

3408  
Book "A"

267  
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4-679

BOOK 3408

# FIELD NOTES

OF THE <sup>re</sup> SURVEY OF THE

Santa Cruz Guide Meridian, thru T. 16 S., bet. Rs. 12 and 13 E.

A portion of the Subdivisions in T. 16 S., R. 12 E., and

A portion of the Subdivisions in T. 16 S., R. 13 E.

3408

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

William B. Kimmel,

3408

In the capacity of U. S. Surveyor, under Special Instructions dated March 5th, 1917,  
issued by the United States Surveyor General to govern surveys included in Group  
No. 83, which were approved by the Commissioner of the General Land  
Office, March 16th, 1917, and Assignment Instructions dated JUN 11 1917, 191

Re-Survey commenced June 19, 1917

Re-Survey completed June 23, 1917

3408

Book "A"

BOOK 3408

Group 83 - - - Arizona.

and date

INDEX <sub>A</sub> DIAGRAM.

Santa Cruz  
Guide Mer.

Township 16 South, Range s 12 and 13 E.

3rd Standard Parallel South

1 3	JUN 19 1917 6	5	4	3	2	1 3	6
8	JUN 11 1917						
JUN 23 1917 12 4	JUN 9 1917 7	8	9	10	11	12	7
8	JUN 10 1917					8	7
JUN 23 1917 13 4	JUN 19 1917 18	17	16	15	14	13	18
7	JUN 10 1917					7	10
JUN 22 1917 24 5	JUN 9 1917 19	20	21	22	23	24	19
7	JUN 9 1917					7	10
JUN 21 1917 25 5	JUN 21 1917 30	29	28	27	26	25	30
36 6	JUN 20 1917 31	32	33	34	35	36	31

T.165.  
R.12E.

T.165.  
R.13E.

Lines resurveyed under Group 83, Arizona.

Chains.

Resurveys hereinafter described, executed by William B. Mimmel, U.S. Surveyor, on dates shown on index and date diagram on page 1 hereof, using a Young and Sons light mountain transit No. 8478, equipped with Smith solar attachment.

The horizontal limb is provided with two 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.

Instrument was approved by Assistant Supervisor of Surveys of District No. 5, subject to satisfactory field tests on May 21, 1917.

FIELD TEST.

May 22, 1917.

At camp in sec. 9, T. 11 S., R. 26 E., near  $\frac{1}{4}$  sec. cor. of secs. 8 and 9; latitude  $32^{\circ} 29' N.$ , long.  $109^{\circ} 42' W.$ , examine the level and collimation adjustments, and correct errors.

At 7h. 52m., p.m., l.m.t., I observe Polaris in position, and mark the line of sight upon the ground. I notice that Mizar is in the eastern sky.

Greenwich l.m.t. of U.C. of Polaris = 9h. 31.8m. a.m.  
 U.C. of Polaris, l.m.t. of my station 9h. 30.5m. a.m.  
 Local mean time of observation, 7h. 52m. p.m.  
 Time elapsed since culmination, 10h. 21.5m.

which is the hour angle of Polaris, or argument for table.

Declination of Polaris =  $88^{\circ} 55' 44''$ .  
 Azimuth of Polaris, from table, =  $0^{\circ} 33' W.$  of N.

May 23, 1917.

I turn off the azimuth of Polaris  $0^{\circ} 33'$  to the E., and mark the meridian thus determined by a tack driven in a stake firmly set in the ground, 5 chs. N. of my station.

At 8h. 00m., l.m.t., I set off  $32^{\circ} 29'$  on the lat. arc;  $20^{\circ} 33\frac{1}{2}' N.$  on the decl. arc, and determine a meridian with the solar.

At 4h. 00m. p.m., l.m.t., I set off  $32^{\circ} 29' N.$  on the lat. arc; and  $20^{\circ} 37\frac{1}{2}' N.$  on the decl. arc, and determine a meridian with the solar.

The results of the a.m. and p.m. solar agrees with the true meridian determined by the Polaris observation by less than 1' of arc; from which I conclude that the adjustments are satisfactory.

At convenient times throughout the work both instruments were tested and the adjustments maintained, by comparison with meridians determined by observations on Polaris.

The magnetic bearing of the true meridian, at 8h. 00m., a.m. is  $N. 13^{\circ} 30' W.$  The angle thus determined gives for the magnetic decl.  $13^{\circ} 30' E.$

SANTA CRUZ GUIDE MER. IN T. 16 S.  
RETRACEMENT FOR RESURVEY.

