22° 34' S. on the decl. arc; and
 at apparent noon, observe the sun on the mer. The
 resulting lat. is 32° 33½' N.

North, bet. secs. 7 and 12.
 On E. slope of Mountain.

22.30 Cross box canyon 3 chs. wide 100 ft. deep.
 27.00 Ascend steep S. slope, 300 ft.
 40.00 True point for ¼ sec. cor. falls on side of cliff 30 ft.
 high; therefore at
 40.60 Set an iron post 3 ft. long 1 in. in diam. in a mound of
 stone 3 ft. base 2½ ft. high (could not set in ground
 on account of solid rock) for witness cor. to ¼ sec. cor.
 with brass cap, marked
 W.C. on S.
 ¼ S.12 on W. and,
 S.7 on E. half;
 1914 on S. rim.

No trees within limits, pits impracticable.
 Build a mound of stone 3 ft. base 2 ft. high W. of cor.
 41.60 Top of ridge brs. to E. and W. ridge. brs. E. and W.
 Descend steep NE. slope of mountain to
 80.00 500 ft. below ¼ sec. cor.
 Set an iron post 3 ft. long, 3 ins. in diam. 1 ft. in the
 ground and in a mound of stone 3 ft. base 1½ ft. high
 (could not set deeper on account of solid rock) for
 cor. of secs. 1., 6, 7 and 12, with brass cap mkd.
 T.10 S. on N. half;
 R.3 E.S.6 in NE.
 S.7 in SE.
 S.12 in SW. and
 R2 E.S.1 in NW. quadrants,
 1914 on S. rim.

No trees within limits, pits impracticable.
 Build a mound of stone 2 ft. base 2 ft. high W. of cor.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, scattering palo verde, ironwood and giant cactus.
 Undergrowth, greasewood and small cactus.
 Dec.7, 1914.

Dec. 8, 1914.

At 9 h. am. l.m.t. I set off $32^{\circ} 34\frac{1}{2}'$ N. on the lat. arc; $22^{\circ} 39'$ S. on the decl. arc and determine a mer. with the solar, at the cor. of secs. 1, 6, 7, and 12.

Thence I run

North, bet. secs. 1 and 6.

Over mountainous land.

2.00 Foot of descent 46 ft. below the cor.

Thence over rolling land.

21.00 Ravine, 75 lks. wide 12 ft. deep, course NW.

22.00 Along steep W. slope of rocky hill.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 18 ins. in the ground and in a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec. cor. with brass cap mkd.

$\frac{1}{4}$ S. 1 on W. and

S. 6 on E. half;

1914 on S. rim.

No trees within limits, pits impracticable.

Build a mound of stone 2 ft. base 2 ft. high W. of cor.

51.00 Wash 50 lks. wide, 6 ft. deep, course E.

60.50 Wash 30 lks. wide, 3 ft. deep, course NE.

67.40 Wash 20 lks. wide, 2 ft. deep, course N. 70° E.

80.00 Set an iron post 3 ft. long 3 in. in diam. 1 ft. in the ground, in a mound of stone 3 ft. base 1 ft. high (could not set deeper on account of solid rock) for cor. of Ts. 9 and 10 S. Rs. 2 and 3 E. with brass cap mkd.

T 9 S on N., and

T 10 S on S. half;

R. 3 E. S. 31 in NE.

S. 6 in SE.

T 10 S on S. half

S. 1 in SW. and

R. 2 E. S. 36 in NW. quadrants, and

1914 on S. rim.

No trees within limits.

Build a mound of stone 3 ft. base, 2 ft. high S. of cor.

Land mountainous and hilly.

Soil, rocky 4th rate.

Timber, scattering palo verde, iron wood and giant cactus.

Undergrowth, greasewood, ocotillo and small cactus.

Dec. 8, 1914.

W. K. K.

Survey of North boundary of T.10 S. R. 2 E.

W.K.K.
 Survey commenced Dec. 9, 1914 and executed with a Young and Son's light mountain transit No. 3498, as described in Book 2892.
 I examine the adjustments of the transit and correct the level and collimation errors.
 At 9 h.a.m. l.m.t., I set off 32° 35½' N. on the lat arc; 22° 46' S. on the decl. arc and determine a mer. with the solar at cor. of Ts. 9 & 10 S., Rs. 1 & 2 E. hereinbefore described, which meridian line falls upon the W. bdy. of the tp. which is a true N. and S. line, and coincides with it. P.m. observations taken on the E. bdy. of the tp. which is a "Polaris line", coincides with it. Therefore I conclude that the adjustments of the solar are satisfactory.

Thence I run East on a random line setting temp. ¼ sec. cor. at 39.53 chs. and thereafter setting temp. ¼ sec. and ¼ sec. cors. at intervals of 40.00 chs; and at 479.62 chs., intersect E. bdy. of tp. 1 lk. S. of the cor. of Ts. 9 and 10 S. Rs. 2 and 3 E. hereinbefore described. This falling gives a true course for this Tp. bdy. of East Dec. 10, 1914.

I return to the cor. of Ts. 9 and 10 S., Rs. 1 and 2 E., hereinbefore described, and on

Dec, 11, 1914, I run East on true line bet. secs. 6 and 31. Over level land.

39.62 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd. ¼ S. 6 on N. and ¼ S. 31 on S. half, and 1914 on S. rim.

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high N. of cor.

51.20 Wash 25 lks. wide, 3 ft. deep course, S.
 67.90 Road brs. N. and S.

79.62 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.
 T. 9 S. R. 2 E. on N. half;
 S. 32 in NE.
 S. 5 in SE.
 S. 5 in SW. and
 S. 31 in NW. quadrants
 T. 10 S. on S. half;
 1914 on S. rim.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land, level.
 Soil, adobe, 1st rate, covered with native grass.
 Undergrowth, greasewood brush.

East, on true line bet. secs. 5 and 32. Over level land.

17.60 Wash 15 lks. wide 2 ft. deep, course N. 80° W.
 23.30 Wash 15 lks. wide 2 ft. deep, course SW.

25.70 Road brs. NE. and SW.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd. ¼ S. 5 on N., and S. 32 on S. half, and 1914 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high

53.20 N. of cor.
 80.00 Enter rolling land.
 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.
 T.9 S.R.2 E. on N. half;
 S.33 in NE.
 S.4 in SE.
 S.5 in SW. and
 S.32 in NW. quadrants
 T.10 S. on S. half;
 1914 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
 Land, level and rolling.
 Soil, stony 2nd and 3rd rate.
 Timber, scattering palo verde.
 Undergrowth, greasewood brush.

3.70 East on true line bet. secs. 4 and 33,
 20.00 Over rolling land.
 27.20 Ravine 50 lks. wide, 5 ft. deep, course N.
 40.00 Ravine 50 lks. wide, 8 ft. deep, course N.
 Wash 30 lks. wide, 2 ft. deep, course N. 70° W.
 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. with brass cap. mkd.
 1/4 S. 4 on N., and
 S.33 on S. half,
 1914 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
 71.90 Road brs. NE. and SW.
 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34. with brass cap mkd.
 T.9 S.R.2 E. on N. half;
 S.34 on NE.
 S.3 in SE.
 S.4 in SW. and
 S.33 in NW. quadrants
 T.10 S. on S. half,
 1914 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
 Land, rolling.
 Soil, gravelly 3rd rate.
 Timber, scattering palo verde.
 Undergrowth, greasewood brush,

24.80 East on true line bet. secs. 3 and 34.
 40.00 Over rolling land.
 Road brs: N. and S.
 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.
 1/4 S.34 on N., and
 S. 3. on S. half,
 1914 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high
 47.20 Junction of 3 roads from N., S. and SE. (N. of cor.)
 50.20 Over rocky rolling land.
 67.50 Ravine 150 lks. wide, 20 ft. deep, course, S.

North boundary of T.10 S. R.2 E.

Chains
71.70
72.20
75.00
80.00

Road, brs. N. and S.
 Ravine, 75 lks. wide, 15 ft. deep, course, S.
 On gradual NW. slope.
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T 9 S R 2 E on N. half,
 S 35 in NE.
 S 2 in SE.
 S 3 in SW. and
 S 34 in NW. quadrants,
 T 10 S R 2 E on S. half,
 1914 on S. rim.

Build a mound of stone, 3 ft. base 2 ft. high W. of cor.
 Land, rolling.
 Soil, stony, 3rd and 4th rates.
 Timber, scattering palo verde.
 Undergrowth, greasewood brush and cacti.

10.00
40.00
40.20
42.00
70.00
80.00

East, on true line, bet. secs. 2 and 35.
 Along N. slope.
 Asc. steep W. slope, 700 ft. to
 True point for $\frac{1}{4}$ sec. cor. falls on steep rocky N. slope of mountain; therefore at
 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 3 ft. base, 2 ft. high, for witness cor. to $\frac{1}{4}$ sec. cor., marked on brass cap,
 WC on W., $\frac{1}{4}$ S 35 on N. and
 S 2 on S. half,
 1914 on S. rim.

Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.
 Top of ascent.
 Descend over precipitous NE. slope, 900 ft. to
 Foot of descent.
 Thence over rolling NE. slope.
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 9 S R 2 E on N. half,
 S 36 in NE.
 S 1 in SE.
 S 2 in SW and
 S 35 in NW. quadrants,
 T 10 S R 2 E on S. half,
 1914 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.
 Impracticable to build mound on W. on account of small wash.
 Land, mountainous.
 Soil, stony, 4th rate.
 Timber, scattering scrub palo verde.
 Undergrowth, ocotillos and cacti.

4.00
9.00
15.50
18.50
34.50
40.00
40.25

East, on true line, bet. secs. 1 and 36.
 Over rolling N. slope.
 Desc. E. slope to
 Ravine, 50 lks. wide, 12 ft. deep, course, NE.
 Dim road, brs. N. 5° E and S. 5° W. and ends at an old prospect camp about 5 chs. to the S.
 Ravine 75 lks. wide, 10 ft. deep, course, N.
 Ravine, 75 lks. wide, 10 ft. deep, course, N.
 True point for $\frac{1}{4}$ sec. cor. falls in ravine, 25 lks. wide, 5 ft. deep, course, N.; therefore, at
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in ground for witness cor. to $\frac{1}{4}$ sec. cor. with brass cap mkd.

WC on W., $\frac{1}{4}$ S 36 on N. and
 S 1 on S. half,
 1915 on S. rim.

12

North boundary of T.10 S., R.2 E.

Chains
 43.20 Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.
 63.00 Road, brs. N. and S.
 80.00 Wash, 30 lks. wide, 2 ft. deep, course, N.
 Cor. of Ts. 9 and 10 S., Rs. 2 and 3 E., established by
 me, and hereinbefore described.
 Land, rolling.
 Soil, stony, 4th rate.
 Timber, scattering palo verde.

W.K.K.
 Dec. 11, 1914.

Boundaries of T.10 S., R.2 E.
 Latitudes, departures and closing errors.

Line designated	Bearing	Dist. chs.	Latitudes.		Departures.	
			N chs.	S chs.	E chs.	W chs.
West Tp. bdy.	North,	480.00	480.00			
North Tp. bdy.	East,	479.62			479.62	
East Tp. bdy.	South,	480.00		480.00		
South Tp. bdy. (2nd. Stand. Par. S)	West,	480.00				480.00
Convergency.					.46	
Totals			480.00	480.00	480.08	480.00
			480.00			
Error in latitude-----			0.00		480.08	
Error in departure-----					0.08	

Survey of East boundary of T.10,S.,R.3 E.

Chains	
	<p>W.K.K. Survey commenced Dec. 27, 1914. and executed with a Young and Smith's light portable transit no. 5482, as re- described in Book "A".</p> <p>I examine the adjustments of the transit and correct the level and collimation errors.</p> <p>Dec. 25, 1914. At 7 h. 11m.p.m. l.m.t., I observe Polaris at U.C. in accordance with instructions in the Manual of Surveying, at a point near camp in sec. 21.</p> <p>Dec. 26, 1914 I set a rod 10 chs. N. of my station on the mer. determined by observations on Polaris on Dec. 25.</p> <p>At 7 h. 30m.a.m. l.m.t., I set off 32° 32' N. on the lat. arc; 23° 20' S. on the decl. arc and determine a mer. with the solar. The mer. thus determined coincides with the mer. determined by observations on Polaris.</p> <p>At 4 h.p.m. l.m.t., I set off 32° 32' N. on the lat. arc; 23° 20' S. on the decl. arc and determine a mer. with the solar. The mer. thus determined shows no appreci- able difference bet. itself and the mer. determined by observations on Polaris. Therefore I conclude that the adjustments of the solar are satisfactory.</p> <p>Dec. 27, 1914. At 9 h.a.m. l.m.t., I set off 32° 30½' N. on the lat. arc; 23° 19' S. on the decl. arc and determine a mer. with the solar at the std. cor. of Ts.10 S. Rs. 3 and 4 E., reestablished by W.H.T. as described in Book "A"</p> <p>Thence I run North, bet. secs. 31 and 36. Over level land.</p>
40.00	<p>Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd. ¼ S.36 on W. and S.31 on E. half, 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.</p>
41.80	<p>Road brs. S. 85° E. and N. 85° W.</p>
80.00	<p>Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36. with brass cap mkd.</p> <p>T.10 S. on N. half; R.4 E.S.30 on NE. S.31 in SE. S.36 in SW. and R.3 E.S.25 in NW. quadrants, 1914 on S. rim.</p> <p>Dig pits 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land level. Soil, adobe, 2nd rate. Undergrowth, greasewood brush.</p>
	<p>North, bet. secs. 25 and 30. Over level land.</p>
40.00	<p>Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd. ¼ S.25 on W., and S.30 on E. half, 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.</p>
80.00	<p>Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30 with brass cap mkd.</p>

14

East boundary of T.10 S., R.3 E.

Chains

	<p>T.10 S. on N. half; R.4 E.S.19 in NE. S.30 in SE. S.25 in SW. and R.3 E.S.24 in NW. quadrants and 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor. Land, level. Soil, adobe, 2nd rate. Undergrowth, greasewood brush.</p>
40.00	<p>North, bet. secs. 19 and 24. Over level land.</p> <p>Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd. ¼ S.24 on W. and S.19 on E. half, 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.</p>
78.50	Road brs. N. 5° E. and S. 5° W.
80.00	<p>Set an iron post 3 ft. long 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24 with brass cap mkd.</p> <p>T.10 S. on N. half; R.4 E.S.18 in NE. S.19 in SE. S.24 in SW. and R.3 E.S.13 in NW. quadrants, 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.</p> <p>Land, level. Soil, adobe, 2nd rate. Undergrowth, greasewood brush and cat claw. At this cor. I set off 21° 19½' S. on the decl. arc and at apparent noon observe the sun on the mer. The resulting lat. is 32° 33' N.</p>
40.00	<p>North, bet. secs. 13 and 18. Over level land.</p> <p>Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd. ¼ S.13 on W. and S.18 on E. half, 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.</p>
53.10	Road brs. SE. and NW.
80.00	<p>Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18 with brass cap mkd.</p> <p>T.10 S. on N. half; R.4 E.S.7 in NE. S.18 in SE. S.13 in SW. and R.3 E.S.12 in NW. quadrants, 1914 on S. rim.</p> <p>Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 5½ ft. base 2 ft. high W. of cor.</p> <p>Land, level. Soil, adobe, 1st rate. Undergrowth, greasewood and cat claw.</p>

East boundary of Township 10 South, Range 3 East. 15.

Chains

North, bet. secs. 7 and 12.
 Over level land.
 12.70 Road brs. NE. and SW.
 33.60 Wire fence brs. NE. and SW.
 Enter cultivated field.
 34.60 Ditch, 10 lks. wide, 2 ft. deep, course E.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the
 ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{2}$ S 12 on W., and
 $\frac{1}{2}$ S 7 on E. half;
 1914 on S rim.
 No trees within limits. Dig pits 18x18x12 ins., N. and S. of
 cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base,
 $1\frac{1}{2}$ ft. high, W. of cor.
 44.20 Ditch, 10 lks. wide, 2 ft. deep, course NE.
 52.60 Ditch, 25 lks. wide, 2 ft. deep, course NE.
 55.00 Indian village of 30 houses brs. W. about 15 chs.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for cor. of secs. 1, 6, 7, and 12, with brass
 cap, marked
 T 10 S on N. half;
 R 4 E S 6 in NE.,
 S 7 in SE.,
 S 12 in SW., and
 R 3 E S 1 in NW quadrants;
 1914 on S. rim;
 no trees within limits. Dig pits 18x18x12 ins., in
 each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.
 base, 2 ft. high, W. of cor.
 Land, level.
 Soil, adobe, 1st rate.
 Timber, scattering palo verde.
 Undergrowth, greasewood.

Dec. 27, 1914.

Dec. 28, 1914.
 At 9h. a.m., l.m.t., I set off $32^{\circ} 34\frac{1}{2}'$ N. on the lat. arc;
 $23^{\circ} 17'$ S. on the decl. arc; and determine a meridian
 with the solar at the cor. of secs. 1, 6, 7, and 12.

Thence I run,
 North, between secs. 1 and 6.

Over level land.
 2.30 Wire fence brs. NE. and SW. Leave field.
 6.50 Road, brs. NE. and SW.
 17.40 Through old Indian cemetery.
 31.00 Road brs. NE. and SW.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 1 on W., and
 S 6 on E. half;
 1914 on S. rim;
 dig pits 24x24x12 ins., N. and S. of cor. 3 ft. dist.,
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W.
 of cor.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for cor. of Ts. 9 and 10 S., Rs. 3 and 4 E.,
 with brass cap, marked
 T 9 S on N. half;
 R 4 E S 31 in NE.,
 S 6 in SE.,
 S 1 in SW., and
 R 3 E S 36 in NW quadrants;
 T 10 S on S. half,
 1914 on S. rim;
 dig pits 18x18x12 ins., N., E. and W. 4 ft., and S. of
 cor. 8 ft. dist., and raise a mound of earth, 5 ft.
 base, $2\frac{1}{2}$ ft. high, S. of cor.

Land, level.

Soil, adobe, 1st rate, Undergrowth, greasewood.

W.K.K. Dec. 28, 1914.

Dec 1936
K. K. K.

16. Survey of North boundary of Township 10 South, Range 3 East.

Chains.

W.K.K.
Dec. 29, 1914.
From the cor. of Ts. 9 and 10 S., Rs. 3 and 4 E., hereinbefore described, I run,
West, on a random line, setting temporary $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs., and at 479.71 chs. fall 1 lk. N. of the cor. of Ts. 9 and 10 S., Rs. 2 and 3 E., established by me, and hereinbefore described. The above noted falling of the random line produces a true return course for this Tp. bdy. of East. At this cor., I set off $23^{\circ}14'$ S. on the decl. arc; and at apparent noon observe the sun on the meridian. The resulting latitude is $32^{\circ}35\frac{1}{2}'$ N.

Thence I run,
East, on a true line, bet. secs. 6 and 31.
Over rolling land.

5.00 Descend 30 ft.
7.21 Wash, 20 lks. wide, 2 ft. deep, course NE.
Ascend 30 ft.
Thence over rolling land.

11.70 Ravine 50 lks. wide, 6 ft. deep, course $N 30^{\circ} E$.
29.70 Ravine, 150 lks. wide, 30 ft. deep, course NE.
39.71 Set an iron post 3 ft. long, 1 in. in diam., 1 ft. in the ground in a mound of stone 2 ft. base, $1\frac{1}{8}$ ft. high, (could not set deeper on account of solid rock) for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 31 on N., and
S 6 on S half;
1914 on S rim.

No trees within limits. Pits impracticable.
Build a mound of stone 2 ft. base, 2 ft. high, N. of cor.

46.90 Wash, 50 lks. wide, 3 ft. deep, course $N 80^{\circ} E$.
48.20 Wash, 30 lks. wide, 2 ft. deep, course NE.
74.60 Wash, 20 lks. wide, 2 ft. deep, course NE.
79.71 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap, marked
T 9 S R 3 E on N. half;
S 32 in NE.,
S 5 in SE.,
S 6 in SW., and
S 31 in NW. quadrants;
T 10 S on S half;
1914 on S rim.

No trees within limits. Pits impracticable.
Build a mound of stone 2 ft. base, 2 ft. high, W. of cor.
Land, rolling.
Soil, stony, 4th rate.
Undergrowth, greasewood brush and scrub palo verde.

East, on a true line, bet. secs. 5 and 32.
Over rolling land.

27.70 Wash, 30 lks. wide, 3 ft. deep, course N.
Ascend steep W. slope, 430 ft. to
32.00 Top of hill.
Descend steep rocky E. slope.

North boundary of T.10 S., R.3 E.

Chains
40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S.32 on N. and
S. 5 on S. half
1914 on S. rim.
No trees within limits. Pits impracticable.
Build a mound of stone 3 ft. base 2 ft. high N. of cor.
42.00 Foot of 275 ft. descent in saddle.
Ascend steep W. slope to
43.70 Top of steep ascent.
45.00 Top of butte.
Descend steep E. slope 200 ft. to
54.00 Bottom of descent.
Thence over rolling land.
60.20 Road brs. N. and S.
65.50 Road brs. NW. and SE. and ends at prospect shaft..
65.70 Shaft of Count Lode mining claim brs. S. 50 lks.
Ascend over rolling rocky W. slope.
71.25 Top of ascent, on N. slope.
Descend over E. slope.
80.00 Set an iron post 3 ft. long 3 ins. in diam. 18 ins. in the ground (could not set deeper on account of solid rock) in a mound of stone 2 ft. base 1 ft. high for cor. of secs. 4, 5, 32 and 33 with brass cap mkd.
T.9 S.R.3 E. on N. half;
S. 33 on NE.
S.4 in SW.,
S.5 in SW., and
S.32 in NW. quadrants, and
T.10 S. on S. half, and
1914 in S. rim.
No trees within limits. Pits impracticable.
Build a mound of stone 2 $\frac{1}{2}$ ft. base, 2 ft. high W. of cor.
Land, mountainous.
Soil, stony 4th rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood and cactus.

East on true line bet. secs. 4 and 33.
Over rolling land.
.20 Wash 10 lks. wide 1 ft. deep course SE.
9.00 Ascend over SW. slope, and change to S. slope.
25.00 Descend E. slope 50 ft. to
35.00 Foot of descent.
38.50 Wash 12 lks. wide 2 ft. deep, course SE.
40.00 Set an iron post 3 ft. long 1 in. in diam. 18 ins. in the ground (could not set deeper on account of solid rock) in a mound of stone 2 ft. base 1 ft. high, for $\frac{1}{4}$ sec. cor.,
 $\frac{1}{4}$ S.33 on N. and
S. 4 on S. half,
1914 on S. rim.
No trees within limits. Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high N. of cor.
40.90 Road brs. N. and S.
50.00 Ascend Steep W. slope, 287 ft. to
62 .75 Top of hill extends 15 chs. to the S.
Descend SE. slope, 296 ft. to
80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap mkd.
T.9 S. R.3 E. on N. half;
S.34 in NE.
S.3 in SE.
S.4 in SW. and
S.33 in NW. quadrants,
T.10 S. on S. half, and
1914 on S. rim.

Chains

No trees within limits. Pits impracticable.
 Build a mound of stone 3 ft. base 2 ft. high W. of cor.
 Land mountainous.
 Soil, stony, 4th rate.
 Timber, scattering scrub palo verde and iron wood.
 Undergrowth, greasewood brush.

East, on true line bet. secs. 3 and 34.

Descend E. slope of mountain.
 .15 2½ in. pipe line brs. N. and S.
 5.00 Foot of Slope, 300 ft. below top of hill.
 18.50 Wash 10 lks. wide 1 ft. deep, course N. 20° E.
 21.90 Road brs. SW. and NE.
 27.60 Road brs. N. and S.
 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the
 ground for ¼ sec. cor. with brass cap. mkd.
 ¼ S. 34 on N., and
 S.3 on S. half;
 1914 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist.
 and raise a mound of earth 3½ ft. base 1½ ft. high
 N. of cor.

54.30 Wash 30 lks. wide 2 ft. deep course N. 80° E.
 59.25 Road brs. N. and S.
 69.80 Wash 10 lks. wide 2 ft. deep, course NE.
 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in
 the ground for cor. of secs. 2, 3, 34 and 35, with
 brass cap mkd.

T.9 S.R.3 E. on N. half;
 S.35 in NE.
 S.2 in SE.
 S.3 in SW. and
 S.34 in NW. quadrants, and
 T.10 S. on S. half, and
 1914. on S. rim.

No trees within limits. Pits impracticable.

Build a mound of stone 3 ft. base 2 ft. high, W. of cor.
 Land, mountainous. Soil stony 4th rate
 Timber, scattering palo verde and iron wood.

East, on true line bet. secs. 2 and 35.

Over level land.
 4.90 Road brs. S. 70° E. and NW.
 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the
 ground for ¼ sec. cor. with brass cap mkd.
 ¼ S.35 on N., and
 S.2 on S. half, and
 1914 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist.
 and raise a mound of earth 3½ ft. base 1½ ft. high
 N. of cor.

65.10 Wash 30 lks. wide, 3 ft. deep course S. 60° E.
 78.00 Wash 5 lks. wide, 3 ft. deep course SE.
 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in
 the ground for cor. of secs. 1, 2, 35 and 36, with
 brass cap mkd.

T.9 S.R.3 E. on N. half,
 S.36 in NE.
 S.1 in SE.
 S.2 in SW. and
 S.35 in NW. quadrants, and
 T.10 S. on S. half.
 1914 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist.
 and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

North boundary of T.10 S.R.3 E.

Chains

Land, level.
Soil, adobe with gravel surface, 2nd rate.
Timber scattering palo verde and iron wood.
Undergrowth, greasewood brush.

East on true line bet. secs. 1 and 36.
Over level land.

- 22.40 Wash 30 lks. wide, 2 ft. deep course N. 75° E.
- 30.00 Wash 30 lks. wide 3 ft. deep course SE.
- 39.25 Wash 10 lks. wide 1 ft. deep course SE.
- 40.00 Set an iron post 3 ft. long 1 1/2 in. diam. 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.
1/4 S.36 on N. ,and
S.1 on S. half,
1914 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

- 80.00 Cor. of TS: 9 and 10 S. Rs. 3 and 4 E., hereinbefore described (scribed).
Land, level.
Soil, adobe with gravel surface, 2nd rate.
Timber scattering palo verde and iron wood.
Undergrowth, greasewood brush.

Dec. 29, 1914.

W. K.K.

Boundaries of T.10 S.,R.3 E.
Latitudes, departures and closing errors.

Line designated	Bearing	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West bdy. of Tp.	North.	480.00	480.00			
North bdy. Tp..	East.	479.71			479.71	
East bdy. Tp.	South.	480.00		480.00		
South bdy. Tp., (2nd. Std. Par. S.)	West.	480.00				480.00
Convergency.					.46	
Totals			480.00	480.00	480.17	480.00
			480.00			
Error in latitude -----			0.00		480.00	
Error in departure -----					0.17	

Survey of North boundary of Township 10 South, Range 4 East. 21

Chains.

W.K.X.
 Survey commenced Jan. 4, 1915.
 I examine the adjustments of the transit, and correct the level and collimation errors, I also correct all errors to be found in the solar apparatus.
 At 9h. a.m., l.m.t., I set off $32^{\circ}35'N$. on the lat. arc; $22^{\circ}45' S$. on the decl. arc, and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 3 and 4 E., established by me, and hereinbefore described.
 Thence I run,
 East, on a random line along north bdy, of Tp., setting $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs., and at 479.56 chs., intersect 1st Guide Meridian East at the cor. of Ts. 9 and 10 S., Rs. 4 and 5 E., reestablished by W. H.T., as described in Book "A."
 True return course of this Tp. bdy. is therefore west.
 Jan. 4 and 6, 1915.

2.00
40.00

Jan. 7, 1915.
 Thence I run,
 West, on a true line, bet. secs. 1 and 36.
 Over level land.
 Wash, 10 lks. wide, 2 ft. deep, course NE.
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 36 in N., and
 S 1 in S half;
 1915 on S. rim;
 no trees within limits. Dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

52.20
55.00
80.00

Road brs. N. $25^{\circ}E$. and SW.
 Descend very gradual slope to W., to
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap, marked
 T 9 S R 4 E on N. half;
 S 36 in NE.,
 S 1 in SE.,
 S 2 in SW., and
 S 35 in NW. quadrants;
 T 10 S on S half;
 1915 on S. rim.
 No trees within limits. Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
 Soil, stony with gravel, 3rd rate.
 Timber, scattering ironwood.
 Undergrowth, greasewood brush.

36.50
40.00

West, on a true line, bet. secs. 2 and 35.
 Over level land.
 Road brs. NE and SW.
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 35 on N., and
 S 2 on S half;
 1915 on S. rim.
 No trees within limits. Dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

22. North boundary of Township 10 South, Range 4 East.

Chains.

71.00 Wash, 15 lks.wide, 5 ft. deep, course N.10°E.
 74.10 Wash, 20 lks.wide, 10 ft. deep, course N.
 80.00 Set an iron post 3 ft. long, 3 ins.in diam., 24 ins. in
 the ground for cor.of secs. 2, 3, 34 and 35, with brass
 cap, marked

T 9 S R 4 E on N.half,
 S 35 on NE.,
 S 2 on SE.,
 S 3 on SW., and
 S 34 in NW. quadrants; and
 T 10 S in S.half;
 1915 in S rim.

No trees within limits.

Dig pits 18x18x12 ins., in each sec. 5½ ft. dist., and
 raise a mound of earth 4 ft. base, 2 ft. high, W.of cor.
 Land, level.

Soil, gravelly, 2nd rate.

Timber, scattering ironwood and mesquite.

Undergrowth, greasewood brush.

 West, on a true line, bet. secs. 3 and 34.

Over level land.

2.00 Wash, 15 lks.wide, 7 ft. deep, course N.
 5.30 Wash, 10 lks.wide, 2 ft. deep, course N. 20°E.
 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground for ¼ sec.cor., with brass cap, marked

¼ S 34 in N., and
 S 3 in S.half;
 1915 on S.rim;

no trees within limits; dig pits 18x18x12 ins., E.
 and W.of cor. 3 ft. dist., and raise a mound of earth
 3½ ft. base, 1½ ft. high, N.of cor.

62.00 Road from Indian Village to Jack Rabbit mine brs.N.70°E.
 and S.70°W.

80.00 Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in
 the ground for cor.of secs. 3, 4, 33 and 34, with
 brass cap, marked

T 9 S R 4 E on N.half;
 S 34 on NE.,
 S 3 on SE.,
 S 4 on SW., and
 S 33 on NW. quadrants;
 T 10 S on S.half;
 1915 on S.rim.

No trees within limits.

Dig pits 18x18x12 ins., in each sec. 5½ ft. dist., and
 raise a mound of earth 4 ft. base, 2 ft. high, W.of cor.
 Land, level.

Soil, adobe, 1st rate.

Timber, scattering scrub mesquite.

Undergrowth, greasewood brush.

North boundary of T.10 S.R.4 E.

West, on true line bet. secs. 4 and 33.
 Over level land.
 3.00 Road brs. NE. and SW.
 35.00 Road brs. NE. and SW.
 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S.33 on N., and
 S.4 on S. half;
 1915 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.
 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass cap mkd.
 T.9 S.R.4 E. on N.half;
 S.33 in NE.
 S.4 in SE.
 S.5 in SW. and
 S.32 in NW. quadrants,
 T.10 S. on S. half,
 1915 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
 Land, level.
 Soil, adobe 1st rate.
 Timber, scattering mesquite.
 Undergrowth, greasewood brush.

West, on true line bet. secs. 5 and 32.
 Over level land.
 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S.32 on N. and
 S.5 on S. half,
 1915 on S. rim.
 No trees within limits.
 Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high N. of cor.
 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, with brass cap mkd.
 T.9 S.R.4 E. on N.half;
 S.32 in NE.
 S.5 in SE.
 S.6 in SW. and
 S. 31 in NW. quadrants,
 T.10 S. on S. half,
 1915 on S. rim.
 No trees within limits
 Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
 Land, level.
 Soil, sandy adobe, 1st rate.
 Timber, scattering mesquite.
 Undergrowth, greasewood brush,

West, on true line bet. secs. 6 and 31.
 Over level land.
 8.00 Road brs. NE. and SW.
 40.00 Set an iron post 3 rft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S.31 on N. and
 S.6 on S. half,

24.

North boundary of T.10 S.R.4 E.

