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BOOK 3143

Book "K"

(Subdivisions)

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION LINES

and

MEANDERS OF THE LEFT BANK OF THE COLORADO RIVER, WITHIN

FRACTIONAL TOWNSHIP 22 NORTH, RANGE 22 WEST.

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Theo. O. Johnston.

In the capacity of U. S. Surveyor, under instructions dated January 6, 1915,

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

Group No. 44, which were approved by the Commissioner of the General Land

Office, January 26, 1915.

Survey commenced April 13, 1915.

Survey completed April 26, 1915.
Executed under Assignment
Instructions dated Jan. 31, 1915.

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BOOK 3143

Book "K"
(Subdivisions)

Group 44.

See Special Index Diagram.

INDEX DIAGRAM.

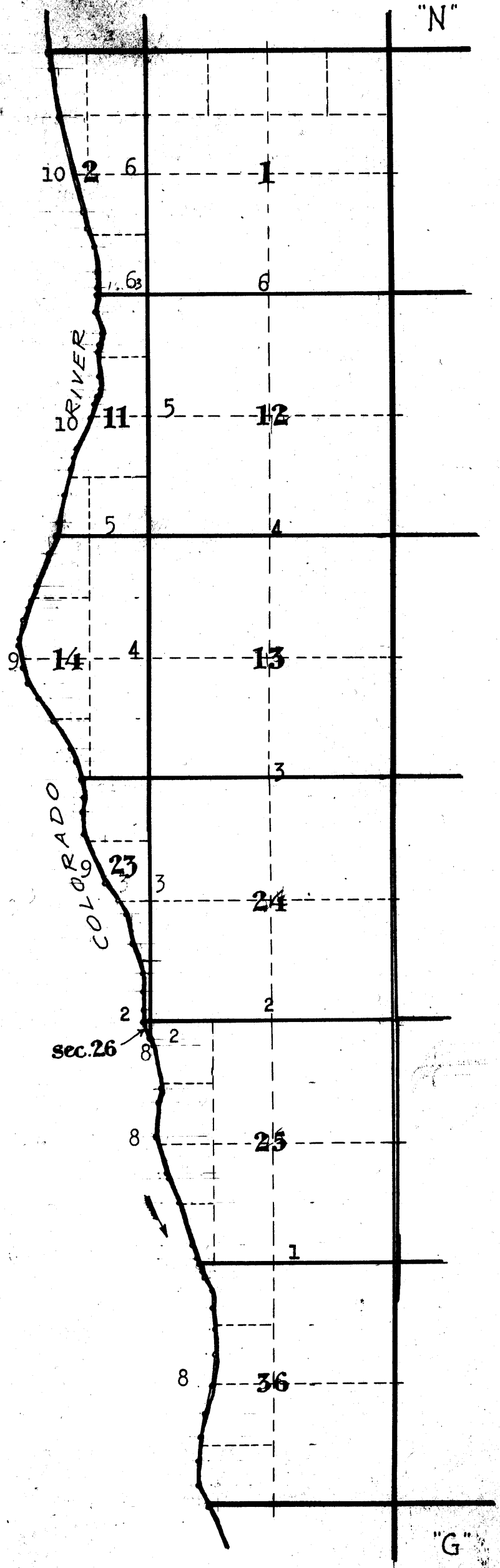
Township _____, Range _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
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"N"

INDEX-DIAGRAM.
Book "K" - Group 44
Arizona
FRAC. T. 22 N. - R. 22 W.

- Notes in this book (indexed)
- Notes in book "A"
- Notes in book "H"
- Notes in book "J"
- Notes in book "O"



Subdivision of Fracl. T. 22 N., R. 22 W.

Chains

Survey commenced Apr. 13, 1915, and executed by Theo. O. Johnston, U. S. Surveyor, using a Young and Sons' light mountain transit No. 8493, which is described, together with record of approval by the assistant supervisor of surveys and field tests, in Books "A" and "B".

All measurements made with steel tapes and clinometers.

Subdivision lines were run by transit lines projected by means of carefully measured angles from a meridian determined by observation on Polaris at western elongation, a record of which follows.

Meander lines were run using solar observations for obtaining the meridian, a record of test of solar apparatus appearing in Book "G".

frac.