The standard cor. of T. 15 S., Rs. 12 and 13 E. and cor. of Ts. 16 S., Rs. 12 and 13 E. reestablished by Surveyor Leedy in 1915, is an iron post, 3 ins. diam., properly marked on brass cap, and projecting 12 ins. above a mound of stones 4 ft. base, 2 ft. high.

Thence,  
 South, on a random line, between Rs. 12 and 13 E.  
 Make diligent search for  $\frac{1}{16}$  sec.,  $\frac{1}{4}$  sec., and sec. cors. at record distances, but without success until at

279.73 Fall 82 lks. W. of point of former location of  $\frac{1}{4}$  sec. cor. of secs. 19 and 24, reestablished in 1888 by L. D. ...

## SANTA CRUZ GUIDE MER. IN T.16S.

## Retracement for Resurvey.

Chains.

- son, U.S.D.S. Point determined by record course and dist. from the old bearing tree SE. of cor. point. True course and dist. from Tp. cor. to this point are therefore, S. 0° 10' E., 279.73 chs., giving a proportional dist. for each intermediate half mile 39.96 chs. Thence South on random line, bet. secs. 19 and 24 (S.  $\frac{1}{2}$ ).
- 20.00 No trace of Chillson 1/16 sec. cor. can be found.
- 40.00 Intersect the Chillson reestablished cor. of secs. 19, 24, 25 and 30, which is a wood post in a mound of earth, properly marked and notched. No bearing trees. True course and dist. of S.  $\frac{1}{2}$  of line, bet. secs. 19 and 24 are therefore south 40.00 chs.
- Thence,  
South of random line, bet. secs. 25 and 30 (N.  $\frac{1}{2}$ ).
- 20.00 No trace of Chillson 1/16 sec. cor. can be found.
- 49.91 Fall 67 lks. W. of the Chillson reestablished  $\frac{1}{4}$  sec. cor. of secs. 25 and 30, which is a wood post, marked "S" on W. face; mound of earth around post and pits N. and S. of post. No bearing trees. True course and dist. of N.  $\frac{1}{2}$  of line, bet. secs. 25 and 30 are therefore S. 0° 46' E., 49.91 chs.
- Thence, South on random line, bet. secs. 25 and 30 (S.  $\frac{1}{2}$ ).
- 20.00 No trace of Chillson 1/16 sec. cor. can be found.
- 40.01 Fall 51 lks. E. of cor. of secs. 25, 30, 31 and 36, reestablished by Surveyor Leedy in 1915, which is a 3-in. iron post, with brass cap, properly marked and witnessed by pits NE., SE., SW. and NW. of cor., and mound of earth W. of cor. No bearing trees. True course and dist. of S.  $\frac{1}{2}$  of line, bet. secs. 25 and 30 are therefore S. 0° 44' W., 40.01 chs.
- Thence, South on random line, bet. secs. 31 and 36.
- 40.00 Diligent search in this vicinity fails to reveal any trace of the original  $\frac{1}{4}$  sec. cor.
- 80.02 Fall 103 lks. E. of original cor. of Ts. 16 and 17 S., Rs. 12 and 13 E., which is a stump of the original post, and witnessed by well defined remains of the original pits. True course and dist. of line bet. secs. 31 and 36 are therefore S. 0° 44' W., 80.03 chs.

## SANTA CRUZ GUIDE MER. RESURVEY THRU T.16S.

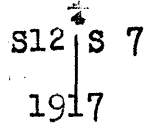
- From reestablished standard cor. of Ts. 15 S., Rs. 12 and 13 E., and cor. of Ts. 16 S., Rs. 12 and 13 E. on 3rd Std. Par. S., and Santa Cruz Guide Meridian, hereinbefore described,  
S. 0° 10' E., on true line, bet. secs. 1 and 6.  
Descend S. slope, 65 ft. to
- 5.00 Drain E. Ascend N. slope of spur, 85 ft. to
- 12.00 Spur, slopes E. Descend S. slope, 230 ft. to
- 33.00 Enter level desert land.
- 39.96 (At proportional dist.) Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for the reestablished  $\frac{1}{4}$  sec. cor. of secs. 1 and 6, with brass cap marked
- S 1 | S 6  
1917
- dig pits 18x18x12 ins., N. and S. of cor.,  $\frac{3}{8}$  ft. dist.  
Destroy the Leedy  $\frac{1}{4}$  sec. cor.
- 47.00 Wash, 20 lks. wide, 2 ft. deep, course E.
- 60.50 Road brs. E.
- 66.00 Road brs. NE. and SW.
- 79.92 (At proportional dist.), Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the reestablished cor. of secs. 1, 6, 7 and 12, with brass cap marked
- T16S  
E12E | R13E  
S 1 | S 6  
S12 | S 7  
1917
- dig pits 18x18x12 ins., in each sec.  $5\frac{1}{2}$  ft. dist.  
Destroy the Leedy sec. cor.  
North 33 chs. is mountainous, malpais formation, 4th rate.