72.00
79.56

1915 on S. rim.
No trees within limits.
Dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist.
and raise a mound of earth 3½ ft. base 2 ft. high
N. of cor.
Road brs. NE. and SW.
Cor. of Ts. 9 and 10 S., Rs. 3 and 4. E., as established
by me and heretofore described. of the N. by of
T.10 S., R.4 E. S. 10000".
Land, level.
Soil, adobe, 1st rate.
Timber, scattering mesquite.
Undergrowth, greasewood brush.

W.K.K.
Jan. 7, 1915.

Boundaries of T.10 S., R.4 E.
Latitudes, departures and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N	S	E	W
West Tp. bdy.	North.	480.00	480.00			
North Tp. bdy.	East.	479.56			479.56	
East Tp. bdy. (1st Guide Mer. E)	South	480.00	480.00	480.00		
S Tp. bdy. (2nd. Std. Par. S.)	West, West.	480.00 480.00		480.00		480.00
Convergency.					.46	
Totals			480.00	480.00	480.02	480.00
Error in latitude-----			480.00		480.00	
Error in departure-----					0.02	

Survey of West boundary of Township 10 South Range 5 East. 25.

Chains.

W.K.K.
Survey commenced Jan. 16, 1915.
At 9h.a.m., l.m.t., I set off 32°30 1/2' N. on the lat. arc; 21°1' S. on the decl. arc; and determine a meridian with the solar at the standard cor. of Ts. 10 S., Rs. 5 and 6 E., re-established by W. H. Thorn, U.S. Surveyor, and described in Book "A." Thence I run,
North, between secs. 31 and 36.
Over level land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 36 on W., and
S 31 on E. half;
1915 on S. rim;
dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
79.95 Wash, 10 lks. wide, 1 ft. deep, course N. 10° W.
80.00 True point for sec. cor. falls in wash; therefore at
80.75 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for W. C. cor. of secs. 25, 30, 31 and 36, with brass cap, marked T 10 S W C on N. half;
R 6 E S 30 in NE.,
S 31 in SE.,
S 36 in SW., and
R 5 E S 25 in NW. quadrants;
1915 on S. rim.
Dig pits 18x18x12 ins., NE., SE., SW. and NW. of cor. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level. Soil, adobe, 1st rate.
Undergrowth, greasewood and sagebrush.

North, between secs. 25 & 30, from true point for sec. cor.
Over level land.

0.75 Witness cor. to cor. of secs. 25, 30, 31 and 36, described above.
11.00 Wash, 12 lks. wide, 1 ft. deep, course NW.
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 25 on W., and
S 30 on E. half; 1915 on S. rim.
Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in ground for cor. of secs. 19, 24, 25 & 30, with brass cap, marked
T 10 S on N. half;
R 6 E S 19 in NE.,
S 30 in SE.,
S 25 in SW., and
R 5 E S 24 in NW. quadrants;
1915 on S. rim;
dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level. Soil, adobe, 1st rate.
Undergrowth, sage brush and greasewood brush.

North, between secs. 19 and 24.
Over level land.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 24 on W., and
S 19 on E. half;
1915 on S. rim.
Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap, marked
T 10 S on N. half;
R 6 E S 18 in NE.,
S 19 in SE.,
S 24 in SW., and
R 5 E S 13 in NW. quadrants;
1915 on S. rim.

26. East boundary of Township 10 South, Range 5 East.

Chains

Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level. Soil, adobe, 1st rate. Undergrowth, greasewood and sagebrush.

North, between secs. 13 and 18. Over level land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked S 13 on W., and S 18 on E. half; 1915 on S. rim.

80.00 Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor. Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap, marked T 10 S on N. half; R 6 E S 7 in NE., S 18 in SE., S 13 in SW., and R 5 E S 12 in NW. quadrants; 1915 on S rim.

Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level. Soil, adobe, 1st rate. Undergrowth, greasewood and sagebrush.

North, between secs. 7 and 12. Over level land.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked S 12 on W., and S 7 on E. half; 1915 on S. rim.

46.50 Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor. Road, brs. E and W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 1, 6, 7 and 12, with brass cap, marked T 10 S on N. half; R 6 E S 6 in NE., S 7 in SE., S 12 in SW., and R 5 E S 1 in NW. quadrants; 1915 on S. rim.

Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level. Soil, adobe, 1st rate. Undergrowth, greasewood and sagebrush.

North, bet. secs. 1 and 6. Over level land.

19.80 Wash, 10 lks. wide, 1 ft. deep, course E. 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., with brass cap, marked S 1 on W., and S 6 on E. half; 1915 on S. rim.

80.00 Dig pits 18x18x12 ins. N. & S. of cor., 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor. Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 9 and 10 S., Rs. 5 and 6 E., with brass cap, marked T 9 S on N. half; R 6 E S 31 on NE., S 6 in SE., S 1 in SW., and R 5 E S 36 in NW. quadrants; T 10 S on S. half; 1915 on S. rim.

Dig pits 24x24x12 ins. N., E. & W. of cor. 4 ft. and S. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, 2 1/2 ft. high, S. of cor. Land, level. Soil, adobe, 1st rate. Undergrowth, greasewood, sagebrush and mesquite.

W.K.K. Jan. 16. 1915.

Survey of North boundary of Township 10 South Range 5 East 27

Chains.

W. K. K.
 Survey commenced Jan. 10, 1915.
 I examine the adjustments of the transit, and correct the level and collimation errors.
 For establishment of meridian by observations on Polaris, see Book "F."
 I set over station on meridian established by observations on Polaris, near camp in sec. 10, T. 10 S., R. 4 E., and at 9h. a.m., l.m.t., I set off 32°34' N. on the lat. arc; 22° 0 $\frac{1}{2}$ ' S. on the decl. arc, and determine a meridian with the solar. The meridian thus determined falls less than 1' to the E. of the true meridian.
 At 3h. p.m., l.m.t., I set off 32°34' N. on the lat. arc; 21° 59' S. on the decl. arc, and determine a meridian with the solar. The meridian thus determined falls less than 1' W. of the true meridian.
 Meridians determined by the solar apparatus between the hours of 9 a.m. and 3 p.m. give similar results; therefore I conclude that the adjustments of the solar are satisfactory. Jan. 10, 1915.

Jan. 15, 1915: At 9h. a.m., l.m.t., I set off 32° 35 $\frac{1}{2}$ ' N. on the lat. arc; 21° 12 $\frac{1}{2}$ ' S. on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 4 and 5 E. on 1st Guide Meridian East, re-established by W.H. Thorn, and described in Book "A".
 Thence I run East on a random line, setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs., and at 479.30 chs. fall 5 lks. S. of the cor. of Ts. 9 and 10 S., Rs. 5 and 6 E., herein before described. This falling gives a true return course for this Tp. bdy. of West. Jan. 15, 1915.

Jan. 16, 1915.
 Thence I run, West, on true line, between secs. 1 and 36.
 Over level land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 36 on N., and
 S 1 on S half;
 1915 on S rim;
 dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

61.20 Wash, 10 lks. wide, 1 ft. deep, course N. 70° W.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap, marked
 T 9 S R 5 E on N. half;
 S 36 in NE.,
 S 1 in SE.,
 S 2 in SW., and
 S 35 in NW. quadrants;
 T 10 S on S. half;
 1915 on S. rim;
 dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
 Soil, adobe, 1st rate.
 Undergrowth, greasewood and mesquite brush.

 West, on a true line, bet. secs. 2 and 35.
 Over level land.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 35 on N., and
 S 2 on S. half;
 1915 on S. rim.

28. North boundary of Township 10 South, Range 5 East.

Chains.

Dig pits 18x18x12 ins., E. and W. of cor1, 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.

44.88 Wash, 10 lks. wide, 1 ft. deep, course N. 20° W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap, marked

T 9 S R 5 E on N. half;
S 35 on NE.,
S 2 in SE.,
S 3 in SW., and
S 34 in NW. quadrants;
T 10 S on S. half;
1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level.

Soil, adobe, 1st rate.

Undergrowth, greasewood and mesquite brush.

West, on a true line, between secs. 3 and 34.

Over level land.

32.30 Wash, 10 lks. wide, 1 ft. deep, course NW.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked

1/4 S 34 on N., and
S 3 on S. half;
1915 on S. rim;

dig pits 18x18x12 ins. E. and W. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.

47.00 Wash, 10 lks. wide, 1 ft. deep, course NW.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap, marked

T 9 S R 5 E on N. half;
S 34 in NE.,
S 3 in SE.,
S 4 in SW., and
S 33 in NW. quadrants,
T 10 S in S. half;
1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level.

Soil, adobe, 1st rate.

Undergrowth, greasewood and mesquite brush.

West, on a true line, bet. secs. 4 and 33.

Over level land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., with brass cap, marked

1/4 S 33 on N., and
S 4 on S. half;
1915 on S. rim.

Dig pits 18x18x12 ins., E. and W. of cor1, 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 4, 5, 32 and 33, with brass cap, marked

T 9 S R 5 E on N. half;
S 33 in NE.,
S 4 in SE.,
S 5 in SW., and
S 32 in NW. quadrants;
T 10 S in S. half;
1915 on S. rim.

Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and raise a

North boundary of Township 10 South, Range 5 East. 29.

Chains.

mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level.
Soil, adobe, 1st rate.
Undergrowth, greasewood and mesquite brush.

West, on a true line, bet. secs. 5 and 32.
Over level land.

- 8.40 Road brs. N. 5° E. and S. 5° W.
- 28.70 Road brs. N. 5° E. and S. 5° W.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 - $\frac{1}{4}$ S 32 in N., and
 - S 5 on S. half;
 - 1915 on S. rim.
- Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 69.20 Road brs. N. and SW.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for co. of secs. 5, 6, 31 and 32, with brass cap, marked

- T 9 S R 5 E on N. half;
- S 32 in NE.,
- S 5 in SE.,
- S 6 in SW., and
- S 31 in NW. quadrants;
- T 10 S on S. half;
- 1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level.
Soil, sandy loam, 1st rate.
Undergrowth, sage brush.

West, on a true line, between secs. 6 and 31.
Over level land.

- 14.30 Road brs. NW. and SE.
- 24.30 Ascend NE slope, 75 ft. to
- 32.60 Top of small ridge slopes to the S.
Descend SW. slope to
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 - $\frac{1}{4}$ S 31 on N., and
 - S 6 on S. half;
 - 1915 on S. rim.
- Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- Over rolling land.
- 56.70 Road brs. NW. and SE.
- 78.40 Wash, 10 lks. wide, 2 ft. deep, course N.
- 79.30 Cor. of Ts. 9 and 10 S., Rs. 4 and 5 E., on First Guide Meridian East, reestablished by W. H. Thorn, U. S. Surveyor, and described in Book "A".
Land, level and rolling.
Soil, 20 chs., sandy loam, 1st rate; remainder stony, 3rd rate.

Jan. 16, 1915.
W.K.K.

30. Boundaries of Township 10 South, Range 5 East.

Latitudes, departures, and closing errors.

Line designated.	Bearing.	Distance	Latitudes.		Departures.	
			N.	S.	E.	W.
West bdy. (1st. Guide Mer. E.)	North,	480.00	480.00			
North bdy.	East,	479.30			479.30	
East bdy.	South,	480.00		480.00		
South bdy. (2nd. Std. Par. S.)	West,	480.00				480.00
Convergency,					.46	
<u>Totals</u>			480.00	480.00	479.76	480.00
				480.00		479.76
<u>Error in latitude</u>			----- 0.00			
<u>Error in departure</u>			----- 0.24			

Chains

W.K.K.
 Survey commenced Jan. 25, 1915. ~~was prepared with Young~~
~~and Tank Light mount: Infrared Co. 2400, as described~~
~~in book, "A".~~
 From recent tests and observations, I know the solar
 apparatus to be in good adjustment.
 For tests of the solar apparatus on a mer. established by
 observations on Polaris, see book "E".

At 9 h., a.m. l.m.t., I set off $32^{\circ} 30\frac{1}{2}'$ N. on the lat. arc;
 $19^{\circ} 5'$ S. on the decl. arc; and determine a mer. with
 the solar, at the std. cor. of Ts. 10 S., Rs. 6 and 7
 E., reestablished by W.H.Thorn, U.S.Surveyor, and
 described in book "A".

Thence I run
 North, between secs. 31 and 36.
 Over gradual NW. slope, through palo verde and iron wood
 timber.

37.60 Wash, 10 lks. wide, 1 ft. deep, course, N. 80° W.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in t
 the ground for $\frac{1}{4}$ sec. cor., with brass cap mkd.
 $\frac{1}{4}$ S 36 on W, and
 S 31 on E. half, and
 1915 on S. rim.

No trees within limits.
 Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist.
 and raise a mound of earth $3\frac{1}{2}$ ft. base 2 ft. high
 W. of cor.

43.50 Wash, 10 lks. wide, 1 ft. deep, course, N. 80° W.
 50.20 Wash, 10 lks. wide, 1 ft. deep, course, N. 60° W.
 80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the
 ground for cor. of secs. 25, 30, 31 and 36, with
 brass cap mkd.
 T 10 S on N. half;
 R 7 E. S 30 in NE.
 S 31 in SE.
 S 36 in SW and
 R 6 E S 25 in NW. quadrants,
 1915 on S. rim.

from which,
 An iron wood 10 ins. in diam. brs. N. $69\frac{1}{4}^{\circ}$ E.
 83 lks. dist. mkd. T 10 S R 7 E S 30 B T.
 An iron wood 10 ins. in diam. brs. S. $60\frac{1}{4}^{\circ}$ E.
 175 lks. dist. mkd. T 10 S R 7 E S 31 B T.
 A palo verde 6 ins. in diam. brs. S 28° W.
 138 lks. dist. mkd. T 10 S R 6 E S 36 B T.
 An iron wood 24 ins. in diam. brs. N. $27\frac{1}{2}^{\circ}$ W.
 175 lks. dist. mkd. T 10 S R 6 E S 25 B T.

Land, gentle NW. slope.
 Soil, sandy, 2nd rate.
 Timber, iron wood and palo verde.
 Undergrowth, greasewood and cacti.

1.20
40.00

North, between Secs. 25 and 30.
 Over gradual NW. slope.
 Wash 12 lks. wide, 1 ft. deep, course, NW.
 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the
 ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S 25 on W., and
 S 30 on E. half, and
 1915 on S. rim.

No trees within limits.
 Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist.
 and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high
 W. of cor.

53.30 Road, brs., N. 60° W. and S. 60° E.
 65.40 Wash, 8 lks. wide, 1 ft. deep, course, NW.

32. Survey of East boundary of T.10 S., R.6 E.

Chains

80.00

Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 10 S on N. half;

R 7 E S 19 in NE.

S 30 in SE.

S 25 in SW. and

R 6 E S 24 in NW quadrants, and

1915 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land, gentle NW. slope.

Soil, sandy, 2nd rate.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood brush.

North, between secs. 19 and 24.

Over level land.

40.00

Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground, for ¼ sec. cor. with brass cap mkd.

¼ S 24 on W., and

S. 19 on E. half, and

1915 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor. cap mkd.

80.00

Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

T 10 S on N. half;

R 7 E S 18 in NE.

S 19 in SE.

S 24 in SW. and

R 6 E S 13 in NW. quadrants, and

1915 on S. rim.

No trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, scattering mesquite.

Undergrowth, greasewood brush.

North, between secs. 13 and 18.

Over level land.

40.00

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

¼ S 13 on W., and

S 18 on E. half, and

1915 on S. rim.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high W. of cor.

80.00

Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 10 S. on N. half;

R 7 E S 7 in NE.

S 18 in SE.

S 13 in SW. and

R 6 E S 12 in NW. quadrants, and

1915 on S. rim.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Undergrowth, greasewood brush.

East boundary of Township 10 South, Range 6 East.

Chains.

Land, level.
 Soil, sandy loam, 1st rate.
 Undergrowth, sage brush.
 At this cor., I set off 19°4' S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting latitude is 32°34' N.

North, between secs. 7 and 12.
 Over level land.

- 17.00 High water mark of Santa Cruz reservoir.
- 30.00 Edge of water in reservoir, brs. E. and W.
- 40.00 True point for $\frac{1}{4}$ sec. cor. falls in reservoir; water about 1 ft. deep; therefore at
- 27.70 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to $\frac{1}{4}$ sec. cor., with brass cap,
 W C on N.,
 $\frac{1}{4}$ S 12 on W., and
 S 7 on E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 80.00 At this point, water is shallow; I therefore
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap, marked

T 10 S on N. half;
 R 7 E S 6 in NE.,
 S 7 in SE.,
 S 12 in SW., and
 R 6 E S 1 in NW. quadrants;
 1915 on S. rim;

dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
 Soil, adobe, 1st rate.
 No timber.
 Undergrowth, sagebrush.
 Note: The portion of the reservoir crossed by this line is dry during all but the rainy season, as part of the dam has been washed away.

North, bet. secs. 1 and 6.

- 40.00 Across shallow muddy part of Santa Cruz Reservoir. Impracticable to set $\frac{1}{4}$ sec. cor. at this time on account of mud and water.

Set temp. $\frac{1}{4}$ sec. cor. Jan. 25, 1915.
 Feb. 15, 1916. This point being dry on this date, I
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 1 on W., and
 S 6 on E. half;
 1915 on S. rim;

dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Feb. 15, 1915.

- 80.00 Jan. 25, 1915. Set temp. cor. of Ts. 10 S., Rs. 6 and 7 E., Impracticable to set permanent cor. at this date on account of mud and water. Jan. 25, 1915.

~~Feb. 15, 1915. This point being dry at this date, I
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked~~

~~$\frac{1}{4}$ S 1 on W., and
 S 6 on E. half;
 1915 on S. rim;~~

~~dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Feb. 15, 1915.~~

34. East boundary of Township 10 South Range 6 East

Chains.

Feb. 15, 1915:

This point now being dry, I set an iron post 3 ft. long,
3 ins. in diam., 24 ins. in the ground for cor. of Ts.
10 S., Rs. 6 and 7 E., with brass cap, marked

R 7 E S 6 in SE., and

R 6 E S 1 in SW. quadrants;

T 10 S on S. half;

1915 on S. rim;

dig pits 30x24x12 ins. crosswise on each line, E. and W.,
4 ft., and S. of cor. 8 ft. dist., and raise a mound of
earth 5 ft. base, 2½ ft. high, S. of cor.

W. K. K. Feb. 15, 1915.

Survey of South bdy. of Township 9 South, Range 6 East. 35.

Chains.

W.K.K.

Jan. 26, 1915: At 8h. Om. a.m., l.m.t., I set off 32° 35' N. on the lat. arc; 18° 49' S. on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 5 and 6 E., hereinbefore described.

Knowing from the resurvey of the 2nd. Standard Parallel South, by W.H.T. that the S. bdy. of T. 9 S., R. 6 E. will exceed 480 chs. in length, and said township being contiguous to old accepted surveys on the north and east, necessitating the survey of the subdivision of said Tp. from west to east, and T. 10 S., R. 6 E. being regular will be subdivided from east to west in the usual manner; therefore, I survey this township boundary as follows:

From cor. of Ts. 9 and 10 S., Rs. 5 and 6 E., I run east on a random line, setting a temporary 1/4 sec. cor. at 39.50 chs. (40.00 chs. - convergency of 50 lks.) to refer to sec. 6 of T. 10 S., R. 6 E., and at intervals of 40.00 chs. thereafter set temp. sec. and 1/4 sec. cors. for secs. in same township. At 40.00 chs. E. of the Tp. cor., I set temp. 1/4 sec. cor. referring to sec. 31 of T. 9 S., R. 6 E., and at intervals of 40.00 chs. thereafter set temp. sec. and 1/4 sec. cors. for secs. in same Tp. At a dist. of 479.30 chs. east of Tp. cor. random line intersects the temp. cor. of Ts. 10 S., Rs. 6 and 7 E. hereinbefore described.

W.K.K.
Jan. 26, 1915.

Feb. 4, 1915. W.H.T.

Continue random line and measurement east until at 561.61 chs. intersect west bdy. of T. 9 S., R. 7 E., 6.63 chs. south of the original 1/4 sec. cor. of sec. 31, and 33.77 chs. north of the SW. cor. of said Tp. both of which old cors. are later reestablished by me, as hereinafter described.

At point of intersection, I set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for SE. cor. of T. 9 S., R. 6 E., with brass cap, marked

T 9 S R 6 E S 36 in NW. quadrant;
1915 on S. rim;

dig pits 36x36x12 ins. on each line N. and W. of cor., 8 ft. dist., and raise a mound of earth, 5 ft. base, 2 1/2 ft. high, NW. of cor.

Thence I run,

West, on a true line, on S. bdy. of sec. 36.

Over level bed of Santa Cruz Reservoir, which was filled with water until a recent breaking of the dam, released the water. Scattering growth of sage brush.

42.31 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. to sec. 6 of T. 10 S., R. 7 E., marked on brass cap,

1/4 S 6 on S. half;
1915 on S. rim.

Dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, S. of cor.

82.31 Intersect temp. cor. of Ts. 10 S., Rs. 6 and 7 E., Feb. 4, 1915, W.H.T.

Feb. 15, 1915: W.K.K. Replace this temp. Tp. cor., with iron post as hereinbefore described.

Thence I run,

West, on south bdy. of sec. 36, continuing measurement. Over Santa Cruz Reservoir bed.

121.61 True point for 1/4 sec. cor. of sec. 36 of T. 9 S., R. 6 E. falls in mud and water. Impracticable to establish 1/4 sec. cor. at this point.

122.31 True point for 1/4 sec. cor. of sec. 1 of T. 10 S., R. 6 E. falls in mud and water.

Impracticable to establish 1/4 sec. cor. at this point; therefore at

126.31 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to 1/4 sec. cors. of secs. 1 and 36, with brass cap, marked

36. South boundary of Township 9 South, Range 6 East.

- Chains. WC on E.,
 $\frac{1}{4}$ S 36 on N., and
 S 1 on S^half;
 1915 on S.rim.
 Dig pits 18x18x12 ins., E.and W. of cor., 3 ft. dist., and
 raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.of
 cor. Leave bed of Santa Cruz Reservoir.
- 137.41 Road brs.NE. and SW.
 161.61 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground for cor.of secs.35 and 36 of T.9 S.,R.6 E.
 with brass cap, marked
 T 9 S R 6 E on N.half;
 S 36 in NE., and
 S 35 in NW. quadrants;
 1915 on S.rim.
 Dig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist.,
 and raise a mound of earth 4 ft. base, 2 ft.high, N.
 of cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, greasewood brush.
-
- West, on a true line, on S.bdy.of sec.35.
 Over level land.
- 0.70 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground for cor.of secs. 1 and 2, with brass cap,
 marked
 T 10 S R 6 E on S.half;
 S 1 in SE.,
 S 2 in SW. quadrants, and
 1915 on S rim.
 Dig pits 24x24x12 ins. SE. and SW.of post, 6 ft. dist.,
 and raise a mound of earth 4 ft.base, 2 ft.high, S.of
 cor.
- 6.70 Wash, 15 lks.wide, 1 ft. deep, course SE.
 26.70 Wash, 20 lks.wide, 3 ft. deep, course S.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor. to sec.35, T.9 S.,R.6 E.,
 with brass cap, marked
 $\frac{1}{4}$ S 35 on N.half;
 1915 on S rim.
 Dig pits 18x18x12 ins., E.and W. of cor., 3 ft. dist.,
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,
 N.of cor.
- 40.70 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor. to sec, 2, T.10 S.,R.6 E.,
 with brass cap, marked.
 $\frac{1}{4}$ S 2 on S.half;
 1915 on S rim.
 Dig pits 18x18x12 ins.; E.and W.of cor., 3 ft. dist., and
 raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, S.of
 cor.
- 61.70 Wash, 20 lks.wide, 1 ft. deep, course S.
 73.30 Wash, 30 lks.wide, 3 ft. deep, course S.
 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 20 ins. in
 the ground to solid rock in a mound of stone $2\frac{1}{2}$ ft.
 base, 6 ins. high, for cor.of secs. 34 and 35, T.9 S.,R.
 6 E., with brass cap, marked
 T 9 S R 6 E on N. half;
 S 35 in NE., and
 S 34 in NW. quadrants;
 1915 on S.rim.
 Build a mound of stone $3\frac{1}{2}$ ft. base, 3 ft.high, N.of cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, greasewood brush.
-

Chains.

West, on a true line on south bdy. of sec. 34.
Over level land.

- 0.70 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 2 and 3, with brass cap, marked
- 31.30 Build a mound of stone 2 1/2 ft. base, 2 ft. high, S. of cor. Ravine, 50 lks. wide, 6 ft. deep, course S.
- 35.70 Over rolling land.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock in a mound of stone 3 1/2 ft. base, 2 1/2 ft. high, for 1/4 sec. cor. to sec. 34, T. 9 S., R. 6 E., with brass cap, marked

T 10 S R 6 E on S. half;
S 2 in SE.,
S 3 in SW. quadrants; and
1915 on S. rim.

Build a mound of stone 2 1/2 ft. base, 2 ft. high, S. of cor. Ravine, 50 lks. wide, 6 ft. deep, course S.

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock in a mound of stone 3 1/2 ft. base, 2 1/2 ft. high, for 1/4 sec. cor. to sec. 34, T. 9 S., R. 6 E., with brass cap, marked
- 40.70 Ascend steep rocky E. slope.
- 40.70 Set an iron post 3 ft. long, 1 in. in diam., on surface rocky in a mound of stone 3 ft. base, 2 1/2 ft. high, for 1/4 sec. cor. to sec. 3, T. 10 S., R. 6 E., with brass cap, marked
- 48.70 Build a mound of stone 2 1/2 ft. base, 2 ft. high, S. of cor. Cliff about 125 ft. high, brs. N. and S.
- 50.90 Top of hill, 300 ft. high, brs. N. and S.
- 61.70 Descend NW. slope, 137 ft. to Ravine, 20 lks. wide, 3 ft. deep, course N.
- 68.20 Ascend steep rocky E. slope, 250 ft. to Top of spur ridge, brs. NE. and SW.
- 77.70 Descend steep west slope, 319 ft. to Change to N. slope.
- 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 8 ins. in the ground to solid rock, in a mound of stone, 2 ft. base, 1 1/2 ft. high, for cor. of secs. 33 and 34, T. 9 S., R. 6 E., with brass cap, marked.

1/4 S 34 on N. half;
1915 on S. rim;

build a mound of stone 3 1/2 ft. base, 3 ft. high, N. of cor.

1/4 S 3 on S. half; and
1915 on S. rim.

Build a mound of stone 2 1/2 ft. base, 2 ft. high, S. of cor.

- 48.70 Cliff about 125 ft. high, brs. N. and S.
 - 50.90 Top of hill, 300 ft. high, brs. N. and S.
 - 61.70 Descend NW. slope, 137 ft. to Ravine, 20 lks. wide, 3 ft. deep, course N.
 - 68.20 Ascend steep rocky E. slope, 250 ft. to Top of spur ridge, brs. NE. and SW.
 - 77.70 Descend steep west slope, 319 ft. to Change to N. slope.
 - 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 8 ins. in the ground to solid rock, in a mound of stone, 2 ft. base, 1 1/2 ft. high, for cor. of secs. 33 and 34, T. 9 S., R. 6 E., with brass cap, marked.
- T 9 S R 6 E on N. half;
S 34 in NE., and
S 33 in NW. quadrants;
1915 in S. rim.
- Build a mound of stone, 3 1/2 ft. base, 3 ft. high, N. of cor. Land, mountainous and rolling.
Soil, stony, 3rd and 4th rate.
No timber.
Undergrowth, greasewood brush and cacti.

West, on a true line, on south bdy. of sec. 33.
Along N. slope of mountain.

- 0.70 Set an iron post 3 ft. long, 2 ins. in diam., on surface rock, in a mound of stone 3 ft. base, 3 ft. high, for cor. of secs. 3 and 4, T. 10 S., R. 6 E., with brass cap, marked
- 4.70 Build a mound of stone 3 ft. base, 3 ft. high, S. of cor. Descend west slope, 134 ft. to
- 15.70 Foot of descent. Thence over rolling land.
- 21.70 Wash, 30 lks. wide, 3 ft. deep, course S.
- 39.70 Change to gently rolling land.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 8 ins. in the ground to solid rock, in a mound of stone 3 ft. base, 1 1/2 ft. high for 1/4 sec. cor. to sec. 33, T. 9 S., R. 6 E.,

T 10 S R 6 E on S. half;
S 3 in SE., and
S 4 in SW. quadrants;
1915 on S. rim.

Build a mound of stone 3 ft. base, 3 ft. high, S. of cor.

38. South boundary of Township 9 South, Range 6 East.

Chains.

- with brass cap, marked
 $\frac{1}{4}$ S 33 on N. half;
 1915 on S. rim.
- 40.70 Build a mound of stone 3 ft. base, 2 ft. high, N. of cor.
 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in the ground, to solid rock, in a mound of stone $2\frac{1}{2}$ ft. base, 2 ft. high, for $\frac{1}{4}$ sec. cor., to sec. 4, T. 10 S., R. 6 E., with brass cap, marked
 $\frac{1}{4}$ S 4 on S. half;
 1915 on S. rim.
- 79.90 Build a mound of stone 3 ft. base, 2 ft. high, S. of cor.
 Wash, 15 lks. wide, 1 ft. deep, course S.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 32 and 33, T. 9 S., R. 6 E., with brass cap, marked
 T 9 S R 6 E on N. half;
 S 33 in NE., and
 S 32 in NW. quadrants;
 1915 on S. rim;
 build a mound of stone $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, N. of cor.
 Land, rolling.
 Soil, sandy and rocky, 3rd and 4th rate.
 No timber.
 Undergrowth, greasewood brush and cacti.
-
- West, on a true line, on S. bdy. of sec. 32.
 Over level land.
- 0.70 Set an iron post 3 ft. long, 2 ins. in diam., 20 ins. in the ground to solid rock in mound of stone 2 ft. base, 1 ft. high, for cor. of secs. 4 and 5, T. 10 S., R. 6 E., with brass cap, marked
 T 10 S R 6 E on S. half;
 S 4 in SE.,
 S 5 in SW. quadrants;
 1915 in S rim;
- 40.00 build a mound of stone 3 ft. base, 3 ft. high, S. of cor.
 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in the ground, to solid rock, in a mound of stone $2\frac{1}{2}$ ft. base, 20 ins. high, for $\frac{1}{4}$ sec. cor., to sec. 32, T. 9 S., R. 6 E., with brass cap, marked
 $\frac{1}{4}$ S 32 on N. half;
 1915 on S. rim.
- 40.70 Build a mound of stone $2\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, N. of cor.
 Set an iron post 3 ft. long, 1 in. in diam., 15 ins. in the ground, to solid rock, in a mound of stone, 2 ft. base 1 ft. high, for $\frac{1}{4}$ sec. cor. to sec. 5, T. 10 S., R. 6 E., with brass cap, marked
 $\frac{1}{4}$ S 5 on S. half; and
 1915 on S. rim,
- 80.00 Build a mound of stone $2\frac{1}{2}$ ft. base, 2 ft. high, S. of cor.
 Set an iron post 3 ft. long, 2 ins. in diam., 20 ins. in the ground to solid rock, in a mound of stone, $1\frac{1}{2}$ ft. base, 6 ins. high for cor. of secs. 31 and 32 T. 9 S., R. 6 E., with brass cap, marked
 T 9 S R 6 E on N. half,
 S 32 in NE., and
 S 31 in NW. quadrants;
 1915 in S rim.
- Build a mound of stone $2\frac{1}{2}$ ft. base, 2 ft. high, N. of cor.
 Land, level.
 Soil, stony, 3rd rate.
 Timber, scattering palo verde; undergrowth, greasewood.
-
- West, on a true line, on S. bdy. of sec. 31.
 Over level land.
- 0.70 True point for cor. of secs. 5 and 6, T. 10 S., R. 6 E., falls in wash, 15 lks. wide, 2 ft. deep, course N. 70° W.; there-

South boundary of Township 9 South, Range 6 East. 39.

Chains.

fore at

2.05 Set an iron post 3 ft. long, 2 ins. in diam., 15 ins. in the ground, to solid rock, in a mound of stone, 2 ft. base, 1 ft. high, for witness cor. to cor. of secs. 5 and 6, T.10 S., R.6 E., with brass cap, marked
W C T 10 S R 6 E on S. half;
S 5 in SE.,
S 6 in SW. quadrants;
1915 in S rim.