At my camp in sec. 1, T. 21 N., R. 22 W., near the SE. cor. in latitude 35°14' N., longitude 114°33'23" W., at 6h 00.2 m p.m., l.m.t., I observe Polaris at western elongation, in accordance with instructions in the Manual, and mark a point in the line thus determined by a tack driven in a wooden stake, firmly set in the ground 5 chs. N. of my station.

Apr. 13, 1915.

Apr. 14, 1915.

At 7h 00m a.m., l.m.t., I turn off the azimuth of Polaris 1°23.9' to the east, and mark the meridian thus determined by cutting a groove in a stone firmly set in the ground east of the point established last night.

The magnetic bearing of the true meridian, at 7h 10m a.m., is N.15°15'W.; the angle thus determined gives the mag. decl. 15°15' E.

Apr. 14, 1915.

Apr. 16, 1915.

From cor. of secs. 30 & 31 & frac. secs. 25 & 36, on E. bdy. of Tp., described in Book "A", I run

West, on a true line, bet. frac. secs. 25 and 36.

Line runs along top of ridge, over mountainous land, through scattering undergrowth.

8.60 Desc. along steep, rocky NW. slope.

19:50 Enter canyon, course W. Thence down same.

25:00 Leave canyon, course S.70°W.; thence along steep rocky S. slope.

40:00 On S. slope,

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

$\frac{1}{4}$ S 25 in N. half,
S 36 in S. half, and
1915 in S. rim;

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Impracticable to dig pits or set cor. in the ground.

42:30 Top of ridge bears NE. and SW.; desc. NW. slope.

50:00 Wash, 100 lks. wide, course NW.

54:00 Enter Colorado river bottom; bears N. and S. Dense undergrowth in bottom.

64:48 To left bank of Colorado river, brs. N.19½°W. & S.19½°E.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for meander cor. of frac. secs. 25 and 36, with brass cap, marked

M6 in W. half,
T 22 N S 25 in NE., and
S 36 R 22 W in SE. quadrant; and
1915 in S. rim;

Chains

dig a pit, 36x36x12 ins., 8 ft. E. of post, and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.
 Land, mountainous and level.
 Soil, sandy, gravelly and rocky; 4th rate.
 No timber.
 Undergrowth, mesquite and willow.

Apr. 16, 1915.

Apr. 15, 1915.
 From cor. of secs. 19, 24 & 30 & frac. sec. 25, on E. bdy. of Tp., described in Book "A", I run West, on a true line, bet. sec. 24 and frac. sec. 25, over rolling mountainous land, along top of ridge.

33.90
40.00

Desc. along N. slope of sandy ridge.
 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 24 in N. half,
 S 25 in S. half, and
 1915 in S. rim;
 and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

54.00
73.20
80.00

Wash, 8.00 chs. wide, course S. 67 $\frac{1}{2}$ ° W.
 Top of steep sandy ridge bears N. and S.; desc. W. slope.
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of sec. 24, and frac. secs. 23, 25, and 26, with brass cap, marked
 T 22 N S 23 in NW.,
 R 22 W S 24 in NE.,
 S 25 in SE., and
 S 26 in SW. quadrant; and
 1915 in S. rim;
 and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
 Land, rolling mountainous.
 Soil, rocky and gravelly; 4th rate.
 No timber.

Apr. 15, 1915.

Apr. 16, 1915.
 S. 0° 01' E., on a true line, bet. ^{fracl.} secs. 25 and 26, Desc. rocky SW. slope, over mountainous land.

4.90

To Left bank of Colorado river, hrs. N. 21 $\frac{1}{2}$ ° W. & S. 8 $\frac{1}{2}$ ° E.
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for meander cor. of fracl. secs. 25 and 26, with brass cap, marked
 T 22 N S 26 in NW., and
 R 22 W S 25 in NE. quadrant;
 MC in S. half, and
 1915 in S. rim;
 dig a pit, 36x36x12 ins., 8 ft. N. of post, and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.

Land, mountainous.
 Soil, rocky; 4th rate.
 No timber.

