

3191

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103

Book "E"

4-679

(1)

BOOK 3191

FIELD NOTES

RE-
OF THE SURVEY OF

Part of the Subdivision lines, and

SURVEY of

Part of the Subdivision lines

of

TOWNSHIP 16 SOUTH, RANGE 18 EAST,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

John F. Hesse,

In the capacity of U. S. Surveyor, under instructions dated October 1, 1915,
issued by the United States Surveyor General to govern surveys included in
Group No. 57, which were approved by the Commissioner of the General Land
Office, November 30, 1915.

Resurvey & Survey commenced January 2, 1916

Resurvey & Survey completed January 5, 1916.

Executed under Assignment
Instructions dated Oct. 18, 1915.

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104
17

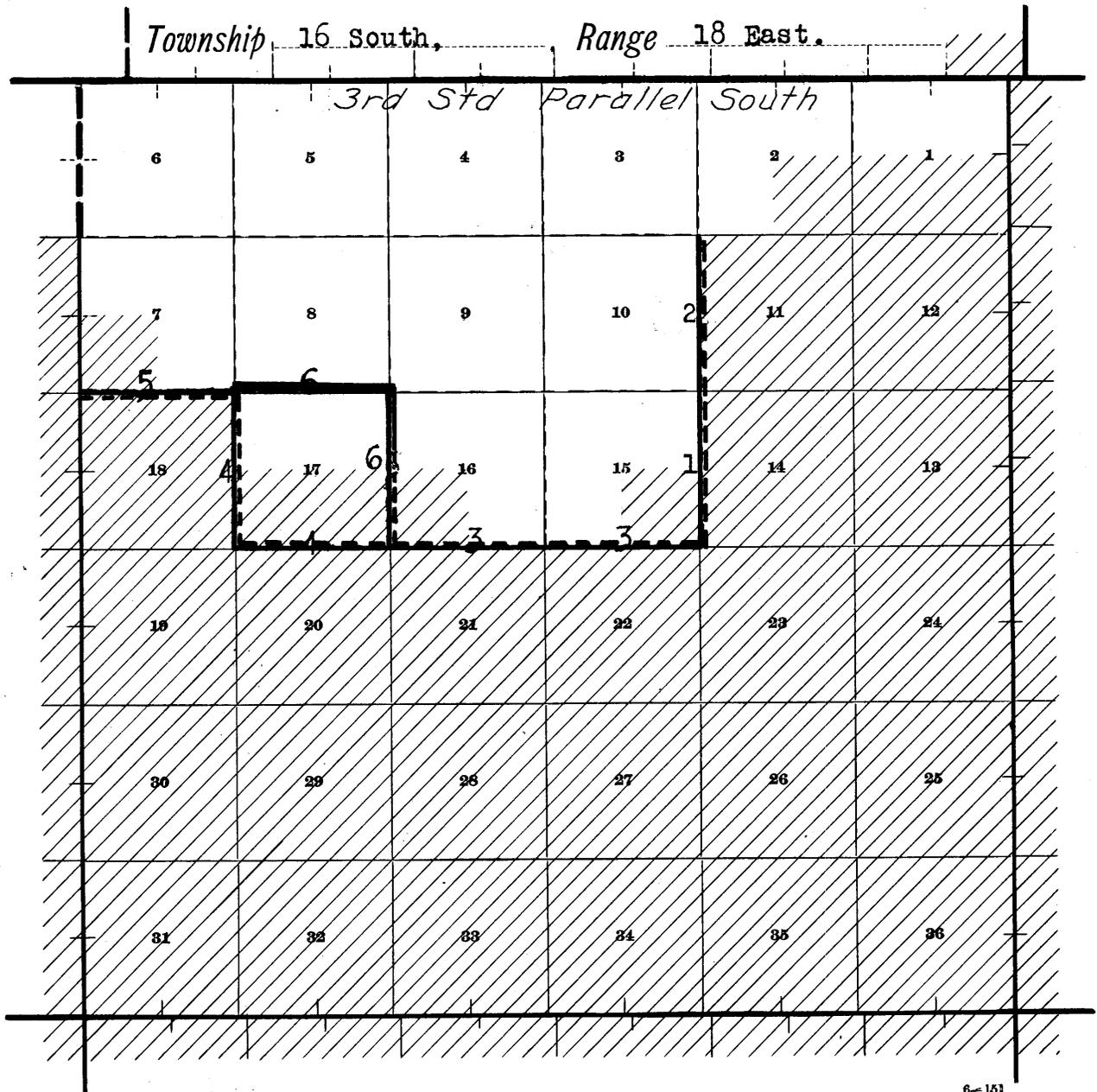
3191

Book "E"

Group 57 - - - Arizona.