38.80 Build a mound of stone, 3 ft. base, 2 ft. high, S. of cor. Wash, 10 lks. wide, 1 ft. deep, course SW.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground to solid rock, in a mound of stone 1½ ft. base, 1½ ft. high, for ¼ sec. cor. to sec. 31, T.9 S., R.6 E., with brass cap, marked
¼ S 31 in N. half;
1915 on S. rim.

40.70 Build a mound of stone 3 ft. base, 2½ ft. high, N. of cor. Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground to solid rock, in a mound of stone, 2 ft. base, 1 ft. high, for ¼ sec. cor. to sec. 6, T.10 S., R.6 E. with brass cap, marked,
¼ S 6 on S. half,
1915 on S. rim.

80.00 Dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, S. of cor. Cor. of Ts. 9 and 10 S., Rs. 5 and 6 E., established by me, and hereinbefore described.
Land, level.
Soil, stony, 2nd rate for E. half mile; remainder sandy loam, 2nd rate.
Undergrowth, greasewood and cacti.
No timber.

W.K.K. Jan. 26, 1915.

Boundaries of T. 10 S., R. 6 E.
Latitudes, departures, and closing errors.

Lines designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North,	480.00	480.00			
North Tp. bdy.	East,	479.30			479.30	
East Tp. bdy.	South	480.00		480.00		
South Tp. bdy. (2nd. Std. Par. S.)	West,	480.00				480.00
Convergency,					.46	
Totals.			480.00	480.00	479.76	480.00
				480.00		479.76
			Error in latitude----- 0.00			
			Error in departure-----			0.24

40/ Retracement of the West bdy. of Township 10 S., R. 8 E.

Chains.

W.H.T.

Retracement commenced Feb. 9, 1915.

Feb. 7, 1915, I examine the adjustments of the transit, and correct the level and collimation errors. Then to test the solar apparatus by a.m. and p.m. observations on a meridian established by observations on Polaris, I proceed as follows:

At a point near camp in sec. 15, T. 10 S., R. 7 E., at 10h., 19m. a.m., l.m.t., I observe Polaris at Eastern elongation in accordance with instructions in the Manual, and lay off the azimuth of Polaris $1^{\circ}21'$ to the west, and mark the meridian thus determined by a rod set on line 10 chs. N. of my station.

At 10h. 30m., a.m., l.m.t., I set off $32^{\circ}33'N.$ on the lat. arc; $15^{\circ}28'S.$ on the decl. arc, and determine a meridian with the solar. The meridian thus determined coincides with the meridian established by observations on Polaris.

At 3h. p.m., l.m.t., I set off $32^{\circ}33'N.$ on the lat. arc; $15^{\circ}23'S.$ on the decl. arc, and determine a meridian with the solar. The meridian thus determined coincides with the meridian established by observations on Polaris. I therefore conclude that the adjustments of the transit and solar attachment are satisfactory.

Feb. 7, 1915.

Feb. 9, 1915. At 9h. a.m., l.m.t., I set off $32^{\circ}30\frac{1}{2}'N.$ on the lat. arc; $14^{\circ}50'S.$ on the decl. arc; and determine a meridian with the solar at the standard closing cor. of T. 10 S., R. 8 E., which is an iron post, 3 ins. in diam., with brass cap, properly set, marked and witnessed as described by the Surveyor General. Change this cor. to standard cor. of T. 10 S., R. 8 E. (SW. cor.) by obliterating the markings "C C R 7 E S 36" in W. half of brass cap.

Thence I run,

N. $0^{\circ}20'E.$ on random line on W. bdy. of sec. 31.

29.75 Fall 1 lk. E. of Std. closing cor. of T. 10 S., R. 7 E. set by me in resurvey of the 2nd. Standard Parallel South, as described in Book "A."

40.03 Fall $1\frac{1}{2}$ lks. E. of $\frac{1}{4}$ sec. cor., which is an iron post 1 in. in diam., properly set, marked and witnessed as described by the Surveyor General.

True course and dist. of S. half of W. bdy. of sec. 31 is therefore N. $0^{\circ}19'E.$, 40.03 chs.

Continue random line and measurement on N. $\frac{1}{2}$ of W. bdy. of sec. 31.

80.04 Fall 2 lks. E. of cor. of secs. 30 and 31, which is an iron post 3 ins. in diam., properly set, marked and witnessed as described by the Surveyor General. I obliterate markings on west half of brass cap, which refer to T. 10 S., R. 7 E.

True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 31 is therefore N. $0^{\circ}19'E.$, 40.01 chs.

From cor. of secs. 30 and 31, I run,

N. $0^{\circ}20'E.$ on random line, on W. bdy. of sec. 30.

40.00 Fall 3 lks. W. of $\frac{1}{4}$ sec. cor., which is an iron post 1 in. in diam., properly set, marked and witnessed as described by the Surveyor General.

True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 30 is therefore N. $0^{\circ}23'E.$, 40.00 chs.

Continue random line and measurement on N. half of W. bdy. of sec. 30.

80.04 Fall 3 lks. W. of cor. of secs. 19 and 30, which is an iron post 3 ins. in diam., properly set, marked and witnessed as described by the Surveyor General.

I obliterate markings on W. half of brass cap, which refer to T. 10 S., R. 7 E.

Retracement of the West bdy. of Township 10 S., R. 8 E. 41.

Chains.

True course and distance of N. $\frac{1}{2}$ of W. bdy. of sec. 30 is therefore N. 0° 20' E., 40.04 chs.

40.02 From cor. of secs. 19 and 30, I run, N. 0° 20' E. on a random line on W. bdy. of sec. 19. Fall 12 lks. E. of the $\frac{1}{4}$ sec. cor., which is an iron post, 1 in. in diam., properly set, marked and witnessed as described by the Surveyor General. True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 31 is therefore N. 0° 10' E., 40.02 chs. Continue random line and measurement on N. half of W. bdy. of sec. 19.

80.03 Intersect the cor. of secs. 18 and 19, which is an iron post 3 ins. in diam., properly set, marked and witnessed as described by the Surveyor General. I obliterate markings on W. half of brass cap, referring to T. 10 S., R. 7 E. True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 19 is therefore N. 0° 30' E., 40.01 chs.

39.99 From cor. of secs. 18 and 19, I run, N. 0° 20' E., on a random line of W. bdy. of sec. 18. Fall 6 lks. W. of the $\frac{1}{4}$ sec. cor., which is an iron post 1 in. in diam., properly set, marked and witnessed as described by the Surveyor General. True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 18, is therefore N. 0° 25' E., 39.99 chs. Continue random line and measurement on N. $\frac{1}{2}$ of W. bdy. of sec. 18.

80.00 Fall 10 lks. west of the cor. of secs. 7 and 18, which is an iron post 3 ins. in diam., properly set, marked and witnessed as described by the Surveyor General. I obliterate markings on west half of brass cap referring to T. 10 S., R. 7 E. True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 18 is therefore N. 0° 24' E., 40.01 chs. At this cor. I set off 14° 48' S. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting lat. is 32° 34' N.

40.05 From cor. of secs. 7 and 18, I run, N. 0° 20' E. on random line on W. bdy. of sec. 7. Fall 2 lks. east of the $\frac{1}{4}$ sec. cor., which is an iron post 1 in. in diam., properly set, marked and witnessed as described by the Surveyor General. True course and dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 7, is therefore N. 0° 18' E., 40.05 chs. Continue random line and measurement on N. half of W. bdy. of sec. 7.

80.05 Fall 1 lk. west of the cor. of secs. 6 and 7, which is an iron post 3 ins. in diam., properly set, marked and witnessed as described by the Surveyor General. I obliterate markings on west half of brass cap, referring to T. 10 S., R. 7 E. True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 7, is therefore N. 0° 23' E., 40.00 chs.

39.98 From cor. of secs. 6 and 7, I run, N. 0° 20' E. on a random line, on W. bdy. of sec. 6. Fall 1 lk. west of the $\frac{1}{4}$ sec. cor., which is an iron post 1 in. in diam., properly set, marked and witnessed as described by the Surveyor General.

42. Retracement of the West bdy. of Township 10 S., R. 8 E.

Chains.

True course and dist. of S. half of W. bdy. of sec. 6 is therefore $N.0^{\circ}21'E.$, 39.98 chs.

Continue random line and measurement on $N.\frac{1}{2}$ of W. bdy. of sec. 6.

78.17 Fall 3 lks. W. of the cor. of Ts. 9 and 10 S., Rs. 7 and 8 E., which is an iron post 3 ins. in diam., properly set, marked and witnessed as described by the Surveyor General.

True course and dist. of $N.\frac{1}{2}$ of W. bdy. of sec. 6 is therefore $N.0^{\circ}22'E.$, 38.19 chs.

W.H.T.

Feb. 9, 1915.

Chains.

W.H.T.

Retracement commenced Feb. 9, 1915, and executed as follows:

At 3h. p.m., l.m.t., I set off 32° 35' N. on the lat. arc; 14° 46' S. on the decl. arc, and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 7 and 8 E., hereinbefore described.

Thence I run,

40.08 West, on a random line, on S. bdy. of sec. 36. Fall 69 lks. N. of the original 1/4 sec. cor., which is an old mesquite post, 3 ins. square, 3 ft. long, on top of ground. Mound and pits still visible.

True course and dist. of E. half of S. bdy. of sec. 36 is therefore S. 89° 01' W., 40.09 chs.

Continue random line and measurement on W. half of S. bdy. of sec. 36.

80.42 Fall 103 lks. N. of the original cor. of secs. 1, 2, 35 and 36, which is an old mesquite post 3 ins. square, 3 ft. long, on top of ground. Pits and mound still visible.

True course and dist. of W. 1/2 of S. bdy. of sec. 36 is therefore S. 89° 30' W., 40.34 chs.

Feb. 9, 1915.

Feb. 10, 1915.

From original cor. of secs. 1, 2, 35 and 36, I run, West, on a random line, on S. bdy. of sec. 35.

40.39 Fall 120 lks. N. of original 1/4 sec. cor., which is an old mesquite post, 3 ins. in diam., 3 ft. long, on top of ground. Pits and mound still visible.

True course and dist. of E. 1/2 of S. bdy. of sec. 35 is therefore S. 88° 18' W., 40.41 chs.

Continue random line and measurement on W. half of S. bdy. of sec. 35.

80.54 Fall 15 lks. N. of original cor. of secs. 2, 3, 34 and 35, which is an old mesquite post 3 ft. long, 3 ins. in diam., Pits and mound still visible.

True course and distance of W. half of S. bdy. of sec. 35 is therefore S. 89° 31' W., 40.15 chs.

From original cor. of secs. 2, 3, 34 and 35, I run, West, on a random line on S. bdy. of sec. 34.

40.00 After diligent search, find no trace of the original 1/4 sec. cor.

Set temp. 1/4 sec. cor., and continue random line and measurement.

80.00 After diligent search, find no trace of the original cor. of secs. 3, 4, 33 and 34.

Set temp. cor. of secs. 33 and 34.

From temp. cor. of secs. 33 and 34, I run, West, on a random line, on S. bdy. of sec. 33.

40.00 After diligent search, find no trace of the original 1/4 sec. cor.

Set temp. 1/4 sec. cor., and continue random line and measurement.

81.60 Fall 8 lks. S. of the original cor. of secs. 4, 5, 32 and 33, which is an old mesquite post 4 ins. square, 3 ft. above ground. Pits and mound not visible.

True course and dist. from original cor. of secs. 2, 3, 34 and 35 to this cor. is therefore N. 89° 58' W., 161.60 chs.; therefore the south boundaries of secs. 34 and 33 are each N. 89° 58' W., 80.80 chs.

44. Retracement of South bdy. of Township 9 South Range 7 East.

Chains.

- From original cor. of secs. 4, 5, 32 and 33, I run, West, on a random line, on S. bdy. of sec. 32.
- 40.00 After diligent search, find no trace of the original $\frac{1}{4}$ sec. cor.
Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
- 80.00 After diligent search, find no trace of the original cor. of secs. 5, 6, 31 and 32.
Set temp. cor. of secs. 31 and 32.
-
- From temp. cor. of secs. 31 and 32, I run, West, on a random line, on S. bdy. of sec. 31.
- 40.00 After diligent search, find no trace of original $\frac{1}{4}$ sec. cor.
Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
- 81.13 Fall 44 lks. N. of the original cor. of Ts. 9 and 10 S., Rs. 6 and 7 E., which is a mesquite post 3 ft. long, 3 ins. square, properly set and marked; pits and mound not visible.
True course and dist. from original cor. of secs. 4, 5, 32 and 33 to this cor. is therefore S. $89^{\circ}51'W.$, 161.13 chs. Therefore, the south boundaries of secs. 32 and 31, by proportional measurement will be S. $89^{\circ}51'W.$, 80.82 chs. and S. $89^{\circ}51'W.$, 80.31 chs. respectively.
W.H.T.
Feb. 10, 1915.

RESURVEY of SOUTH BDY. OF TOWNSHIP 9 SOUTH, RANGE 7 EAST.

- W.H.T.
Resurvey commenced Feb. 11, 1915, and executed as follows:
Feb. 11, 1915: At 8h. a.m., l.m.t., I set off $32^{\circ}35\frac{1}{2}'N.$ on the lat. arc; $14^{\circ}12'S.$ on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 7 and 8 E., an iron post with brass cap, marked and witnessed as described by the Surveyor General.
Thence I run, as per results of retracement, hereinbefore described.
S. $89^{\circ}1'W.$, on a true line, on S. bdy. of sec. 36 ($E\frac{1}{2}$).
Over level land, subject to overflow, through scattering undergrowth.
- 40.09 Intersect original $\frac{1}{4}$ sec. cor., hereinbefore described, which I destroy, and in the same place set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. referring to sec. 36 only, with brass cap, marked
 $\frac{1}{4}$ S 36 on N. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 40.34 Thence I run,
S. $89^{\circ}30'W.$, on a true line, on S. bdy. of sec. 36 ($W\frac{1}{2}$).
Intersect original cor. of secs. 1, 2, 35 and 36, hereinbefore described, which I destroy, and in the same place set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 35 and 36 only, with brass cap, marked
T 9 S R 7 E on N. half;
S 36 in NE., and
S 35 in NW. quadrants;
1915 on S. rim;
dig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, level, covered with silt from recent heavy rains.
Soil, sandy loam, 1st rate. No timber.
Undergrowth, greasewood brush.

Resurvey of South bdy. of Township 9 South, Range 7 East. 75.

Chains

40.41 S.88°18'W., on a true line on S.bdy. of sec.35 (E $\frac{1}{2}$).
 Over level land, through scattering undergrowth.
 Intersect original $\frac{1}{4}$ sec.cor., hereinbefore described, which I destroy, and in the same place set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec.cor., referring to sec.35 only, with brass cap, marked $\frac{1}{4}$ S 35 on N.half;
 1915 on S.rim;
 dig put old pits, 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

40.15 Thence I run,
 S.89°31'W., on a true line on S.bdy. of sec.35 (W $\frac{1}{2}$).
 Intersect original cor. of secs.2,3,34 and 35, hereinbefore described, which I destroy, and in the same place set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs.34 and 35 only, with brass cap, marked
 T 9 S R 7 E on N. half;
 S 35 in NE., and
 S 34 in NW. quadrants;
 1915 on S rim;
 dig pits 24x24x12 ins. NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
 Land, level.
 Soil, adobe, 1st rate.
 No timber.
 Undergrowth, scattering mesquite and greasewood brush.

40.40 N.89°58'W., on a true line, on S.bdy. of sec.34.
 Over level land, through scattering undergrowth.
 (Proportional dist.) Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec.cor., referring to sec.34 only, with brass cap, marked
 $\frac{1}{4}$ S 34 on N.half;
 1915 on S.rim;
 dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

80.80 (Proportional dist.) Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs.33 and 34 only, with brass cap, marked
 T 9 S R 7 E on N.half;
 S 34 in NE., and
 S 33 in NW. quadrants;
 1915 on S.rim;
 dig pits 24x24x12 ins. NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
 Land, level. Soil, adobe, 1st rate.
 Timber, scattering mesquite.
 Undergrowth, mesquite and greasewood brush.

15.40 N.89°58'W., on a true line, on S.bdy. of sec.33.
 Over level land, through scattering undergrowth.
 Wash, 20 lks. wide, 2 ft. deep, course N.70°W.
 40.40 (Proportional dist.) Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in the ground, for reestablished $\frac{1}{4}$ sec.cor., referring to sec.33 only, with brass cap, marked
 $\frac{1}{4}$ S 33 on N.half;
 1915 on S.rim; from which
 A mesquite, 18 ins. indiam., brs. S.25°W., 114 lks. dist., marked B T.
 No other trees within limits; dig pits 18x18x12 ins. E. and W. of cor., 3 ft. dist., and raise a mound of earth 3 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
 40.90 A hut, 14x16 ft. made of cactus ribs, brs. S.2 chs. dist.
 43.10 Enter corral 3.60 chs. wide, 5 chs. long.
 43.20 Old well, about 100 ft. deep, brs. S. about 1 ch. dist.
 Unable to ascertain who made improvements.

16. Resurvey of South bdy. of Township 9 South Range 7 East.

- Chains.
80.80 Intersect original cor. of secs. 4, 5, 32 and 33, hereinbefore described, which I destroy and in the same place set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 32 and 33 only, with brass cap, marked
T 9 S R 7 E on N. half;
S 33 in NE., and
S 32 in NW. quadrants;
1915 on S. rim;
dig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, level.
Soil, adobe, 1st rate.
Timber, scattering mesquite. Undergrowth, mesquite, and greasewood brush.
-
- 40.41 S. 89°51'W., on a true line, on S. bdy. of sec. 32.
Over level land, through scattering undergrowth.
(Proportional dist.) Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. referring to sec. 32 only, with brass cap, marked
 $\frac{1}{4}$ S 32 in N. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 80.82 (Proportional dist.) Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 31 and 32 only, with brass cap, marked
T 9 S R 7 E on N. half;
S 32 in NE., and
S 31 in NW. quadrants;
1915 on S. rim;
dig pits 24x24x12 ins., NE. and NW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, level. Soil, adobe, 1st rate.
Timber, scattering mesquite.
Undergrowth, mesquite, and greasewood brush.
-
- 2.50 S. 89°51'W., on a true line, on S. bdy. of sec. 31.
Over level land, through scattering undergrowth.
Wash, 25 lks. wide, 3 ft. deep, course N. 70°W.
- 40.41 (Proportional dist.) Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., referring to sec. 31 only, with brass cap, marked
 $\frac{1}{4}$ S 31 on N. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 80.31 Intersect original cor. of Ts. 9 & 10 S., Rs. 6 & 7 E., hereinbefore described. Knowing from the closing of the 2nd Standard Parallel S. against the W. bdy. of T. 10 S., R. 8 E., that this cor. will now refer to T. 9 S., R. 7 E. only, I destroy the old cor., and in the same place set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for reestablished cor. of Ts. 9 S., R. 7 E. only (SW. cor.) with brass cap, marked
T 9 S R 7 E S 31 in NE. quadrant;
1915 on S. rim;
dig pits 36x36x12 ins., E. and N. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, NE. of cor.
Land, level. Soil, adobe, 1st rate.
No timber. Undergrowth, mesquite & low sage brush.
This entire Tp. line has been covered by water from a depth of a few inches to 2 ft. during the recent rain storm, when the dam in the Santa Cruz Reservoir broke flooding this area, and leaving the ground in many places covered with silt, several inches deep.

W.H.T.
Feb. 11, 1915.

Boundaries of Township 10 South, Range 7 East. 47.

Latitudes, departures and closing errors.

Line designated	Bearing	Distance	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North,	480.00	480.00			
North Tp. bdy.	East,	82.31			82.31	
	South,	33.77		33.77		
	N. 89° 51' E.	161.13	.42		161.13	
	S. 89° 58' E.	161.60		.09	161.60	
	W. 89° 31' E.	40.15	.34		40.15	
	N. 88° 18' E.	40.41	1.20		40.39	
	N. 89° 30' E.	40.34	.35		40.34	
	N. 89° 01' E.	40.09	.69		40.08	
East Tp. bdy.	S. 0° 22' W.	38.19		38.19		.24
	S. 0° 21' W.	39.98		39.98		.24
	S. 0° 23' W.	40.00		40.00		.27
	S. 0° 18' W.	40.05		40.05		.21
	S. 0° 24' W.	40.01		40.01		.28
	S. 0° 25' W.	39.99		39.99		.29
	S. 0° 30' W.	40.01		40.01		.35
	S. 0° 10' W.	40.02		40.02		.12
	S. 0° 20' W.	40.04		40.04		.23
	S. 0° 23' W.	40.00		40.00		.27
	S. 0° 19' W.	50.29		50.29		.28
South Tp. bdy. (2nd Std. Par. S)	West,	563.94				563.94
Convergency,					.52	
Totals,			483.00	482.44	566.52	566.72
			482.44			566.52
Error in latitude,			0.56			
Error in departure,					0.20	

48. Retracement of the West boundary of Township 9 South, Rg. 7 E.

Chains.

- W.H.T.
Retracement commenced Feb. 10, 1915, and executed as follows:
Having this day determined a meridian on the S. bdy. of T. 9 S., R. 7 E., I deflect 90° from the E. to the left, at the reestablished cor. of T. 9 S., R. 7 E. (SW. cor.) hereinbefore described, and run North, on a random line, as determined by frequent solar observations on W. bdy. of sec. 31.
- 33.77 Intersect cor. of T. 9 S., R. 6 E. (SE. cor.) established by me Feb. 4, 1915, and hereinbefore described.
- 40.40 Intersect old $\frac{1}{4}$ sec. cor., which is an old mesquite post, 3 ins. in diam., 1 ft. above ground, firmly set, marked and witnessed as described by the Surveyor General. True course and distance of S. half of W. bdy. of sec. 31 is therefore north 40.40 chs.
Continue random line and measurement on N. half of west bdy. of sec. 31.
- 80.56 Fall 62 lks. west of original cor. of secs. 25, 30, 31 and 36, which is a mesquite post 3 ins. square, 1 ft. above ground, firmly set, marked and witnessed as described by the Surveyor General. True course and distance of N. half of west bdy. of sec. 31, is therefore $N. 0^\circ 53' E.$, 40.16 chs.
-
- From original cor. of secs. 25, 30, 31 and 36, I run, North, on a random line, on W. bdy. of sec. 30.
- 40.37 Intersect old $\frac{1}{4}$ sec. cor., which is a mesquite post, 3 ins. in diam., 24 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. True course and distance of S. half of W. bdy. of sec. 30 is therefore north, 40.37 chs.
Continue random line and measurement on N. half of W. bdy. of sec. 30.
- 80.69 Fall 5 lks. E. of original cor. of secs. 19, 24, 25 & 30, which is a post, 4 ins. square, 24 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. True course and dist. of N. $\frac{1}{2}$ of W. bdy. of sec. 30 is therefore $N. 0^\circ 4' W.$, 40.32 chs.
-
- From original cor. of secs. 19, 24, 25 and 30, I run, North, on a random line, on W. bdy. of sec. 19.
- 40.30 Fall 27 lks. W. of original $\frac{1}{4}$ sec. cor., which is a mesquite post, 4 ins. in diam., 24 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. True course and distance of S. half of west bdy. of sec. 19 is therefore $N. 0^\circ 23' E.$, 40.30 chs.
Continue random line and measurement on N. half of W. bdy. of sec. 19.
- 80.30 After diligent search in this vicinity, find no trace of the original cor. of secs. 13, 18, 19 and 24. Set temp. cor. of secs. 13, 18, 19 and 24.
-
- From temp. cor. of secs. 13, 18, 19 and 24, I run, North, on a random line on W. bdy. of sec. 18.
- 40.72 Fall 37 lks. W. of $\frac{1}{4}$ sec. cor., which is a mesquite post, 4 ins. in diam., 18 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. True course and dist. from original $\frac{1}{4}$ sec. cor. on W. bdy. of sec. 19 to this $\frac{1}{4}$ sec. cor. is therefore $N. 0^\circ 4' E.$; 80.72 chs. giving a true course and dist. of $N. 0^\circ 4' E.$, 40.36 chs. for N. $\frac{1}{2}$ of W. bdy. sec. 19, and S. $\frac{1}{2}$ west bdy. sec. 18. Feb. 10, 1915.
- Feb. 20, 1915. At this $\frac{1}{4}$ sec. cor. at 9h. a.m., l.m.t., I set off $32^\circ 38' N.$ on the lat. arc; $11^\circ 7' S.$ on the decl.

Retracement of the West bdy of Township 9 South Range 7 E. 49

Chains

are; and determine a meridian with the solar.

Thence I run,
North, on random line, on N. half of W. bdy. of sec. 18.

40.36 Fall 1 lk. east of original cor. of secs. 7, 12, 13 and 18, which is a mesquite post, 3 ins. square, 24 ins. above ground, firmly set marked and witnessed, as described by the Surveyor General.

True course and dist. of N. half of W. bdy. of sec. 18 is therefore N. 0° 1' W., 40.36 chs.

From original cor. of secs. 7, 12, 13 and 18, I run,
North, on a random line, on W. bdy. of sec. 7.

40.36 Fall 4 lks. W. of original $\frac{1}{4}$ sec. cor., which is a mesquite post, 3 ins. square, 24 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.

True course and dist. of $S\frac{1}{2}$ of W. bdy. of sec. 7 is therefore N. 0° 3' E., 40.36 chs. Continue random line & measurement

80.68 Fall 14 lks. E. of original cor. of secs. 1, 6, 7 and 12, which is a mesquite post, 4 ins. square, 3 ft. long, broken off, lying on ground, marked and witnessed as described by the surveyor general.

True course and distance of N. $\frac{1}{2}$ of W. bdy. of sec. 7, is therefore N. 0° 15' W., 40.32 chs.

From original cor. of secs. 1, 6, 7 and 12, I run,
North, on a random line, on W. bdy. of sec. 6.

40.24 Fall 22 lks. E. of original $\frac{1}{4}$ sec. cor., which is a mesquite post badly decayed, alongside of which is set a redwood post 4 ins. square, properly set and correctly marked.

True course and distance of S. half of W. bdy. of sec. 6 is therefore N. 0° 19' W., 40.24 chs.

Continue random line and measurement on N. half of W. bdy. of sec. 6.

80.46 Fall 14 lks. west of original cor. of Ts. 8 and 9 S., Rs. 6 and 7 E., which is a mesquite post 4 ins. square, 3 ft. above ground, correctly marked as described by the Surveyor General, with sawed pine post, 4 ins. square, 3 ft. above ground set alongside.

True course and dist. of north half of west bdy. of sec. 6 is therefore N. 0° 31' E., 40.22 chs.

At this cor. I set off 11° 4' S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting lat. is 32° 40' N.

W.H.T. Feb. 20, 1915.

50. Resurvey of West bdy. of Township 9 South, Range 7 East

Chains

W.H.T.
Resurvey commenced Feb. 20, 1915, and executed as follows:
From the reestablished cor. of T. 9 S., R. 7 E., (SW. cor.)
hereinbefore described, I run, as per results of re-
tracement, hereinbefore described,

North, on a true line along W. bdy. of sec. 31 ($S\frac{1}{2}$).
Over level land, through scattering undergrowth.
23.45 Wash, 25 lks. wide, 3 ft. deep, course W.
33.77 Intersect cor. of T. 9 S., R. 6 E. (SE. cor.) hereinbefore de-
scribed.

40.40 Intersect old $\frac{1}{4}$ sec. cor., which I destroy, and in the
same place set an iron post 3 ft. long, 1 in. in diam.,
26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor.,
referring to sec. 31 only, with brass cap, marked
 $\frac{1}{4}$ S 31 on E. half;
1915 on S. rim;
dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, E.
of cor.

Thence I run,
N. $0^{\circ}53'$ E., on a true line on W. bdy. of sec. 31 ($N\frac{1}{2}$).
40.16 Intersect original cor. of secs. 25, 30, 31 and 36, which I
destroy, and in the same place set an iron post 3 ft.
long, 3 ins. in diam., 24 ins. in the ground for re-
established cor. of secs. 30 and 31 only, with brass cap,
marked

T 9 S R 7 E S 30 in NE., and
S 31 in SE. quadrants;
1915 on S rim.

Dig pits 24x24x12 ins. NE. and SE. of post, 6 ft. dist.,
and raise a mound of earth 4 ft. base, 2 ft. high, E. of
cor.

Land, level.
Soil, sandy adobe, 1st rate.
No timber.
Undergrowth, scattering mesquite.

North, on a true line on W. bdy. of sec. 30 ($S\frac{1}{2}$).
Over level land, through scattering undergrowth.

15.00 Enter greasewood brush, brs. E. and W.
40.37 Intersect original $\frac{1}{4}$ sec. cor., which I destroy, and in
the same place, set an iron post 3 ft. long, 1 in. in
diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor.
referring to sec. 30 only, with brass cap, marked

$\frac{1}{4}$ S 30 on E. half;
1915 on S. rim;

dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, E.
of cor.

Thence I run,
N. $0^{\circ}4'$ W., on a true line, on W. bdy. of sec. 30, ($N\frac{1}{2}$).
4.33 Santa Cruz Reservoir dam, brs. N. $84\frac{1}{4}^{\circ}$ W. and S. $84\frac{1}{4}^{\circ}$ E.

12.18 Spillway at E. end of dam, brs. E. 2 chs. dist.
Canal from spillway, 60 lks. wide, 3 ft. deep, course N.
 40° W.

40.32 Intersect original cor. of secs. 19, 24, 25 and 30, which I
destroy, and in the same place set an iron post 3 ft.
long, 3 ins. in diam., 24 ins. in the ground for rees-
tablished cor. of secs. 19 and 30 only, with brass cap,
marked

T 9 S R 7 E S 19 in NE., and
S 30 in SE. quadrants;
1915 on S. rim;

dig pits 24x24x12 ins. NE. and SE. of post 6 ft. dist.,
and raise a mound of earth 4 ft. base, 2 ft. high, E. of
cor.

Land, level.
Soil, adobe, 1st rate.
No timber.
Undergrowth, greasewood brush and mesquite.

Resurvey of West boundary of Township 9 South Range 7 East. 51.

Chains.

40.30 N. 0° 23' E., on a true line, on W. bdy. of sec. 19 (S $\frac{1}{2}$).
 Over level land, through dense undergrowth.
 Intersect original $\frac{1}{4}$ sec. cor., which I destroy, and in the
 same place, set an iron post, 3 ft. long, 1 in. in diam.,
 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., re-
 ferring to sec. 19 only, with brass cap, marked
 $\frac{1}{4}$ S 19 on E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist.,
 and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, E.
 of cor.

40.36 Thence I run,
 N. 0° 4' E., on a true line, on W. bdy. of sec. 19, (N. $\frac{1}{2}$).
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for reestablished cor. of secs. 18 and 19
 only, with brass cap, marked
 T 9 S R 7 E S 18 in NE., and
 S 19 in SE. quadrants;
 1915 on S. rim.
 dig pits 24x24x12 ins., NE. and SE. of post, 6 ft. dist.,
 and raise a mound of earth 4 ft base, 2 ft. high, E. of
 cor.
 Land, level.
 Soil, adobe, 1st rate.
 No timber.
 Undergrowth, greasewood brush and scattering mesquite.

15.00
 40.36 N. 0° 4' E., on true line, on west bdy. of sec. 18 (S $\frac{1}{2}$).
 Over level land, through dense undergrowth.
 Leave greasewood brush, brs. E. and W.
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for reestablished $\frac{1}{4}$ sec. cor., referring
 to sec. 18 only, with brass cap, marked
 $\frac{1}{4}$ S 18 on E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and
 raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, E. of
 cor.

40.36 Thence I run,
 N. 0° 1' W., on a true line, on W. bdy. of sec. 18, (N $\frac{1}{2}$).
 Intersect original cor. of secs. 7, 12, 13 and 18, which I
 destroy, and in the same place set an iron post 3
 ft. long, 3 ins. in diam., 24 ins. in the ground, for
 reestablished cor. of secs. 7 and 18, with brass cap,
 marked
 T 9 S R 7 E S 7 in NE., and
 S 18 in SE. quadrants;
 1915 on S. rim;
 dig pits 24x24x12 ins., N. and S. of cor., 3 ft. dist.,
 and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high,
 E. of cor.
 Land, level.
 Soil, adobe, 1st rate.
 No timber.
 Undergrowth, greasewood brush and mesquite.

