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BOOK "D"
4-679

JUL 12 1918

BOOK 3190

JAN 19 1920

FIELD NOTES

of the

RETRACEMENT of Part of the East and Part of the North boundary of
Camp Lowell Abandoned Military Reservation,

RESURVEY of Part of the North Boundary of Camp Lowell Abandoned
Military Reservation; and of
Part of Subdivision Lines in T. 13 S., R. 16 E.,

and

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

Of the Gila and Salt River Base and Meridian,

In the State of Arizona,

EXECUTED BY

Jahn F. Hesse, U. S. Surveyor General,

Arthur W. Brown and U. S. Cadastral Engineer

with Corrections by Guy P. Harrington, U. S. Cadastral Engineer

~~In the capacity of U. S. Surveyor~~, under Special Instructions dated October 1, 1915,
and September 11, 1919.

issued by the United States Surveyor General to govern surveys included in Group
No. 57, Arizona, which were approved by the Commissioner of the General Land
Office, November 30, 1915, and Assignment Instructions dated October 18, 1915
and July 11, 1918.

Commenced December 18, 1915.

Completed July 25, 1918.

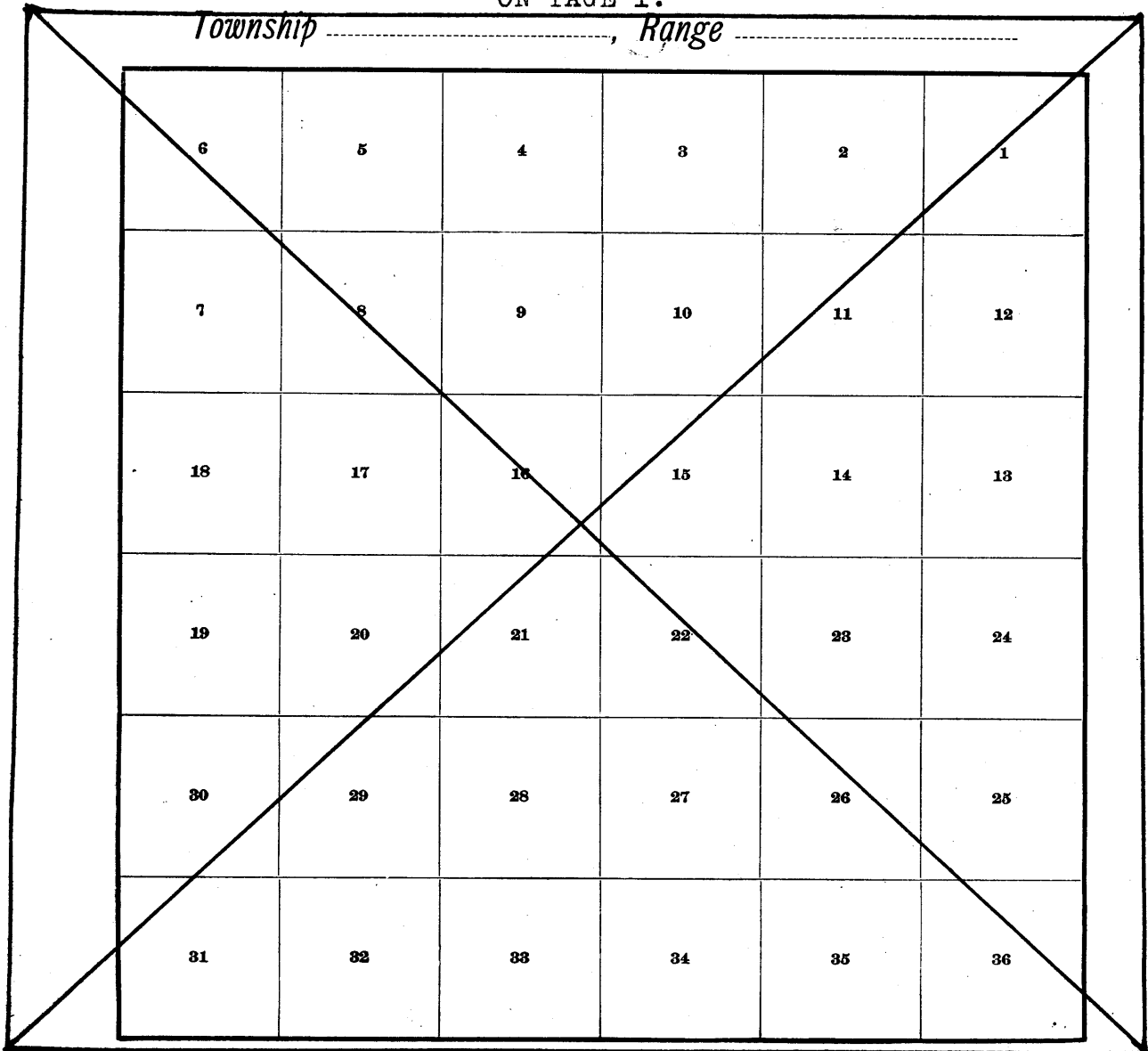
Corrections on Dec. 15, 1919.

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SEE SPECIAL
INDEX DIAGRAM.

ON PAGE 1.