From cor. of sec. 24, and fracl. secs. 23, 25, and 26, West, on a true line, bet. fracl. secs. 23 and 26, over mountainous land, descending rocky W. slope.
 To left bank of Colorado river, hrs. N. 1 $\frac{1}{4}$ ° E. & S. 21 $\frac{1}{2}$ ° E.
 Set an iron post, 3 ft. long, 2 ins. diam., in a mound of stone, for meander cor. of fracl. secs. 23 and 26, with brass cap, marked

1.92

Chains

MC in W. half,
T 22 N S 23 in NE., and
S 26 R 22 W in SE. quadrant; and
1915 in S. rim;

and raise a mound of stone, 2 ft. base, 1½ ft. high,
E. of cor. Impracticable to dig pits or set cor. in the
ground.

Land, mountainous.
Soil, rocky; 4th rate.
No timber.

Apr. 16, 1915.

Apr. 15, 1915. From cor. of sec. 24, and fracl. secs. 23, 25, & 26,
N. 0° 01' W., bet. sec. 24, and fracl. sec. 23.

17.50
27.00
40.00

over rolling mountainous land.
Cross canyon near mouth, course S. 67½° W.
Ravine, 6.00 chs. wide, course W.; depth, 50 ft.; asc.
SE. slope of low ridge.

On N. slope of ridge,
Set an iron post, 3 ft. long, 1 in. diam., in a mound of
stone, for ¼ sec. cor., with brass cap, marked

¼ in N.,
S 23 in W., and
S 24 in E. half; and
1915 in S. rim;

and raise a mound of stone, 2 ft. base, 1½ ft. high,
W. of cor. Impracticable to dig pits or set cor. in the
ground.

44.75
57.30
70.00
80.00

Wash, 5.00 chs. wide, course W.
Ravine, 7.00 chs. wide, 50 ft. deep, course N. 67½° W.
Wash, 10.00 chs. wide, course W.
Set an iron post, 3 ft. long, 2 ins. diam., in a mound
of stone, for cor. of secs. 13, 24, and 3 fracl. secs. 14 & 23,
with brass cap, marked,

T 22 N S 14 in NW.,
R 22 W S 13 in NE.,
S 24 in SE., and
S 23 in SW. quadrant; and
1915 in S. rim;

and raise a mound of stone, 2 ft. base, 1½ ft. high,
W. of cor. Impracticable to dig pits or set cor. in
the ground.

Land, rolling mountainous.
Soil, gravelly and rocky; 4th rate.
No timber.

East on a random line, bet. secs. 13 and 24.

40.00
80.00

Set temp. ¼ sec. cor.
Intersect E. bdy. of Tp. at the cor. of secs. 13, 18, 19
and 24, described in Book "A".

Thence I run
West, on a true line, bet. secs. 13 and 24,
over rolling mountainous land.

7.30
26.30
33.00
40.00

Wash, 10.00 chs. wide, course S. 80° W.
Ridge bears NE. and SW.
Same ridge bears NW. and SE.
Set an iron post, 3 ft. long, 1 in. diam., in a mound of
stone, for ¼ sec. cor., with brass cap, marked

¼ S 13 in N. half,
S 24 in S. half; and
1915 in S. rim;

and raise a mound of stone, 2 ft. base, 1½ ft. high,
N. of cor. Impracticable to dig pits or set cor. in the
ground.

49.00

Line runs along S. slope.

4.

Subdivision of Fracl. T. 22 N., R. 22 W.

Chains

80.00 The cor. of secs. 13, 24, and ~~frac.~~secs. 14 and 23,
 Land, rolling mountainous.
 Soil, rocky and gravelly; 4th rate.
 No timber.
 Apr. 15, 1915.

Apr. 21, 1915.
 West, on a true line, bet. ^{frac.}secs. 14 and 23,
 Desc. along broken W. slope, over mountainous land.
 21.00 Desc. W. slope of sandy ridge.
 22.78 To left bank of Colorado river, brs. N. 19 $\frac{3}{4}$ ° W. & S. 6° E.
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the
 ground, for meander cor. of frac. secs. 14 and 23,
 with brass cap, marked
 MC in W. half,
 T 22 N S 14 in NE.,
 S 23 R 22 W in SE. quadrant; and
 1915 in S. rim;
 dig a pit, 36x36x12 ins., 8 ft. E. of post, and raise a
 mound of earth, 4 ft. base, 2 ft. high, E. of cor.
 Land, mountainous.
 Soil, rocky and gravelly; 4th rate.
 No timber.