Dependent Resurvey of the Santa Cruz Guide Meridian, in Township 16 South, between Rs. 12 and 13 East.

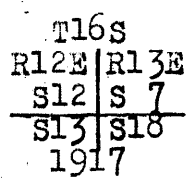
Chains.

Balance, level desert land. Soil, 1st rate. Undergrowth, palo verde and mesquite trees, sahuaro and club cactus.

18.30 Thence S. 0°10'E., on a true line, bet. secs. 7 and 12. Over level desert land. Wash, 20 lks. wide, 1 ft. deep, course NE. 39.96 (At proportional dist.), Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the reestablished 1/4 sec. cor. of secs. 7 and 12, with brass cap, marked



68.68 dig pits 18x18x12 ins. N. and S. of cor., 3 1/2 ft. dist. Destroy the Leedy 1/4 sec. cor. Road brs. NE and SW. 72.48 Wash, 20 lks. wide, 2 ft. deep, course NE. 79.92 (At proportional dist.), Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the reestablished cor. of secs. 7, 12, 13 and 18, with brass cap, marked



dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist. From cor., A mesquite, 4 ins. in diam., brs. S. W. 87 lks. dist., marked T16S R12E S13 BT.

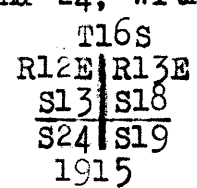
Destroy the Leedy sec. cor. Land, level desert. Soil, sandy loam, 1st rate. Timber, palo verde and mesquite. Undergrowth, club cactus; poor grazing.

18.96 Thence S. 0°10'E., on a true line, bet. secs. 13 and 18. Over level desert land. Wash, 20 lks. wide, 2 ft. deep, course E. 20.20 Road brs. NE and SW. 27.26 Wash, 30 lks. wide, 1 ft. deep, course NE. 37.06 Wash, 40 lks. wide, 4 ft. deep, course NE. 39.96 (At proportional dist.,) Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the reestablished 1/4 sec. cor. of secs. 13 and 18, with brass cap, marked



dig pits 18x18x12 ins., N. and S. of cor. 3 1/2 ft. dist., From cor., A palo verde, 8 ins. diam., brs. S. 6°E., 56 lks. dist. marked T16S R13E S18 BT.

60.76 Destroy the Leedy 1/4 sec. cor. Road, brs. NE and SW. 66.56 Wash, 20 lks. wide, 1 ft. deep, course NE. 79.92 (At proportional dist.), Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for the reestablished cor. of secs. 13, 18, 19 and 24, with brass cap, marked



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

Dependent Resurvey of the Santa Cruz Guide Meridian  
in Township 16 South, between Ranges 12 and 13 East.

5

Chains.

Destroy the Leedy sec.cor.  
Land, level desert. Soil, sandy loam, 1st rate.  
Timber, palo verde and mesquite.  
Undergrowth, club cactus; poor grazing.

39.97 Thence S. 0° 10' E., on a true line, bet. secs. 19 and 24 (N. 1/2).  
Over gently rolling desert land.  
The true point for the 1/4 sec. cor.  
Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the  
ground for the reestablished 1/4 sec. cor. of secs. 19 and  
24, with brass cap, marked

S24 | S19  
1917

from which,

A mesquite, 10 ins. in diam., brs. S. 10° 45' E., 39  
lks. dist., marked 1/4 XIX B.T. (old B.T.)

Dig pits 18x18x12 ins., N. and S. of cor. 3 1/2 ft. dist.,  
Destroy the Leedy 1/4 sec. cor.