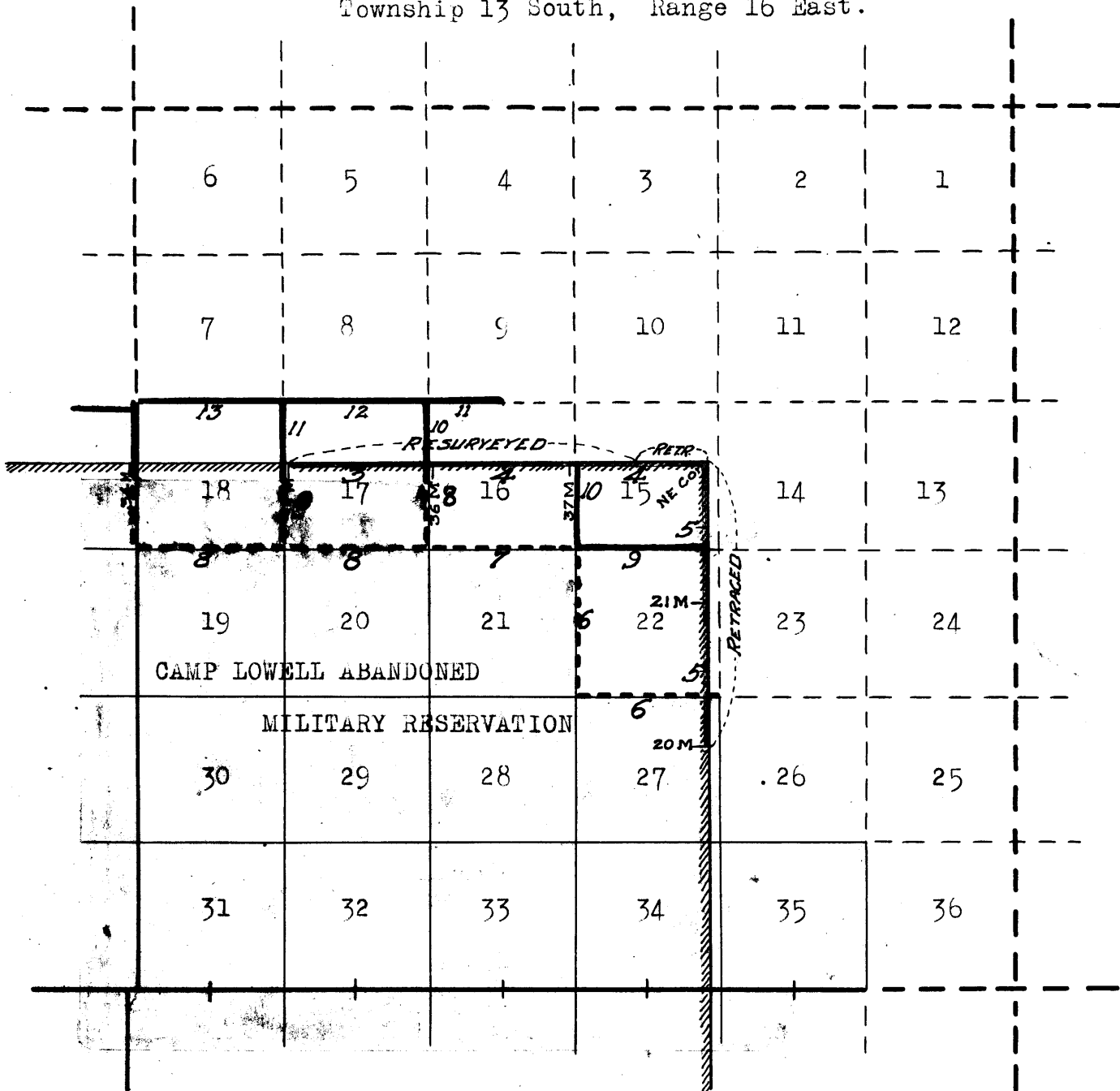
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Book "D"
Group 57 - - - Arizona.

BOOK 3190

INDEX DIAGRAM.

Township 13 South, Range 16 East.



- Subdivision lines surveyed under this group--notes in this book.
- - - - - Subdivision lines resurveyed under this group-- " " " " .
- Township lines surveyed under this group--notes in Book C.3189
- Subdivision lines surveyed under this group--notes in book C.3189
- - - - - Township lines resurveyed under this group--notes in book C.3189
- /////// Bdy. of Camp Lowell Abandoned Military Reservation.
- /////// Part of Bdy. of Camp Lowell Abandoned Military Reservation retraced or resurveyed under this group--notes in this book.
- Previously accepted surveys.
- - - - - Unsurveyed.
- ▭ Area surveyed as per accepted plats on file.

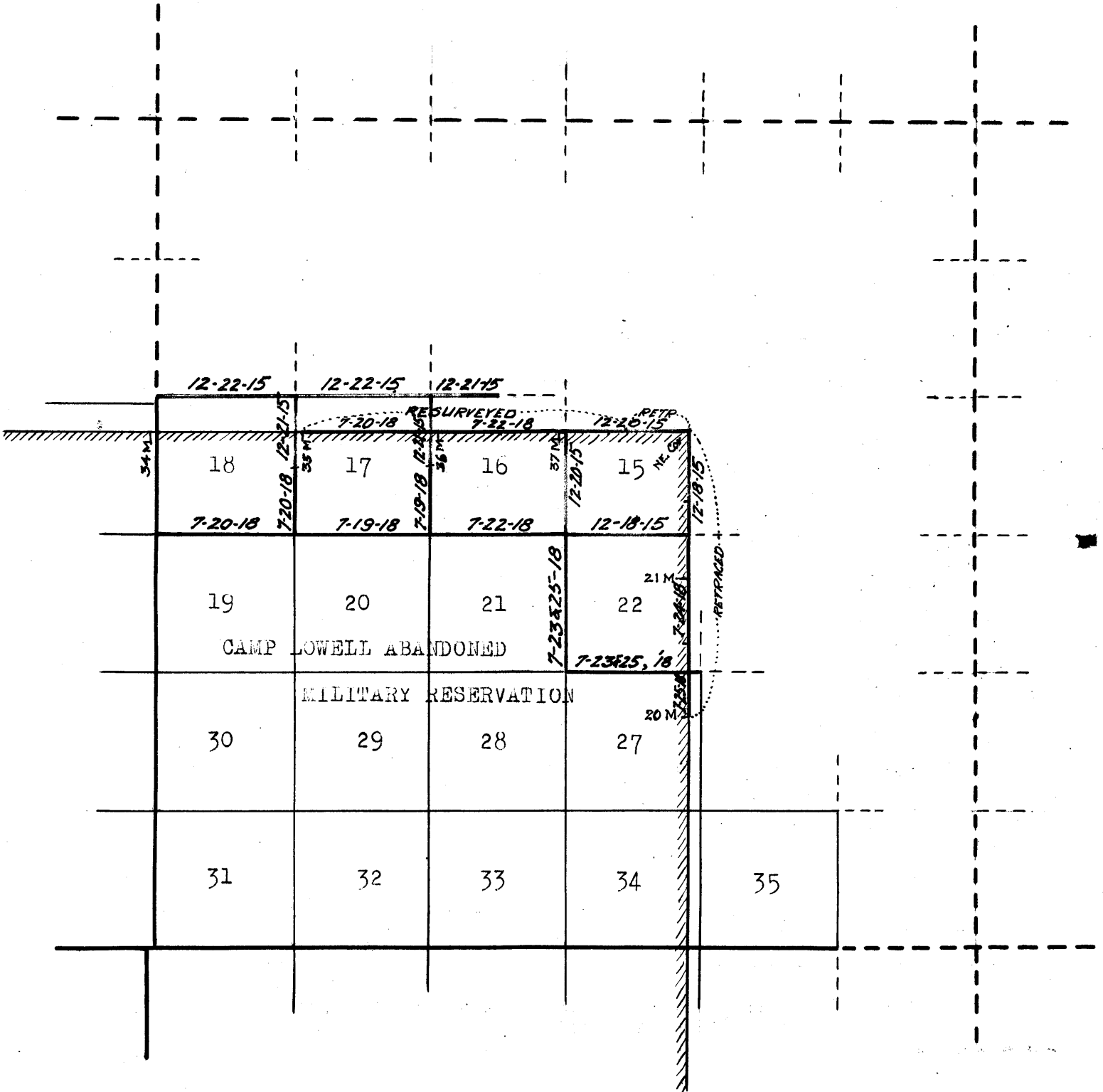
Book "D"