40.36 N. 0° 3' E., on a true line on W. bdy. of sec. 7 (S $\frac{1}{2}$).
 Over level land, through dense undergrowth.
 Intersect original $\frac{1}{4}$ sec. cor., which I destroy, and in
 the same place set an iron post 3 ft. long, 1 in. in
 diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec.
 cor., referring to sec. 7 only, with brass cap, marked

52. Resurvey of the West bdy. of Township 9 S., R. 7 E.

Chains.

- $\frac{1}{4}$ S 7 on E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist.,
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, E.
 of cor.
- Thence I run,
 N. $0^{\circ}15'W.$, on a true line, on W. bdy. of sec. 7 ($N\frac{1}{2}$).
 40.32 Intersect original cor. of secs. 1, 6, 7 and 12, which I de-
 stroy, and in the same place set an iron post 3 ft.
 long, 3 ins. in diam., 24 ins. in the ground for re-
 established cor. of secs. 6 and 7 only, with brass cap,
 marked
- T 9 S R 7 E, S 6 in NE., and
 S 7 in SE. quadrants;
 1915 on S. rim;
 dig pits 24x24x12 ins., NE. and SE. of post 6 ft.
 dist., and raise a mound of earth 4 ft. base, 2 ft. high,
 E. of cor.
- Land, level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, greasewood brush and scattering mequite.
-
- N. $0^{\circ}19'W.$, on a true line on W. bdy. of sec. 6 ($S\frac{1}{2}$).
 Over level land, through scattering undergrowth.
 40.24 Intersect original $\frac{1}{4}$ sec. Cor., which I destroy, and in
 the same place, set an iron post 3 ft. long, 1 in. in
 diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec.
 cor., referring to sec. 6 only, with brass cap, marked
- $\frac{1}{4}$ S 6 on E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,
 E. of cor.
- Thence I run,
 N. $0^{\circ}31'E.$, on a true line on W. bdy. of sec. 6.
 40.22 Intersect old cor. of Ts. 8 and 9 S., Rs. 6 and 7 E., which
 I destroy, and in the same place, set an iron post 3
 ft. long, 3 ins. in diam., 24 ins. in the ground for re-
 established cor. of Ts. 8 and 9 S., Rs. 6 and 7 E., with
 brass cap, marked
- T 8 S on N. half;
 R 7 E S 31 in NE.,
 S 6 in SE.,
 S 1 in SW., and
 R 6 E S 36 in NW. quadrants;
 1915 on S. rim;
 dig pits 24x24x12 ins., on each line, N. E. and W., 4
 ft., and S. of cor. 8 ft. dist., and raise a mound of
 earth 5 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.
- Land, level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, scattering greasewood brush and mesquite.
- Feb. 20, 1915.
 W.H.T.

Retracement of South bdy of Township 8 South Range 6 E 53

Chains.

W.H.T.

Retracement commenced Feby.20, 1915, and executed as follows:

Having this day determined a meridian with the solar on the west bdy.of T.9 S.,R.7 E., I deflect 90° from the N. at the reestablished cor.of Ts.8 and 9 S.,Rs.6 and 7 E., hereinbefore described, and run

38.64 West, on a random line on S.bdy.of sec.36.
Fall 13 lks.N.of original $\frac{1}{4}$ sec.cor., which is a mesquite post 3 ins. in diam., lying on ground, with redwood post 6 ins.square, 18ins. above ground set alongside.
True course and dist.of E. half of S.bdy.of sec.36 is therefore S. $89^\circ 49' W.$, 38.64 chs.

Continue random line and measurement on W. $\frac{1}{2}$ of S.bdy.of sec.36.

79.13 Fall 32 lks.N.of original cor. of secs.1,2,35 and 36, which is an old mesquite post,broken off and lying on ground, with some markings still visible.
Redwood post 6 ins.square 3 ft. above ground, set alongside.

True course and dist.of W. $\frac{1}{2}$ of S.bdy.of sec.36 is therefore S. $89^\circ 44' W.$, 40.49 chs.

From original cor.of secs.1,2,35 and 36, I run,
West, on a random line on S bdy.of sec.35.

40.19 Fall 48 lks.S.of $\frac{1}{4}$ sec.cor.; which is a mesquite post, broken off, lying on ground, with some markings still visible. A redwood post 6 ins.square, 12 ins. above ground, set alongside.

True course and dist. of E. $\frac{1}{2}$ of S.bdy.of sec.35 is therefore N. $89^\circ 19' W.$, 40.19 chs.

Continue random line and measurement on W.half of S.bdy. of sec.35.

80.34 Fall 34 lks.S.of original cor.of secs.2,3,34 and 35,which is a mesquite post lying on ground, with redwood post 10 ins. square, 24 ins. above ground, set alongside.
True course and distance of W.half of S.bdy.of sec.35 is therefore S. $89^\circ 48' W.$, 40.15 chs.

Feb. 20, 1915.

Feb. 21, 1915: At 8h. 30m.,a.m.,l.m.t.,I set off $32^\circ 40'$ N. on the lat.arc; $10^\circ 46'$ S. on the decl.arc; and determine with the solar at the original cor.of secs.2,3, 34 and 35, described above.

Thence I run,

West, on a random line on S bdy. of sec. 34.

40.00 After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec.cor.

Set temp. $\frac{1}{4}$ sec.cor.,and continue random line and measurement.

79.98 Fall 10 lks.N.of original cor. of secs.3,4,33 and 34, which is a mesquite post lying on the ground, with mesquite post, 6 ins. square, 18 ins. above ground set alongside.

True course and dist.,of S.bdy.of sec. 34 is therefore S. $89^\circ 56' W.$, 79.98 chs.

From original cor.of secs.3,4, 33 and 34, I run,
West, on a random line on S bdy.of sec.33.

40.00 After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec.cor.

Set temp. $\frac{1}{4}$ sec.cor.,and continue random line and measurement.

80.62 Fall 50 lks.N.of original cor.of secs. 4,5, 32 and 33, which is a mesquite post broken off, lying on the ground with mesquite post,6 ins.sq.,24 ins. above

54 Retracement of the South bdy. of Township 8 S. R. 6 E.

Chains.

ground set alongside.
True course and dist. of S.bdy. of sec. 33 is therefore S.
89° 39' W., 80.62 chs.

40.18 From original cor. of secs. 4, 5, 32 and 33, I run
West, on a random line on S.bdy. of sec. 32.
Fall 22 lks. N. of $\frac{1}{4}$ sec. cor., which is a mesquite post, 3
ins. square, 24 ins. above ground, marked and witness-
ed as described by the Surveyor General.

True course and dist. of E. half of S. bdy. of sec. 32 is
therefore S. 89° 41' W., 40.18 chs.

Continue random line and measurement on W. $\frac{1}{2}$ of S. bdy. of
sec. 32.

80.22 Fall 12 lks. N. of original cor. of secs. 5, 6, 31 and 32, which
is a mesquite post, lying on ground with redwood post,
3 ins. square, 24 ins. above ground, set alongside.

True course and dist. of W half of S. bdy. of sec. 32 is
therefore N. 89° 51' W., 40.04 chs.

40.13 From original cor. of secs. 5, 6, 31 and 32, I run,
West on a random line on S. bdy. of sec. 31.
Fall 2 lks. N. of original $\frac{1}{4}$ sec. cor., which is a mesquite
post 3 ins. square, 24 ins. above ground, marked and
witnessed as described by the Surveyor General.

True course and dist. of E. half of S. bdy. of sec. 31 is
therefore S. 89° 58' W., 40.13 chs.

Continue random line and measurement on W. half of S. bdy.
of sec. 31.

79.10 Fall 66 lks. S. of original cor. of Ts. 8 and 9 S., Rs. 5 and
6 E., which is a mesquite post, 4 ins. square, 3 ft.
above ground, firmly set, marked and witnessed as de-
scribed by the Surveyor General.

True course and dist. of W. half of S. bdy. of sec. 31 is
therefore N. 89° 02' W., 38.98 chs.

At this cor. I set off 10° 43' S. on the decl. arc; and at ap-
parent noon, observe the sun on the meridian; the re-
sulting lat. is 32° 40' N.

Feb. 21, 1915.
W.H.T.

Resurvey of South bdy. of Township 8 South Range 6 East. 55.

Chains.

W. H.T.
 Resurvey commenced Feb. 21, 1915, and executed as follows:
 From the reestablished cor. of Ts. 8 and 9 S., Rs. 6 and 7.
 E. hereinbefore described, I run,
 S. 89° 49' W., on a true line, on S. bdy. of sec. 36 (E $\frac{1}{2}$).
 Over level land, through scattering undergrowth.
 38.64 Intersect original $\frac{1}{4}$ sec. cor., which I destroy, and in the
 same place, set an iron post 3 ft. long, 1 in. in diam.
 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor.,
 referring to sec. 36 only, with brass cap, marked
 $\frac{1}{4}$ S 36 on N. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.,
 and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N.
 of cor.
 Thence I run,
 S. 89° 44' W., on a true line on S. bdy. of sec. 36 (W $\frac{1}{2}$).
 12.60 Canal to Santa Cruz Reservoir, 50 lks. wide, 4 ft. deep,
 course N.
 40.49 Intersect original cor. of secs. 1, 2, 35 and 36, which I
 destroy, and in the same place set an iron post 3 ft.
 long, 3 ins. in diam. 24 ins. in the ground for re-
 established cor. of secs. 35 and 36 only, with brass
 cap, marked,
 T 8 S R 6 E on N. half;
 S 36 in NE., and
 S 35 in NW. quadrants;
 1915 on S. rim;
 dig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist.,
 and raise a mound of earth 4 ft. base, 2 ft. high, N. of
 cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 Timber, none.
 Undergrowth, scattering greasewood brush and mesquite.

N. 89° 19' W., on a true line on S. bdy. of sec. 35 (E $\frac{1}{2}$).
 Over level land, through scattering undergrowth.
 1.50 Old well, 80 ft. deep, brs. S. 2 chs. dist.
 6.10 Abandoned telephone line, Casa Grande, Ariz., to Santa
 Crus Reservoir, brs. NW. and SE.
 36.20 Road brs. NW. and SE.
 40.19 Intersect original $\frac{1}{4}$ sec. cor., which I destroy, and in
 the same place set an iron post 3 ft. long, 1 in. in
 diam., 26 ins. in the ground, for reestablished $\frac{1}{4}$ sec.
 cor., referring to sec. 35 only, with brass cap, marked
 $\frac{1}{4}$ S 35 on N. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.,
 and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high,
 N. of cor.
 Thence I run,
 S. 89° 48' W., on a true line, on S. bdy. of sec. 35 (W $\frac{1}{2}$).
 23.23 Wash 30 lks. wide, 4 ft. deep, course N. 10° W.
 40.15 Intersect original cor. of secs. 2, 3, 34 and 35, which I
 destroy, and in the same place, set an iron post 3 ft.
 long, 3 ins. in diam., 24 ins. in the ground for re-
 established cor. of secs. 34 and 35 only, with brass
 cap, marked
 T 8 S R 6 E on N. half;
 S 35 in NE., and
 S 34 in NW. quadrants;
 1915 on S. rim;
 dig pits 24x24x12 ins., NE. and NW. of post 6 ft. dist.,
 and raise a mound of earth 4 ft. base, 2 ft. high, N. of
 cor.
 Land, level, covered with silt, from overflow.
 Soil, sandy loam, 1st rate.

56. Reconvey of South boundary of Township 8 South Range 6 E.

Chains.

No timber.
Undergrowth, scattering greasewood brush and mesquite.

S.89°56' W., on a true line, on S.bdy. of sec.34.
Over level land, through scattering undergrowth.
38.00 Enter greasewood brush, 6 ft. high, brs.N. and S.
39.99 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
ground, for reestablished $\frac{1}{4}$ sec.cor., referring to sec.
34 only, with brass cap, marked
 $\frac{1}{4}$ S 34 on N.half;
1915 on S.rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.
of cor.
79.98 Intersect original cor. of secs. 3, 4, 33 and 34, which I
destroy, and in the same place set an iron post 3 ft.
long, 3 ins. in diam., 24 ins. in the ground, for re-
established cor. of secs. 33 and 34 only, with brass
cap, marked
T 8 S R 6 E on N.half;
S 34 in NE., and
S 33 in NW. quadrants;
1915 in S.rim;
dig pits 24x24x12 ins., NE. and NW. of post 6 ft. dist.,
and raise a mound of earth 4 ft. base, 2 ft. high, N. of
cor.
Land, level.
Soil, sandy adobe, 1st rate.
No timber.
Undergrowth, greasewood brush and scattering mesquite.

S.89°39' W., on a true line, on S.bdy. of sec.33.
Over level land, through scattering undergrowth.
10.00 Leave greasewood brush, brs.N. and S.
40.31 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
the ground for reestablished $\frac{1}{4}$ sec.cor., referring to
sec.33 only, with brass cap, marked
 $\frac{1}{4}$ S 33 on N.half;
1915 on S.rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,
N. of cor.
70.00 Enter greasewood brush, brs.N. and S.
79.40 Road brs.NW. and SE.
80.62 Intersect original cor. of secs. 4, 5, 32 and 33, which I de-
stroy, and in the same place set an iron post 3 ft. long,
3 ins. in diam., 24 ins. in the ground, for reestab-
lished cor. of secs. 32 and 33 only, with brass cap,
marked
T 8 S R 6 E on N.half;
S 33 in NE., and
S 32 in NW. quadrants;
1915 on S.rim;
dig pits 24x24x12 ins., NE. and NW. of post 6 ft. dist.,
and raise a mound of earth 4 ft. base, 2 ft. high, N. of
cor.
Land, level.
Soil, sandy adobe, 1st rate.
No timber.
Undergrowth, greasewood brush and scattering mesquite.

Chains.

40.18 S.89°41'W. on a true line, on S.bdy.of sec.32 (E $\frac{1}{2}$).
 Over level land, through scattering undergrowth.
 Intersect original $\frac{1}{4}$ sec.cor., which I destroy, and in the same place, set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. referring to sec.32 only, with brass cap, marked
 $\frac{1}{4}$ S 32 on N.half;
 1915 on S.rim;
 dig pits 18x18x12 ins., E.and W.of cor., 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
 Thence I run,
 40.04 N.89°51'W., on a true line, on S bdy.of sec.32 (W $\frac{1}{2}$).
 Intersect original cor.of secs. 5,6,31 and 32, which I destroy, and in same place, set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished cor.of secs. 31 and 32 only,with brass cap, marked
 T 8 S R 6 E on N.half;
 S 32 in NE., and
 S 31 in NW. quadrants;
 1915 on S.rim;
 dig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft.base, 2 ft. high,N.of cor.
 Land,level.
 Soil, sandy loam, dry, 2nd rate.
 No timber.
 Undergrowth, greasewood brush and scattering mesquite.

19.00 S.89°53'W., on a true line on S.bdy.of sec.31 (E $\frac{1}{2}$).
 38.90 Over level land, through scattering undergrowth.
 Road, brs.N.and S.
 40.13 Wash, 10 lks.wide, 2 ft. deep, course N.10°W.
 Intersect original $\frac{1}{4}$ sec.cor., which I destroy, and in the same place set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. sec., referring to sec.31 only, with brass cap,marked
 $\frac{1}{4}$ S 31 on N.half;
 1915 on S.rim;
 dig pits 18x18x12 ins., E.and W.of cor. 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N.of cor.
 Thence I run,
 38.98 N.89°2'W., on a true line on S bdy.of sec.31 (W $\frac{1}{2}$).
 Intersect original cor.of Ts. 8 and 9 S.,Rs.5 and 6 E., which I destroy, and in the same place set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished cor.of T.8 S., R.6 E.only (SW.cor), with brass cap, marked
 T 8 S R 6 E S 31 in NE. quadrant;
 1915 on S.rim;
 dig pits 36x36x12 ins.on each line N.and E. of cor. 8 ft. dist., and raise a mound of earth 5 ft base, 2 $\frac{1}{2}$ ft high, NE.of cor.
 Land,level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, greasewood brush.

Feb. 21, 1915. W.H.T.

58. Retracement of West bdy. of Township 8 South, Range 6 East

Chains.

W.H.T.

Retracement commenced Feb. 21, 1915, and executed as follows:

Having this day determined a meridian with the solar on the south bdy. of the Tp., I deflect 90° from the east to the north, at the reestablished cor. of T. 8 S., R. 6 E. (SW. cor.) hereinbefore described, and run,

40.14 North, on a random line on W. bdy. of sec. 31.
Fall 35 lks. W. of original $\frac{1}{4}$ sec. cor., which is a mesquite post 3 ins. square, 18 ins. above ground, marked and witnessed as described by the Surveyor General.
True course & dist. of S. $\frac{1}{2}$ of W. bdy. of sec. 31 is therefore $N. 0^\circ 30' E.$, 40.14 chs.

80.14 Continue random line and measurement.
After diligent search in this vicinity, find no trace of original cor. of secs. 25, 30, 31 and 36.
Set temp. cor. of secs. 30 and 31.

120.14 Continue random line and measurement from Tp. cor. on W. bdy. of sec. 30.
After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec. cor.
Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.

160.71 Fall 76 lks. west of original cor. of secs. 19, 24, 25 and 30, which is a mesquite post, 4 ins. square, 18 ins. above ground, mkd. & witnessed as described by the Surveyor General.
The dist. from original $\frac{1}{4}$ sec. cor. on west bdy. of sec. 31 to this cor. is 120.57 chs. (160.71 chs. - 40.14 chs.), which gives a length of 40.19 chs. for N. $\frac{1}{2}$ of W. bdy. of sec. 31, and N. and S. halves of W. bdy. of sec. 30. The true course of line W. of sec. 30 and N. $\frac{1}{2}$ of sec. 31 resulting from above fallings is $N. 0^\circ 12' E.$
Feb. 21, 1915.

March 4, 1915. At 2h. p.m., l.m.t., I set off $32^\circ 42' N.$ on the lat. arc; $6^\circ 34' S.$ on the decl. arc, and determine a meridian with the solar at the original cor. of secs. 19, 24, 25 and 30, described above.

Then I run,
40.00 North, on a random line on the W. bdy. of sec. 19.
After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec. cor. Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
80.00 After diligent search in this vicinity, find no trace of original cor. of secs. 13, 18, 19 and 24.
Set temp. cor. of secs. 18 and 19.

120.00 Continue random line and measurement.
North, on a random line on W. bdy. of sec. 18.
After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec. cor.
Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
160.00 After diligent search in this vicinity, find no trace of original cor. of secs. 7, 12, 13, and 18.
Set temp. cor. of secs. 7 and 18.

March 4, 1915.

March 5, 1915: At 8h. a.m., l.m.t., I set off $32^\circ 44' N.$ on the latitude arc; $6^\circ 16' S.$ on the decl. arc, and determine a meridian with the solar at the temp. cor. of secs. 7 and 18.

Retracement of West bdy. of Township 8 South, Range 6 E. 59

Chains.	
200.00	Continue random line and measurement on W.bdy. of sec. 7. After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec. cor. Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
240.00	After diligent search in this vicinity, find no trace of original cor. of secs. 1, 6, 7 and 12. Set temp. cor. of secs. 6 and 7.
280.00	Continue random line and measurement on W. bdy. of sec. 6. After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec. cor. Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
322.08	Fall 41 lks. W. of original cor. of Ts. 7 and 8 S., Rs. 5 and 6 E., which is a mesquite post, partly destroyed, lying on ground, with old pits plainly visible. Find an iron pipe 3 ft. long, 3 ins. in diam., without brass cap, or markings, lying alongside of post. True course and dist. of line from original cor. of secs. 19, 24, 25 and 30 to this township cor. is therefore N. 0° 6' E., 322.08 chs., giving a true course and distance for each of the west boundaries of secs. 19, 18, 7 and 6 of N. 0° 6' E., 80.52 chs. March 5, 1915. W.H.T.

60. Resurvey of West bdy. of Township 8 South, Range 6 East.

Chains

W.H.T.

Resurvey commenced March 6, 1915, and executed as follows:
From the reestablished cor. of T.8 S., R.6 E. (SW.cor.)
hereinbefore described, I run, as per result of re-
tracement,

40.14 N.0° 30' E., on a true line on W bdy. of sec. 31, (S $\frac{1}{2}$).
Over level land, through scattering undergrowth.
Intersect original $\frac{1}{4}$ sec. cor., which I destroy, and in
the same place, set an iron post 3 ft. long, 1 in. in
diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec.
cor., referring to sec. 31 only, with brass cap, marked
 $\frac{1}{4}$ S 31 on E. half;
1915 on S. rim;
dig pits 18x18x12 ins. N. and S. of cor., 3 ft. dist.,
and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high,
E. of cor.

40.19 Thence I run,
N.0° 12' E., on a true line on W bdy. of sec. 31, (N $\frac{1}{2}$).
(Proportional dist.) Set an iron post 3 ft. long, 3 ins.
in diam., 24 ins. in the ground for reestablished cor.
of secs. 30 and 31 only, with brass cap, marked
T 8 S R 6 E S 30 in NE., and
S 31 in SE. quadrants;
1915 on S. rim;
dig pits 24x24x12 ins. NE. and SE. of post, 6 ft. dist.,
and raise a mound of earth 4 $\frac{1}{2}$ ft. base, 2 ft. high, E.
of cor.
Land, level.
Soil, adobe, 1st rate.
No timber.
Undergrowth, greasewood brush and scattering mesquite.

40.19 N. 0° 12' E., on a true line on W. bdy. of sec. 30.
Over level land, through scattering undergrowth.
(Proportional dist.) Set an iron post 3 ft. long, 1 in. in
diam., 26 ins. in ground for reestablished $\frac{1}{4}$ sec. cor., with
brass cap, marked
 $\frac{1}{4}$ S 30 on E. half; 1915 on S. rim;
dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist.,
and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high,
E. of cor.

80.38 Intersect original cor. of secs. 19, 24, 25 and 30, which I
destroy, and in the same place set an iron post 3 ft.
long, 3 ins. in diam., 24 ins. in the ground for re-
established cor. of secs. 19 and 30 only, with brass
cap, marked
T 8 S R 6 E S 19 in NE., and
S 30 in SE. quadrants;
1915 on S. rim;
dig pits 24x24x12 ins., NE. and SE. of post, 6 ft.
dist., and raise a mound of earth, 4 ft. base, 2 ft.
high, E. of cor.
Land, level.
Soil, sandy loam, 1st rate.
No timber.
Undergrowth, greasewood brush and scattering mesquite.

11.00 N.0° 4' E., on a true line on W. bdy. of sec. 19.
Over level land, through scattering undergrowth.
25.00 Enter thick growth of mesquite brush, brs. NW. and SE.
40.26 Scattering greasewood and mesquite brush, brs. E. and W.
(Proportional dist.) Set an iron post 3 ft. long, 1 in.
in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$
sec. cor., referring to sec. 19 only, with brass cap,
marked
 $\frac{1}{4}$ S 19 on E. half;
1915 on S. rim;

Resurvey of West bdy. of Township 8 South Range 6 East. 61.

Chains	dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, E. of cor.
60.20	Road, brs. NW. and SE.
67.40	Brush and wire fence, brs. E. and W. along cultivated field of about 80 acres, cultivated by Indians.
75.00	Indian hut brs. W., about 6 chs. dist.
80.52	(Proportional dist.) True point for reestablishment of cor. of secs. 18 and 19, falls in cultivated field; therefore at
67.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for witness cor. to reestablished cor. of secs. 18 and 19 only, with brass cap, marked W C T 8 S R 6 E S 18 in NE., and S 19 in SE. quadrants, 1915 on S. rim.
	Dig pits 24x24x12 ins. NE. and SE. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.
	Land, level. Soil, sandy loam, 1st rate. No timber. Undergrowth, greasewood brush and scattering mesquite.

	From true point for reestablished sec. cor., I run, N. 0° 4' E. on a true line on W. bdy. of sec. 18. Over level land, through cultivated field.
5.70	Wire fence brs. NE. and SW.
10.20	Irrigation ditch, 20 lks. wide, 3 ft. deep, course N. 40° E.
14.50	Indian house, 12x12 ft. built of cactus ribs, W. 10 lks. dist.
16.10	Irrigation ditch, 20 lks. wide, 3 ft. deep, course N. 60° E.
23.60	Wire fence brs. E. and W.
32.30	Wire fence brs. NE. and SW.
34.90	Wire fence brs. E. and W. Leave cultivated field.
36.00	Road brs. E. and W.
39.50	Foot of rocky S. slope.
40.26	Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 1 1/2 ft. high, for reestablished 1/4 sec. cor. referring to sec. 18 only, with brass cap, marked, 1/4 S 18 on E. half; 1915 on S. rim.
	Pits impracticable. Build a mound of stone 3 ft. base, 2 ft. high, E. of cor.
47.80	Ascend rocky S. slope, 80 ft. to Top of ridge, brs. NE. and SW. Descend over NW. slope, 72 ft. to
56.60	Ascend 15 ft. to
60.00	Descend 40 ft. to
64.70	Ascend over E. end of rock knoll, 10 chs. long, 4 chs. wide, 50 ft. high.
67.00	Descend 50 ft. to
69.00	Enter level land, brs. W. and SE.
80.52	(Proportional dist.) Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 7 and 18, only, with brass cap, marked T 8 S R 6 E S 7 in NE., and S 18 in SE. quadrants; 1915 on S. rim; dig pits 24x24x12 ins. NE. and SE. of post, 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.
	Land, level and hilly. Soil, sandy loam, 1st rate, and stony, 4th rate. No timber. Undergrowth, scattering greasewood brush and mesquite.

	N. 0° 4' E., on a true line on W. bdy. of sed. 7. Over level land, through scattering undergrowth.

62. Resurvey of West bdy of Township 8 South Range 6 East

Chains.

- 12.15 Irrigation ditch, 10 lks. wide, 2 ft. deep, course NW.
 25.95 Irrigation ditch, 20 lks. wide, 3 ft. deep, course NW.
 40.26 (Proportional dist.) Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. referring to sec. 7 only, with brass cap, marked
 $\frac{1}{4}$ S 7 on E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
 74.15 Wash, 60 lks. wide, 6 ft. deep, course NW.
 80.00 Wash, 20 lks. wide, 5 ft. deep, course NE.
 80.52 (Proportional dist.) Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 6 and 7 only, with brass cap, marked
 T 8 S. R 6 E, S 6 in NE., and
 S 7 in SE. quadrants;
 1915 on S. rim.
 Dig pits 24x24x12 ins. NE. and SE. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, E. of cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, scattering greasewood brush and mesquite.
-
- 40.26 N. 0° 4' E., on a true line on W. bdy. of sec. 6.
 Over level land, through scattering undergrowth.
 (Proportional dist.) Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor. referring to sec. 6 only, with brass cap, marked
 $\frac{1}{4}$ S 6 in E. half;
 1915 on S. rim;
 dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, E. of cor.
 From this cor., a church in Quajata Indian village brs. S. 67° 10' W.
 80.52 Same church brs. S. 31° 45' W.
 Intersect old cor. of Ts. 7 and 8 S., Rs. 5 and 6 E., which I destroy, and in the same place, set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of Ts. 7 and 8 S., Rs. 5 and 6 E., with brass cap, marked
 T 7 S on N. half;
 R 6 E S 31 in NE.,
 S 6 in SE.,
 S 1 in SW., and
 R 5 E S 36 in NW. quadrants;
 T 8 S on S. half;
 1915 on S. rim;
 dig pits 24x24x12 ins. on each line, N., E. and W. 4 ft. and S. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, scattering greasewood and mesquite.
 March 6, 1915.

W. H. T.

Retracement of the South bdy of Township 7 S. R. 5 E. 63.

Chains.

W.H.T.

Retracement commenced March 5, 1915, and executed as follows:

At 10h. a.m., l.m.t., I set off 32°46' N. on the lat. arc; 6° 15' S. on the decl. arc, and determine a meridian with the solar, at the reestablished cor. of Ts. 7 and 8 S., Rs. 5 and 6 E., hereinbefore described.

Thence I run,

S. 89° 59' W., on S. bdy. of sec. 36.

40.00 After diligent search in this vicinity, find no trace of $\frac{1}{4}$ sec. cor.

Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.

80.00 After diligent search in this vicinity, find no trace of original cor. of secs. 1, 2, 35 and 36.

Set temp. sec. cor.

Continue random line and measurement from Tp. cor. on S. bdy. of sec. 35.

120.00 After diligent search in this vicinity, find no trace of $\frac{1}{4}$ sec. cor.

Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.

160.00 After diligent search in this vicinity, find no trace of original cor. of secs. 2, 3, 34 and 35.

Set temp. sec. cor.

Continue random line and measurement from Tp. cor. on S. bdy. of sec. 34.

200.00 After diligent search in this vicinity, find no trace of $\frac{1}{4}$ sec. cor.

Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.

240.00 After diligent search in this vicinity, find no trace of original cor. of secs. 3, 4, 33 and 34.

Set temp. sec. cor.

Continue random line and measurement from Tp. cor. on S. bdy. of sec. 33.

279.90 Fall 120 lks. N. of original $\frac{1}{4}$ sec. cor., which is a mesquite post 3 ft. long, 3 ins. square, marked and witnessed as described by the Surveyor General.

I reset post 24 ins. in the ground, and dig pits 18x18x12 ins., E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

True course and dist. of line from Tp. cor. to this cor. is therefore S. 89° 44' W., 279.90 chs.

Thence I run,

S. 89° 59' W. on S. bdy. of sec. 33 ($W\frac{1}{2}$).

40.26 Fall 21 lks. S. of original cor. of secs. 4, 5, 32 and 33, which is a mesquite post, partly decayed, marked and witnessed as described by the Surveyor General.

Change this cor. to refer to secs. 32 and 33 only, as follows:

I redig pits 24x24x12 ins., NE. and NW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.

True course and dist. of $W\frac{1}{2}$ of S. bdy. of sec. 33 is therefore N. 89° 43' W., 40.26 chs.

From original cor. of secs. 4, 5, 32 and 33 changed to refer to secs. 32 and 33, as described above, I run,

S. 89° 59' W. on a random line on S. bdy. of sec. 32.

40.00 After diligent search in this vicinity, find no trace of

64. Retracement of South bdy. of Township 7 S. R 5 E

Chains.

- original $\frac{1}{4}$ sec. cor.
 37.25 Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
 80.15 Fall 82 lks. N. of original cor. of secs. 5, 6, 31 and 32, which is a mesquite post, 3 ft. long, 3 ins. square, firmly set, marked and witnessed as described by the Surveyor General.
 Change this cor. to refer to secs. 31 and 32 only, as follows:
 I redig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
 True course and dist. of S. bdy. of sec. 32 is therefore S. $89^{\circ} 24' W.$, 80.15 chs.
-
- From original cor. of secs. 5, 6, 31 and 32, changed to cor. of secs. 31 and 32, as described above, I run, S. $89^{\circ} 59' W.$, on random line on S. bdy. of sec. 31.
 40.00 After diligent search in this vicinity, find no trace of original $\frac{1}{4}$ sec. cor.
 Set temp. $\frac{1}{4}$ sec. cor., and continue random line and measurement.
 79.67 Fall 111 lks. S. of original cor. of Ts. 7 and 8 S., Rs. 4 and 5 E., on 1st. Guide Meridian East, which is a mesquite post, 4 ins. square, 18 ins. above ground, marked and witnessed as described by the Surveyor General. I later destroy this cor., and reestablish it as cor. of T. 7 S., R. 5 E. only, as described in my notes of re-survey of the First Guide Meridian East in Book "A."
 True course and dist. of S. bdy. of sec. 31 is therefore N. $89^{\circ} 13' W.$, 79.68 chs.

Mar. 5, 1915.

W.H.T.

Survey of West bdy. of Township 9 South, Range 6 East. 65

Chains.	
	<p>W.K.K. Survey commenced Feb. 17, 1915, and executed as follows: From recent tests I know the transit and solar apparatus to be in good adjustment. At 9h. a.m., l.m.t., I set off 32° 35½ N. on the lat. arc; 12° 10' S. on the decl. arc, and determine a meridian with the solar, at the cor. of Ts. 9 and 10 S., Rs. 5 and 6 E. hereinbefore described. Thence I run, North, bet. secs. 31 and 36. Over level land, through greasewood brush and scattering mesquite brush.</p>
1.50	Wash, 10 lks. wide, 1 ft. deep, course SW.
36.90	Wash, 15 lks. wide, 2 ft. deep, course E. Change to slightly rolling land.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., with brass cap, marked ¼ S 36 on W., and S 31 on E. half; 1915 on S. rim. No trees within limits. Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
46.20	Wash, 10 lks. wide, 2 ft. deep, course S. 80° E.
62.90	Wash, 10 lks. wide, 2 ft. deep, course S. 70° E.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap, marked T 9 S on N. half; R 6 E S 30 in NE., S 31 in SE., S 36 in SW., and R 5 E S 25 in NW. quadrants; 1915 on S. rim. No trees within limits. Dig pits 18x18x12 ins., in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. Land, level. Soil, stony, 3rd rate. Timber, scattering palo verde. Undergrowth, greasewood brush and mesquite brush.