25.30 Thence south on a true line, bet. secs. 19 and 24 (S. 1/2).  
40.00 Wash, 20 lks. wide, 1 ft. deep, course E.

Alongside of the old post, set an iron post, 3 ft. long,  
3 ins. diam., 24 ins. in the ground, for the reestab-  
lished cor. of secs. 19, 24, 25 and 30, with brass cap  
marked

T16S  
R12E | R13E  
S24 | S19  
S25 | S30  
1917

dig pits 18x18x12 ins., in each sec. 5 1/2 ft. dist.  
Destroy the Leedy W.C. to cor. of secs. 19, 24, 25 and 30.  
Land, gently rolling.  
Soil, gravelly, 2nd rate.  
Timber, palo verde and mesquite.  
Undergrowth, club cactus, poor grazing.

10.30 Thence S. 0° 46' E., on a true line, bet. secs. 25 and 30 (N. 1/2).  
19.96 Over gently rolling desert.  
Wash, 30 lks. wide, 2 ft. deep, course NE.  
(At proportional dist.), Set an iron post, 3 ft. long, 1 in.  
in diam., 26 ins. in the ground, for the reestablished  
N. 1/16 sec. cor., with brass cap, marked

N 1/16  
S25 | S30  
1917

25.60 dig pits 18x18x12 ins., N. and S. of cor., 3 1/2 ft. dist.  
49.91 Dim road brs. NE. and SW.  
Alongside the old post, set an iron post, 3 ft. long, 1 in.  
in diam., 26 ins. in the ground, for the reestablished  
1/4 sec. cor. of secs. 25 and 30, with brass cap, marked

S25 | S30  
1917

dig pits 18x18x12 ins.

Dependent Resurvey of the Santa Cruz Guide Meridian

T.16 S., bet. Rs. 12 and 13 E.

BOOK 3408

Chains

N. and S. of cor.  $3\frac{1}{2}$  ft. dist.  
Destroy the Leedy  $\frac{1}{4}$  sec. cor.  
Thence S.  $0^{\circ}44'W.$  on a true line bet. secs. 25 and 30. ( $S\frac{1}{2}$ ).  
Over rolling desert land.

- 2.40 Wash, 20 lks. wide, 2 ft. deep, course E.
- 8.40 Wash, 30 lks. wide, 3 ft. deep, course NE.
- 14.60 Wash, 1 ch. wide, 2 ft. deep, course NE.
- 20.00 Road.

40.01 The cor. of secs. 25, 30, 31, and 36, which is an iron post, ~~hereinbefore described~~, above ground, ~~marked~~, with pits and mound as set by Leedy in 1916.

Land; rolling desert.  
Soil; gravelly loam, 2nd. rate.  
Timber; palo-verdi and mesquite.  
Undergrowth; ocatella and club cactus.

Thence S.  $0^{\circ}44'W.$  on a true line bet. secs. 31 and 36.  
Over rolling desert land.

- 23.40 Road, bears NE. and SW.
- 37.20 Road, bears NE. and SW.
- 39.40 Wash, 15 lks. wide, 3 ft. deep, course NE.
- 40.01 ( At proportional dist.) Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for the reestablished  $\frac{1}{4}$  sec. cor., of secs. 31 and 36, with brass cap marked

S	36	S	31
1917			

; raise a mound of stone  
2 ft. base,  $1\frac{1}{2}$  ft. high W. of cor.

- 42.00 Wash, 70 lks. wide, 4 ft. deep, course NE.
- 80.03 The cor. of Ts. 16 and 17 S., Rs. 12 and 13 E. hereinbefore desc.  
Alongside of old post, set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for the reestablished cor. of Ts. 16 and 17 S., Rs. 12 and 13 E., with brass cap marked

T16S	
R12E	R13E
S 36	S 31
S 1	S 6
T17S	
1917	

; dig pits 24 x 24 x 12 ins.  
on each line N., S., E., and W. of cor., 5 ft. dist.

Land; rolling desert.  
Soil; gravelly and rocky, 2nd. and 3d. rate.  
Timber; palo-verdi and mesquite.  
Undergrowth; club cactus. Poor grazing.