Group 57 - - - Arizona.

BOOK 3190

DATE DIAGRAM.

Township 13 South, Range 16 East.



Retracements and resurveys executed on dates shown in red on above diagram by Arthur W. Brown, U. S. Cadastral Engineer.

Retracements, resurveys and surveys executed on dates shown in green on above diagram by John F. Hesse, U. S. Surveyor.

Field correction of West and South bdrs. of sec. 22 on Dec. 15, 1919 by Guy P. Harrington, U.S. Cadastral Engineer.

Chains

Retracements, resurveys and surveys hereinafter described
executed by John F. Hesse, U. S. Surveyor, using
Lietz light mountain transit No. 6166; and Arthur W.
Brown, U. S. Cadastral Engineer, using Young & Sons
light mountain transit No. 8486.

For description of instruments, with record of approval and
field tests, see Book C.

Field correction made in resurvey of W. and S. bdrs. of
Sec. 22, by Guy P. Harrington, U. S. Cadastral Engineer
Dec. 15, 1919.

The old 35 mile cor. on the N. bdy. of the Camp Lowell
Abandoned Military Reservation is a mound of stone
witnessed by one bearing tree. I reestablish this cor.
as follows:

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the
ground, marked on brass cap

T13S R16E

S17

35^m

CLAMR

1917

from which

A mesquite, 4 ins. diam., (original bearing tree) bears
S. $6\frac{1}{2}^{\circ}$ W., 86 lks. dist., marked USMRXXXV.

A paloverde, 5 ins. diam., bears S. $77\frac{1}{2}^{\circ}$ E., 53 lks. dist.,
marked 35^m CLAMR BT.

Thence N. $89^{\circ}49'$ E., on a true line, on the 36th mile of the
N. bdy. of the Camp Lowell Abandoned Military Reservation;
over rolling mountainous land, through dense undergrowth.

- 4.20 Small rocky wash, in large ravine, course S.
7.00 Rocky wash, 35 lks. wide, 8 ft. deep, course S.
15.88 Small wash, course S.
23.48 Sandy wash, 6 lks. wide, course S.
31.78 Small rocky wash, in large ravine, course S.
40.05 Intersect the 35¹/₂ mile cor., which is a wooden post, 4 ins.
sq., projecting 18 ins. above a stone mound, marked and
witnessed as described by the Surveyor General.

Thence N. $89^{\circ}56'$ E., on a true line, continuing measurement
from the 35 mile cor.

- 44.85 Rocky gulch, course S.
69.75 Center of deep gulch, 4 chs. wide, course S.
79.76 Intersect the 36 mile cor., which is a mesquite tree 4 ins.
diam., marked USMR XXXVI. As the tree is dead and de-
caying, I reestablish cor. in the same place as follows:
Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the
ground, marked on brass cap

T13S R16E

S16

36^m

CLAMR

1917

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

Land, mountainous.

Soil, rocky; 4th rate.

No timber.

Undergrowth, mesquite and cactus.

Resurvey of Part of the North Boundary of Camp
Lowell Abandoned Military Reservation, within
T. 13 S., R. 16 E.

Chains

EAST, on a true line, on 37th mile;
over mountainous land, through dense undergrowth. Desc.
100 ft.
9.00 Desc. 140 ft. over steep slope into canyon.
18.00 Ft. of slope. Thence across level sandy bed of canyon,
course S.
19.00 Small rocky wash on E. side of bottom of canyon. Asc. 270
ft. over W. slope, on E. side of canyon.
30.00 Top of cliff, bears N. and S. Asc. 180 ft.
38.73 Intersect $36\frac{1}{2}$ mile cor., which is a wooden post 3 ins. sq.,
projecting 24 ins. above a mound of stone, marked and
witnessed as described by the Surveyor General.
Continue ascent 40 ft.
40.10 Summit of ascent, 490 ft. above bottom of canyon.
44.70 Desc. 220 ft. over steep E. slope cut by deep gulches run-
ning southerly.
60.90 Ft. of slope. Thence across bottom of large ravine, course
S.
65.00 Asc. 85 ft. on E. side of ravine, over W. slope.
70.75 Top of slope. Thence across top of hill.
74.00 Begin descent over E. slope.
78.68 Intersect the 37 mile cor., which is a wooden post, badly
decayed, in a mound of stone. I reestablish this cor.
as follows:
Set an iron post, 3 ft. long, 3 ins. diam., in a mound of
stone, marked on brass cap

T13S R16E

S16

37M

CLAMR

1915

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

Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth, cactus and mesquite.