BOOK 3191

INDEX DIAGRAM.



- Subdivision lines surveyed under this group.
Notes in this book. 3191
- - - - -** Subdivision lines resurveyed under this group.
Notes in this book. 3191
- Accepted surveys.
- ▨** Areas surveyed as per accepted plats on file.
- - - - -** Unsurveyed.

Resurvey of part of the Subdivision lines of T.16 S., R.18 E.

Chains.

Resurveys and surveys hereinafter described, executed by John F. Hesse, U.S. Surveyor, using A. Lietz light mountain transit No. 6166, with 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. Dates of execution shown on diagram on page 8 hereof.

The instrument was approved by the Assistant Supervisor of Surveys for Arizona and California, October 18, 1915, conditional upon satisfactory field tests.

December 28, 1915.

I examine the adjustments of the transit, and correct all errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp, which is located near the 1/4 sec. cor. bet. secs. 14 and 15, T.16 S., R.18 E., latitude, 32°02'09"N., longitude, 110°29'37"W.; I set off 32°02'N. on the lat. arc; 23°15 1/2'S on the decl. arc, and at 4h. 0m. p.m., l.m.t., determine with the solar a meridian, and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

December 30, 1915.

At 0h. 57m. a.m. by my watch, which has correct l.m.t., I observe Polaris at western elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

At 7h. 30m. a.m., l.m.t., I lay off the azimuth of Polaris, 1°20 1/2' to the east, and mark the meridian thus determined, by cutting a small groove in the stone set December 28, on which the meridian falls 0.2 ins. east of the mark determined by the solar.

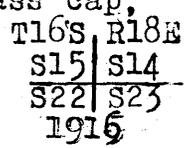
At 8h. 00m. a.m., l.m.t., I set off 32°02'N. on the lat. arc; 23°09 1/2'S. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively, about 0' 11" west, and 0' 16" east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h. 10m. a.m., is N. 13° 30' W.; the angle thus determined gives the magnetic decl. 13° 30' E.

I commence at the cor. of secs. 14, 15, 22 and 23, which is a post 3 ft. long, 4 ins. sq., marks visible, but illegible, lying on a small mound of stone. In the same place

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 14, 15, 22 and 23, marked on brass cap.



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

Thence, N. 0° 04' E., bet. secs. 14 and 15.

2. Resurvey of part of the Subdivisions of T. 16 S., R. 18 E.

Chains.

- Along E. slope of mountains, thru scattering brush.
 25.00 Brush becomes heavy.
 39.93 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished $\frac{1}{4}$ sec. cor., marked on brass cap,

$$\begin{array}{c} \frac{1}{4} S 15 | S 14 \\ 1916 \end{array}$$
 from which,
 An oak, 8 ins. in diam., brs. N. 58° E., 104 lks. dist., marked $\frac{1}{4}$ S 14 B T.
 A mesquite, 5 ins. in diam., brs. S. 85° W., 137 lks. dist., marked $\frac{1}{4}$ S 15 B T.
 Could find no trace of the old cor.
 48.10 Wash, 50 lks. wide, course SE. Ascend.
 64.00 Ridge, brs. NW* and SE. 147 ft. above wash; descend.
 77.00 Wash, 15 lks. wide, course SE., 74 ft. below ridge; ascend gradually along E. slope.
 79.86 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 10, 11, 14 and 15, marked on brass cap,

$$\begin{array}{c} T 16 S R 18 E \\ S 10 | S 11 \\ S 15 | S 14 \\ 1916 \end{array}$$
 and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Could find no trace of old cor.
 Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, mesquite, catclaw and oak.