40.00	North, between secs. 25 and 30. Over level land, through greasewood brush and scattering palo verde timber. Set an iron post 3 ft. long, 1 in. in diam., 4 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for ¼ sec. cor., with brass cap, marked ¼ S 25 on W half; S 30 on E. half; 1915 on S. rim; from which A palo verde, 15 ins. in diam., brs. S. 41° 40' W., 172 lks. dist., marked ¼ S 25 B T. No other trees near. Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
54.50	Ascend low saddle to
64.00	Top of saddle. Rocky knoll, brs. W. about 5.00 chs. dist. Rocky knoll brs. N. 70° E., about 10.00 chs. dist.
75.00	Rocky knoll brs. E. about 3 chs. dist. Descend gentle NE. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for cor. of secs. 19, 24, 25 and 30, with brass cap, marked

66 West boundary of Township 9 South, Range 6 East.

Chains.

T 9 S on N. half;
R 6 E S 19 in NE.,
S 30 in SE.,
S 25 in SW., and
R 5 E S 24 in NW. quadrants;
1915 on S. rim.

No trees within limits.

Dig pits 18x18x12 ins., in each sec., 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, rolling.

Soil, stony, 4th rate.

Timber, scattering palo verde.

Undergrowth, greasewood brush.

North, between secs. 19 and 24.

Over gently rolling land, through low greasewood and scattering palo verde timber.

7.20 Wash, 20 lks. wide, 2 ft. deep, course E.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked

1/4 S 24 on W., and
S 19 on E. half;
1915 on S. rim.

No trees within limits.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

65.10 Wash, 25 lks. wide, 3 ft. deep, course NE.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap, marked

T 9 S on N. half;
R 6 E S 18 on NE.,
S 19 in SE.,
S 24 in SW., and
R 5 E S 13 in NW. quadrants;
1915 on S. rim.

No trees within limits.

Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, rolling.

Soil, gravelly, 2nd rate.

Timber, scattering palo verde.

Undergrowth, greasewood brush.

At this cor., I set off 12° 8' S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting lat. is 32° 38' N.

North, between secs. 13 and 18.

Over level land.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., with brass cap, marked

1/4 S 13 on W., and
S 18 on E. half;
1915 on S. rim.

No trees within limits. Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

52.50 Wash, 10 lks. wide, 2 ft. deep, course NW.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, with brass cap, marked

T 9 S on N. half;
R 6 E S 7 in NE.

West boundary of Township 9 South Range 6 East 67

Chains.

S 18 in SE.,
S 13 in SW., and
R 5 E S 12 in NW. quadrants;
1915 on S. rim.

No trees within limits.
Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and
raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde.
Undergrowth, greasewood brush.

North, between secs. 7 and 12.

40.00

Over level land, through low greasewood brush.
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 12 on W., and
S 7 on E. half;
1915 on S. rim.

No trees within limits. Dig pits 18x18x12 ins., N. and
S. of cor. 3 ft. dist., and raise a mound of earth 3 1/2
ft. base, 1 1/2 ft. high, W. of cor.

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 1, 6, 7 and 12, with brass
cap, marked

T 9 S on N. half;
R 6 E S 6 in NE.,
S 7 in SE.,
S 12 in SW. and
R 5 E S 1 in NW. quadrants;
1915 on S. rim.

No trees within limits.
Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and
raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde.
Undergrowth, greasewood.

North, between secs. 1 and 6,
Over level land.

38.40
40.00

Road brs. NW. and SE.
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 1 on W., and
S 6 on E. half;
1915 on S. rim.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and
raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of
cor.

Feb. 17, 1915.

March 3, 1915.

At 9h. a.m., 1.m.t., I set off 32° 40' N. on the lat. arc;
7° 3' S. on the decl. arc; and determine a meridian with
the solar at this 1/4 sec. cor.

60.00
80.00

Road, Jack Rabbit mine, to Armenta's house, brs. NE and SW.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of Ts. 9 S., Rs. 5 and 6 E., with
brass cap, marked,

S 6 R 6 E in SE., and
S 1 R 5 E in SW. quadrants;
T 9 S on S. half;
1915 on S. rim.

Dig pits 30x24x12 ins., on each line, E. and W. 4 ft., and
S. of cor. 8 ft. dist.; and raise a mound of earth 5 ft.
base, 2 1/2 ft. high, S. of cor.

Land, level. No timber.
Soil, sandy loam, 1st rate. Undergrowth, greasewood.
W.K.K. Mar 3, 1915.

Chains.

W.K.K.

Survey commenced March 10, 1915, and executed as follows:
 At 8h. a.m., l.m.t., I set off $32^{\circ}41'N.$ on the lat. arc;
 $4^{\circ}20'S.$ on the decl. arc, and determine a meridian with
 the solar at the cor. of Ts. 8 and 9 S., Rs. 4 and 5 E. on
 the 1st Guide Meridian East, reestablished by W.H.T.,
 and described in Book "A."

Thence I run,

East, on a random line, setting a temp. $\frac{1}{4}$ sec. cor., at
 39.00 chs. (40.00 chs. - convergency of 100 lks.) to refer
 to sec. 6 of T. 9 S., R. 5 E., and at intervals of 40.00
 chs. thereafter set temp. sec. and $\frac{1}{2}$ sec. cors. for secs.
 in same township. At a distance of 40.00 chs. east
 of Tp. cor., I set temp. $\frac{1}{4}$ sec. cor. referring to sec.
 31 of T. 8 S., R. 5 E., and at intervals of 40.00 chs.
 thereafter set temp. sec. and $\frac{1}{2}$ sec. cors. of same town-
 ship. At 478.87 chs. east of Tp. cor. the random
 line falls 6 lks. north of the cor. of Ts. 9 S., Rs. 5
 and 6 E., established by me March 3, 1915, and herein-
 before described. This correction being inconsiderable,
 the true course of the North bdy. of T. 9 S., R. 5 E. is
 west.

From cor. of Ts. 9 S., Rs. 5 and 6 E., I run east on random
 line as continuation of S. bdy. of T. 8 S., R. 5 E., this
 portion of line being also part of the N. bdy. of T. 9 S.,
 R. 6 E. At 83.60 chs. E. of cor. of Ts. 9 S., Rs. 5 and 6
 E., intersect the west bdy. of T. 8 S., R. 6 E., at a point
 10.56 chs. $S. 0^{\circ}30'W.$ from the original $\frac{1}{4}$ sec. cor. of sec.
 31, of said Tp., and 29.58 chs. $N. 0^{\circ}30'E.$ from the re-
 established cor. of T. 8 S., R. 6 E. (SW. cor.) both of
 which cors. are hereinbefore described.

At this point of intersection, I set an iron post, 3 ft.
 long, 2 ins. in diam., 24 ins. in the ground for cor.
 of T. 8 S., R. 5 E. (SE. cor.) with brass cap, marked

T 8 S R 5 E S 36 in NW. quadrant;
 1915 on S. rim;

dig pits $36 \times 36 \times 12$ ins. on each line, N. and W. of cor. 8
 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft.
 high, NW. of cor. The true length of the S. bdy. of T.
 8 S., R. 5 E. (478.87 chs. + 83.60 chs.) is 562.47 chs.
 The south bdy. of sec. 36 is therefore 162.47 chs. in
 length.

From the cor. of T. 8 S., R. 5 E. (SE. cor.) described above,
 I run,

West, on a true line on S. bdy. of sec. 36, T. 8 S., R. 5 E., N.
 of secs. 5, T. 9 S., R. 6 E.

Over level land, through greasewood brush.

3.60 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground for cor. of secs. 5 and 6 of T. 9 S., R. 6 E.,
 marked on brass cap, 1915 on S. rim,

S 5 in SE., and
 S 6 in SW. quadrants,
 T 9 S R 6 E in S. half;

dig pits $24 \times 24 \times 12$ ins., SE. and SW. of post, 6 ft. dist.,
 and raise a mound of earth 4 ft. base, 2 ft. high, S. of
 cor.

Continue measurement north of sec. 6, T. 9 S., R. 6 E.

43.60 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor. of sec. 6, T. 9 S., R. 6 E., marked
 on brass cap,

$\frac{1}{4}$ S 6 on S. half;
 1915 on S. rim;

dig pits $18 \times 18 \times 12$ ins., E. and W. of cor. 3 ft. dist.,
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,
 S. of cor.

66.60 Adobe house belonging to M. Armenta, 15×30 ft. brs. S. 21.30 chs.
 dist., improvements around which consist of windmill,
 good well, corral, outhouses, and about 15 acres fenced,
 5 acres of which is cultivated at this time.

67.40 Road from Armenta's ranch to Casa Grande brs. S. $20^{\circ}W.$ and
 $N. 20^{\circ}E.$

Chains.
83.60 Intersect cor. of Ts. 9 S., Rs. 5 and 6 E., established by me and hereinbefore described.
Continue measurement of S. bdy. of sec. 36, T. 8 S., R. 5 E. North of sec. 1 of T. 9 S., R. 5 E.
112.90 Road brs. NE. to Casa Grande, and SW. to Jack Rabbit mine.
122.47 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. referring to sec. 36, T. 8 S., R. 5 E., with brass cap, marked
 $\frac{1}{4}$ S 36 on N. half;
1915 on S. rim.
Dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
123.60 Set an iron post 3 ft. long 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. referring to sec. 1, T. 9 S., R. 5 E., with brass cap, marked
 $\frac{1}{4}$ S 1 in S. half;
1915 on S. rim.
Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
162.47 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 35 and 36, T. 8 S., R. 5 E., with brass cap, marked
T 8 S R 5 E on N. half;
S 36 in NE., and
S 35 in NW. quadrants;
T 9 S on S half;
1915 on S. rim;
dig pits 24x24x12 ins., NE. and NW of post 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.
Land, level.
Soil, sandy loam, 1st rate.
No timber.
Undergrowth, greasewood brush and scattering mesquite.

West, on true line, on S. bdy. of sec. 35.
Over level land, through greasewood brush.
11.13 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1 and 2, T. 9 S., R. 5 E., with brass cap, marked
T 8 S on N. half;
S 1 in SE., and
S 2 in SW. quadrants;
T 9 S R 5 E on S half;
1915 on S. rim;
dig pits 24x24x12 ins. SE. and SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, S. of cor. Continue measurement of S. bdy. of sec. 35.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., referring to sec. 35, T. 8 S., R. 5 E., with brass cap, marked
 $\frac{1}{4}$ S 35 on N. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
41.13 Set an iron post 3 ft. long 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., referring to sec. 2, T. 9 S., R. 5 E., with brass cap, marked
 $\frac{1}{4}$ S 2 on S. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 34 and 35, T. 8 S., R. 5 E., with brass cap, marked

70. South bdy. of Township 8 South, Range 5 East.

Chains.

- T 8 S R 5 E on N. half;
S 35 in NE.,
S 34 in NW. quadrants;
T 9 S on S. half;
1915 on S. rim
- Dig pits 24x24x12 ins. NE. and NW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor. Land, level.
Soil, sandy loam, 1st rate.
No timber.
Undergrowth, greasewood brush and scattering mesquite.
-
- 1.13 West, on a true line, on S. bdy. of sec. 34.
Over level land, through greasewood brush.
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2 and 3, T. 9 S., R. 5 E., with brass cap, marked
T 8 S on N. half;
S 2 in SE.,
S 3 in SW. quadrants;
T 9 S R 5 E on S. half;
1915 on S. rim.
- Dig pits 24x24x12 ins., SE. and SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, S. of cor. At this cor. I set off 3° 53' S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting lat. is 32° 40' N.
- 3.63 Thence continue measurement of S. bdy. of sec. 34.
Bend in wash, 25 lks. wide, 3 ft. deep, course from NE. to NW.
- 27.83 Road brs. SW. to Jack Rabbit mine and NE. to Casa Grande, Ariz.
- 30.23 Wash, 20 lks. wide, 3 ft. deep, course SE.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. referring to sec. 34, T 8 S., R 5 E., with brass cap, marked
 $\frac{1}{4}$ S 34 on N. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 41.13 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., referring to sec. 3, T. 9 S., R. 5 E., with brass cap, marked
 $\frac{1}{4}$ S 3 on S. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
- 46.13 Road brs. NE. and SW.
- 79.88 Wash, 20 lks. wide, 1 ft. deep, course N. 20° W.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 33 and 34, T. 8 S., R. 5 E., with brass cap, marked
T 8 S R 5 E on N. half;
S 34 in NE., and
S 33 in NW. quadrants,
T 9 S on S. half;
1915 on S. rim;
dig pits 24x24x12 ins. NE. and NW. of post 6 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.
Land, level.
Soil, sandy loam, 1st rate.
No timber.
Undergrowth, greasewood and scattering mesquite.
-

Chains.

West, on true line, on S. bdy. of sec. 33.
 Over level land, through greasewood brush.

1.13 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 3 and 4 T. 9 S., R. 5 E., with brass cap, marked
 T 8 S on N. half;
 S 3 in SE., and
 S 4 in SW. quadrants;
 T 9 S R 5 E on S. half;
 1915 on S. rim;
 dig pits 24x24x12 ins., SE. and SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, S. of cor.

36.13 Continue measurement of S. bdy. of sec. 33.
 Wash, 50 lks. wide, 3 ft. deep, course N.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, to solid rock, in a mound of stone, 2 1/2 ft. base, 1 ft. high for 1/4 sec. cor., referring to sec. 33, T. 8 S., R. 5 E., with brass cap, marked
 1/4 S 33 on N. half;
 1915 on S. rim.

No trees within limits. Pits impracticable.
 Build a mound of stone, 3 1/2 ft. base, 2 1/2 ft. high, N. of cor.

41.13 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., referring to sec. 4, T. 9 S., R. 5 E., with brass cap, marked
 1/4 S 4 on S. half;
 1915 on S. rim.

No trees within limits. Pits impracticable.
 Build a mound of stone 3 ft. base, 2 ft. high, S. of cor.

63.13 Wash, 20 lks. wide, 5 ft. deep, course N.
 Ascend gradual NE. slope.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 32 and 33, T. 8 S., R. 5 E., with brass cap, marked
 T 8 S R 5 E on N. half;
 S 33 on NE., and
 S 32 in NW. quadrants;
 T 9 S on S. half;
 1915 on S. rim.

No trees within limits. Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
 Land, level and rolling. Soil, stony, 2nd rate.
 Timber, scattering palo verde.
 Undergrowth, greasewood brush.

West, on true line, on S. bdy. of sec. 32.
 Over rolling land, through greasewood brush, scattering mesquite and palo verde.

1.13 Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in the ground, to solid rock, in a mound of stone, 2 1/2 ft. base, 1 ft. high, for cor. of secs. 4 and 5, T. 9 S., R. 5 E., with brass cap, marked
 T 8 S on N. half;
 S 4 in SE., and
 S 5 in SW. quadrants;
 T 9 S R 5 E on S. half;
 1915 on S. rim.

No trees within limits. Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high, S. of cor.
 Continue measurement of S. bdy. of sec. 32.

10.03 Wash, 30 lks. wide, 4 ft. deep, course NE.

21.13 Descend NW. slope, 30 ft. to

26.13 Wash, 30 lks. wide, 3 ft. deep, course NE.

31.13 Ascend rock hill, over steep E. slope.

40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 3 ft. base, 2 1/2 ft. high, for 1/4 sec. cor., referring to sec. 32, T. 8 S., R. 5 E., with brass cap, marked

72 South bdy. of Township 8 South Range 5 East.

Chains.

- $\frac{1}{4}$ S 32 on N. half;
 1915 on S. rim.
 No trees within limits. Pits impracticable.
 Build a mound of stone, $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, N. of cor.
- 41.13 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone $3\frac{1}{2}$ ft. base, 3 ft. high, for $\frac{1}{4}$ sec. cor. referring to sec. 5, T. 9 S. R. 5 E., with brass cap, marked
- $\frac{1}{4}$ S 5 on S. half;
 1915 in S. rim;
 pits impracticable.
 No trees within limits. Build a mound of stone $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, S. of cor.
- 42.33 Top of spur, 227 ft. high, slopes N.
 Descend NW. slope, 250 ft. to
- 61.70 Wash, 50 lks. wide, 4 ft. deep, course N.
 Thence over broken, rolling land.
- 75.13 Wash, 50 lks. wide, 5 ft. deep, course NE.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 31 and 32, T. 8 S., R. 5 E., with brass cap, marked
- T 8 S R 5 E on N. half;
 S 32 in NE., and
 S 31 in NW. quadrants;
 T 9 S on S. half;
 1915 on S. rim;
 no trees within limits. Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
 Land, mountainous.
 Soil, stony, 4th rate.
 Timber, scattering palo verde.
 Undergrowth, greasewood and cacti.
-
- West, on a true line, on S. bdy. of sec. 31.
 Over rolling land, through scattering greasewood brush, palo verde and mesquite.
- 1.13 Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for cor. of secs. 5 and 6, T. 9 S., R. 5 E., with brass cap, marked
- T 8 S on N. half;
 S 5 in SE., and
 S 6 in SW. quadrants;
 T 9 S R 5 E in S. half;
 1915 on S. rim.
 No trees within limits. Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high, S. of cor.
 Continue measurement of S. bdy. of sec. 31.
- 15.13 Wash, 50 lks. wide, 5 ft. deep, course NE.
- 22.13 Wash, 25 lks. wide 5 ft. deep, course NE.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec. cor., referring to sec. 31
 T 8 S R 5 E, with brass cap, marked
- $\frac{1}{4}$ S 31 on N. half;
 1915 on S. rim.
 No trees within limits. Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
- 41.13 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for $\frac{1}{4}$ sec. cor., referring to sec. 6, T. 9 S., R. 5 E., with brass cap, marked
- $\frac{1}{4}$ S. 6 on S. half;
 1915 on S. rim.
 No trees within limits. Pits impracticable.
 Build a mound of stone, 3 ft. base, 2 ft. high, S. of cor.
- 80.00 Cor. of Ts. 8 and 9 S., Rs. 4 and 5 E. on 1st. Guide Meridian East, reestablished by W.H. Thorn, as described in Book "A." North bdy. of sec. 6, T. 9 S., R. 5 E. is

South boundary of Township 8 South Range 5 East. 73.

Chains. 78.87 chs. in length, and the remainder of the N. tier of secs. have N. bdrs. each 80.00 chs. in length. Land, rolling between two ranges of mountains. Soil, stony, 4th rate. Timber, scattering palo verde. Undergrowth, greasewood brush and scattering mesquite. W.K.K. March 11, 1915.

Boundaries of Township 9 S., R. 6 E.
Latitudes, departures and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North,	480.00	480.00			
North Tp. bdy.	East,	83.60			83.60	
	S. 0°30' W.	29.58		29.58		.26
	S. 89°02' E.	38.98		.66	38.97	
	N. 89°58' E.	40.13	.02		40.13	
	S. 89°51' E.	40.04		.11	40.04	
	N. 89°41' E.	40.18	.22		40.18	
	N. 89°39' E.	80.62	.49		80.62	
	N. 89°56' E.	79.98	.09		79.98	
	N. 89°48' E.	40.15	.14		40.15	
	S. 89°19' E.	40.19		.48	40.19	
	N. 89°44' E.	40.49	.19		40.49	
	N. 89°49' E.	38.64	.12		38.64	
East Tp. bdy.	S. 0°31' W.	40.22		40.22		.36
	S. 0°19' E.	40.24		40.24	.48	
	S. 0°15' E.	40.32		40.32	.52	
	S. 0°03' W.	40.36		40.36		.04
	S. 0°1' E.	40.36		40.36	.01	
	S. 0°4' W.	80.72		80.72		.09
	S. 0°23' W.	40.30		40.30		.27
	S. 0°4' E.	40.32		40.32	.05	
	South	40.37		40.37		
	S. 0°53' W.	40.16		40.16		.62
	South,	6.63		6.63		
South Tp. bdy.	West,	561.61				561.61
Convergency,					.52	
Totals. -----			481.27	480.83	564.57	563.25
			480.83		563.25	
Error in latitude.			0.44			
Error in departure.					1.32	

Boundaries of Township 9 S., R. 5 E.
Latitudes, departures, and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West boundary. (1st. Guide Mer. E)	North,	480.00	480.00			
North boundary	East,	478.87			478.87	
East boundary,	South,	480.00		480.00		
South boundary,	West,	479.30				479.30
Convergency,					.46	
Totals. -----			480.00	480.00	479.33	479.30
			480.00		479.30	
Error in latitude. -----			0.00			
Error in departure. -----					0.03	

71 Survey of West bdy. of Township 9 South, Range 4 East.

Chains.

W.K.K.

Survey commenced March 19, 1915, and executed as follows:
 March 17, I examine the adjustments of the transit, and correct the level and collimation errors. I test the solar apparatus by a.m. and p.m. observations, throughout the day on a meridian established by observations on Polaris by W.H. Thorn, U.S. Surveyor, at a point near camp in sec. 23, T. 9 S., R. 4 E., at eastern elongation at 8h. 28m. a.m., l.m.t.

The meridians established by solar apparatus are identical with the meridian established by observations on Polaris, and I therefore conclude that the adjustments of the solar apparatus are satisfactory.

March 19, 1915: At 9h. a.m., l.m.t., I set off $32^{\circ}35'N.$ on the latitude arc; $0^{\circ}47'S.$ on the decl. arc, and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 3 and 4 E. hereinbefore described.

Thence I run,

North, bet. secs. 31 and 36.

Over level land, through greasewood brush.

40.00 True point for $\frac{1}{4}$ sec. cor. falls in wash, 75 lks. wide, 8 ft. deep, course W.; therefore at

40.77 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to $\frac{1}{4}$ sec. cor., with brass cap, marked

W C on S. half;

$\frac{1}{4}$ S 36 on W., and

S 31 in E. half;

1915 on S. rim; from which

A palo verde, 8 ins. in diam., brs. S. $53\frac{1}{2}^{\circ}E.$, 132 lks. dist., marked W C $\frac{1}{4}$ S 31 B T.

A palo verde, 12 ins. in diam., brs. S. $78^{\circ}E.$, 274 lks. dist., marked W C $\frac{1}{4}$ S 36 B T.

44.80 Wash, 75 lks. wide, 4 ft. deep, course NW.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap, marked

T 9 S on N. half,

R 4 E S 30 in NE.,

S 31 in SE.,

S 36 in SW., and

R 3 E S 25 in NW. quadrants;

1915 on S. rim.

No trees within limits.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level.

Soil, sandy loam, 1st rate.

Timber, scattering palo verde.

Undergrowth, greasewood brush.

North, between secs. 25 and 30.

Over level land, through greasewood brush.

10.75 Old road, brs. E. and W.

23.40 Wash, 5 lks. wide, 2 ft. deep, course E.

33.20 Wash, 9 lks. wide, 3 ft. deep, course SE.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 25 on W., and

S 30 on E. half;

1915 on S. rim.

No trees within limits.

Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

52.70 Wash, 10 lks. wide, 1 ft. deep, course W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap, marked T 9 S on N. half;

R 4 E S 19 in NE.,

West boundary of Township 9 South, Range 4 East. 75.

Chains

S 30 in SE.,
S 25 in SW., and
R. 3 E S 24 in NW. quadrants;
1915 on S.rim.

No trees within limits.
Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and
raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde.
Undergrowth, greasewood brush.

North, between secs. 19 and 24.

Over level land, through greasewood brush.
10.85 Wash, 10 lks. wide, 2 ft. deep, course SE.
21.10 Wash, 20 lks. wide, 4 ft. deep, course N. 80° E.
23.80 Wash, 25 lks. wide, 4 ft. deep, course S. 75° E.
40.00 Set an iron post 3 ft. long, 1 ins. in diam., 26 ins. in
the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 24 in W., and
S 19 in E. half;
1915 on S. rim.

Dig pits 18x18x12 ins. N. and S. of cor., 3 ft. dist.,
and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high,
W. of cor.

59.80 Wash, 10 lks. wide, 2 ft. deep, course E.
72.80 Wash, 5 lks. wide, 3 ft. deep, course E.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 13, 18, 19 and 24, with
brass cap, marked
T 9 S on N. half;
R 4 E S 18 in NE.,
S 19 in SE.,
S 24 in SW., and
R 3 E S 13 in NW. quadrants;
1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist., and
raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, level.

Soil, sandy loam, 1st rate.
No timber.
Undergrowth, greasewood brush.

North, between secs. 13 and 18.

Over level land, through greasewood brush.
2.30 Wash, 10 lks. wide, 4 ft. deep, course NE.
7.10 Wash, 20 lks. wide, 3 ft. deep, course E.
12.10 Wash, 10 lks. wide, 3 ft. deep, course E.
27.20 Wash, 100 lks. wide, 4 ft. deep, course E.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for 1/4 sec. cor., with brass cap, marked
1/4 S 13 on W., and
S 18 on E. half;
1915 on S. rim;

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and
raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of
cor.

48.60 Old road brs. NE. and SW.
61.30 Wash, 15 lks. wide, 2 ft. deep, course E.
68.00m Wash, 20 lks. wide, 2 ft. deep, course SE.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the
ground for cor. of secs. 12, 13, and 18 (sec. 7 of T. 9 S.
R. 4 E. falling within Papago Indian Reservation), with
brass cap, marked
T 9 S on N. half;
P I R R 4 E in NE.,
S 18 in SE.,
S 13 in SW., and

76. West boundary of Township 9 South, Range 4 East.

Chains.

	<p>R 3 E S 12 in NW. quadrants; 1915 on S. rim. Dig pits 24x24x12 ins., SE., SW., and NW. of post 6 ft. dist., and raise a mound of earth $4\frac{1}{2}$ ft. base, 2 ft. high, W. of cor. Boundary of Papago Indian Reservation runs E. and N. from this corner. Land, level. Soil, sandy loam, 1st rate. No timber. Undergrowth, greasewood brush.</p>

	<p>North, between sec. 12 of T. 9 S., R. 3 E., and Papago Indian Reservation. Over level land, through greasewood brush.</p>
16.80	Wash, 25 lks. wide, 4 ft. deep, course SE.
35.75	Wash, 25 lks. wide, 4 ft. deep, course SE.
38.00	Wash, 25 lks. wide, 4 ft. deep, course SE.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. to sec. 12, T. 9 S., R. 3 E. (sec. 7, T. 9 S., R. 4 E. being within Papago Indian Reservation), with brass cap, marked $\frac{1}{4}$ S 12 on W., and P I R on E. half; 1915 on S. rim; from which A palo verde, 10 ins. in diam., brs. S. 16° W., 200 lks. dist., marked $\frac{1}{4}$ S 12 B T.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1 and 12, (secs. 6 and 7 being within Papago Indian Reservation), with brass cap, marked T 9 S on N. half; R 4 E on E. half; S 12 in SW., and R 3 E S 1 in NW. quadrants; 1915 on S. rim. Dig pits 24x24x12 ins., NW. and SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level. Soil, sandy loam, 1st rate. No timber. Undergrowth, greasewood brush. At this cor. I set off 0°44' S. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting latitude is 32°40' N.

	<p>North, between sec. 1 of T. 9 S., R. 3 E., and Papago Indian Reservation. Over level land, through greasewood brush.</p>
2.60	Wash, 25 lks. wide, 2 ft. deep, course NE.
12.25	Wash, 10 lks. wide, 2 ft. deep, course S. 70° E.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. to sec. 1, T. 9 S., R. 3 E. (sec. 6, T. 9 S., R. 4 E. falling within Papago Indian Reservation), with brass cap, marked $\frac{1}{4}$ S 1 on W., and P I R on E. half; 1915 on S. rim; from which A palo verde, 10 ins. in diam., brs. S. 5° 50' W., 112 lks. dist., marked $\frac{1}{4}$ S 1 B T.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Rs. 8 and 9 S., Rs. 3 and 4 E., with brass cap, marked P I R T 8 S on N. half; R 4 E in NE., P I R in SE., and

West boundary of Township 9 South Range 4 East 77.

Chains.

R 3 E S 1 in SW. quadrants;
 1915 on S. rim, from which
 An ironwood, 14 ins. in diam., brs. S. $36\frac{1}{2}^{\circ}$ W.,
 162 lks. dist., marked T 9 S R 3 E, S 1 BT.
 No other trees within limits.
 Dig pits 24x24x12 ins., N., E. and W. 4 ft., and S. of cor.
 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft.
 high, S. of cor.
 Papago Indian Reservation adjoins this cor. on the NW.,
 NE. and SE. Bdy. of same runs S. and W. from this cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, greasewood brush.
 W.K.K.
 March 19, 1915.

Boundaries of that portion of T. 9 S., R. 4 E. outside Papago
 Indian Reservation.
 Latitudes, departures, and closing errors.

Line designated.	Bearing,	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North,	320.00	320.00			
Subdivisional Bdy.	N. $89^{\circ}57'E.$	159.39	.14		159.39	
	N. $89^{\circ}59'E.$	79.91	.02		79.91	
	East,	80.05			80.05	
	S. $89^{\circ}59'E.$	79.94		.02	79.94	
	S. $0^{\circ}1'E.$	80.00		80.00	.02	
	S. $89^{\circ}52'E.$	79.99		.19	79.99	
East Tp. bdy. (1st. Guide Mer. E)	South	240.00		240.00		
South Tp. bdy.	West,	479.56				479.56
Convergency,					.29	
Totals.			320.16	320.21	479.59	479.56
				320.16	479.56	
<u>Error in latitude.</u>			0.05			
<u>Error in departure.</u>			-0.03			

78. Survey of West boundary of Township 9 South, Range 3 East.

Chains.

W.K.K.

Survey commenced March 23, 1915, and executed as follows:
 March 21, 1915: At a point near camp, in sec. 23, T. 9 S.,

R. 4 E., at 7h. 33m. a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual of Surveying, and lay off the azimuth, 1° 21' to the west, and mark the meridian thus determined by a rod set on line 10.00 chs. N. of my station.

From recent tests I know the transit to be in satisfactory adjustment, then to test the solar apparatus by a.m. and p.m. observations on Polaris, I proceed as follows:

At 8h. a.m., l.m.t., I set off 32° 37' N. on the lat. arc; 0° 1' S. on the decl. arc; and determine a meridian with the solar. The meridian thus determined falls within 1' of the meridian determined by Polaris observations.

At 4h. p.m., l.m.t., I set off 32° 37' N. on the lat. arc; 0° 7' S. on the decl. arc; and determine a meridian with the solar. The meridian thus determined falls within 1' of the meridian determined by Polaris observations. I therefore conclude that the adjustments of the transit and solar apparatus are satisfactory.

Mar. 23, 1915. At 8h. a.m., l.m.t., I set off 32° 35½' N. on the lat. arc; 0° 47' N. on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 9 and 10 S. Rs. 2 and 3 E. hereinbefore described.

Thence I run,

North, between secs. 31 and 36.

Over gradual N. slope, through scattering palo verde, ironwood and cacti.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., with brass cap, marked
 ¼ S 36 on W., and
 S 31 in E. half;
 1915 on S rim.

No trees within limits. Pits impracticable.

Build a mound of stone, 3 ft. base, 2½ ft. high, W. of cor.

41.10

Wash, 100 lks. wide, 15 ft. deep, course NE.

60.50

Wash, 75 lks. wide, 4 ft. deep, course NE.

80.00

Set an iron post, 3 ft. long, 3 ins. in diam., 8 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for cor. of secs. 25, 30, 31 and 36, with brass cap, marked

T 9 S on N. half;

R 3 E S 30 in NE.,

S 31 in SE.,

S 36 in SW., and

R 2 E S 25 in NW. quadrants;

1915 on S. rim.

No trees within limits. Pits impracticable.

Build a mound of stone 3½ ft. base, 2½ ft. high, W. of cor. Land, broken and rolling.

Soil, stony, 4th rate.

Timber, scattering palo verde and ironwood.

Undergrowth, ocotillos and cacti.

 North, between secs. 25 and 30.

Over broken stony land, through scattering palo verde, ironwood and cacti.

12.50

Ascend SW. slope, 31 ft. to

23.40

Spur slopes W.