N. $89^{\circ}26'E.$, on a true line, on 38th mile,
over mountainous land, through dense undergrowth. Desc.
70 ft. over SE. slope.
8.20 Wash, 25 lks. wide, course SW., in bottom of gulch. Asc.
450 ft.
34.50 Ridge bears NE. and SW. Begin descent. Desc. 90 ft. to
40.16 Intersect the $37\frac{1}{2}$ mile cor., which is a wooden post 4 ins.
sq., firmly set in a mound of stone 3 ft. base, 2 ft.
high, marked and witnessed as described by the Surveyor
General.

Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth, paloverde, catclaw and cactus.

RETACEMENT OF PART OF NORTH BOUNDARY OF CAMP LOWELL ABAN-
DONED MILITARY RESERVATION, IN T. 13 S., R. 16 E.

From the $37\frac{1}{2}$ mile cor., hereinbefore described;
N. $89^{\circ}15'E.$, on a true line, on E. half of 38th mile,
over mountainous land, through undergrowth.
Desc. over steep slope of ridge. Desc. 385 ft. to
23.80 Bottom of Agua Caliente Canyon. Wash, 80 lks. wide in

Retracement of Part of the North Boundary of Camp Lowell Abandoned Military Reservation, within T. 13 S., R. 16 E.

Chains bottom of canyon, course SW. Asc. 610 ft. over steep slope.
 41.04 Intersect NE. cor. of Camp Lowell Abandoned Military Reservation, which is a wooden post, 4 1/2 ins. sq., firmly set in a mound of stone 3 ft. base, 2 1/2 ft. high; marked and witnessed as described by the Surveyor General.
 Land, mountainous.
 Soil, rocky; 4th rate.
 No timber.
 Undergrowth, paloverde, catclaw and cactus.

Retracement of Part of the East Boundary of Camp Lowell Abandoned Military Reservation, within T. 13 S., R. 16 E.

The 20 mile cor. on the E. bdy. of reservation is identified by a post, properly marked, in a mound of stone. I re-establish cor. as follows:
 Set a quartzite stone, 30 x 14 x 8 ins., in a mound of stone marked CLAMR on W., PL on E., and 20M on S. face. Thence N. 0° 17' W., on a true line, on 21st mile, along E. bdy. of reservation,
 over mountainous land, through undergrowth. Asc. S. slope.
 6.90 Top of ridge bears E. and W. Desc. over N. slope.
 16.80 Small ravine, course NW. Asc.
 25.40 Bottom of rocky gulch, course W. Asc.
 26.87 Intersect old closing cor. of secs. 22 and 27, which is a mound of earth and stone as described by the Surveyor General.
 34.00 Crest of ridge. Begin descent over steep N. slope.
 39.97 Intersect the 20 1/2 mile cor., which is a wooden post, firmly set in a mound of stone, marked and witnessed as described by the Surveyor General.

Thence N. 0° 20' W., on N. half of 21st mile.
 Continue descent, over steep N. slope.
 7.50 Bottom of rocky gulch, course W., 180 ft. below ridge. Asc. 610 ft., over steep S. slope.
 30.75 Crest of ridge, bears E. and W. Begin descent over steep N. slope into ravine.
 40.05 Intersect the 21 mile cor., which is a wooden post, firmly set in a mound of stone, marked and witnessed as described by the Surveyor General.
 Land, mountainous.
 Soil, rocky; 4th rate.
 No timber.
 Undergrowth, mesquite, catclaw and cactus.

NORTH, on a true line, on 22nd mile,
 over mountainous land, through undergrowth. Desc.
 .75 Bottom of gulch, course W., 250 ft. below ridge forming the S. side of same. Asc. 130 ft., over steep S. slope.
 5.00 Crest of ridge, bears E. and W. Desc. 100 ft., over N. slope.
 12.00 Bottom of rocky gulch, course W. Asc. 340 ft. over S. slope.
 27.90 Crest of spur ridge sloping W. from Agua Caliente Hill about 1 1/4 miles to east. Begin desc. over N. side of ridge.
 39.83 Intersect the 21 1/2 mile cor., which is a wooden post, 4 ins. sq., firmly set in a mound of stone 3 ft. base, 2 1/2 ft. high, marked and witnessed as described by the Surveyor General.

Thence N. 0° 20' E., on N. half of 22nd mile.
 Continue descent.
 .75 Wash, 20 lks. wide, course NW., 220 ft. below top of ridge on S. side of gulch. Asc. 80 ft.
 10.90 Spur, slopes W. Desc. 210 ft., over NE. slope.
 42.49 Intersect the NE. cor. of reservation, hereinbefore described.
 Land, mountainous.
 Soil, rocky; 4th rate.
 No timber. Undergrowth, scrub oak, cactus and catclaw.

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

6.