- N. 0° 04' E., bet. secs. 10 and 11.
 Ascending gradually along E. slope of mountain, thru dense brush.
 36.50 Enter scattering timber, brs. E* and W.
 39.93 The old $\frac{1}{4}$ sec. cor., a post 24 ins. long, 3 ins. sq., in a small mound of stone, marked $\frac{1}{4}$ S on W face, with two bearing trees with marks grown over. In the same place,
 Set an iron post, 3 ft. long, 1 in. in diam., 8 ins. in the ground, in a mound of stone, for reestablished $\frac{1}{4}$ sec. cor., marked on brass cap,

$$\begin{array}{c} \frac{1}{4} S 10 | S 11 \\ 1916 \end{array}$$
 from which,
 An oak, 10 ins. in diam., brs. N. 16° W., 17 lks. dist., marked $\frac{1}{4}$ S 10 B T.
 An oak, 8 ins. in diam., brs. S. 9° E., 22 lks. dist., marked $\frac{1}{4}$ S 11 B T.
 Thence,
 N. 0° 02' E.
 6.40 Wire fence brs. NW* and SE.
 21.50 Timber becomes heavy.
 39.34 The old cor. of secs. 2, 3, 10 and 11, a post 3 ft. long, 4 ins. sq. in a mound of stone; marks visible, but illegible. In the same place,
 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 2, 3, 10 and 11, marked on brass cap,

$$\begin{array}{c} T 16 S R 18 E \\ S 3 | S 2 \\ S 10 | S 11 \\ 1916 \end{array}$$
 from which,
 An oak, 5 ins. in diam., brs. N. 17° W., 40 lks. dist., marked T 16 S R 18 E S 3 B T.
 An oak, 6 ins. in diam., brs. N. 22 $\frac{1}{2}$ ° E., 76 lks. dist., marked T 16 S R 18 E S 2 B T.

Resurvey of part of the Subdivision of Township 16 S., R. 18 E. 3

Chains.

An oak, 6 ins. in diam., brs. S. 56° E., 88 lks. dist., marked T16SR18ES11BT.

An oak, 5 ins. in diam., brs. S. 67° W., 160 lks. dist., marked T16SR18ES10BT.

125 ft. above cor. of secs. 10, 11, 14 and 15.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, oak.

Undergrowth, mesquite, catclaw and oak.

From the corner of secs. 14, 15, 22 and 23, hereinbefore described,

S. 89° 31' W., bet. secs. 15 and 22.

Along rough south slope, thru. scattering brush.

16.40 Wash, 10 lks. wide, course S. 24 ft. below cor.

32.50 Spur, S. 65 ft. above wash.

42.09 The old $\frac{1}{4}$ sec. cor., a post in a mound of stone, marks visible, but illegible. In the same place

Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, in a mound of stone, for reestablished $\frac{1}{4}$ sec. cor., marked on brass cap,

S 15

S 22

1916

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

Thence, S. 89° 13' W.

25.20 Wash, 20 lks. wide, course S. 228 ft. below spur.

40.14 The old cor. of secs. 15, 16, 21 and 22, a post 3 ft. long, 3 ins. square, marks illegible, in a mound of stone. In the same place,

Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in the ground, in a mound of stone, for reestablished cor. of secs. 15, 16, 21 and 22, marked on brass cap,

T16S R18E

S16 | S15

S21 | S22

1916

from which,

A mesquite, 6 ins. in diam., brs. S. 52° E., 196 lks. dist., marked T16SR18ES22BT.

A mesquite, 6 ins. diam., brs. S. 3° W., 109 lks. dist., marked T16SR18ES21BT.

No other bearings available. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, mesquite and catclaw.

S. 89° 38' W., bet. secs. 16 and 21.

Descending general SW. slope, thru. scattering brush.

4.35 Wash, 8 lks. wide, course S. 65 ft. below cor. Ascend.

11.25 Spur, SW. 85 ft. above wash. Descend.

25.10 Wash, 10 lks. wide, course SW. 140 ft. below spur. Ascend.

38.00 Spur, SW. 46 ft. above wash. Descend.

39.85 The old $\frac{1}{4}$ sec. cor., a post, marks illegible, lying on a mound of stone. 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., marked on brass cap,

S 16

S 21

1916

4. Resurvey of part of subdivision of Township 16 S., R. 18 E.

Chains.

from which,

An ash, 8 ins. in diam., brs. S. 10° W., 137 lks. dist.,
marked $\frac{1}{4}$ S 21 B T.No other bearing available. Raise a mound of stone 2 ft.
base, $1\frac{1}{2}$ ft. high, N. of cor.Thence,
S. 89° 32' W.1.00 Wash, 30 lks. wide, course NW. 75 ft. below spur, and over
rolling hills.