Descend W/slope, 75 ft. to

30.94

Wash, 20 lks. wide, 5 ft. deep, course W.

Ascend broken S. slope.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap, marked

¼ S 25 on W., and

S 30 in E. half;

1915 on S. rim.

No trees within limits. Pits impracticable.

Chains.

- 45.15 Build a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Rocky spur. 44 ft. ascent, slopes SE.
- 60.00 Descend NE slope 148 ft. to Foot of descent, brs. E. and W.
- 71.95 Road brs. E and W.
- 75.00 Wash, 200 ft. wide, 5 ft. deep, course E. Small level valley, brs. NW. and SE.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap, marked

T 9 S on N. half;
R 3 E S 19 in NE.,
S 30 in SE.,
S 25 in SW. and
R 2 E S 24 in NW. quadrants;
1915 on S. rim.

No trees within limits. Dig pits 18x18x12 ins., in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, south 60 chs. rolling; north 20 chs. level.

Soil, stony, 4th rate and sandy 2nd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, ocotillos and cacti.

March 23, 1915.

March 24, 1915.

North, between secs. 19 and 24.

Over level land, through greasewood brush and scattering mesquite.

- 6.00 Road brs. NE. and SW.
- 30.00 Wash, 10 lks. wide, 2 ft. deep, course E.
- 35.00 Wash, 25 lks. wide, 3 ft. deep, course E.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., with brass cap, marked

¼ S 24 on W., and
S 19 on E. half;
1915 on S. rim.

No trees within limits. Pits impracticable.

Build a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Change to broken gradual S. slope.

- 45.00 Leave valley, brs. NW. and SE.
- 49.00 Ascend steep west slope, 322 ft. to
- 67.00 Spur brs. NW. and SE. (slopes NW.)
- Descend over broken N. slope, 190 ft. to
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., on surface rock, in a mound of stone, 3 ft. base, 2½ ft. high, for cor. of secs. 13, 18, 19, and 24, with brass cap, marked

T 9 S on N. half;
R 3 E S 18 in NE.,
S 19 in SE.,
S 24 in SW., and
R 2 E S 13 in NW. quadrants;
1915 on S. rim.

No trees within limits. Pits impracticable.

Build a mound of stone 3 ft. base, 2½ ft. high, W. of cor.

Land, level and mountainous.

Soil, S half sandy, 2nd rate; north half, stony, 4th rate.

Timber, scattering palo verde and ironwood.

Undergrowth, ocotillos and cacti.

At this cor., I set off 1°15' N. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting latitude is 32° 37½' N.

North, between secs. 13 and 18.

Over stony rolling land.

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground, to solid rock, in a mound of stone, 3 ft. base, 2½ ft. high for ¼ sec. cor., with brass cap, marked

¼ S 13 on W., and

80 West boundary of Township 9 South, Range 3 East.

Chains.

- S 18 on E. half;
1915 on S. rim.
- No trees within limits. Pits impracticable.
Build a mound of stone 3 ft. base, 2 ft. high, W. of cor.
64.00 Wash, 200 lks. wide, 2 ft. deep, course SE.
Ascend S. slope, 91 ft. to
78.00 Top of round hill.
Descend broken NE. slope, 91 ft. to
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 12 ins. in
the ground, to solid rock in a mound of stone, 3 ft.
base, 2 ft. high, for cor. of secs. 7, 12, 13 and 18, with
brass cap, marked
T 9 S on N. half;
R 3 E S 7 in NE.,
S 18 in SE.,
S 13 in SW., and
R 2 E S 12 in NW. quadrants;
1915 on S. rim;
pits impracticable.
No trees within limits.
Build a mound of stone, $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, W. of
cor.
Land, rolling.
Soil, stony, 4th rate.
Timber, scattering palo verde and ironwood.
Undergrowth, ocotillos and cacti.
-
- North, between secs. 7 and 12.
Over gradual E. slope, through palo verde and ironwood.
10.00 Change to NE. slope.
15.00 Foot of descent, 69 ft.
Change to rolling land.
40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface
rock, in a mound of stone 3 ft. base, 3 ft. high, for
 $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 12 on W., and
S 7 on E. half;
1915 on S. rim; from which
A palo verde, 8 ins. in diam., brs. N. $69^{\circ} 36'$
E., 69 lks. dist., marked $\frac{1}{4}$ S 7 B T.
A palo verde, 8 ins. in diam., brs. N. $64^{\circ} 10' W.$,
10 lks. dist., marked $\frac{1}{4}$ S 12 B T.
March 23, 1915.
March 24, 1915: At 8h. a.m., l.m.t., I set off $32^{\circ} 39\frac{1}{2}' N.$
on the lat. arc; $1^{\circ} 11' N.$ on the decl. arc; and determine
a meridian with the solar, at this $\frac{1}{4}$ sec. cor.
40.50 Wash, 25 lks. wide, 2 ft. deep, course SE.
45.00 Wash, 25 lks. wide, 2 ft. deep, course SE.
80.00 True point for cor. falls in wash, 250 lks. wide, 2 ft.
deep, course E.; therefore at
85.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for witness cor. to cor. of secs. 1, 6, 7 and 12,
with brass cap, marked WC S. of center
WC T 9 S on N. half;
R 3 E S 6 in NE.,
S 7 in SE.,
S 12 in SW., and
R 2 E S 1 in NW. quadrants;
1915 on S. rim.
No trees within limits. Pits impracticable.
Build a mound of stone, 3 ft. base, 3 ft. high, W. of cor.
Land, slightly rolling.
Soil, gravel, 3rd rate.
Timber, scattering palo verde and ironwood.
Undergrowth, ocotillos and cacti.
-

West boundary of Township 9 South, Range 3 East 81

Chains.

North, between secs. 1 and 6, from true point for sec. cor. Over rolling land, through scattering palo verde and ironwood.

5.00

Witness cor. to cor. of secs. 1, 6, 7 and 12.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 1 on W., and
S 6 on E. half;
1915 on S. rim.

No trees within limits. Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

52.50

Wash, 100 lks. wide, 4 ft. deep, course SE.

58.10

Wash, 25 lks. wide, 5 ft. deep, course E.

80.00

True point for Tp. cor. falls in wash, 30 lks. wide, 10 ft. deep, course SE.; therefore at

80.50

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for witness cor. to cor. of Ts. 8 and 9 S., Rs. 2 and 3 E., with brass cap, marked
W C T 8 S on N. half;
R 3 E S 31 in NE.,
S 6 in SE.,
S 1 in SW., and
R 2 E S 36 in NW. quadrants;
T 9 S On S. half;
1915 on S. rim.

No trees within limits.

Dig pits 24x24x12 ins., N., E. and W. 4 ft., and S. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.

Land, slightly rolling.

Soil, stony, 4th rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood brush and cacti.

March 24, 1915.

W.KK.

82. Survey of North boundary of Township 9 South, Range 3 East.

Chains.

	<p>W.K.K. Survey commenced March 24, 1915, and executed as follows: From true point for cor. of Ts. 8 and 9 S., Rs. 2 and 3 E., (witness cor. 50 lks. N.) hereinbefore described, I run, East, on a random line setting temp. $\frac{1}{4}$ sec. cor. at 39.00 chs., and temp. sec. and $\frac{1}{4}$ sec. cors. at intervals of 40.00 chs. thereafter until at 479.06 chs. fall 10 lks. N. of cor. of Ts. 8 and 9 S., Rs. 3 and 4 E., herein- before described. True course of line is therefore S. 89° 59' E. March 24, 1915.</p> <p>March 25, 1915: I return to the true point for cor. of Ts. 8 and 9 S., Rs. 2 and 3 E., and at 8h. am., 1.m.t., I set off 32° 41' N. on the lat. arc; 1° 34' N. on the decl. arc; and determine a meridian with the solar.</p> <p>Thence I run, S. 89° 59' E., bet. secs. 6 and 31. Over rolling land, through scattering palo verde and ironwood.</p> <p>12.10 Wash, 10 lks. wide, 10 ft. deep, course S. 14.00 Low spur, 25 ft. high, slopes S. 21.00 Low spur, 30 ft. high, slopes S. 26.00 Over nearly level land. 39.06 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 31 on N., and S 6 on S half; 1915 on S. rim; from which, A palo verde, 10 ins. in diam., brs. N. 69° 55' W., 68 lks. dist., marked $\frac{1}{4}$ S 31 B T. An ironwood, 10 ins. in diam., brs. S. 18° E., 8 lks. dist., marked $\frac{1}{4}$ S 6 B T.</p> <p>43.50 Wash, 35 lks. wide, 4 ft. deep, course SE. 79.06 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 5, 6, 31 and 32, with brass cap, marked T 8 S R 3 E on N. half; S 32 in NE., S 5 in SE., S 6 in SW., and S 31 in NW. quadrants; T 9 S on S. half; 1915 on S. rim; from which, An ironwood, 10 ins. in diam., brs. N. 34$\frac{1}{2}$° E., 55 lks. dist., marked T 8 S R 3 E S 32 B T. A palo verde, 12 ins. in diam., brs. S. 40$\frac{1}{2}$° E., 35 lks. dist., marked T 9 S R 3 E S 5 B T.</p> <p>No other trees within limits; dig pits 18x18x12 ins., in each sec. 5$\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.</p> <p>Land, rolling. Soil, gravel, 2nd rate. Timber, scattering palo verde and ironwood. Undergrowth, greasewood brush and cacti.</p> <hr/> <p>S. 89° 59' E., between secs. 5 and 32. Over gently rolling land.</p> <p>.97 Wash, 75 lks. wide, 2 ft. deep, course SE. 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 32 on N., and S 5 on S. half; 1915 on S. rim; from which, An ironwood 10 ins. in diam., brs. S. 20$\frac{1}{2}$° W., 84 lks. dist., marked $\frac{1}{4}$ S 5 B T.</p> <p>No other trees within limits. Dig pits 18x18x12 ins., E. and W. of cor. 3 ft. dist., and raise a mound of earth 3$\frac{1}{2}$ ft. base, 1$\frac{1}{2}$ ft. high, N. of cor.</p> <p>80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, with brass</p>
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North boundary of Township 9 South, Range 3 East.

Chains.

cap, marked

T 8 S R 3 E on N.half;
S 33 in NE.,
S 4 in SE.,
S 5 in SW., and
S 32 in NW. quadrants;
T 9 S on S.half,

1915 on S.rim; from which,
An ironwood, 10 ins. in diam., brs.N.7 1/8°E., 210
lks.dist., marked T 8 S R 3 E S 33 B T.

No other trees within limits. Dig pits 18x18x12 ins., in
each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft.
base, 2 ft.high, W.of cor.

Land, nearly level.

Soil, gravel, 2nd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood brush and cacti.

S.89°59'E., between secs. 4 and 33.

Over level land, through scattering ironwood and palo verde
timber and greasewood brush.

7.00
16.30
35.50
40.00

Wash, 50 lks.wide, 2 ft. deep, course SE.

Wash, 50 lks.wide, 2 ft.deep, course N.50°E.

Wash, 25 lks.wide, 2 ft. deep, course SE.

Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the
ground for 1/4 sec.cor., with brass cap, marked

1/4 S 33 on N., and
S 4 on S.half;
1915 on S.rim; from which

An ironwood, 8 ins. in diam., brs.S.54 1/8°W., 179
lks.dist., marked S 4 B T.

No other trees within limits.

Dig pits 18x18x12 ins., E.and W.of cor., 3 ft. dist.,
and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N.
of cor.

41.90
80.00

Wash, 35 lks.wide, 2 ft. deep, course S. 50°E.

Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in
the ground for cor.of secs. 3,4, and 33 (sec.34 falling
within Papago Indian Reservation), with brass cap,
marked

T 8 S on N.half;
P I R in NE.,
S 3 in SE.,
S 4 in SW., and
S 33 in NW. quadrants;
T 9 S R 3 E on S.half;
1915 on S.rim.

No other trees within limits.

Dig pits 24x24x12 ins. SE., SW., and NW. of a post 6 ft.dist.,
and raise a mound of earth 4 1/2 ft. base, 2 ft.high, W.of
cor.

Boundary of Papago Indian Reservation runs north on subdi-
vision line, and E. on Tp. bdy.from this cor.

Land, level.

Soil, sandy, 2nd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood brush and cacti.

S.89°59'E. along N.bdy.of sec.3, S.of Papago Indian Reser-
vation.

Over level land, through greasewood brush and scattering
palo verde and ironwood timber.

2.70
19.20
40.00

Wash, 35 lks.wide, 2 ft. deep, course SE.

Wash, 35 lks.wide, 2 ft. deep, course SE.

Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
the ground, for 1/4 sec.cor., to sec.3 (sec.34 being within
P.I.R.) with brass cap, marked

84. North boundary of Township 9 South Range 3 East

Chains.

P I R on N., and
 $\frac{1}{4}$ S 3 on S.half;
 1915 on S.rim; from which,
 An ironwood, 8 ins. in diam., brs.S.64 $\frac{1}{2}$ °W., 76
 lks.dist., marked $\frac{1}{4}$ S 3 B T.
 46.30 Wash, 35 lks.wide, 2 ft. deep, course SE.
 80.00 Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in
 the ground, for cor.of secs.2 and 3,(secs.34 and 35 be-
 ing within P.I.R.), with brass cap, marked
 P I R on N.half;
 S 2 in SE., and
 S 3 in SW.quadrants;
 T 9 S R 3 E on S.half;
 1915 on S.rim; from which,
 An ironwood 20 ins. in diam., brs.S 52 $\frac{1}{2}$ °E., 229
 lks.dist., marked T 9 S R 3 E S 2 B T.
 A palo verde, 10 ins. in diam., brs.S.19 $\frac{1}{2}$ °W.,
 330 lks.dist., marked T 9 S R 3 E S 3 B T.
 Land,level.
 Soil, sandy, 2nd rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, greasewood brush and cacti.

S.89°59'E., along N.bdy.of sec.2,S.of Papago Indian Res-
 ervation.
 Over level land, through scattering palo verde and iron-
 wood timber.
 5.00 Bend in wash, 10 lks.wide, 2 ft.deep, course N.70°W. to
 N.70°E.
 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor. to sec.2 (sec.35 being within
 P.I.R.), with brass cap, marked
 P I R on N., and
 $\frac{1}{4}$ S 2 on S.half;
 1915 on S.rim; from which,
 An ironwood, 16 ins. in diam., brs.S.28 $\frac{3}{4}$ °W.,
 185 lks.dist., marked $\frac{1}{4}$ S 2 B T.
 58.10 Wash, 25 lks.wide, 1 ft. deep, course S.70° E.
 80.00 Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in
 the ground, for cor.of secs. 1 and 2 (secs.35 and 36
 being within P.I.R.), with brass cap, marked
 P I R on N.half;
 S 1 in SE., and
 S 2 in SW.quadrants,
 T 9 S R 3 E on S.half;
 1915 on S.rim.
 No trees within limits. Dig pits 24x24x12 ins., SE. and
 SW.of post 6 ft.dist., and raise a mound of earth 4 ft.
 base, 2 ft.high, S.of cor.
 Land,level.
 Soil, sandy, 2nd rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, greasewood brush and cacti.
 At this cor., I set off 1°38'N.on the decl.arc; and at
 apparent noon, observe the sun on the meridian; the
 resulting latitude is 32° 40 $\frac{1}{2}$ 'N.

S. 89° 59' E. along N. bdy. of sec.1,S.of Papago Indian
 Reservation.
 Over level land,through greasewood brush and scattering
 palo verde and ironwood brush.
 34.50 Wash, 25 lks.wide, 2 ft. deep, course S.70° E.
 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor. to sec.1,(sec.36 being
 within P.I.R.) with brass cap., marked
 P I R on N., and
 $\frac{1}{4}$ S 1 on S.half;
 1915 on S.rim.

Survey of West boundary of T.8 S., R.2 E.

Chains

W.K.K. Survey commenced Apr. 3, 1915 and executed, was follows:
and for's right m... for dit to 3490, ... described
in book 2892.

From recent and repeated tests on a mer. established by observations on Polaris, I know the transit and solar apparatus to be in satisfactory adjustment. (See notes of Mar. 21, 1915, in book "M.N.")

At 8h., a.m., l.m.t., I set off 32° 41' N. on the lat. arc; 5° 41' N. on the decl. arc. and determine a mer. with the solar, at the cor. of Ts.8 and 9 S., Rs.1 and 2 E. as established by me and hereinbefore described.

Thence I run North bet. secs. 31 and 36.

Over level land, through greasewood brush and scattering mesquite.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.
1/4 S 36 on W. and,
S 31 on E. half;
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

62.50 Wash, 15 lks. wide, 1 ft. deep, course, W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 8 S 1 1/2 on N. half;
R 2 E S 30 in NE.
S 31 in SE.
S 36 in SW. and
R 1 E S 25 in NW. quadrants,
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde.
Undergrowth, greasewood brush and scattering mesquite.
Native grass.

North bet. secs. 25 and 30.
Over level land, through greasewood brush and scattering mesquite.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.
1/4 S 25 on W. and
S 30 on E. half;
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

47.10 Wash, 20 lks. wide, 2 ft. deep, course, W.
60.50 Wash, 50 lks. wide, 3 ft. deep, course, N. 70° W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 20 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 6 ins. high, for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 8 S 1 1/2 on N. half;
R 2 E S 19 in NE.
S 30 in SE.
S 25 in SW. and
R 1 E S 24 in NW. quadrants,
1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 1/2 ft. high W. of cor.
Land, south half, level. North half, gentle SW. slope.
Soil, sandy loam, 1st rate and stony 3rd rate.
Timber, scattering palo verde and iron wood.
Undergrowth, greasewood brush and scattering mesquite.

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West boundary of T.8 S., R.2 E.

Chains

	North, bet. secs. 19 and 24. Over rolling land, through scattering greasewood brush, palo verde and iron wood timber.
14.20	Wash, 50 lks. wide, 3 ft. deep, course, SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd. $\frac{1}{4}$ S 24 on W. side, S 19 on E. half; 1915 on S. rim.
	Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd. T & S 18 on N. half; R 1 E S 18 in NE. S 19 in SE. S 24 in SW. and R 1 E S 13 in NW. quadrants, 1915 on S. rim.
	Build a mound of stone, $3\frac{1}{2}$ ft. base, 3 ft. high W. of cor. Land, rolling. Soil, stony, 3rd rate. Timber, scattering palo verde and iron wood. Undergrowth, greasewood brush. At this cor. I set off $55^{\circ} 18'$ N. on the decl. arc; and at apparent noon observe the sun on the mer. The resulting lat. is $32^{\circ} 43'$ N.
	North, bet. secs. 13 and 18. Over rolling land, through scattering greasewood brush, palo verde and iron wood timber.
38.30	Wash, 50 lks. wide, 3 ft. deep, course, W.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd. $\frac{1}{4}$ S 13 on W. side, S 18 on E. half; 1915 on S. rim.
	from which, A palo verde 8 ins. in diam., brs. S. $5\frac{1}{2}^{\circ}$ E. 112 lks. dist. mkd. $\frac{1}{4}$ S 18 B T. A palo verde 8 ins. in diam., brs. S. $31\frac{3}{4}^{\circ}$ W. 70 lks. dist. mkd. $\frac{1}{4}$ S 13 B T.
44.00	Wash, 35 lks. wide, 3 ft. deep, course, N. 70° W.
54.10	Wash, 20 lks. wide, 3 ft. deep, course, NW.
71.90	Wash, 10 lks. wide, 1 ft. deep, course, NW.
74.00	Wash, 15 lks. wide, 1 ft. deep, course, W.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd. T 9 S on N. half; R 2 E S 7 in NE. S 18 in SE. S 13 in SW. and R 1 E S 12 in NW. quadrants, 1915 on S. rim.
	Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor. Land, rolling. Soil, stony, 4th rate. Timber, scattering palo verde and iron wood. Undergrowth, scattering greasewood brush.

North boundary of Township 9 South, Range 2 East.

Chains.

N.89°58' W., bet. secs.4 and 33.
 Over level land, through greasewood brush and scattering mesquite.

5.00 Wash, 10 lks.wide, 1 ft. deep, course S.20° W.
 11.10 Wash, 50 lks.wide, 4 ft. deep, course S.
 21.10 Wash, 15 lks.wide, 1 ft. deep, course S.20°E.
 28.00 Wash, 10 lks.wide, 1 ft. deep, course S.
 36.90 Wash, 15 lks.wide, 1 ft. deep, course SE.
 40.00 Set an iron post 3 ft.long, 1 in. indiam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., with brass cap, marked
 S 33 on N., and
 S 4 on S half;
 1915 on S.rim.

Dig pits 18x18x12 ins., E.and W.of cor., 3 ft. dist.,and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.

44.00 Wash, 10 lks.wide, 2 ft. deep, course SE.
 65.50 Wash, 10 lks.wide, 2 ft. deep, course SE.
 80.00 Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for cor.of secs.4,5,32 and 33, with brass cap, marked
 T 8 S R 2 E on N. half;
 S 33 in NE.,
 S 4 in SE.,
 S 5 in SW., and
 S 32 in NW. quadrants;
 T 9 S on S.half;
 1915 on S.rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist.,and raise a mound of earth 4 ft. base, 2 ft.high,W.of cor.
 Land,level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, greasewood brush and scattering mesquite.

N.89° 58' W., bet1 secs. 5 and 32.
 Over level land, through greasewood brush and scattering mesquite.

3.50 Wash, 25 lks.wide, 2 ft. deep, course S.
 35.50 Wash,10 lks.wide, 1 ft. deep, course S.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 24 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked
 S 32 on N., and
 S 5 on S.half;
 1915 on S.rim.

Dig pits 18x18x12 ins., E.and W.of cor. 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,N.of cor.

60.00 Wash,10 lks.wide, 1 ft. deep, course S.10° E.
 63.90 Wash, 35 lks.wide, 2 ft. deep, course S.
 80.00 Set an iron post, 3 ft.long, 3 ins. indiam., 24 ins. in the ground, for cor.of secs.5,6,31 and 32,with brass cap, marked
 T 8 S R 2 E on N.half;
 S 32 in NE.,
 S 5 in SE.,
 S 6 in SW., and
 S 31 in NW. quadrants;
 T 9 S on S.half;
 1915 on S.rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.base, 2 ft.high,W.of cor.
 Land,level.
 Soil, sandy loam, 1st rate.
 No timber.
 Undergrowth, greasewood brush and scattering mesquite.

92. North boundary of Township 9 South, Range 2 East.

Chains.

40.00 N.89° 58'W., bet. secs. 6 and 31.
Over level land, through greasewood brush and scattering mesquite.
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
S 31 on N., and
S 6 on S. half;
1915 on S. rim.
Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

79.02 Cor. of Ts. 8 and 9 S., Rs. 1 and 2 E., hereinbefore described.
Land, level.
Soil, sandy loam, 1st rate.
No timber.
Undergrowth, scattering greasewood and mesquite brush h.
April 1, 1915.
W.K.K.

Boundaries of Township 9 South, Range 2 East.
Latitudes, departures and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North,	480.00	480.00			
North Tp. bdy.	S. 89° 58' E.	479.02		.28	479.02	
East Tp. bdy.	South,	480.00		480.00		
South, Tp. bdy.	West,	479.62				479.62
Convergency,					.46	
Totals,			480.00	480.28	479.48	479.62
				480.00		479.48
Error in latitude, -----			0.28			
Error in departure, -----			0.14			

Survey of North boundary of Township 9 South, Range 2 East, 89

Chains.	
	<p>W.K.K. Survey commenced March 31, 1915, and executed as follows: From the cor. of Ts. 8 and 9 S., Rs. 1 and 2 E., hereinbefore described, I run, East, on a random line along north bdy. of Tp., setting temp. $\frac{1}{4}$ sec. cor. at 39.00 chs., and thereafter setting temp. sec. and $\frac{1}{4}$ sec. cors. at intervals of 40.00 chs.</p>
319.00	<p>Set temp. cor. of secs. 2, 3, 34 and 35. March 31, 1915. April 1, 1915. At this temp. sec. cor. at 8h. a.m., l.m.t., I set off $32^{\circ}41'N.$ on lat. arc $4^{\circ}18'N.$ on decl. arc and determine a meridian with the solar. Continue measurement; East, on a random line, setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs., until at</p>
479.02	<p>Fall 22 lks. N. of true point for cor. of Ts. 8 and 9 S., Rs. 2 and 3 E. hereinbefore described (witness cor. 50 lks. N.) This falling answers to a correction of $0^{\circ}2'$ to the S., counting from the west or $3\frac{2}{3}$ lks. per mile. From true point for Tp. cor., I run $N.89^{\circ}58'W.$, on a true line, bet. secs. 1 and 36. Over rolling land, through scattering palo verde and ironwood.</p>
28.50	Ascend SE. slope, 30 ft. to
35.00	Spur ridge, slopes S. Descend 30 ft. to
40.00	Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground, to solid rock in a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 36 on N., and S 1 on S. half; 1915 on S. rim.
	Pits impracticable. Build a mound of stone $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, N. of cor.
44.50	Ascend SE. slope, 30 ft. to Spur slopes S., summit, about 60 ft. high, brs. N. about 2 chs. dist. Descend SW. slope of round hill.
49.00	Change to rolling land.
56.50	Wash, 20 lks. wide, 2 ft. deep, course $S.20^{\circ}E.$
74.25	Wash, 20 lks. wide, 2 ft. deep, course $S.20^{\circ}E.$
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, with brass cap, marked T 8 S R 2 E on N. half; S 36 in NE., S 1 in SE., S 2 in SW., and S 35 in NW. quadrants, T 9 S on S half; 1915 on S. rim; from which, A palo verde, 8 ins. in diam., brs. $S.66^{\circ}40'W.$, 95 lks. dist., marked T 9 S R 2 E S 2 B T. A palo verde, 12 ins. in diam., brs. $N.20^{\circ}W.$, 17 lks. dist., marked T 8 S R 2 E S 35 B T.
	No other trees within limits. Build a mound of stone $3\frac{1}{2}$ ft. base, 2 ft. high, W. of cor. Land, rolling and hilly. Soil, stony, 4th rate. Timber, scattering palo verde and ironwood. Undergrowth, greasewood brush, ocotillos and cacti.

	$N.89^{\circ}58'W.$, bet. secs. 2 and 35. Over rolling land, through greasewood brush and scattering palo verde and cacti.
17.80	Wash, 100 lks. wide, 2 ft. deep, course $S.75^{\circ}W.$
37.40	Wash, 25 lks. wide, 2 ft. deep, course $S.20^{\circ}E.$

90. North boundary of Township 9 South Range 2 East.

Chains.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 35 on N., and S 2 on S. half; 1915 on S. rim; from which,
A palo verde, 6 ins. in diam., brs. N. $8\frac{1}{2}^{\circ}$ E., 108 lks. dist., marked $\frac{1}{4}$ S 35 B T.
A palo verde, 10 ins. in diam., brs. S- $80\frac{1}{2}^{\circ}$ W., 95 lks. dist., marked $\frac{1}{4}$ S 2 B T.

52.10 Wash, 10 lks. wide, 1 ft. deep, course S.

57.40 Wash, 35 lks. wide, 2 ft. deep, course S.

61.90 Wash, 25 lks. wide, 3 ft. deep, course S.

72.50 Wash, 15 lks. wide, 2 ft. deep, course S.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, with brass cap, marked

T 8 S R 2 E on N. half;

S 35 in NE.,

S 2 in SE.,

S 3 in SW., and

S 34 in NW. quadrants;

T 9 S on S half;

1915 on S. rim.

Build a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, W. of cor. Land, rolling.

Soil, stony, 3rd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood brush and cacti.

At this cor., I set off $4^{\circ}21'$ N. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting latitude is $32^{\circ}41'N$.

N. $89^{\circ}58'$ W., bet. secs. 3 and 34.

Over rolling land, through greasewood brush and scattering palo verde and ironwood timber.

11.90 Wash, 30 lks. wide, 2 ft. deep, course S.

22.80 Wash, 10 lks. wide, 1 ft. deep, course S. 20° W.

40.00 Set an iron post 3 ft. long 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked

 $\frac{1}{4}$ S 34 on N., and

S 3 on S. half;

1915 on S. rim; from which,

A palo verde, 10 ins. in diam., brs. N. $2\frac{1}{4}^{\circ}$ W., 106 lks. dist., marked $\frac{1}{4}$ S 34 B T.

A palo verde, 8 ins. in diam., brs. S. 55° E., 377 lks. dist., marked $\frac{1}{4}$ S 3 B T.

44.00 Wash, 50 lks. wide, 3 ft. deep, course S. 20° E.45.00 Wash, 75 lks. wide, 2 ft. deep, course S. 20° E.

61.60 Wash, 15 lks. wide, 3 ft. deep, course S.

80.00 Set an iron post, 3 ft. long, 3 ins., in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, with brass cap, marked

T 8 S R 2 E on N. half;

S 34 in NE.,

S 3 in SE.,

S 4 in SW., and

S 33 in NW. quadrants;

T 9 S on S half;

1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level and rolling.

Soil, stony, 3rd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood and cacti.

West boundary of Township 9 South, Range 2 East 87

Chains.

North, between secs.19 and 24.
Over level land, through greasewood brush and scattering mesquite.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 24 on W., and S 19 on E half; 1915 on S. rim.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap, marked

T 9 S on N. half;
R 2 E S 18 in NE.,
S 19 in SE.,
S 24 in SW., and
R 1 E S 13 in NW. quadrants;
1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
Soil, adobe, 1st rate.
No timber.
Undergrowth, scattering mesquite and greasewood brush.
Native grass.

North, between secs.13 and 18.
Over level land, through greasewood brush and scattering mesquite.

16.60 Road brs. N.40° W. and S.30° E.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 13 on W., and S 18 on E half; 1915 on S. rim.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap, marked

T 9 S on N. half;
R 2 E S 7 in NE.,
S 18 in SE.,
S 13 in SW., and
R 1 E S 12 in NW. quadrants;
1915 on S. rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
Soil, adobe, 1st rate.
Timber, none.
Undergrowth, greasewood brush and scattering mesquite.
Native grass.

North, between secs.7 and 12.
Over level land, through greasewood brush and scattering mesquite.

10.00 Leave brush NW. and SE. Enter grassy flat.

Soil, changes to sandy loam.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked $\frac{1}{4}$ S 12 on W., and S 7 on E. half; 1915 on S. rim.

Dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and

88. West boundary of Township 9 South Range 2 East

Chains

80.00 raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap, marked

T 9 S on N. half;
R 2 E S 6 in NE.,
S 7 in SE.,
S 12 in SW., and
R 1 E S 1 in NW quadrants;
1915 on S rim.

Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, level.

Soil, adobe, 1st rate.

No timber.

Scattering greasewood brush and mesquite.

Native grass.

At this cor. I set off $3^{\circ}58'N$. on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting latitude is $32^{\circ}39\frac{1}{2}'N$.

North, between secs. 1 and 6.

Over level land, covered with bunch grass.

25.00 Leave grassy flat, enter greasewood and scattering mesquite brush.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 1 on W., and
S 6 on E. half;
1915 on S. rim;

dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 8 and 9 S., Rs. 1 and 2 E., with brass cap, marked

T 8 S on N. half;
R 2 E S 31 in NE.,
S 6 in SE.,
S 1 in SW. and
R 1 E S 36 in NW quadrants;
T 9 S on S half;
1915 on S. rim.

Dig pits 24x24x12 ins., N., E. and W. 4 ft., and S. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.

Land, level.

Soil, adobe, 1st rate.

No timber.

Undergrowth, greasewood and scattering mesquite brush.

Native bunch grass.

Mar. 31, 1915.
W.K.K.

North boundary of Township 9 South Range 3 East . 85.

Chains.

No trees within limits.
 Dig pits 18x18x12 ins., E:and W.of cor. 3 ft. dist., and
 raise a mound of earth 3½ ft. base, 1½ ft. high,S.of
 cor.
 80.00 Cor.of Ts.8 and 9 S., Rs.3 and 4 E. hereinbefore de-
 scribed. Papago Indian Reservation bdy. runs S.and W.
 from this cor. on township boundaries.
 Land, level.
 Soil, sandy, 2nd rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, greasewood brush and cacti.
 March 25, 1915.
 W.K.K.

 Boundaries of Township 9 South, Range 3 East.
 Latitudes, departures, and closing errors.