- Chains The old cor. of Secs. 22, 23, 26, and 27 consists of a mound of stone and earth. I reestablish cor. as follows:
Set a granite stone, 20 x 8 x 6 ins., 15 ins. in the ground, marked with 2 notches on each of E. and S. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- 1.30 Thence N. 89° 16' W., on a true line, bet. secs. 22 and 27, over mountainous land, through undergrowth.
Intersect the old closing cor. of secs. 22 and 27 on E. bdy. of Camp Lowell Abandoned Military Reservation; which is a mound of earth and stone. I reestablish closing cor. as follows:
Set a granite stone, 18 x 12 x 4 ins., 12 ins. in the ground, marked CC on E. face and CLAMR on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- 4.17 Rocky wash, on SW. slope of hill; course SW.; joins ravine about 4 chs. S. of line. Asc. 70 ft., over E. slope.
- 14.90 Summit of ascent. Desc. 300 ft.
- 33.90 Ft. of slope. Rocky wash, course SW.; thence over broken S. slope.
- CORRECTION by Guy P. Harrington, U. S. Cadastral Engineer as follows:
The Hesse reestablished ¼ sec. cor. of Secs. 22 and 27, is a stone properly mkd. and witnessed by md. of stone N. of cor. Obliterate mkg. on stone and destroy the accessory. This cor. is reported as 41.09 chs. N. 89° 16' W., from reestablished cor. of Secs. 22, 23, 26 and 27, therefore measure S. 89° 16' E., 65 lks. to
- 40.44 (Midpoint of N. bdy. of Sec. 27) Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for re-established ¼ sec. cor. of Sec. 27, mkd. on brass cap
- ¼ S 27
1919
- and raise md. of stone 2 ft. base, 1½ ft. high S. of cor.
- 40.88 Thence N. 89° 16' W., 44 lks. to (40.00 chs. S. 89° 16' E., from cor. of Secs. 21, 22, 27 and 28) Set an iron post, 3 ft. long, 1 in. in diam., 2 ins. in ground, supported by a mound of stones, for reestablished ¼ sec. cor. of Sec. 22, mkd. on brass cap
- ¼ S 22
1919
- and raise a md. of stone, 2 ft. base, 1½ ft. high N. of cor.
- 41.09 Thence N. 89° 16' W., 21 lks. to Point where Hesse ¼ sec. cor. is obliterated.
- Continuing from Hesse's record:
- 43.30 Top of spur, slopes SW. Desc.
- 55.90 Bottom of deep gulch. Asc. 700 ft.
- 73.60 Top of slope, on ridge bearing N. and S. Desc. over W. slope.
- 80.88 The old cor. of secs. 21, 22, 27 and 28, which is a mound of earth and stone. Reestablish cor. as follows:
Set a granite stone, 24 x 6 x 6 ins., 18 ins. in the ground, marked with 5 notches on E. and 2 on S. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
- Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth; catclaw, mesquite and cactus.
- N. 0° 17' W., on a true line, bet. secs. 21 and 22, over mountainous land, through undergrowth.

Chains Asc. over side of ridge.

1.50 Crest of ridge bears E. and W. Desc. 100 ft. over N. slope.

6.40 Small ravine, course W. Asc. 60 ft.

10.10 Crest of ridge bearing E. and W. Top slopes toward the W. Desc. 80 ft., over N. slope.

19.80 Rocky wash in bottom of gulch, course W. Asc. 75 ft.

27.70 Top of hill.

30.10 Desc. 40 ft. over cliffs on N. slope of hill.

31.70 Rocky wash, in small ravine, course W. Asc. over S. slope.

CORRECTIONS by Guy P. Harrington, U. S. Cadastral Engineer, as follows:

40.55 The Hesse reestablished $\frac{1}{4}$ sec. cor. of Secs. 21 & 22, is a stone, properly mkd. and witnessed by mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Remove the stone and in same place set an iron post, 3 ft. long, 1 in. in diam., in a mound of stone $3\frac{1}{2}$ ft. base, 2 ft. high (impracticable to set in ground) for reestablished $\frac{1}{4}$ sec. cor. of Sec. 21, mkd. on brass cap.

S 21
1919

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

Thence N. $0^{\circ} 17'$ W., 55 lks. to

41.10 (40.00 chs. S. $0^{\circ} 17'$ E: from reestablished cor. of Secs. 15, 16, 21 and 22) Set an iron post, 3 ft. long, 1 in. in diam., in a mound of stone, 3 ft. base, 2 ft. high (impracticable to set in ground) for reestablished $\frac{1}{4}$ sec. cor. of Sec. 22, mkd. on brass cap.

S 22
1919

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

Continuing from Hesse's record:

48.70 Crest of ridge, 500 ft. above bottom of ravine at 31.70 chain point. Desc. 190 ft., over NW. slope.

57.80 Large ravine, course W.

62.55 Asc. on N. side of ravine.

65.35 Crest of long Spur ridge jutting NW. from hill E. of line. Desc. 40 ft.

68.60 Rocky gulch, course NW. Asc.

73.00 Spur slopes W. Desc. 170 ft.

81.10 The old cor. of Secs. 15, 16, 21 and 22, which is a wooden post nearly destroyed by decay, lying on a mound of stone and earth. Reestablish cor. as follows: Set a granite stone, 18 x 10 x 5 ins., 12 ins. in the ground, marked with three notches on each of E. and S. edges; and 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, cactus and mesquite.

S. $89^{\circ} 17'$ W., on a true line, bet. secs. 16 and 21, over mountainous land, through undergrowth. Desc. 190 ft. over NW. slope.

16.15 Bottom of ravine, course SW. Asc. 120 ft. over E. slope.

26.00 Crest of hill. Begin descent over steep W. slope.

39.57 After diligent search, fail to find old $\frac{1}{4}$ sec. cor. Therefore at this point, (proportionate distance) reestablish cor. as follows: Set a granite stone, 16 x 8 x 6 ins., 11 ins. in the ground, marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

47.40 Rocky bed of ravine, 430 ft. below top of hill; course SW. Asc. 50 ft.

60.20 Top of hill. Desc. 130 ft.

73.15 Ft. of slope. Thence over broken land cut by small washes.

79.14 The cor. of secs. 16, 17, 20 and 21, which is a wooden post, firmly set in a mound of stone, properly marked as described by the Surveyor General. Fail to find bearing trees described as accessories to original cor.