25.70 Wash, 20 lks. wide, course NW.

40.10 The cor. of secs. 16, 17, 20 and 21, a post, marks illegible,
in a mound of stone. In the same place,Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in
the ground, for reestablished cor. of secs. 16, 17, 20 and
21, marked on brass cap,

T16S R18E	
S17	S16
S20	S21
1916	

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

Land, mountainous and rolling.

Soil, rocky, 4th rate.

No timber.

Undergrowth, mesquite, and catclaw.

S. 89° 27' W., bet. secs. 17 and 20.

Over rolling hills, thru. scattering brush.

5.10 Wash, 10 lks. wide, course NW.

10.25 Road, brs. NW. and SE.

15.00 Wash, 20 lks. wide, course NE.

29.00 Wash, 15 lks. wide, course NW.

40.00 The old $\frac{1}{4}$ sec. cor., a post, marks illegible, in a mound of
stone, with 2 bearing trees, dead, marks illegible. 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., marked on brass
cap,

S 17
$\frac{1}{4}$
S 20
1916

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

Thence,

S. 88° 03' W.

26.60 Wash, 10 lks. wide, course NE.

32.50 Ascend NE slope.

40.62 The old cor. of secs. 17, 18, 19 and 20, a post, marks illegi-
ble, in a mound of stone. In the same place,Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
the ground, for reestablished cor. of secs. 17, 18, 19
and 20, marked on brass cap,

T16S R18E	
S18	S17
S19	S20
1916	

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ high, W. of
cor. 150 ft. above 32.50 ch. point.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, mesquite and catclaw.

N. 0° 03' E., bet. secs. 17 and 18.

Descend NE slope, thru. scattering brush.

28.90 Road brs. NW and SE. Brush becomes dense.

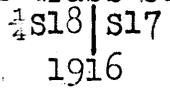
Resurvey of part of Subdivision of Township 16 S., R. 18 E. 5

Chains.

33.30 Wash, 200 lks.wide, course NW. 292 ft.below cor.,and over rolling hills, gradually ascending.

38.00 Wash, 50 lks.wide, course SW.

39.68 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for reestablished 1/4 sec.cor., offsecs. 17 and 18, marked on brass cap,



from which,

A mesquite, 12 ins. in diam., brs. N. 74 1/4° W., 59 lks. dist., marked 1/4 S 18 B T.

A mesquite, 10 ins. in diam., brs. S. 64 3/4° E., 144 lks. dist., marked 1/4 S 17 B T.

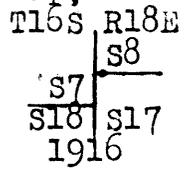
Could find no trace of old cor.

41.74 S.T.Lindley house brs. S. 87° 02' W.

E.D.Harrington house brs. N. 86° 59' W.

79.36 The old cor. of secs. 7, 8, 17 and 18, a post, marks illegible, in a mound of stone, one bearing tree. In the same place,

Set an iron post, 3 ft. long, 2 ins. in diam. 24 ins. in the ground, for reestablished cor. of secs. 7 and 18, marked on brass cap,



from which,

A mesquite, 8 ins. in diam., brs. S. 83° 15' W., 36 lks. dist., marked TXVISRXVIIIEXVIII. This is the old bearing tree, marked when this cor. was originally established.

No other bearing available. Raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor.

From this cor.,

S.T.Lindley's house brs. S. 44° 04' W.

E.D.Harrington's house brs. S. 51° 40' W.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, mesquite and catclaw.

S. 89° 25' W., bet. secs. 7 and 18.

Over rolling hills, thru. scattering brush.

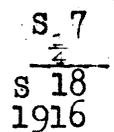
11.80 Wash, 16 lks.wide, course SW.

28.75 Wash, 15 lks.wide, course SW.

38.50 Wash, 15 lks.wide, course SW.

39.75 The old 1/4 sec.cor., a post, marks illegible, in a mound of stone, In the same place,

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished 1/4 sec.cor. of secs. 7 and 18, marked on brass cap,



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

Thence, S. 89° 33' W.

33.50 Wash, 125 lks.wide, course SW.

38.65 The old cor. of secs. 7, 12, 13 and 18, a post, marks illegible, lying on a mound of earth, 2 bearing trees NW., marks illegible. 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, 12, 13 and 18, marked on brass cap,

6. Resurvey of part of the Subdivision of T. 16 S., R. 18 E.

Chains.

T16S
R17E R18E
S12 | S 7
S13 | S18
1916

from which,

A mesquite, 6 ins. diam., brs. N. $89\frac{3}{4}^{\circ}$ W., 296 lks. dist.,
marked T16SR17ES12BT.