Line designated.	Bearing,	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp.bdy.	North,	480.00	480.00			
North, Tp.bdy.	S.89°59'E.	479.06		.10	479.06	
East Tp.bdy.	South,	480.00		480.00		
South Tp.bdy.	West,	479.71				479.71
Convergency					.46	
<u>Totals.</u>			480.00	480.10	479.52	479.71
				480.00		479.52
<u>Error in latitude.</u>			----- 0.10			
<u>Error in departure.</u>			----- .19			

86. Survey of West bdy. of Township 9 South, Range 2 East.

Chains.

W.K.K.

Survey commenced Mar. 31, 1915, and executed as follows:
From recent tests I know the transit and solar attachment to be in satisfactory adjustment. (See notes of T. 9 S., R. 3 E., in book "M" for March 21st, for tests on a meridian established by observations on Polaris).

At 9h. a.m., l.m.t., I set off $32^{\circ} 35\frac{1}{2}'$ N. on the lat. arc; $3^{\circ} 56'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 9 and 10 S., Rs. 1 and 2 E., established by me and hereinbefore described.

Thence I run,

North, between secs. 31 and 36.

Over level land, through low greasewood brush and scattering mesquite.

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 36 on W., and
 $\frac{1}{4}$ S 31 on E. half;
 1915 on S. rim.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap, marked

T 9 S on N. half;
 R 2 E S 30 in NE.,
 S 31 in SE.,
 S 36 in SW., and
 R 1 E S 25 in NW. quadrants,
 1915 on S. rim.

Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.

Soil, adobe, 1st rate.

Timber, none.

Undergrowth, greasewood brush and scattering mesquite.

Native grass.

North, between secs. 25 and 30.

Over level land, through greasewood brush and scattering mesquite.

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 25 on W., and
 $\frac{1}{4}$ S 30 on E. half;
 1915 on S. rim;

dig pits 18x18x12 ins., N. and S. of cor. 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap, marked

T 9 S on N. half;
 R 2 E S 19 in NE.,
 S 30 in SE.,
 S 25 in SW., and
 R 1 E S 24 in NW. quadrants;
 1915 on S. rim.

Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.

Soil, sandy loam and adobe, 1st rate.

No timber.

Undergrowth, greasewood brush and scattering mesquite.

Native grass.

West Boundary of T. 8 S., R. 2 E

Chains

North bet. secs. 7 and 12.
 Over rolling land, through greasewood brush and scattering palo verde and iron wood timber.

25.10 Wash, 25 lks. wide, 3 ft. deep, course, W.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S 12 on W. land,
 S 7 on E. half;
 1915 on S. rim

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

42.20 Wash, 10 lks. wide, 5 ft. deep, course, W.
 47.00 Wash, 75 lks. wide, 5 ft. deep, course, W.
 60.25 Wash, 50 lks. wide, 2 ft. deep, course, N. 70° W.
 64.00 Wash, 50 lks. wide, 2 ft. deep, course, N. 70° W.
 78.10 Wash, 50 lks. wide, 2 ft. deep, course, N. 70° W.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.
 T 8 S on N. half;
 R 2 E S 6 in NE.
 S 7 in SE.
 S 12 in SW. and
 R 1 E S 1 in NW. quadrants,
 1915 on S. rim.

from which,
 A palo verde, 8 ins. in diam., brs. N. 79 $\frac{1}{2}$ ° E.
 198 lks. dist. mkd. T 8 S R 2 E S 6 B T.
 A palo verde, 10 ins. in diam., brs. S. 19 $\frac{1}{2}$ ° E.
 140 lks. dist. mkd. T 8 S R 2 E S 7 B T.
 A palo verde, 14 ins. in diam., brs. S. 15 $\frac{3}{4}$ ° W.
 232 lks. dist. mkd. T 8 S R 1 E S 12 B T.
 A palo verde, 8 ins. in diam., brs. N. 39 $\frac{1}{2}$ ° W.
 114 lks. dist. mkd. T 8 S R 1 E S 1 B T.

Land, rolling.
 Soil, stony, 4th rate.
 Timber, scattering palo verde and iron wood.
 Undergrowth, greasewood brush, ocotillos and cacti.

North bet. secs. 1 and 6.
 Over rolling land, through greasewood brush and scattering palo verde and iron wood timber.

17.00 Wash, 50 lks. wide, 3 ft. deep, course, W.
 33.00 Wash, 50 lks. wide, 3 ft. deep, course, W.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.
 $\frac{1}{4}$ S 1 on W. land,
 S 6 on E. half;
 1915 on S. rim.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 7 and 8 S., Rs. 1 and 2 E., with brass cap mkd.
 T 7 S. on N. half;
 R 2 E S 31 in NE.
 S 6 in SE.
 S 1 in SW. and
 R 1 E S 36 in NW. quadrants,
 T 8 S on S. half,
 1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 $\frac{1}{2}$ ft. high S. of cor.
 Land, rolling.
 Soil, stony, 4th rate.
 Timber, scattering palo verde and iron wood.
 Undergrowth, greasewood brush, ocotillos and cacti.
 Apr. 3, 1915.
 W.K.K.

Boundaries of Subdivided portion of T.8 S., R.2 E.
 Latitudes, departures and closing errors.

Line designated	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North	320.00	320.00			
	S. 89° 55' E	78.70		.11	78.70	
	S. 0° 3' E	80.00		80.00	.07	
	S. 89° 55' E	80.06		.12	80.06	
	S. 0° 2' E	160.00	160.00		.10	
Subdivisional bdy.	S. 89° 56' E	80.01		.10	80.01	
	S. 0° 2' E	80.00		80.00	.05	
South Tp. bdy.	N. 89° 58' W	239.02	.14			239.02
Convergency					.10	
Totals			320.14	320.33	239.09	239.02
				320.14	239.02	
Error in latitude-----			-0.19			
Error in departure-----			-0.07			

Chains

W.K.K.
 Survey commenced March 19, 1915, and executed as follows:
 From recent and repeated field tests on a meridian established by observations on Polaris, I know the transit and solar attachment to be in satisfactory adjustment. Preliminary to survey of this Tp. bdy., I commence at cor. of Ts. 8 and 9 S., Rs. 3 and 4 E., hereinbefore described, and run north on a blank line, through Papago Indian Reservation. At 40.00 chs. N. of Tp. cor., high, rough mountains on this blank line makes its continuation N. impracticable; therefore, I offset as follows:

April 10, 1915:
 For recent tests of transit and solar attachment on a meridian established by observations on Polaris, see notes of April 5, 1915, in Book "O".

I run west 40.00 chs., and set temp. offset point. At apparent noon at this point, I set off 32°41' N. on the lat. arc; 7°45' N. on the decl. arc; and determine a meridian with the solar. Thence I run North 440.00 chs. to offset point.

Thence I run East, 40.00 chs. to a point 480.00 chs. N. of the cor. of Ts. 8 and 9 S., Rs. 3 and 4 E., hereinbefore described, where on April 12, 1915, I set an iron post 3 ft. long, 3 ins. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for cor. of Ts. 7 S., Rs. 3 and 4 E. (Ts. 8 S., Rs. 3 and 4 E. falling inside Papago Indian Reservation), with brass cap, marked

- T 7 S on N. half;
- R 4 E S 31 in NE.,
- R 3 E S 36 in NW. quadrants; and
- P I R on S. half;
- 1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high, N. of cor. Papago Indian Reservation Bdy. runs E. and W. on Tp. bdrs. from this cor.

Thence I run, West, on the S. bdy. of sec. 36, N. of Papago Indian Reservation.

Over level land, through greasewood brush and scattering palo verde and ironwood timber.

10.00 Wash, 25 lks. wide, 3 ft. deep, course N.
 26.50 Ascend NE. slope, 60 ft. to
 35.00 Change to N. slope; top of mountain br's. N. about 12 chs. dist.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., on surface rock, in a mound of stone, 4 ft. base, 3 ft. high, for

sec. cor. of sec. 36 (sec. 1 being inside Papago Indian Reservation), with brass cap, marked
 S 36 on N., and
 P I R on S. half;
 1915 on S. rim.

Pits impracticable.
 Build a mound of stone, 3½ ft. base, 2½ ft. high, N. of cor. At this cor., at 9h. a.m., l.m.t., I set off 32°46' N. on the lat. arc; 8°29' N. on the decl. arc; and determine a meridian with the solar.

49.96 Descend NW. slope, 69 ft. to
 70.00 Wash, 20 lks. wide, 1 ft. deep, course NE.
 80.00 Wash, 50 lks. wide, 3 ft. deep, course N. 70° E.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 35 and 36 (secs. 1 and 2 being inside Papago Indian Reservation) with brass cap, marked

- T 7 S R 3 E on N. half;
- S 36 in NE., and
- S 35 in NW. quadrants,
- P I R on S. half;
- 1915 on S. rim; from which,

A palo verde, 8 ins. in diam., brs. N. 36° E., 23 lks. dist., marked T 7 S R 3 E S 36 B T.
 An ironwood, 5 ins. in diam., brs. N. 67° W., 67 lks. dist., marked T 7 S R 3 E S 35 B T.

98 Partial North bdy of Township 8 South Range 3 East
Chains.

Land, level and hilly.
Soil, stony, 3rd rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood brush.

West, on S. bdy. of sec. 35, N. of Papago Indian Reservation.
Over rolling land, through greasewood brush and scattering
palo verde and ironwood.

- .10 Wash, 20 lks. wide, 1 ft. deep, course N. 70° E.
36.00 Wash, 20 lks. wide, 1 ft. deep, course N. 70° E.
39.50 Wash, 75 lks. wide, 3 ft. deep, course NE.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. of sec. 35 (sec. 2 being inside
Papago Indian Reservation) with brass cap, marked
 $\frac{1}{4}$ S 35 on N., and
P I R on S. half;
1915 on S. rim; from which
A palo verde, 10 ins. in diam., brs. N. 40 $\frac{1}{2}$ ° E., 49
lks. dist., marked $\frac{1}{4}$ S 35 B T.
45.00 Wash, 100 lks. wide, 1 ft. deep, course N. 60° E.
72.90 Wash, 100 lks. wide, 3 ft. deep, course N. 60° E.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground, for cor. of secs. 34 and 35 (secs. 2 and 3
being inside Papago Indian Reservation), with brass
cap, marked
T 7 S R 3 E on N. half;
S 35 in NE., and
S 34 in NW. quadrants;
P I R on S. half;
1915 on S. rim; from which,
A palo verde, 18 ins. in diam., brs. N. 82° E.,
101 lks. dist., marked T 7 S R 3 E S 35 B T.
An ironwood, 10 ins. in diam., brs. N. 13 $\frac{1}{2}$ ° W.,
109 lks. dist., marked T 7 S R 3 E S 34 B T.

Land, rolling.
Soil, sandy and gravel, 3rd rate.
Timber, palo verde and ironwood; growth dense along washes.
Undergrowth, greasewood brush.

West, on S. bdy. of sec. 34, N. of Papago Indian Reservation.
Over rolling land, through greasewood brush and scattering
palo verde and ironwood.

- 9.00 Wash, 100 lks. wide, 1 ft. deep, course N. 60° E.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. of sec. 34 (sec. 3 being in-
side of Papago Indian Reservation,) with brass cap,
marked
 $\frac{1}{4}$ S 34 on N., and
P I R on S. half;
1915 on S. rim;
dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.,
and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high,
N. of cor.
42.30 Wash, 50 lks. wide, 1 ft. deep, course N. 50° E.
70.10 Wash, 25 lks. wide, 5 ft. deep, course NE.
76.00 Wash, 25 lks. wide, 5 ft. deep, course N. 60° E.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 4, 33 and 34 (sec. 3 being
inside Papago Indian Reservation) with brass cap,
marked
T 7 S R 3 E on N. half;
S 34 in NE.,
P I R in SE.,
S 4 in SW., and
S 33 in NW. quadrants;
T 8 S in S. half;

Partial North boundary of Township 8 South Range 3 East. 99

Chains.

1915 on S.rim.
 Build a mound of stone $3\frac{1}{2}$ ft. base, $3\frac{1}{2}$ ft. high, W. of cor.
 Boundary of Papago Indian Reservation runs east on Tp. bdy.,
 and south on Subdivision line from this cor.
 Land, rolling.
 Soil, sandy and stony, 3rd rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, greasewood brush.

 West, bet. secs. 4 and 33.
 Over rolling land, through cacti and scattering palo verde
 and ironwood timber.

5.00 Wash, 75 lks. wide, 2 ft. deep, course N. 60° E.
 9.50 Wash, 35 lks. wide, 2 ft. deep, course N. 60° E.
 32.00 Wash, 50 lks. wide, 2 ft. deep, course N. 70° E.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 33 on N., and
 S 4 on S. half;
 1915 on S. rim;

dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist.,
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,
 N. of cor.

42.00 Wash, 75 lks. wide, 2 ft. deep, course N.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 20 ins. in
 the ground, to solid rock, in a mound of stone, $2\frac{1}{2}$ ft.
 base, 1 ft. high, for cor. of secs. 4, 5, 32 and 33, with
 brass cap, marked

T 7 S R 3 E on N. half;
 S 33 in NE.,
 S 4 in SE.,
 S 5 in SW., and
 S 32 in NW. quadrants,
 T 8 S on S. half;

1915 on S. rim; from which,

A palo verde, 12 ins. in diam., brs. S. 2° E.,
 70 lks. dist., marked T 8 S R 3 E S 4 B T.

A palo verde, 14 ins. in diam., brs. S. $17\frac{1}{2}^\circ$ W.,
 143 lks. dist., marked T 8 S R 3 E S 5 B T.

No other trees within limits.
 Build a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
 Land, rolling.

Soil, sandy and stony, 3rd rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, ocotillos and cacti.

At this cor. I set off $8^\circ 30'$ N. on the decl. arc; and at
 apparent noon, observe the sun on the meridian; the
 resulting latitude is $32^\circ 46'$ N.

 West, between secs. 5 and 32.
 Over rolling land, through palo verde and ironwood timber.

20.00 Wash, 100 lks. wide, 2 ft. deep, course NE.
 35.00 Ascend gradual SW. slope of round hill.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 32 on N., and
 S 5 on S. half;
 1915 on S. rim.

Build a mound of stone $3\frac{1}{2}$ ft. base, 2 ft. high, N. of cor.
 Ascend NE. slope, 35 ft. to

45.00 Top of spur, slopes S.
 Descend SW. slope, 33 ft. to
 51.00 Wash, 30 lks. wide, 5 ft. deep, course SE.

Ascend NE. slope, 194 ft. to
 65.80 Spur slopes NE.

Descend NW slope, 74 ft. to
 75.63 Wash, 25 lks. wide, 4 ft. deep, course N. 70° E.

100. Partial North bdy. of Township 8 South, Range 3 East.

Chains.

77.23
80.00

Ascend NE. slope, 30 ft. to
Top of spur, slopes S.; descend SW. slope, 38 ft. to
Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in
the ground to solid rock, in a mound of stone, 3½ ft.
base, 1½ ft. high, for cor. of secs. 5, 6, 31 and 32, with
brass cap, marked

T 7 S R 3 E on N. half;
S 32 in NE.,
S 5 in SE.,
S 6 in SW., and
S 31 in NW. quadrants;
T 8 S on S. half;
1915 on S. rim;

build a mound of stone 3½ ft. base, 2½ ft. high, W. of
cor.

Discontinue survey of Tp. bdy. at this cor.
Land, rolling and hilly.
Soil, gravelly and stony, 4th rate.
Timber, scattering palo verde and ironwood.
Undergrowth, ocotillos and cacti.

April 12, 1915.
W.K.K.

Boundaries of Subdivided portion of T. 8 S., R. 3 E.
Latitudes, departures, and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
Subdivisional West bdy.	N. 0° 3' W.	400.00	400.00			.35
	N. 0° 1' W.	80.07	80.07			.02
North Tp. bdy.	East,	160.00			160.00	
Subdivisional E. bdy. (W. bdy. P.I.R.)	S. 0° 1' W.	79.93		79.93		.02
	S. 0° 2' E.	400.00		400.00		.23
South Tp. bdy.	N. 89° 59' W.	160.00	.05			160.00
Convergency,						.15
Totals.			480.12	479.93	160.38	160.39
			479.93			160.38
Error in latitude-----			0.19			
Error in departure-----			0.01			

Survey of South bdy. of Township 7 South Range 4 East. 101.

Chains.

W.K.K.

Survey commenced April 16, 1915, and executed as follows:
 April 10, 1915: At a point near camp in sec. 16, T.8 S.,
 R.3 E., I correct the level and collimation errors; then
 to test the solar apparatus on a meridian established
 by observations on Polaris, I proceed as follows:

At 6h. 13m., p.m., l.m.t., I observe Polaris at western
 elongation in accordance with instructions in the Manu-
 al of Surveying, and lay off the azimuth of Polaris, 1°
 21' to the east. On the meridian thus determined I set
 a rod 10.00 chs. N. of my station.

April 11, 1915. At 8h. a.m., l.m.t., I set off 32°43' N. on
 the lat. arc; 8°5' N. on the decl. arc; and determine a
 meridian with the solar. The meridian thus determined
 falls within less than 1' of azimuth to the east of the
 meridian established by observations on Polaris.

At 4h. p.m., l.m.t., I set off 32°43' N. on the lat. arc; 8°12'
 N. on the decl. arc; and determine a meridian with the
 solar. The meridian thus determined falls less than 1'
 to the west of the meridian established by observations
 on Polaris. I therefore conclude that the adjustments
 of the transit and solar apparatus are satisfactory

April 16, 1915: At 8h. a.m., l.m.t., I set off 32°46' N.
 on the lat. arc; 9°54' N. on the decl. arc; and determine
 a meridian with the solar at the cor. of Ts. 7 S., Rs. 3
 and 4 E. hereinbefore described. Markings on this cor.
 referring to Ts. 8 S., Rs. 3 and 4 E. omitted for the
 reason that said Ts. are inside boundary of Papago
 Indian Reservation SE. and SW. of this cor.

Note: This Tp. boundary being identical throughout its
 entire length with the N. bdy. of the Papago Indian
 Reservation, I omit sec. and Tp. markings in the S.
 halves of the brass caps, marking thereon "P.I.R.", indi-
 cating that the area S. of the line is within the Papago
 Indian Reservation.

Thence I run,

East, on a true line, along south bdy. of sec. 31.

Over level land, through greasewood brush, palo verde and
 ironwood timber.

17.50 Wash, 35 lks. wide, 5 ft. deep, course N.

Ascend W. slope of ridge, 342 ft. to

33.35 Top of ridge, brs. N. and S., 15 chs. dist.

Descend E. slope, 154 ft. to

40.00 Set an iron post 3 ft. long, 1 in. in diam., 8 ins. in the
 ground, to solid rock, in a mound of stone, 3½ ft. base,
 2 ft. high, for ¼ sec. cor., with brass cap, marked

¼ S 31 on N., and
 P I R on S. half;
 1915 on S. rim.

Pits impracticable.

Build a mound of stone, 3½ ft. base, 3 ft. high, N. of cor.

Descend S. slope, 85 ft. to

45.00 Change to gentle E. slope.

50.00 Over level land.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 31 and 32, with brass cap,
 marked

T 7 S R 4 E on N. half;
 S 32 in NE., and
 S 31 in NW. quadrants,
 P I R on S. half;
 1915 on S. rim.

Dig pits 24x24x12 ins., NE. & NW. of post, 6 ft. dist., and
 raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.

Land, mountainous and level.

Soil, gravelly and stony, 2d and 4th rate.

Timber, palo verde and ironwood.

Undergrowth, greasewood brush, ocotillos and cacti.

102. South boundary of Township 7 South, Range 4 East

Chains.

East along S. bdy. of sec. 32.
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 32 on N., and
 P I R on S. half;
 1915 on S. rim.

Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

78.50 Wash, 25 lks. wide, 2 ft. deep, course NE.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 32 and 33, with brass cap, marked
 T 7 S R 4 E on N. half;
 S 33 in NE., and
 S 32 in NW. quadrants,
 P I R on S. half;
 1915 on S. rim; from which,
 A palo verde, 18 ins. in diam., brs. N. $32^{\circ}40'$ E.,
 391 lks. dist., marked T 7 S R 4 E S 33 B T.
 An ironwood 10 ins. in diam., brs. N. $2\frac{3}{4}^{\circ}$ W., 242
 lks. dist., marked T 7 S R 4 E S 32 B T.

Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood brush.

East, along south bdy. of sec. 33.
Over level land, through scattering timber and undergrowth.

12.50 Wash, 25 lks. wide, 1 ft. deep, course N. 70° E.

28.10 Wash, 10 lks. wide, 1 ft. deep, course NE.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 33 on N., and
 P I R on S. half;
 1915 on S. rim; from which
 A palo verde, 8 ins. in diam., brs. N. 14° W., 91
 lks. dist., marked $\frac{1}{4}$ S 33 B T.

60.00 Wash, 25 lks. wide, 1 ft. deep, course NE.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 33 and 34, with brass cap, marked
 T 7 S R 4 E on N. half;
 S 34 in NE., and
 S 33 in NW. quadrants;
 P I R on S. half;
 1915 on S. rim; from which
 A palo verde, 8 ins. in diam., brs. N. $54\frac{1}{2}^{\circ}$ E.,
 112 lks. dist., marked $\frac{1}{4}$ S 34 B T.

No other trees within limits. Dig pits 24x24x12 ins. NE. & NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.

Land, level.
Soil, sandy loam, 1st rate.
Timber, palo verde and ironwood.
Undergrowth, greasewood brush.

East, along S. bdy. of sec. 34.
Over level land, through scattering timber and undergrowth.

4.10 Road brs. N. 10° W. and S. 10° E.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 34 on N., and
 P I R on S. half;
 1915 on S. rim;

South boundary of Township 7 South Range 4 East 103

Chains.	
	<p>dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.</p>
65.00	Wash, 25 lks. wide, 2 ft. deep, course NE.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 34 and 35, with brass cap, marked
	<p>T 7 S R 4 E on N. half; S 35 in NE., and S 34 in NW. quadrants; P I R on S. half; 1915 on S. rim;</p>
	<p>dig pits 24x24x12 ins., NE. & NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor. Land, level. Soil, sandy loam, 1st rate. Timber, scattering palo verde and ironwood. Undergrowth, greasewood brush.</p>

	<p>East, along south bdy. of sec. 35. Over level land, through scattering timber and undergrowth.</p>
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
	<p>$\frac{1}{4}$ S 35 on N., and P I R on S. half; 1915 on S. rim.</p>
	<p>Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.</p>
73.30	Old road, brs. N. 20° W. and S. 20° E.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 35 and 36, with brass cap, marked
	<p>T 7 S R 4 E on N. half; S 36 in NE., and S 35 in NW. quadrants, P I R on S. half; 1915 on S. rim;</p>
	<p>dig pits 24x24x12 ins., NE. & NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor. Land, level. Soil, sandy loam, 1st rate. Timber, scattering palo verde and ironwood. Undergrowth, greasewood brush. Too cloudy for latitude observation.</p>

	<p>East, along south bdy. of sec. 36. Over level land, through scattering undergrowth.</p>
8.80	Wash, 50 lks. wide, 5 ft. deep, course N.
	Enter mesquite thicket, brs. NW. and SE.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
	<p>$\frac{1}{4}$ S 36 on N., and P I R on S. half; 1915 on S. rim.</p>
	<p>Dig pits 18x18x12 ins., E. and W. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.</p>
78.22	Intersect closing cor. of Ts. 8 S., Rs. 4 and 5 E. on First Guide Meridian, East, established by W.H.T., and described in Book "A." Continue measurement.
124.22	Road brs. N. 20° E. and S. 20° W.
125.22	Two Indian houses bear N. 5 chs. dist.
128.22	Indian house brs. N. 5 chs. dist.
	Corral and well brs. N. 8' chs. dist.; both dilapidated and

FO4. South boundary of Township 7 South, Range 4 East.

Chains

and unused.
 160.86 Intersect 1st. Guide Meridian E., 13.79 chs. S. 0° 9' E. of 1/4 sec. cor. of sec. 31, T. 7 S., R. 5 E., reestablished by W. H. Thorn, U.S. Surveyor, and described in Book "A."
 At point of intersection, set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of T. 7 S., R. 4 E. (SE. cor.) with brass cap, marked
 T 7 S R 4 E S 36 in NW., and
 P I R in SW. quadrant;
 1915 on S. rim;
 dig pits 36x36x12 ins., N. and W. of cor. 8 ft. dist., and raise a mound of earth 5 ft. base, 2 1/2 ft. high, NW. of cor.
 Boundary of Papago Indian Reservation runs N. and W. from this cor. on Tp. boundaries.
 Land, level.
 Soil, sandy adobe, 1st rate.
 Timber, none.
 Undergrowth, greasewood brush and sagebrush.
 April 16, 1915.
 W.K.K.

Boundaries of Township 8 South, Range 5 East.
 Latitudes, departures, and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy. (1st. Guide Mer. E.)	North,	479.10	479.10			
North Tp. bdy. (Part of S. bdy. T. 7 S. R. 4 E., part of 1st. Guide Mer. E. thro. T. 7 S. & S. bdy. of T. 7 S. R. 5 E.)	East, S. 0° 9' E. S. 89° 13' E. N. 89° 24' E. S. 89° 43' E. N. 89° 44' E.	82.64 26.35 79.68 80.15 40.26 279.90	.84	26.35 1.09 .20	82.64 .07 79.67 80.15 40.26 279.90	
East Tp. bdy.	S. 0° 4' W. S. 0° 12' W. S. 0° 30' W.	322.08 120.57 10.56		322.08 120.57 10.56	.37 .42 .09	
South Tp. bdy.	West,	562.47				562.47
Convergency,					.51	
Totals,			481.24 480.85	480.85	563.20	563.35 563.20
Error in latitude,			0.39			
Error in departure,					0.15	

Survey of West boundary of T.7 S., R.4 E.

Chains

W.K.K. Survey commenced April 17, 1915, and executed as follows: At 8h., a.m., 1 m.t., I set off 32° 46' N. on the lat. arc; 10° 15' N. on the decl. arc. and determine a mer. with the solar, at the cor. of Ts. 7 S., Rs. 3 and 4 E., hereinbefore described (on N. bdy. of the Papago Indian Reservation.) Thence I run, North bet. secs. 31 and 36.

Over level land, through greasewood brush and scattering palo verde and iron wood timber.

24.00 Wash, 25 lks. wide, 2 ft. deep, course, N. 70° E.

30.00 Wash, 20 lks. wide, 2 ft. deep, course, N. 70° E.

38.60 Wash, 35 lks. wide, 2 ft. deep, course, N. 60° E.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

1/4 S 36 on W. and S 31 on E. half, 1915 on S. rim.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

40.50 Wash, 25 lks. wide, 2 ft. deep, course, NE.

51.90 Wash, 50 lks. wide, 2 ft. deep, course, NE.

56.50 Wash, 25 lks. wide, 2 ft. deep, course, NE.

78.00 Wash, 25 lks. wide, 2 ft. deep, course, NE.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 7 S on N. half, R 4 E S 30 in NE. S 31 in SE. S 36 in SW. and R 3 E S 25 in NW. quadrants, 1915 on S. rim.

from which,

An iron wood 12 ins. in diam., brs. N. 70° E. 112 lks. dist. mkd. T 7 S R 4 E S 30 B T.

An iron wood 36 ins. in diam., brs. N. 60 3/4° W. 242 lks. dist. mkd. T 7 S R 3 E S 25 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, palo verde and iron wood.

Undergrowth, greasewood brush.

North bet. secs. 25 and 30.

Over level land, through iron wood and greasewood brush.

3.50 Wash, 35 lks. wide, 2 ft. deep, course, NE.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

1/4 S 25 on W. and S 30 on E. half, 1915 on S. rim,

from which,

An iron wood 30 ins. in diam., brs. S. 22° W. 189 lks. dist. mkd. 1/4 S 25 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

52.50 Wash, 15 lks. wide, 1 ft. deep, course, NE.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

T 7 S on N. half, R 4 E S 19 in NE. S 30 in SE. S 25 in SW. and R 3 E S 24 in NW. quadrants, 1915 on S. rim.

106.

West boundary of T.7 S., R.4 E.

Chains

from which,

A palo verde, 14 ins. in diam., brs. N. 4° E.

110 lks. dist. mkd. T 7 S R 4 E S 19 B T.

An iron wood 12 ins. in diam., brs. S. 46½° E.

270 lks. dist. mkd. T 7 S R 4 E S 30 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood brush.

North bet. secs. 19 and 24.

Over level land, through greasewood brush and palo verde and iron wood timber.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

¼ S 24 on W. and

S 19 on E. half,

1915 on S. rim.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

44.00 Wash, 35 lks. wide, 2 ft. deep, course, N. 60° E.

55.00 Wash, 35 lks. wide, 2 ft. deep, course, N. 60° E.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins.

in the ground for cor. of secs. 13, 18, 19 and 24, with brass cap mkd.

T 7 S on N. half,

R 4 E S 18 in NE.

S 19 in SE.

S 24 in SW. and

R 3 E S 13 in NW. quadrants, and

1915 on S. rim,

from which,

An iron wood tree, 12 ins. in diam., brs. N. 19¼° W.

223 lks. dist. mkd. T 7 S R 3 E S 13 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, level.

Soil, sandy loam, 1st rate.

Timber, iron wood and palo verde.

Undergrowth, greasewood brush.

North bet. secs. 13 and 18.

Over level land through greasewood brush and scattering palo verde and iron wood.

2.80 Wash, 15 lks. wide, 1 ft. deep, course, NE.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.

¼ S 13 on N. ½ and

S 18 on S. half,

1915 on S. rim,

from which,

A palo verde, 12 ins. in diam., brs. N. 28¼° E.

27 lks. dist. mkd. ¼ S 13 B T.

No other trees within limits.

Dig pits 18 X 18 X 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.

T 7 S on N. half,

R 4 E S 7 in NE.

Chains

S 18 in SE.,
 S 13 in SW., and
 R. 3 ES 12 in NW. quadrants,
 1915 on S.rim; from which
 A palo verde, 10 ins. in diam., brs. N. 65 $\frac{1}{4}$ ° E.,
 189 lks. dist., marked T 7 S R 4 E S 7 B T.
 No other trees within limits.
 Dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and
 raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 Timber, scattering palo verde and ironwood.
 Undergrowth, greasewood brush.
 At this cor. I set off 10° 18' N. on the decl. arc; and at
 apparent noon, observe the sun on the meridian; the
 resulting lat. is 32° 50' N.

North, bet. secs. 7 and 12.
 Over level land, through greasewood brush, and palo verde
 and ironwood timber.

32.50 Wash, 35 lks. wide, 2 ft. deep, course NE.
 39.00 Wash, 20 lks. wide, 2 ft. deep, course N. 70° E.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 12 on W., and
 S 7 on E half;
 1915 on S.rim.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and
 raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of
 cor.

70.00 Wash, 24 lks. wide, 2 ft. deep, course N. 60° E.
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 1, 6, 7 and 12, with brass
 cap, marked

T 7 S on N. half;
 R 4 E S 6 in NE.,
 S 7 in SE.,
 S 12 in SW., and
 R 3 E S 1 in NW. quadrants;
 1915 on S.rim.

Dig pits 18x18x12 ins., in each sec. 5 $\frac{1}{2}$ ft. dist., and
 raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, level.

Soil, sandy loam, 1st rate.
 Timber, palo verde and ironwood.
 Undergrowth, greasewood brush.

North, bet. secs. 1 and 6.
 Over level land, through greasewood brush and palo verde
 and ironwood timber.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 1 on W., and
 S 6 on E. half;
 1915 on S.rim.

Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and
 raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of
 cor.

54.71 Intersect S. bdy. of T. 6 S., R. 3 E., 127 lks. W. of cor. of
 secs. 1, 2, 35 and 36, which is an iron post 3 ft. long,
 3 ins. in diam., 1 ft. above ground, marked and witness-
 ed as described by the Surveyor General. I change mark-
 ings and accessories of this cor. in proper manner to
 make it refer to secs. 35 and 36 only, and at point of
 intersection, I
 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for closing cor. of Ts, 7 S., Rs. 3 and 4
 E., with brass cap, marked

108. West boundary of Township 7 South, Range 4 East.

Chains.

C C S. of center,
 R 4 E S 6 in SE., and
 R 3 E S 1 in SW. quadrants;
 T 7 S on S. half;
 1915 on S. rim.
 Dig pits 30x24x12 ins., crosswise on each line, E. and W. 4
 ft., and S. of cor. 8 ft. dist., and raise a mound of
 earth 5 ft. base, 2½ ft. high, S. of cor.
 Land, level.
 Soil, sandy loam, 1st rate.
 Timber, palo verde and ironwood.
 Undergrowth, greasewood brush.
 April 17, 1915.
 W.K.K.