Chains	Therefore I witness same by raising a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, mountainous. Soil, Rocky, 4th rate. No timber. Undergrowth, cactus and mesquite.
	N. 1° 19' W., on a true line, bet. secs. 16 and 17, over mountainous and hilly land, through undergrowth.
.50	SE. edge of large wash, (Agua Caliente Wash) course SW.
2.00	NW. edge of same.
6.20	Trail, bears NE. and SW.
16.10	Wash, 20 lks. wide, very rocky; course SW. Asc.
41.41	The old ¼ sec. cor. bet. secs. 16 and 17, which is a wooden post, badly decayed, lying on a small mound of stone. Reestablish cor. as follows: Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, marked on brass cap ¼ S 17 S 16 1915 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, hilly. Soil, rocky; 4th rate. No timber. Undergrowth, cactus and mesquite.
	N. 89° 08' W., on a true line, bet. secs. 17 and 20, over nearly level land, through undergrowth.
1.65	Agua Caliente Wash, 200 lks. wide, 6 ft. deep, course SW.
11.80	Wash, course S.
20.65	NE. cor. of fence running W. and S. Thence along Fence.
31.30	Small wash; course S.
38.15	Small wash, 7 lks. wide, course S.
40.37	The old ¼ sec. cor., which is a wooden post firmly set in a mound of stone, marked as described by the Surveyor General. No trace of bearing trees described as accessories to original cor. Therefore I witness same by setting a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
48.40	Small wash, course S.
56.00	Wash, 30 lks. wide, course S.
64.80	Small wash, 3 lks. wide, course S.
70.15	Small wash, in draw, course S.
80.64	Intersect the cor. of secs. 17, 18, 19 and 20, which is a wooden post, firmly set in a mound of stone, marked as described by the Surveyor General. Fail to find any trace of bearing trees described as accessories to original cor. Therefore I witness same by raising a mound of stone, 2 ft. base, 1½ ft. high, W. of post. Cor. is situated at the cor. of fences running N., S., E. and W. Land, nearly level. Soil, sandy, rocky and gravelly; 2nd to 4th rate. No timber. Undergrowth, paloverde, cactus, catclaw and mesquite.
	N. 88° 52' W., on a true line, bet. secs. 18 and 19, over nearly level land, through dense undergrowth, along fence.
10.30	Large sandy wash, 45 lks. wide, course SE.
18.80	Sandy wash, 20 lks. wide, course S.
22.90	Small wash; course S.
27.95	Rocky wash, 12 lks. wide, 3 ft. deep, course S.
32.25	Small wash, course S.
39.20	Fence runs S. from E. and W. fence. Continue along fence.
39.30	Road, bears NE. and SW.
40.23	The old ¼ sec. cor., which is a wooden post, firmly set in a mound of stone, marked as described by the Surveyor

Resurvey of Part of Subdivision Lines of T. 13 S., R. 16 E. 9

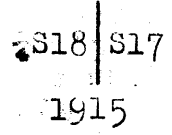
Chains

General. Fail to find any trace of bearing trees described as accessories to original cor. Therefore I witness same by raising a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of post.

- 42.22 Thence N.89°53'W., continuing measurement from the cor. of secs. 17, 18, 19 and 20.
- 56.05 Small rocky wash, course S.
- 60.00 Small sandy wash, course S.
- 79.29 SW. cor. of fence running E. and N.
- 79.29 The reestablished cor. of secs. 13, 18, 19 and 24, described in Book C.

Land, nearly level.
Soil, sandy and gravelly; 3rd and 4th rate.
No timber.
Undergrowth, mesquite, cactus and paloverde.

- 40.15 N.0°31'W., on a true line, bet. secs. 17 and 18, over nearly level land, through dense undergrowth, along uncompleted fence line.
- 40.15 The old 1/4 sec. cor., which is a wooden post nearly destroyed by decay, in a small mound of stone. Reestablish cor. as follows:
Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, marked on brass cap



from which
A paloverde, 4 ins. diam., bears N.57 1/4°W., 43 lks. dist., marked 1/4 S18 BT.
A mesquite, 5 ins. diam., bears N.51 1/4°E., 48 lks. dist., marked 1/4 S17 BT.

Land, nearly level.
Soil, sandy and gravelly; 2nd to 4th rate.
No timber.
Undergrowth, mesquite, paloverde and cactus.

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

- 40.00 From the reestablished cor. of secs. 15, 16, 21 and 22, hereinbefore described;
EAST, on a true line, bet. secs. 15 and 22, over mountainous land, through undergrowth. Asc.
Set a granite stone, 18x6x6 ins., 12 ins. in the ground, for 1/4 sec. cor., marked 1/4 on N. face; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
No iron post, available.
- 48.30 Top of spur, slopes N.; 640 ft. above beginning point at sec. cor. Desc. 110 ft.
- 55.55 Ft. of slope. Asc., 370 ft.
- 79.50 Intersect E. bdy. of Camp Lowell Abandoned Military Reservation 11.00 chs. S. of the 21 1/2 mile cor., hereinbefore described.
at point of intersection

Chains

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

T13S	R16E
S15	CC
S22	
CLAMR	PL

1915

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

Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth, catclaw, mesquite, oak and cactus.

N.0°02'W., bet. secs. 15 and 16, over mountainous land, through scattering undergrowth. Descend, 30 ft.

1.20 Wash, 20 lks. wide, course W.; asc. 70 ft.

3.10 Ridge, bears E. and W. Desc. 380 ft.

25.64 Edge of perpendicular wall of Agua Caliente Canyon, course /west.

To obtain distance across, I leave a flag at this station and from a point on line on N. side of canyon measure a base S.89°58'W. 8.00 chs. to a point whence flag bears S.31°08'E.; which gives for the distance across canyon, 8.00 x tan 58°54', = 8.00 x 1.6577, = 13.26; making the distance from sec. cor. 25.64 + 13.26, = 38.90 chs.

38.90 N. rim of canyon.

40.00 Set a granite stone, 20x8x6 ins., 15 ins. in the ground, for 1/4 sec. cor., marked 1/4 on W. face; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. No iron post available.

44.30 Descend 365 ft.

50.85 Wash, 25 lks. wide, course SW. Asc.

53.42 Intersect N. bdy. of Camp Lowell Abandoned Military Reservation, 152 lks. N.89°26'E. from the reestablished 37 mile cor., hereinbefore described.