Chains From <sup>reestab.</sup> cor. of secs. 19, 24, 25, and 30, on E. bdy. of Tp.,  
 S.82°40'W. on a random line bet. secs. 24 and 25.  
 40.00 Find no evidence of the old  $\frac{1}{4}$  sec. cor.  
 Set temp. cor.  
 79.40 Fall 17 lks. S.7°20'E. of <sup>reestablished</sup> cor. of secs. 23, 24, 25,  
 and 26, which is an iron post, 2 ins. dia., 12 ins.  
 above ground, marked and witnessed as described in  
 the resurvey by Leedy in 1915.  
 Thence N.82°47'E. on a true line bet. secs. 24 and 25.  
 Over desert land.  
 13.90 Road, bears NE. and SE.  
 20.60 Road, bears NE. and SE.  
 39.70 ( At proportional dist.) Set an iron post, 3 ft. long,  
 1 in. dia., 26 ins. in the ground, for the reestablished  
 $\frac{1}{4}$  sec. cor., with brass cap marked  
 $\frac{1}{4}$  S 24  
 S 25  
 1917  
 ; from which  
 A palo-verdi, 6 ins. dia., bears N.37 $\frac{1}{4}$ °E., 148 lks. dist.  
 marked  $\frac{1}{4}$  S 24 BT  
 A palo-verdi, 6 ins. dia., bears S.11 $\frac{1}{2}$ °W.  
 marked  $\frac{1}{4}$  S 25 BT  
 49.40 Destroy the Leedy  $\frac{1}{4}$  sec. cor.  
 Wash, 20 lks. wide, 1 ft. deep, course NE.  
 79.40 The cor. of secs. 19, 24, 25, and 30, on E. bdy. of Tp.  
 ( ~~Santa Cruz Guide Meridian~~ ) hereinbefore described.  
 Land; rolling.  
 Soil; gravelly loam, 2nd. rate.  
 Timber; palo-verdi and mesquite.  
 Undergrowth; palo-verdi and mesquite and cactus.

From ~~reestab.~~ cor. of secs. 13, 18, 19, and 24 on E. bdy. of T.  
 S.82°45'W. on a random line bet. secs. 13 and 24.  
 40.00 Find no evidence of the old  $\frac{1}{4}$  sec. cor.  
 Set temp. cor.  
 78.75 Fall 6 lks. N.7°15'W. of ~~reestab. cor. of secs.~~ 13, 14, 23, and 24  
 24, which is an iron post, 2 ins. dia., marked and  
 witnessed as described in the resurvey by Leedy in 1915.  
 Thence N.82°42'E. on a true line bet. secs. 13 and 24.  
 Over gently rolling desert land.  
 .20 Wash, 15 lks. wide, 1 ft. deep, course NE.  
 21.45 Wash, 20 lks. wide, 1 ft. deep, course NE.  
 30.95 Wash, 40 lks. wide, 2 ft. deep, course NE.  
 36.65 Wash, 40 lks. wide, 2 ft. deep, course NE.  
 39.37 $\frac{1}{2}$  ( At proportional dist.) Set an iron post, 3 ft. long, 1  
 in. dia., 26 ins. in the ground for the reestablished  
 $\frac{1}{4}$  sec. cor., with brass cap marked  
 S 13  
 4 ----  
 S 24  
 1917  
 ; from which  
 A mesquite, 6 ins. dia., bears S.70 $\frac{1}{2}$ °W. 117 lks. dist.  
 marked  $\frac{1}{4}$  S 24 BT.  
 A mesquite, 6 ins. dia., bears N.21 $\frac{1}{4}$ °W. 70 lks. dist.  
 marked  $\frac{1}{4}$  S 13 BT.  
 41.85 Destroy the Leedy  $\frac{1}{4}$  sec. cor.  
 Wash, 30 lks. wide, 1 ft. deep, course NE.  
 49.65 Wash, 20 lks. wide, 2 ft. deep, course NE.  
 51.25 Road, bears NE. and SW.



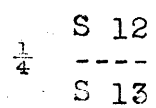
Dependent  
Resurvey of Subdivision Lines in T.16 S., R.12 E.

Chains

56.95 Road, bears NE. and SW.  
 64.15 Wash, 20 lks. wide, 1 ft. deep, course NE.  
 65.45 Road, bears NE. and SW.  
 78.75 The reestablished cor. of secs. 13, 18, 19, and 24, on E. bdy. of Tp. (Santa Cruz Guide Meridian) hereinbefore described.  
 Land; rolling.  
 Soil; gravelly loam, 2nd. rate.  
 Timber; palo-verdi, and mesquite.  
 Undergrowth; the same and club cactus.