From cor. of secs. 13, 24, and frac. secs. 14 and 23,
 N. 0° 01' W., bet. sec. 13, and frac. sec. 14.
 along top of low mesa, over mountainous land.
 22.00 Desc. N. slope of mesa.
 30.00 Wash, 10.00 chs. wide, course W.
 35.00 Asc. S. slope of low mesa.
 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ in N.,
 S 13 in E., and
 S 14 in W. half; and
 1915 in S. rim;
 and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,
 W. of cor.

52.60 Desc. N. slope of low mesa.
 55.00 Ravine, 4.00 chs. wide, 30 ft. deep, course W.
 57.20 Top of low sand ridge, bears E. and W.; desc. N. slope.
 70.00 Wash, 10.00 chs. wide, course W.
 80.00 On S. slope of low sand ridge,
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the
 ground, for cor. of secs. 12, 13, and ~~frac.~~secs. 11 and 14,
 with brass cap, marked
 T 22 N S 11 in NW.,
 R 22 W S 12 in NE.,
 S 13 in SE., and
 S 14 in SW. quadrant; and
 1915 in S. rim;
 and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,
 W. of cor.
 Land, mountainous.
 Soil, rocky and gravelly; 4th rate.
 No timber.
 Apr. 21, 1915.

Apr. 25, 1915.
 East, on a random line, bet. secs. 12 and 13.
 40.00 Set temp. $\frac{1}{2}$ sec. cor.
 79.90 Intersect E. bdy. of Tp. 11 lks. N. of the cor. of secs.
 7, 12, 13 and 18, described in Book "A".

Chains

Thence I run
 N.89°55'W., on a true line, bet. secs. 12 and 13,
 along broken S. slope, over mountainous land.
 7.10 Ridge bears NE. and SW.; desc. along broken N. slope.
 39.95 On N. slope,
 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 12 in N. half,
 S 13 in S. half, and
 1915 in S. rim;
 and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,
 N. of cor.
 44.50 Canyon, course S.67 $\frac{1}{2}$ °W.; thence along broken S. slope.
 77.00 Wash, 4.00 chs. wide, course S.22 $\frac{1}{2}$ °W.
 79.90 The cor. of secs. 12, 13, and frac. secs. 11 and 14.
 Land, mountainous.
 Soil, rocky; 4th rate.
 No timber.

West, on a true line, bet. frac. secs. 11 and 14.
 Asc. E. slope of low sand spur extending S.; over mount-
 ainous land.
 1.85 Top of spur; desc. along SW. slope.
 15.00 Enter river bottom; bears NW. and SE.
 25.00 Wash, 10.00 chs. wide, course NW.
 31.04 To left bank of Colorado river, brs. N.13°E. and S.26°W.
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in
 the ground, for meander cor. of frac. secs. 11 and 14,
 with brass cap, marked
 MC in W. half,
 T 22 N S 11 in NE., and
 S 14 R 22 W in SE. quadrant, and
 1915 in S. rim;
 dig a pit, 36x36x12 ins., 8 ft. E. of post, and raise a
 mound of earth, 4 ft. base, 2 ft. high, E. of cor.
 Land, mountainous and level.
 Soil, gravelly and sandy; 4th rate.
 No timber.
 Apr. 25, 1915.

Apr. 21, 1915. From cor. of secs. 12, 13, and frac. secs. 11 & 14,
 N.0°01'W., bet sec. 12 and frac. sec. 11.
 Asc. S. slope of low sand ridge.
 3.20 Top of same bears E. and W.; desc. N. slope.
 7.00 Draw, 7.00 chs. wide, 20 ft. deep, course W.
 23.40 Ravine, 5.00 chs. wide, 60 ft. deep, course W.
 30.00 Ravine, 6.00 chs. wide, 80 ft. deep, course W.
 40.00 In wash, 10.00 chs. wide, course W.,
 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ in N.,
 S 11 in W., and
 S 12 in E. half; and
 1915 in S. rim;
 and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.
 of cor.
 52.55 Ravine, 5.00 chs. wide, 90 ft. deep, course W.
 71.30 Ravine, 3.00 chs. wide, 50 ft. deep, course S.67 $\frac{1}{2}$ °W.
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the
 ground, for cor. of secs. 1, 12, and frac. secs. 12 and 11.
 with brass cap, marked,
 T 22 N S 2 in NW.,
 R 22 W S 1 in NE.,
 S 12 in SE., and
 S 11 in SW. quadrant; and
 1915 in S. rim;

Chains

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
W. of cor.
Land, mountainous.
Soil, rocky and gravelly; 4th rate.
No timber.