At point of intersection

Set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for closing cor. of secs. 15 and 16, marked on brass cap

T13S R16E

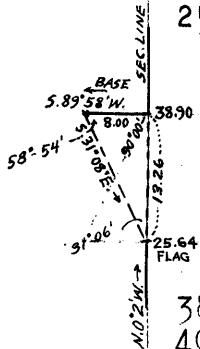
C	C
S16	S15
CLAMR	

1915

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

Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth, catclaw and cactus.

From the reestablished 1/4 sec. cor. bet. secs. 16 and 17, hereinbefore described;



Survey of Part of Subdivisional Lines of T. 13 S., R. 16 E.

Chains

N.0°02'W., on a true line, bet. secs. 16 and 17, (N. half) over mountainous land, through scattering undergrowth. asc. over steep rocky S. slope.

13.00 Intersect N. bdy. of Camp Lowell Abandoned Military Reservation 9 lks. W. of the reestablished 36 mile cor., hereinbefore described.

at point of intersection

Set a granite stone, 20x12x4 ins., 15 ins. in the ground, for closing cor. of secs. 16 and 17, marked CC CLAMR on S. face; with 4 grooves on E. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. No iron post, available.

40.00 A point 570 ft. above ¼ sec. cor.

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

T13S	R16E
S8	S9
S17	S16

1915

from which

A mesquite, 6 ins. diam., bears S.83½°W., 127 lks. dist., marked T13S R16E S17 BT.

No other bearing trees available. Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, mountainous.

Soil, rocky; 4th rate.

No timber.

Undergrowth, catclaw, mesquite, paloverde and cactus.

East, on a true line, bet. secs. 9 and 16, over mountainous land, through scattering undergrowth. asc. 20 ft.

3.20 Spur, slopes SW. Desc. 400 ft.

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

S9
¼
S16

1915

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

This being the W. bdy. of Coronado National Forest, discontinue line.

Land, mountainous.

Soil, rocky; 4th rate.

No timber.

Undergrowth, catclaw, mesquite, paloverde and cactus.

From the reestablished ¼ sec. cor. bet. secs. 17 and 18, hereinbefore described;

N.0°03'W., on a true line, bet. secs. 17 and 18, (N. half) over rolling land, through dense undergrowth.

1.40 Wash, 30 lks. wide, course SW. asc. through scattering brush.

12.89 Intersect N. bdy. of Camp Lowell Abandoned Military Res-

Chains

ervation, 30 lks. W. of the reestablished 35 mile cor., hereinbefore described.

At point of intersection

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for closing cor. of secs. 17 and 18, marked on brass cap

T13S R16E



from which

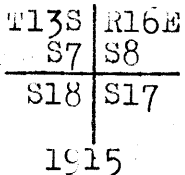
A mesquite, 4 ins. diam., bears S.14½°E., 88 lks. dist., marked CC T13S R16E S18 BT.

A paloverde, 4 ins. diam., bears S.28°W., 82 lks. dist., marked CC T13S R16E S18 BT.

3 in. iron post used on account of unavailability of 2 in. post.

40.00

Set an iron post, 3 ft. long, 2 ins. diam., 14 ins in the ground, 12 ins. in a mound of stone, for cor. of secs. 7, 8, 17 and 18, marked on brass cap



and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, mountainous.

Soil, rocky; 4th rate.

No timber.

Undergrowth, paloverde, mesquite and cactus.

EAST, on a random line, bet. secs. 8 and 17.

40.00

Set temp. ¼ sec. cor.

80.22

Intersect N. and S. line 3 lks. N. of the cor. of secs. 8, 9, 16 and 17.

Thence N.89°59'W., on a true line, bet. secs. 8 and 17, over rough mountainside, through scattering underbrush. Desc. 220 ft. over general SW. slope, from spur sloping SW.

9.60

Wash, 18 lks. wide, course SW. Asc. 80 ft.

18.20

Spur, slopes SW. Desc. 80 ft.

21.65

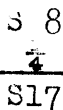
Wash, 10 lks. wide, course SW. Asc. 205 ft.

31.00

Spur, slopes SW. Desc.

40.11

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



1915

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

44.85

Wash, 15 lks. wide, course SW., 260 ft. below spur. Asc. 225 ft.

69.75

Spur, slopes S. Desc. 110 ft.

Survey of Part of Subdivision Lines of T. 13 S., R. 16 E.

Chains

80.22 The cor. of secs. 7, 8, 17 and 18.

Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth, catclaw, paloverde and cactus.

WEST, on a true line, bet. secs. 7 and 18,
over rough mountainside, through scattering underbrush.
Desc. 80 ft. from spur.

1.70 Wash, 10 lks. wide, course SW. Asc. 55 ft.

11.40 Spur, slopes S. Desc. 310 ft.

23.70 Wash, 20 lks. wide, course SE. Asc.

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

S 7
 $\frac{1}{4}$
S18

1915

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

45.05 Spur, slopes SW.; 375 ft. above wash. Desc. 375 ft.

66.20 Wash, 15 lks. wide, course SW. Asc. 135 ft.

79.60 Intersect E. bdy. of T. 13 S., R. 15 E. 98 lks. N. of the
cor. of secs. 12 and 13, described in Book C.

At point of intersection

Set a granite stone, 24x9x9 ins., 18 ins. in the ground,
for closing cor. of secs. 7 and 18, marked CC on E.
face; with 4 grooves on S. and 2 grooves on N. face;
and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
E. of cor.

No iron post, available.

Land, mountainous.
Soil, rocky; 4th rate.
No timber.
Undergrowth, catclaw, paloverde and cactus.

Boundaries of part of T. 15 S., R. 16 E.,
Latitudes, Departures and Closing Errors.