From reestablished cor. of secs. 7, 12, 13 & 18, on E. bdy. of Tp. (Santa Cruz Guide Meridian)

S. 82° 45' W. on a random line bet. secs. 12 and 13.  
 40.00 Find no evidence of the old 1/4 sec. cor.  
 Set temp. cor. reestablished  
 78.08 Fall 14 lks. N. 7° 15' W. of the cor. of secs. 11, 12, 13 and 14, which is an iron post, 2 ins. dia., marked and witnessed as described in Leedy's resurvey in 1915.  
 Thence N. 82° 39' E. on a true line bet. secs. 12 and 13.  
 Over level desert land.  
 34.38 Wash, 20 lks. wide, 2 ft. deep, course NE.  
 39.04 (AT proportional dist.) Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the reestablished 1/4 sec. cor., of secs. 12 and 13, with brass cap marked



1917

marked 1/4 S 12 BT. ; from which  
 A mesquite, 5 ins. dia., bears N. 66 1/4° E., 44 lks. dist.  
 A mesquite, 8 ins. dia., bears S. 65 1/4° W., 119 lks. dist.  
 marked 1/4 S 13 BT.

Destroy the Leedy 1/4 sec. cor.

40.58 Wash, 15 lks. wide, 1 ft. deep, course NE.  
 54.19 Wash, 10 lks. wide, 1 ft. deep, course NE.  
 60.08 Road, bears NE. and SW.  
 64.58 Wash, 20 lks. wide, 1 ft. deep, course NE.  
 78.08 The reestablished cor. of secs. 7, 12, 13, and 18, on E. bdy. of Tp. (Santa Cruz Guide Meridian) hereinbefore described.  
 Land; level.  
 Soil; gravelly loam, 2nd. rate.  
 Timber; mesquite and palo-verdi.  
 Undergrowth; the same and club cactus.

From reestablished cor. of secs. 1, 6, 7 & 12, on the E. bdy. of Tp. (Santa Cruz Guide Meridian)

S. 82° 40' W. on a random line bet. secs. 1 and 12.  
 40.00 Find no evidence of the old 1/4 sec. cor.  
 Set temp. cor.  
 80.16 Fall 15 lks. S. 7° 20' E. of the cor. of secs. 1, 2, 11, and 12, reestablished by Leedy in 1915.  
 Thence N. 82° 46' E. on a true line bet. secs. 1 and 12.  
 Over level desert land.  
 26.56 Wash, 10 lks. wide, 2 ft. deep, course NE.

Dependent Resurvey of Subdivision Lines in T.16 S., R.12 E.

Chains  
40.08 ( At proportional dist.) Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the reestablished  $\frac{1}{4}$  sec. cor. of secs. 1 and 12; with brass cap marked

S 1  
 $\frac{1}{4}$  ---  
S 12  
1915  
; from which

A mesquite, 5 ins. dia., bears N.33°E., 23 lks. dist. marked  $\frac{1}{4}$  S 1 B T

A palo-verdi, 6 ins. dia., bears S.20°E., 37 lks. dist. marked  $\frac{1}{4}$  S 12 B T

**Destroy the Leedy  $\frac{1}{4}$  sec. cor.**

40.31 Wash, 15 lks. wide, course NE.

58.00 Road, bears NE. and SW.

59.61 Road, bears NE. and SW.

67.46 Wash, 10 lks. wide, 2 ft. deep, course NE.

75.56 Wash, 10 lks. wide, 2 ft. deep, course NE.

**80.16 The reestablished cor. of secs. 1, 6, 7 and 12 on E. by of E. of Tp. (Santa Cruz Guide Mer.) hereinbefore described. Land; level desert. Soil; 1st. rate. Timber; palo-verdi and mesquite trees. Undergrowth; cactus. The  $\frac{1}{4}$  sec. cor. on the lines.**

**Dependent**

Resurvey of Subdivision Lines in T.16 S., R.13 E.

**From the reestablished cor. of secs. 19, 24, 25 and 30, on W. by of Tp., hereinbefore described, 19, 24, 25, and 30, S.82°40'E. on a random line bet. secs. 19 and 30.**

40.00 Find no evidence of the old  $\frac{1}{4}$  sec. cor. Set temp. cor.

80.02 Fall 161 lks. S.7°20'W. of the cor. of secs. 19, 20, 29, and 30, reestablished by Leedy in 1915.

Thence N.83°49'W. on a true line bet. secs. 19 and 30. Over rolling desert land;

15.00 Wash, 50 lks. wide, 1 ft. deep. course NE.

35.20 Wash, 50 lks. wide, 2 ft. deep, course NE.

38.12 Wash, 10 lks. wide, 4 ft. deep, course NE.

40.31 ( At proportional dist.) Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the reestablished  $\frac{1}{4}$  sec. cor. of secs. 19 and 30, with brass cap marked

S 19  
 $\frac{1}{4}$  ----  
S 30  
1917  
; dig pits 18 x 18 x 12 ins. E. and W. of cor.  $3\frac{1}{2}$  ft. dist.