Boundaries of Township 7 South, Range 4 East.
 Latitudes, departures, and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North.	454.71	454.71			
North Tp. bdy.	East.	459.41			559.41	
East Tp. bdy. (1st. Guide Mer. E.)	S. 0° 6' W.	40.12		40.12		.07
	S. 0° 15' E.	40.15		40.15	.17	
	S. 0° 12' E.	80.38		80.38	.28	
	S. 0° 1' E.	80.16		80.16	.02	
	S. 0° 9' W.	40.29		40.29		.10
	S. 0° 18' E.	40.29		40.29	.21	
South Tp. bdy. (N. bdy. E. I. R.)	West,	560.86				560.86
	East,					
Convergency,					.52	
Totals.			454.71	455.58	560.96	561.03
				454.71		560.96
			Error in latitude.-----		.87	
			Error in departure.-----		-0.07	

Survey of N. 1/2 of W. bdy. of T. 7 S., R. 3 E.

Chains

W.H.T.
Survey commenced Apr. 26, 1915, and executed, as follows:

From recent and repeated field tests, I know the transit and solar attachment to be in satisfactory adjustment. At 3h., p.m., l.m.t., I set off 32° 49 1/2' N. on the lat. arc; 13° 24' N. on the decl. arc; and determine a mer. with the solar, at the cor. of secs. 13, 18, 19 and 24, established by me and described in book "R."

Thence I run North bet. secs. 13 and 18. Over rolling land, through scattering timber and undergrowth.

5.70 Wash, 35 lks. wide, 4 ft. deep, course, NE.
25.00 Bend in wash, 35 lks. wide, 4 ft. deep, course, from SE. to NE.
26.40 Wash, 30 lks. wide, 2 ft. deep, course, NE.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor. with brass cap mkd.
1/4 S 13 on W. and
S. 18 on E. half,
1915 on S. rim,

from which,
A palo verde, 10 ins. in diam., bra. S. 63 1/2° W.
118 lks. dist. mkd. 1/4 S 13 B T.
An iron wood, 8 ins. in diam., brs. N. 70 1/2° E.
83 lks. dist. mkd. 1/4 S 18 B T.

58.10 Wash, 40 lks. wide, 4 ft. deep, course, NE.
73.90 Wash, 70 lks. wide, 10 ft. deep, course, NE.
76.00 Wash, 80 lks. wide, 16 ft. deep, course, NE.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 12 ins. in the ground, to solid rock, in a mound of stone, 4 ft. base, 2 ft. high for cor. of secs. 7, 12, 13 and 18, with brass cap mkd.
T 7 S on N. half,
R 3 E S 7 in NE.
S 18 in SE.
S 13 in SW. and
R 2 E S 12 in NW. quadrants,
1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor. Land, rolling, covered with malpais boulders. Soil, stony, 4th rate, granite, limestone, and volcanic formation. Timber, scattering palo verde and iron wood. Undergrowth, greasewood brush, ocotillos and cacti.
Apr. 26, 1915.

Apr. 27, 1915, at 8h., a.m., l.m.t., I set off 32° 50 1/2' N. on the lat. arc; 13° 38' N. on the decl. arc. and determine a mer. with the solar, at the cor. of secs. 7, 12, 13 and 18.

Thence I run North bet. secs. 7 and 12. Over rolling land, through scattering timber and undergrowth.

31.20 Wash, 25 lks. wide, 1 ft. deep, course, NE.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.
1/4 S 12 on W. and
S 7 on E. half,
1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor. Wash, 80 lks. wide, 5 ft. deep, course, N. 70° E.
60.20 Wash, 25 lks. wide, 3 ft. deep, course, N. 60° E.
72.70 Wash, 30 lks. wide, 2 ft. deep, course, N. 60° E.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

110.

North half of West boundary of T. 7 S., R. 3 E.

Chains

T 7 S on N. half,
R 3 E S 6 in NE.
S 7 in SE.
S 12 in SW. and
R 2 E S 1 in NW. quadrants,
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, rolling, covered with malpais boulders.
Soil, stony and gravelly, 4th rate, granite, limestone and volcanic formation.
Timber, scattering palo verde and iron wood.
Undergrowth, greasewood brush, ocotillos and cacti.

North bet. secs. 1 and 6.

Over nearly level land, through scattering timber and undergrowth,

15.200
22.40
40.00

wash, 15 lks. wide, 1 ft. deep, course, NE.
Wash, 20 lks. wide, 2 ft. deep, course, NE.
Set an iron post 3 ft. long, 1 in in diam., 26 ins. in the ground for ¼ sec. cor. with brass cap mkd.
¼ S 1 on W. and
S 6 on E. half,
1915 on S. rim;

from which,

A palo verde, 10 ind. in diam. brs. N. 52¾° W.
68 lks. dist. mkd. ¼ S 1 B T.

An iron wood, 24 ins. in diam., brs. S. 30½° E.
118 lks. dist. mkd. ¼ S 6 B T.

60.65
80.10

Wash, 20 lks. wide, 1 ft. deep, course N. 60° E. Apr. 27, 1915.
May 6, 1915: Intersect S. bdy. of Tp. 6 S., R. 2 E., 38.43 chs. E. of ¼ sec. cor. of sec. 36, hereinafter described.

At point of intersection, Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of Ts. 7 S., Rs. 2 and 3 E., with brass cap mkd.

R 3 E S 6 in SE. and
R 2 E S 1 in SW. quadrants,
T 7 S. on S. half,
1915 on S. rim.

Dig pits 30 X 24 X 18 ins. on each line, E. and W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high S. of cor.

Land, gently rolling.
Soil, sandy and gravelly, 3rd rate.
Timber, scattering palo verde and iron wood.
Undergrowth, greasewood brush, ocotillos and cacti.

W.H.T. May 6, 1915.

Boundaries of Subdivided portion of T. 7 S., R. 3 E.
Latitudes, departures and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
Subdivisional bdy.	N. 0° 2' W.	240.00	240.00			.14
West Tp. bdy.	West,	158.25				158.25
North Tp. bdy.	North,	240.10	240.10			
	East,	80.73			80.73	
	South,	26.00		26.00		
	East,	396.87			396.87	
East Tp. bdy.	South,	454.71		454.71		
South Tp. bdy.	West,	320.00				320.00
Convergency,					.37	
Totals, -----			480.10	480.71	477.97	478.39
				480.10		477.97
Error in latitude, -----				0.61		
Error in departure, -----						0.42

Survey of West boundary of T.7 S., R.2 E.

Chains

Survey commenced May, 1, 1915, and executed, as follows:
and ...

From recent and repeated field tests on a mer. established observations on Polaris, by W.H.Thorn, U.S.Surveyor, as described in book "R," I know the transit and solar attachment to be in satisfactory adjustment. Solar observations at the cor. of secs. 1, 6, 31 and 36, impossible on account of overcast sky.

Thence I run

North bet. secs. 31 and 36.

Over rolling ridges bet. washes, through scattering timber and undergrowth.

36.00 Wash, 50 lks. wide, 6 ft. deep, course, W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. with brass cap mkd.

1/4 S 36 on W. and

S 31 on E. half,

1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

49.40 Wash, 50 lks. wide, 6 ft. deep, course, W.

59.00 Wash, 100 lks. wide, 6 ft. deep, course, W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 2 ft. high, for cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 7 S on N. half,

R 2 E S 30 in NE.

S 31 in SE.

S 36 in SW. and

R 1 E S 25 in NW. quadrants,

1915 on S. rim.

Build a mound of stone, 3 1/2 ft. base, 3 ft. high W. of cor. Land, rolling, covered with melpais boulders.

Soil, stony, 4th rate, limestone, granite and volcanic formation.

Timber, scattering palo verde and iron wood.

Undergrowth, scattering greasewood brush, ocotillos and cacti.

North bet. secs. 25 and 30.

Over rolling land, through scattering timber and undergrowth.

6.00 Wash, 50 lks. wide, 7 ft. deep, course, W.

Asc. S. slope, 25 ft. to level mesa.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground to solid rock, in a mound of stone, 3 1/2 ft. base, 1 1/2 ft. high, for 1/4 sec. cor. with brass cap mkd.

1/4 S 25 on W. and

S 30 on E. half,

1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor. May, 1, 1915.

May, 2, 1915, at 9h., a.m., l.m.t., I set off 32° 47 1/2' N. on the lat. arc; 15° 12' N. on the decl. arc; and determine a mer. with the solar, at this cor.

Continue measurement.

Desc. gradual NW. slope.

60.00 Wash, 20 lks. wide, 3 ft. deep, course, SW.

67.70 Asc. gradual S. slope, 20 ft. to

80.00 Top of ridge, brs. NW. and SE.

Set an iron post 3 ft. long, 3 ins. in diam., 6 ins. in the ground, to solid rock, in a mound of stone, 3 1/2 ft. base, 2 1/2 ft. high, for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

112

West boundary of T.7 S., R.2 E.

Chains

T 7 S on N. half,
R 2 E S 19 in NE.
S 30 in SE.
S 25 in SW. and
R 1 E S 24 in NW. quadrants, and
1915 on S. rim.

Pits impracticable.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor.
Land, rolling.

Soil, stony, 4th rate, limestone, granite and volcanic
formation.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood brush, ocotillos and cacti.

North bet. secs. 19 and 24.

Over low rolling ridges, through scattering timber and
undergrowth.

2.60 Desc. steep NE. slope, 91 ft. to

7.40 Wash, 25 lks. wide, 2 ft. deep, course, NW.

Enter narrow sandy valley brs. NW. and SE.

37.40 Leave valley, brs. NW. and SE.

Asc. stony bluff, 97 ft.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.

$\frac{1}{4}$ S 24 on W. and

S 19 on E. half,

1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

45.00 Top of ascent.

Thence over rolling land, covered with scattering malpais
boulders.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 18 ins. in
the ground to solid rock, in a mound of stone, $3\frac{1}{2}$ ft.
base, $1\frac{1}{2}$ ft. high, for cor. of secs. 13, 18, 19 and
24 with brass cap mkd.

T 7 S on N. half,

R 2 E S 18 in NE.

S 19 in SE.

S 24 in SW. and

R 1 E S 13 in NW. quadrants,

1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor.
Land, rolling.

Soil, stony, 4th rate, volcanic and granite formation.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood brush, ocotillos and cacti.

North bet. secs. 13 and 18.

Over rolling land, through scattering timber and under-
growth,

20.00 Desc. gradual N. slope 60 ft. to

32.60 Wash, 50 lks. wide, 3 ft. deep, course, N. 70° W.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.

$\frac{1}{4}$ S 13 on W. and

S 18 on E. half,

1915 on S. rim,

from which,

A palo verde, 8 ins. in diam., brs. S. 8° W.

210 lks. dist. mkd. $\frac{1}{4}$ S 13 B T.

A palo verde, 12 ins. in diam., brs. S. $3\frac{3}{4}^\circ$ E.

220 lks. dist. mkd. $\frac{1}{4}$ S 18 B T.

Thence over gently rolling land.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 7, 12, 13 and 18, with
brass cap mkd.

West boundary of T.7 S., R.2 E.

113

Chains

T 7 S on N. half,
R 2 E S 7 in NE.
S 18 in SE.
S 13 in SW. and
R 1 E S 12 in NW. quadrants,
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor. Land, rolling covered with malpais boulders. Soil, stony, 4th rate. Timber, scattering palo verde and iron wood. Undergrowth, scattering greasewood brush, ocotillos and cacti.

North bet. secs. 7 and 12.
Over rolling land, through scattering timber and undergrowth.

16.80

Wash, 75 lks. wide, 2 ft. deep, course, NW.

37.50

Road, brs. NE. and SW.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.

$\frac{1}{4}$ S 12 on W. and
S 7 on E. half,
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. NW and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

59.30

Wash, 30 lks. wide, 2 ft. deep, course, W.

70.00

Wash, 75 lks. wide, 2 ft. deep, course, W.

80.00

Set an iron post 3 ft long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap mkd.

T 7 S on N. half,
R 2 E S 6 in NE.
S 7 in SE.
S 12 in SW. and
R 1 E S 1 in NW. quadrants,
1915 on S. rim.

Dig pits 18 X 18 X 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, rolling.

Soil, stony, 4th rate.

Timber, scattering palo verde, iron wood, and mesquite.

Undergrowth, greasewood brush, ocotillos and cacti.

At this cor. I set off $15^{\circ} 14'$ N. on the decl. arc; and at apparent noon observe the sun on the mer.; the resulting lat. is $32^{\circ} 50'$ N.

North bet. secs. 1 and 6.

Over rolling land, through scattering timber and undergrowth.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap mkd.

$\frac{1}{4}$ S 1 in W. and
S 6 on E. half,
1915 on S. rim.

80.00

Build a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 6 and 7 S., Rs. 1 and 2 E., with brass cap mkd.

T 6 S on N. half,
R 2 E S 31 in NE.
S 6 in SE.
S 1 in SW. and
R 1 E S 36 in NW. quadrants,
T 7 S on S. half,
1915 on S. rim.

114

West boundary of T.7 S., R.2 E.

Chains

Dig pits, 24 X 24 X 12 ins. N., E. and W. 4 ft. and S. of cor. 8 ft. dist. and raise a mound of earth 5 ft. base 2½ ft. high S. of cor.
 Land, gently rolling.
 Soil, sandy and gravelly with malpais stones, 3rd rate.
 Timber, scattering palo verde, mesquite and iron wood.
 Undergrowth, greasewood brush, ocotillos and cacti.
 May, 2nd, 1915.
 W.K.K.

Boundaries of North 1/2 of T7 S., R.2 E.
 Latitudes, departures and closing errors.

Line designated	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. bdy.	North	240.00	240.00			
North "	East	478.43			478.43	
East "	South	240.10		240.10		
South 1/2 of Subdivision 8, 10, 1 boundary 240.10	West N.89°52'W	400.00 78.64		.18		400.00 78.64
Convergency					.23	
Totals			240.18	240.10	478.66	478.64
			240.10			
Error in latitude-----			0.08		478.64	
Error in departure-----					0.02	

Survey of South boundary of T.6 S., R.2 E.

Chains

W.K.K. Survey commenced May, 1, 1915, and executed, as follows:

From recent and repeated field tests I know the transit and solar attachment to be in satisfactory adjustment.

From the cor. of Ts.6 and 7 S., Rs. 1 and 2 E., established by me and hereinbefore described.

Thence I run

East along S. bdy. of sec. 31.

Over level land, through scattering timber and undergrowth.

14.30

Wash, 100 lks wide, 2 ft. deep, course, N. 20° W.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. to sec. 31 only, with brass cap, marked

1/4 S 31 on N. half, 1915 on S. rim,

dig pits 18 X 18 X 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

May, 1, 1915.

May 6, 1915, at 8h., a.m., l.m.t., I set off 32° 51' N. on the lat. arc; 16° 21' N. on the decl. arc; and determine a mer. with the solar at this 1/4 sec. cor.

Continue measurement.

Asc. gradual SW. slope.

70.00

Asc. steep SW. slope, 70 ft. to

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 6 ins. in the ground, to solid rock, in a mound of stone, 3 1/2 ft. base, 2 1/2 ft. high, for cor. of secs. 31 and 32, with brass cap mkd.

T.6 S R 2 E on N. half, S 32 in NE. and S 31 in NW. quadrants, 1915 on S. rim.

Pits impracticable.

Build a mound of stone, 3 1/2 ft. base, 2 1/2 ft. high N. of cor.

Land, level and rolling.

Soil, gravelly and stony, 3rd and 4th rates.

Timber, scattering palo verde and iron wood.

Undergrowth, greasewood brush, ocotillos and cacti.

East along S. bdy. of sec. 32.

Over SW. slope of mountain

.30

Spur slopes S.

7.20

Desc. SE. slope, 23 ft. to Foot of descent brs. N. and S.

Thence over rolling land, to

12.20

Asc. SW. slope, 70 ft. to

19.50

Top of ridge brs. NW. and SE.

Desc. NE. slope, 30 ft. to

24.50

Wash, 25 lks. wide, 3 ft. deep, course, SE.

Asc. W. slope, 30 ft. to

28.00

Spur slopes S.

Desc. E. slope, 29 ft. to

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor. to sec. 32 only, with brass cap, mkd., 1/4 S 32 on N. half,

1915 on S. rim.

Build a mound of stone, 3 1/2 ft. base, 2 1/2 ft. high N. of cor.

43.10

Wash, 25 lks. wide, 2 ft. deep, course, N.

Asc. W. slope, 23 ft. to

48.50

Top of spur slopes S.

Desc. E. slope, 90 ft. to

53.50

Enter flat, brs. N. and S.

68.50

Leave flat, brs. NW. and SE.

Asc. W. slope, 136 ft. to

80.00

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 32 and 33, with brass cap mkd.

1076

South boundary of T.6 S., R.2 E.

Chains

T 6 S R 2 E on N. half,
S 33 in NE. and
S 32 in NW. quadrants,
1915 on S. rim.

Build a mound of stone, $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high N. of cor.
Land, rolling and hilly.
Soil, stony and gravelly, 4th rate.
Timber, scattering palo verde.
Undergrowth, greasewood brush, ocotillos and cacti.

East along, S. bdy. of sec. 33.
Over mountainous land, through scattering undergrowth.
On SW. slope,; asc. 130 ft. to

3.75 Top of spur, slopes SW.

Thence over S. slope.

10.20 Asc. SW. slope, 30 ft. to

13.00 Spur slopes S.; desc. SE. slope, 85 ft. to

18.00 Wash, 50 lks. wide, 2 ft. deep, course, S.

Asc. SW. slope, 115 ft. to

23.20 Top of spur slopes S.

Desc. E. slope, 300 ft. to

40.00 True point for $\frac{1}{4}$ sec. cor. falls in wash, 25 lks. wide, 2 ft. deep, course, S., therefore at

40.30 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground to solid rock, in a mound of stone, $3\frac{1}{2}$ ft. base, 2 ft. high, for witness cor. to $\frac{1}{4}$ sec. cor. to sec. 33 only, with brass cap marked, WC, $\frac{1}{4}$ S 33 on N. half;
1915 on S. rim.

Build a mound of stone, 3 ft. base, 2 ft. high N. of cor.
Asc. SW. slope, 136 ft. to

54.00 Spur slopes, S. 20° E.; desc. E. slope, 470 ft. to

73.00 Foot of slope brs. N. and S.

Thence over gradual E. slope, to

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 33 and 34, with brass cap mkd.

T 6 S R 2 E on N. half,
S 34 in NE. and
S 33 in NW. quadrants,
1915 on S. rim,

from which,

An iron wood 12 ins. in diam., brs. N. $39\frac{1}{2}^{\circ}$ E.
138 lks. dist. mkd. T 6 S R 2 E S 34 B T.

No other trees within limits.

Dig pits 24 X 24 X 12 ins. NE. and NW. of post 6 ft. dist., & raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

Land, mountainous.

Soil, stony, granite formation, 4th rate.

Timber, none.

Undergrowth, scattering ocotillos and cacti.

At this cor. I set off $16^{\circ} 24'$ N. on the decl. ard; and at apparent noon observe the sun on the mer.; the resulting lat. is $32^{\circ} 51'$ N.

East along, S. bdy. of sec. 34.

Over rolling land, through scattering timber and undergrowth.

2.30 Wash, 20 lks. wide, 1 ft. deep, course, N.

14.50 Road, brs. N. and S.

17.50 Wash, 30 lks. wide, 1 ft. deep, course, N.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. 34 only, with brass cap, marked $\frac{1}{4}$ S 34 on N. half,
1915 on S. rim,

from which,

An iron wood, 18 ins. in diam., brs. N. $62\frac{1}{2}^{\circ}$ E.
255 lks. dist. mkd. $\frac{1}{4}$ S 34 B T.

South boundary of Township 6 South, Range 2 East. 117.

Chains.	
80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 34 and 35, with brass cap, marked</p> <p style="padding-left: 40px;">T 6 S R 2 E on N. half; S 35 in NE., and S 34 in NW. quadrants; 1915 on S. rim;</p> <p>dig pits 24x24x12 ins., NE. and NW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.</p> <p>Land, rolling. Soil, gravelly and sandy, 2nd rate, granite formation. Timber, scattering palo verde and ironwood. Undergrowth, greasewood brush.</p> <p>-----</p>
40.00	<p>East, along south bdy. of sec. 35. Over level land, through scattering timber and undergrowth.</p> <p>Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. for sec. 35 only, with brass cap, marked</p> <p style="padding-left: 40px;">$\frac{1}{4}$ S 35 on N. half; 1915 on S. rim;</p> <p>dig pits 18x18x12 ins. E. and W. of post 6 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.</p>
80.00	<p>Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 35 and 36, with brass cap, marked</p> <p style="padding-left: 40px;">T 6 S R 2 E on N. half; S 36 in NE., and S 35 in NW. quadrants; 1915 on S. rim.</p> <p>Dig pits 24x24x12 ins. NE. and NW. of post 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, N. of cor.</p> <p>Land, level. Soil, sandy loam, 1st rate. Timber, scattering palo verde and ironwood. Undergrowth, greasewood brush.</p> <p>-----</p>
23.10	<p>East, along S. bdy. of sec. 36. Over level land, through scattering timber and undergrowth.</p>
27.90	<p>Wash, 25 lks. wide, 1 ft. deep, course N.</p>
31.00	<p>Road brs. NE. and SW.; ascend W. slope, 35 ft. to Top of spur, brs. N. and S.</p>
40.00	<p>Descend NE. slope, 40 ft. to Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, to solid rock, in a mound of stone 3 ft. base, 1 ft. high, for $\frac{1}{4}$ sec. cor. to sec. 36 only, with brass cap, marked</p> <p style="padding-left: 40px;">$\frac{1}{4}$ S 36 on N. half; 1915 on S. rim.</p>
159.16	<p>Build a mound of stone 3 ft. base, 2 ft. high, N. of cor. Intersect W. bdy. of T. 6 S., R. 3 E., 26.00 chs. N. of cor. of T. 6 and 7 S., R. 2 and 3 E., which is an iron post with brass cap, marked and witnessed as described by the Surveyor General. I obliterate markings on the cap, leaving only those pertaining to T. 6 S., R. 3 E., and move the mound of stone to NE. of cor., thus making this a cor. to T. 6 S., R. 3 E., only.</p> <p>At point of intersection, Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of T. 6 S., R. 2 E. (SE. cor.) with brass cap, marked</p> <p style="padding-left: 40px;">T 6 S R 2 E S 36 in NW. quadrant; 1915 on S. rim;</p> <p>dig pits 36x36x12 ins. on each line, N. and W. of cor., 8 ft. dist., and raise a mound of earth 5 ft. base, $2\frac{1}{2}$ ft. high, NW. of cor.</p> <p>I change markings and accessories of $\frac{1}{4}$ sec. cor. on W. bdy. of sec</p>

118. South boundary of Township 6 South Range 2 East.

sec. 31, T. 6S., R. 3E. in proper manner to make it refer to
sec. 31 only.

Land, level.

Soil, sandy loam, 1st rate.

Timber, scattering palo verde.

Undergrowth, greasewood brush.

May 6, 1915.

W.K.K.

Survey of West boundary of Township 6 South Range 2 East. 119.

Chains.

W.K.K.

Survey commenced May 5th, 1915, and executed as follows:
From recent and repeated field tests, I know the transit
and solar attachment to be in satisfactory adjustment.

At 8h. a.m., l.m.t., I set off $32^{\circ}51'N.$ on the lat. arc; $16^{\circ}4'N.$ on the decl. arc, and determine a meridian with the solar at the cor. of Ts. 6 and 7 S., Rs. 1 and 2 E. hereinbefore described.

Thence I run,

North, between secs. 31 and 36.

Over level land, through scattering timber and undergrowth.

- 3.10 Wash, 35 lks. wide, 2 ft. deep, course NW.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. for., with brass cap, marked
 $\frac{1}{4}$ S 36 on W., and
S 31 on E. half;
1915 on S. rim.
Dig pits $18 \times 18 \times 12$ ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
58.30 Wash, 30 lks. wide, 1 ft. deep, course NW.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, with brass cap, marked

T 6 S on N. half;
R 2 E S 30 in NE.,
S 31 in SE.,
S 36 in SW., and
R 1 E S 25 in NW. quadrants;
1915 on S. rim; from which,

An ironwood, 10 ins. in diam., brs. N. $57^{\circ} E.$, 62 lks. dist., marked T 6 S R 2 E S 30 B T.

No other trees within limits.

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

Land, level.

Soil, sandy with gravel surface, 2nd rate.

Timber, palo verde, mesquite and ironwood.

Undergrowth, greasewood brush, ocotillos and cacti.

North, bet. secs. 25 and 30.

Over level land, through scattering timber and undergrowth.

- 33.00 Wash, 25 lks. wide, 2 ft. deep, course W.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. for., with brass cap, marked
 $\frac{1}{4}$ S 25 on W., and
S 30 on E. half;
1915 on S. rim;
dig pits $18 \times 18 \times 12$ ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
51.10 Wash, 35 lks. wide, 1 ft. deep, course N. $70^{\circ} W.$
80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, with brass cap, marked
T 6 S on N. half;
R 2 E S 19 in NE.,
S 30 in SE.,
S 25 in SW., and
R 1 E S 24 in NW. quadrants;
1915 on S. rim;
dig pits $18 \times 18 \times 12$ ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.

Soil, gravelly, 3rd rate.

Timber, scattering palo verde and ironwood.

Undergrowth, greasewood brush, ocotillo and cacti.

120 West boundary of Township 6 South Range 2 East
Chains.

North, between secs. 19 and 24.
Over level land, through scattering timber and undergrowth.

2.20 Wash, 15 lks.wide, 2 ft. deep, course NW.
13.90 Wash, 25 lks.wide, 2 ft. deep, course NW.
28.90 Wash, 15 lks.wide, 2 ft. deep, course NW.
40.00 Set an iron post 3 ft.long, 1 in. indiam., 26 ins. in
the ground for $\frac{1}{4}$ sec.cor., with brass cap, marked
S 24 on W., and
S 19 on E.half;
1915 on S.rim;
dig pits 18x18x12 ins., N.and S.of cor., 3 ft. dist.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.
of cor.

40.50 Wash, 25 lks.wide, 2 ft. deep, course NW.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground, for cor.of secs. 13,18,19 and 24, with brass
cap, marked
T 6 S on N.half;
R 2 E S 18 in NE.,
S 19 in SE.,
S 24, in SW., and
R 1 E S 13 in NW. quadrants;
1915 on S.rim;
dig pits 18x18x12 ins., ineach sec. $5\frac{1}{2}$ ft. dist.,and
raise a mound of earth 4 ft.base, 2 ft. high,W.of cor.
Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood brush, ocotillos, and cacti.

North, between secs. 13 and 18.
Over level land, through scattering timber and undergrowth.

40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec.cor., with brass cap, marked
S 13 on W., and
S 18 on E half;
1915 on S.rim;
dig pits 18x18x12 ins., N.and S.of cor., 3 ft. dist.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.
of cor.

80.00 Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in
the ground, for corlof secs.7,12,13 and 18, with brass
cap, marked
T 6 S on N.half;
R 2 E S 7 in NE.,
S 18 in SE.,
S 13 in SW., and
R 1 E S 12 in NW.quadrants,
1915 on S.rim;
dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist.,and
raise a mound of earth 4 ft.base, 2 ft.high,W.of cor.
Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood brush, ocotillos and cacti.

North, bet. secs. 7 and 12.
Over level land, through scattering timber and under-
growth.

40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
the ground for $\frac{1}{4}$ sec.cor., with brass cap, marked,
S 12 on W., and
S 7 on E.half;
1915 on S.rim;

West boundary of Township 6 South Range 2 East. 121.

Chains.

dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

49.10 Wash, 30 lks. wide, 2 ft. deep, course NE.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, with brass cap, marked

T 6 S on N. half;
R 2 E S 6 in NE.,
S 7 in SE.,
S 12 in SW., and
R 1 E S 1 in NW. quadrants;
1915 on S. rim; from which

A mesquite, 8 ins. in diam., brs. S. $86^{\circ}E.$, 85 lks. dist., marked T 6 S R 2 E S 7 B T.

No other trees within limits. Dig pits 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
Soil, sandy loam, 1st rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood brush, ocotillos, and cacti.
At this cor., I set off $16^{\circ}7'N.$ on the decl. arc; and at apparent noon, observe the sun on the meridian; the resulting latitude is $32^{\circ}56'N.$

North, between secs. 1 and 6.

40.00 Over level land, through scattering timber and undergrowth. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked

$\frac{1}{4}$ S 1 on W., and
S 6 on E. half;
1915 on S. rim; from which

A mesquite, 8 ins. in diam., brs. S. $74\frac{1}{4}^{\circ}E.$, 27 lks. dist., marked $\frac{1}{4}$ S 6 B T.

No other trees within limits.
Dig pits 18x18x12 ins., N. and S. of cor., 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

66.30 Road brs. E. and W.
Ascend gradual S. slope.

79.74 Intersect 1st. Standard Parallel S., 212 lks. W. of the Standard cor. of Ts. 5 S. Rs. 1 and 2 E., established by me, and described in Book "A."

At point of intersection I
Set an iron post 3 ft. long, 3 ins. in diam., 12 ins. in the ground to solid rock, in a mound of stone, 3 ft. base, 2 ft. high for closing corner of Ts. 6 S., Rs. 1 and 2 E., with brass cap, marked

CC S. of center,
R 2 E S 6 in SE., and
R 1 E S 1 in SW. quadrants;
T 6 S on S. half;
1915 on S. rim.

Pits impracticable.
Build a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.

Land, level.
Soil, 1st 60 chs. sandy loam, 1st rate, remainder, stony, 3rd rate.
Timber, scattering palo verde and ironwood.
Undergrowth, greasewood brush and cacti.

May 5, 1915.
W.K.K.

122. Boundaries of Township 6 South Range 2 East.

Latitudes, departures, and closing errors.

Line designated.	Bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
West Tp. boundary.	North,	479.74	479.74			
North Tp. boundary (1st Std. Par. S.)	East,	479.82			479.82	
	South	13.60		13.60		
	N. 89° 58' E.	40.02	.02		40.02	
	East,	38.20			38.20	
East Tp. boundary	South,	466.35		466.35		
South Tp. bdy.	West,	559.16				559.16
Convergency,					.53	
<u>Totals.</u>			479.76	479.95	558.57	559.16
				479.76	559.16	558.57
<u>Error in latitude.</u>			0.19			
<u>Error in departure.</u>					1.23	0.59

OK 2892

FOR CERTIFICATES

~~FINAL COPY~~ OF UNITED STATES SURVEYOR,
AND UNITED STATES TRANSITMAN.

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See Book "A" of this Group.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191 _____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz., MAR 19 _____, 1917.

The foregoing field notes of the survey of *the W, E & N. bdrs. of T. 10 S. R. 2 E, the E & N. bdrs. of T. 10 S. R. 3 E and T. 10 S. R. 5 E, the N. bdy. of T. 10 S. R. 4 E, the E. bdy. of T. 10 S. R. 6 E, the S. & W. bdrs. of T. 9 S. R. 6 E, T. 7 S. R. 4 E & T. 6 S. R. 2 E, the S. bdy. of T. 8 S. R. 5 E, the W. bdrs. of T. 9 S. R. 4 E, T. 8 S. R. 2 E, & T. 7 S. R. 2 E, the W. & N. bdrs. of T. 9 S. R. 2 E, & T. 9 S. R. 3 E, part of N. bdy. of T. 8 S. R. 3 E and N 1/2 of W. bdy. of T. 7 S. R. 3 E, RETRACEMENT OF W. bdy. of T. 10 S. R. 8 E & S. bdy. of T. 7 S. R. 5 E and RESURVEY of S. & W. bdrs. of T. 9 S. R. 7 E & T. 8 S. R. 6 E, of the Gila and Salt River Base and Meridian, in the State of Arizona* executed by *W. H. Tharn, U. S. Surveyor and W. K. Kierulff, U. S. Transitman* under ~~his~~ special instructions dated *July 29, 1914 for Group 38 Arizona*, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the *surveys retracements* ^{resurveys} they describe, are hereby approved.

Frank P. Small
U. S. Surveyor General
of Arizona

~~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.~~