A mesquite, 10 ins. diam., brs. N. $80\frac{1}{4}^{\circ}$ E., 238 lks. dist.,
marked T16SR18ES7BT.

A mesquite, 4 ins. diam., brs. S. $67\frac{3}{4}^{\circ}$ E., 117 lks. dist.,
marked T16SR18ES18BT.

A mesquite, 4 ins. diam., brs. S. 59° W., 197 lks. dist.,
marked T16SR17ES13BT.

Land, rolling hills.

Soil, rocky, 4th rate.

No timber.

Undergrowth, mesquite and catclaw.

N. $0^{\circ}04'$ W., bet. secs. 16 and 17, from reestablished cor. of
secs. 16, 17, 20 and 21, hereinbefore described.

Over rolling land, gradually descending, thru scattering
brush.

7.20 Wash, 70 lks. wide, course NW., and ascend gradual slope at
foot of mountain.

35.65 Wash, 25 lks. wide, course SW. Ascend SW. slope of mountain.

39.71 The old $\frac{1}{4}$ sec. cor., a mesquite post, 3 ft. long, 2 ins. sq.,
in a mound of stone, marked $\frac{1}{4}$ S on W. face. In the same
place,

Set an iron post 3 ft. long, 1 in. in diam., in a mound of
stone, for reestablished $\frac{1}{4}$ sec. cor. of secs. 16 and 17,
marked on brass cap,

$\frac{1}{4}$ S17 | S16
1916

from which,

A mesquite, 5 ins. in diam., brs. N. $80\frac{1}{4}^{\circ}$ W., 120 lks.
dist., marked $\frac{1}{4}$ S17BT.

A mesquite, 4 ins. in diam., brs. N. 85° E., 156 lks.
dist., marked $\frac{1}{4}$ S16BT.

Survey of part of the Subdivision of T. 16 S., R. 18 E.

From the reestablished $\frac{1}{4}$ sec. cor. of secs. 16 and 17,
North, on a true line, bet. secs. 16 and 17 (N. $\frac{1}{2}$).

38.00 Ridge, brs. NE and SW., 301 ft. above wash.

40.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in
the ground, for cor. of secs. 8, 9, 16 and 17, marked on
brass cap,

T16S R18E
S 8 | S 9
S17 | S16
1916

from which,

A mesquite, 10 ins. in diam., brs. S. 56° W., 150 lks.
dist., marked T16SR18ES17BT.

No other bearings available. Raise a mound of stone 2 ft.
base, $1\frac{1}{2}$ ft. high, W. of cor. 23 ft. below ridge.

Land, rolling and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, mesquite and catclaw.

West, on a true line, bet. secs. 8 and 17.

Descend NW. slope.