Line designated	True course.	Dist.	LATITUDES.		DEPARTURES	
			N.	S.	E.	W.
Subdivisional Bdy.	N. 89° 16' W	79.58	1.02			79.57
	N. 0° 17' W	81.10				.40
	S. 89° 17' W	79.14		.99		79.13
	N. 89° 08' W	80.64	1.22			80.63
	N. 88° 52' W	40.23	.79			40.22
	N. 89° 53' W	39.06	.08			39.06
West Tp. Bdy	N. 1° 00' W	38.33	38.32			
	North	40.98	40.98			.67
Subdivisional Bdy.	East	79.60			79.60	
	S. 89° 59' E	80.22		.02	80.22	
	S. 0° 02' E	27.00		27.00	.02	
Bdy. of Camp Lowell Abandoned Military Reservation	N. 89° 56' E	.09			.09	
	East	78.68			78.68	
	N. 89° 26' E	40.16	.40		40.16	
	N. 89° 15' E	41.04	.54		41.04	
	S. 0° 20' W	42.49		42.49		.25
	South	39.83		39.83		
	S. 0° 20' E	40.05		40.05	.23	
S. 0° 17' E	13.10		13.10	.06		
Convergency					.06	
Totals			-164.45	163.48	320.16	319.93
			163.48		319.93	
Error in latitude			.97			
Error in departure					.23	

GENERAL DESCRIPTION.

The portion of the township embraced in the survey described in the foregoing notes is mostly mountainous being on the southwestern slope of the Santa Catalina Mountains. The surface of the south halves of Secs. 17 and 18 is nearly level with a sandy and gravelly soil 2nd and 3rd rate. Over the mountainous land the soil is gravelly and rocky 3rd and 4th rate. There is no timber, but dense and scattering growths of mesquite, catclaw, palo verde, and cactus prevail in all parts. There is no permanent running water and no settlers, or improvements or signs of valuable mineral deposits. The most of the area is embraced within the boundary of the Camp Lowell Abandoned Military Reservation. The unsurveyed portion of this township is included in the Coronado National Forest Reserve.

CERTIFICATE OF UNITED STATES SURVEYOR.

John F. Hesse.

BOOK 3190

I, John F. Hesse, U. S. Surveyor, hereby certify upon honor 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, ~~surveyed all those parts or portions of~~ retraced and re-surveyed all those parts of portions of the North and East boundaries of Camp Lowell Abandoned Military Reservation; and surveyed all those parts or portions of the subdivision lines of Township 13 South, range 16 East,

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in and diagram on page 2 hereof the foregoing field notes, as having been executed by me, and under my direction; and that all the corners of said ~~survey~~ retracement, resurvey and 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 57, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~survey~~ retracement, resurvey and survey.

John F. Hesse
U. S. Surveyor.

~~APPROVAL~~

~~OFFICE OF THE UNITED STATES SURVEYOR GENERAL,~~

Phoenix, Arizona, October 14, 1916.

~~The foregoing field notes of ~~the survey of~~ the retracement of part of the East and North boundaries, and the resurvey of part of the North boundary of Camp Lowell Abandoned Military Reservation; and the survey of part and resurvey of part of the subdivision lines of Township 13 South, range 16 East, of the Gila and Salt River base and Meridian, in the State of Arizona, executed by Arthur W. Brown, U. S. Cadastral Engineer, and executed by John F. Hesse, U. S. Surveyor, and corrections by Guy P. Harrington, U. S. Cadastral Engineer, for Group 57, Arizona, under ~~EX~~ special instructions dated October 1st, 1915, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the ~~surveys~~ retracements, resurveys and they describe, are hereby approved.~~

Frank O. Frost
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.

CERTIFICATE OF UNITED STATES CADASTRAL ENGINEER.

BOOK 3190

U. S. Cadastral Engineer,

I, ~~Arthur W. Brown, A~~, ~~U. S. Surveyor~~, hereby certify upon honor 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 Instruc-

tions, and the laws of the United States, ~~surveyed all those parts or portions of~~ retraced all those

parts or portions of the ~~East~~ boundary of ~~Camp Lowell Abandoned Mil-~~

~~itary~~ Reservation, resurveyed all those parts or portions of the

~~North~~ boundary of ~~Camp Lowell Abandoned Military~~ Reservation, and

resurveyed all those parts or portions of the subdivision lines

of ~~Township 13 South, Range 16 East~~ of the ~~Gila and Salt River~~

~~Base and Meridian~~, in the State of ~~Arizona~~, which are represented in

and diagram on page 2 hereof

the foregoing field notes *retracement and resurvey* as having been executed by me, and under my direction; and that all the corners of

said ~~survey~~ have been established and perpetuated in strict accordance with the Manual of Surveying Instruc-

tions, 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 ~~survey~~ *retracement and resurvey*.

Arthur W. Brown
U. S. Cadastral Engineer.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of

executed by

under his special instructions dated, 191, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
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.

.....
U. S. Surveyor General.

CADASTRAL ENGINEER.
CERTIFICATE OF UNITED STATES ~~SURVEYOR.~~

I, Guy P. Harrington, ^{Cadastral Engineer} ~~U. S. Surveyor~~, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 57, Arizona bearing date of the 11th day of September, 1919, 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, ^{corrected} ~~surveyed~~ all those parts or portions of the
Resurvey of part of the Subdivision lines of
Township 13 South - Range 6 East
of the Gila and Salt
River Base ^{and} Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and that all the corners of said ^{correction} ~~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 57, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~survey~~ correction.

Guy P. Harrington,
~~U. S. Surveyor~~
U. S. Cadastral Engineer.


APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, Feb. 4, 1920.

The foregoing field notes of the ~~survey of~~ Retracement of part of the East and North boundaries, and the Resurvey of part of the North bdy of Camp Lowell Abandoned Military Reservation, and part of the Subdivision lines of T. 13 S., R. 6 E., and Survey of part of the Subdivision lines of Township 13 South, Range 6 East, of the Gila and Salt River Base and Meridian, in the State of Arizona executed by John F. Hesse, U.S. Surveyor and

~~executed by~~ Arthur W. Brown, U.S. Cadastral Engineer, with corrections by Guy P. Harrington, U.S. Cadastral Engineer under ~~his~~ special instructions dated October 1, 1915 and Sept. 11, 1919, ~~191~~, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the ~~surveys~~ Retracements, resurveys, surveys and corrections they describe, are hereby approved.


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.~~