**Destroy the Leedy  $\frac{1}{4}$  sec. cor.**

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

Chains  
80.04

The reestablished cor. of secs. 19, 24, 25 and 30 on W. bdy. of Tpd (Santa Cruz Guide Mer.) hereinbefore described,

Land; rolling.  
Soil; gravelly loam, 2nd. rate.  
Timber; mesquite and palo-verdi.  
Undergrowth; the same and cactus.

ooo

40.00  
80.64

From reestablished cor. of secs. 13, 18, 19 and 24, on west boundary of Tp., S. 83° 50' E. on a random line bet. secs. 18 and 19.

Find no evidence of the old 1/4 sec. cor.  
Set temp. cor.  
Fall 2 lks. S. 6° 10' W. of the cor. of secs. 17, 18, 19, and 20, reestablished by Leedy in 1915.

7.50  
34.37  
40.47

Thence N. 83° 51' W. on a true line bet. secs. 18 and 19. Over gently rolling desert land.  
Wash, 20 lks. wide, 1 ft. deep, course NE.  
Wash, 20 lks. wide, 1 ft. deep, course N.  
( At proportional dist.) Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the reestablished 1/4 sec. cor., of secs. 18 and 19, with brass cap marked

S 18  
1/4 ---  
S 19  
1917

; from which  
A mesquite, 6 ins. dia., bears N. 68° E. 101 lks. dist. marked 1/4 S 18 BT  
A mesquite, 6 ins. dia., bears S. 42 1/2° E. 34 lks. dist. marked 1/4 S 19 BT

52.64  
80.64

Destroy Leedy's 1/4 sec. cor.  
Wash, 20 lks. wide, 1 ft. deep, course NE.  
The reestablished cor. of secs. 13, 18, 19, and 24, on the W. bdy. of the Tp., hereinbefore described.

Land; rolling.  
Soil; gravelly loam, 2nd. rate.  
Timber; palo-verdi and mesquite.  
Undergrowth; the same and cactus.

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From reestablished cor. of secs. 7, 12, 13 and 18, on W. bdy. of Tp. S. 83° 50' E. on a random line bet. secs. 7 and 18.

40.00  
81.26  
11.86  
17.46  
31.26  
41.00  
40.76

Find no evidence of the old 1/4 sec. cor., bet. of secs. 7 and 18.  
Set temp. cor.  
Fall 12 lks. N. 6° 10' E. of the cor. of secs. 7, 8, 17, and 18, reestablished by Leedy in 1915.

Thence N. 83° 45' W. on a true line bet. secs. 7 and 18. Over level desert land.

Wash, 20 lks. wide, 2 ft. deep, course NE.  
Wash, 15 lks. wide, 1 ft. deep, course NE.  
Wash, 20 lks. wide, 1 ft. deep, course NE.  
Road, bears NE. and SW.  
( At proportional dist.) Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the reestablished 1/4 sec. cor., with brass cap marked

S 7  
1/4 ---  
S 18  
1917

Dependent Resurvey of Subdivision Lines in T.16 S., R.13 E.

Chains

from which  
 A mesquite, 7 ins. dia., bears N.46 $\frac{3}{4}$ °E., 132 lks. dist.  
 marked  $\frac{1}{4}$  S 7 BT.  
 A mesquite, 6 ins dia., bears S.62 $\frac{1}{4}$ °E., 86 lks. dist.  
 marked  $\frac{1}{4}$  S 18 BT

**Destroy Leedy's  $\frac{1}{4}$  sec. cor.**

- 51.56 Wash, 20 lks. wide, 2 ft. deep, course NE.
- 64.66 Wash, 25 lks. wide, 1 ft. deep, course NE.
- 69.06 Road, bears NE. and SW.
- 81.26 The reestablished cor. of secs. 7, 12, 13, and 18, on ~~W. bdy.~~

**of Tp., (Santa Cruz Guide Mer.) hereinbefore described;**

Land; level.  
 Soil; sandy loam, 1st. rate.  
 Timber; palo-verdi and mesquite .  
 Undergrowth; the same with club cactus.

**From reestablished cor. of secs. 1, 6, 7 and 12, on W. bdy. of  $\frac{1}{4}$  p.**  
 S.83°30'E. on a random line bet. secs. 6 and 7.

- 40.00 Find no evidence of the old  $\frac{1}{4}$  sec. cor.  
 Set temp. cor.
- 79.97 Fall 35 lks. N.6°30'E. of the cor. of secs. 5, 6, 7, and  
 8, reestablished by Leedy in 1915.