3.75 Wash, 10 lks. wide, course SW., 72 ft. below cor., and along
rough S. slope of mountain.

8.86 Wash, 20 lks. wide, course SW.

20.70 Wash, 20 lks. wide, course SW.

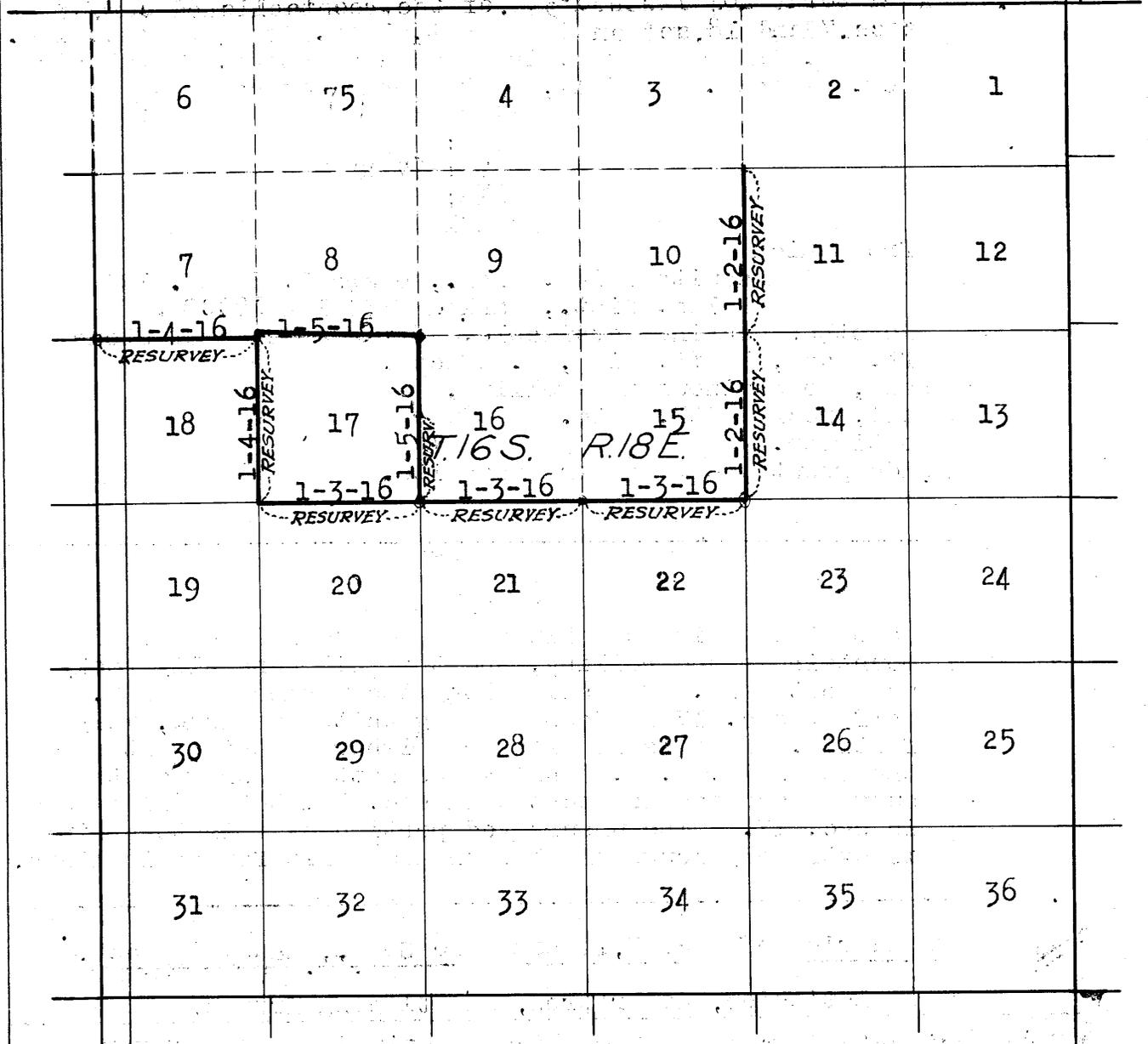
Book "E"

Group 57 - - - Arizona.

Township 16 South, Range 18 East.

DATE DIAGRAM.

3rd Std. Parallel South



Surveys executed on dates as shown on diagram above,
by John F. Hesse, U. S. Surveyor.

BOOK 3191

CERTIFICATE
~~FINAL OATH~~ OF UNITED STATES SURVEYOR.

I, John F. Hesse, U. S. Surveyor, hereby certify upon honor
~~do solemnly swear~~ that, in pursuance
of special instructions received from the U. S. Surveyor General, for Group 57, Arizona,
bearing date of the 1st day of October, 1915, 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, ^{re-}surveyed all those parts or portions of the
Subdivision lines, and
Surveyed all those parts or portions of the
Subdivision lines of

TOWNSHIP 16 SOUTH, RANGE 18 EAST,

of the Gila and Salt River
Base and Meridian, in the State of Arizona, which are represented by
~~the diagram on page 8 hereof and 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 ^{re-}survey ^{and survey} have been established and perpetuated in strict accord-
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor
General, for Group 57, Arizona, and in the specific manner described in the field notes, and that
the foregoing are the original field notes of such ^{re-}survey and survey.

John F. Hesse

U. S. Surveyor.

~~Subscribed by said~~ _____, ~~and sworn to before me~~
~~this~~ _____ ~~day of~~ _____, 1915



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, October 14, 1918

^{re-}
The foregoing field notes of the survey of part of the Subdivision lines of
and Survey of part of the Subdivision lines of

TOWNSHIP 16 SOUTH, RANGE 18 EAST,

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

executed by John F. Hesse, U. S. Surveyor,
under his special instructions dated Oct. 1, 1915, for Group 57, Arizona, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
resurveys and
surveys they describe, are hereby approved.

Francis D. Smith

U. S. Surveyor General.

~~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.~~