Thence N.83°15'W. on a true line bet. secs. 6 and 7.  
 Over level desert land.

- 11.00 Wash, 10 lks. wide, 3 ft. deep, course NE.
- 18.07 Road, bears NE. and SW.
- 40.12 ( At proportional dist.) Set an iron post, 3 ft. long,  
 1 in. dia., 26 ins. in the ground for the reestablished  
 $\frac{1}{4}$  sec. cor., of. secs. 6 and 7, with brass cap marked

S 6  
 ---  
 $\frac{1}{4}$

1917

; dig pits 18 x 18 x 12  
 ins. E. and W. of cor., 3 $\frac{1}{2}$  ft. dist.

**Destroy the Leedy  $\frac{1}{4}$  sec. cor.**

- 42.87 Wash, 15 lks. wide, 1 ft. deep, course NE.
- 53.57 Wash, 10 lks. wide, 1 ft. deep, course NE.
- 58.67 Old road, bears NE.
- 79.97 The reestablished cor. of secs. 1, 6, 7, and 12 on the  
 W. bdy. of Tp. (Santa Cruz Guide Meridian) hereinbe-  
 fore described.

Land; level.  
 Soil; sandy loam, 1st. rate.  
 Timber; palo-verdi and mesquite.  
 Undergrowth; the same with club cactus.

Boundaries of secs. 12, 13 and 24, T. 16 S., R. 12 E. and secs.  
7, 18 and 19, T. 16 S., R. 13 E.  
Latitudes, departures, and closing errors.

BOOK 3408

Lines designated	True bearing	Distance	Latitudes		Departures	
			N	S.	E.	W.
W.bdy. sec. 24,	N.0°23'E.	79.92	79.92		.53	
W.bdy. sec. 13,	N.0°23'E.	79.92	79.92		.53	
W.bdy. sec. 12,	N.1°41'W.	80.09	80.05			2.35
N.bdy. sec. 12,	N.82°46'E.	80.16	10.10		79.52	
N.bdy. sec. 7,	S.83°15'E.	79.97		9.40	79.42	
E.bdy. sec. 7,	S.1°11'E.	79.26		79.24	1.64	
E.bdy. sec. 18,	S.0°21'W.	79.80		79.80		.49
E.bdy. sec. 19,	S.0°21'W.	39.90		39.90		.24
" " " "	S.0°14'W.	40.14		40.14		.16
S.bdy. sec. 19,	N.83°49'W.	80.04	8.62			79.57
S.bdy. sec. 24,	S.82°47'W.	79.40		9.97		78.77
Convergency					.07	
<b>Totals.</b>			<b>258.61</b>	<b>258.45</b>	<b>161.71</b>	<b>161.58</b>
			<u>258.45</u>		<u>161.58</u>	
Error in Lat. -----			.16			
Error in Dep. -----					.13	



282

3408

15

CERTIFICATE OF UNITED STATES SURVEYOR.

I, William B. Kimmel, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 83, Arizona, bearing date of the 5th day of March, 1917, 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, <sup>re</sup> surveyed all those parts or portions of the Santa Cruz Guide Meridian, thru. Township 16 South, bet. Ranges 12 and 13 East, subdivision lines in Township 16 South, Range 12 East, and subdivision lines in Township 16 South, Range 13 East, of the Gila and Salt River Base & Meridian, in the State of Arizona, which are represented in the foregoing field notes <sup>and by diagram on page 1 hereof</sup> as having been executed by me, and under my direction; and that all the corners of said <sup>re</sup> 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 Group 83, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~resurvey~~.

*William B. Kimmel*  
U. S. Surveyor.

Phoenix, Arizona

MAY 9 1919

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

*Phoenix, Arizona, Nov. 29*, 1919

The foregoing field notes of the ~~resurvey~~ <sup>Resurvey</sup> of the Santa Cruz Guide Meridian, thru. Township 16 south, <sup>bet.</sup> Ranges 12 and 13 E., a portion of the subdivision lines in Township 16 South, Range 12 East, and a portion of the subdivision lines of Township 16 South, Range 13 East,

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

executed by William B. Kimmel, U. S. Surveyor,

under ~~his~~ special instructions dated March 5, 1917 for Group 83 Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and ~~the surveys~~ they describe, are hereby approved.

*Francis G. Frost*  
U. S. Surveyor General.

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

*U. S. Surveyor General.*