East, on a random line, bet. secs. 1 and 12.
40.00 Set temp. $\frac{1}{2}$ sec. cor.
80.08 Intersect. E. bdy. of Tp. 12 lks. N. of the cor. of secs.
1, 6, 7 and 12, described in Book "A".
Thence I run
N. $89^{\circ}55'$ W., on a true line, bet. secs. 1 and 12,
over mountainous land.
10.00 Wash, 5.00 chs. wide, course N. $67\frac{1}{2}^{\circ}$ W.
30.00 Enter same wash; line runs down same.
40.04 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ S 1 in N. half,
S 12 in S. half, and
1915 in S. rim;
and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
N. of cor.
45.00 Line leaves wash, course SW.
50.00 Asc. E. slope of low ridge.
60.55 Top of spur extending S.; desc. broken W. slope.
80.08 The cor. of secs. 1, 12, and frac. secs. 2 and 11.
Land, mountainous.
Soil, rocky and gravelly; 4th rate.
No timber.

West, on a true line, bet. frac. secs. 2 and 11.
over mountainous land, descending broken W. slope.
13.40 Draw, 5.00 chs. wide, 20 ft. deep, course S.
15.00 Desc. W. slope of low sand ridge.
16.43 To left bank of Colorado river, brs. N. $2\frac{1}{2}^{\circ}$ W. & S 14° W.
Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the
ground, for meander cor. of frac. secs. 2 and 11,
with brass cap, marked
MC in W. half,
T 22 N S 2 in NE., and
R 22 W S 11 in SE. quadrant; and
1915 in S. rim;
and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
E. of cor.
Land, mountainous. Soil, rocky and gravelly, 4th rate.
No timber.

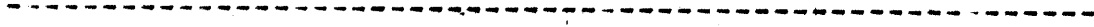
From cor. of secs. 1, 12, and frac. secs. 2 and 11,
N. $0^{\circ}01'$ W., on a random line, bet. sec. 1 and frac. sec. 2.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.78 Intersect N. Bdy. of Tp. 12 lks. E. of the cor. of secs 1, 36,
and frac. secs. 2 and 35, described in Book "A."
At this cor. I set off $11^{\circ}42'$ N. on the decl. arc., and
at 11h 59m a.m., l.m.t., observe the sun on the meridian;
the resulting lat. is $35^{\circ}20'$.
Thence I run
S. $0^{\circ}06'$ E., on a true line, bet. sec. 1, and frac. sec. 2.
over mountainous land.
7.30 Wash, 5.00 chs. wide, course S. $67\frac{1}{2}^{\circ}$ W.
29.80 Center of wash, 20.00 chs. wide, course W.
39.78 In wash, above described,
Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked
 $\frac{1}{4}$ in N.,
S 1 in E., and
S 2 in W. half; and
1915 in S. rim;

Chains

51.70
66.30
79.78

and raise a mound of stone, 2 ft. base, 1½ ft. high,
W. of cor.
Wash, 3.00 chs. wide, course W.
Draw, 3.00 chs. wide, 20 ft. deep, course W.
The cor. of secs. 1, 12 and frac. Secs. 2 and 11.
Land, mountainous.
Soil, sandy, gravelly and rocky; 4th rate.
No timber.

Apr. 21, 1915.



Meanders of Left Bank of Colorado River,--Upstream.

Apr. 16, 1915.

At the meander cor. of fracl. secs. 1 and 36, on the S. bdy., I set off $35^{\circ}15'$ on the lat. arc; and $9^{\circ}56'$ N. on the decl. arc; and at 10h 00m a.m., l.m.t., determine a meridian with the solar.

Thence I run with meanders on W. bdy. of fracl. secs 36. over level land, through dense undergrowth.

N. $23\frac{3}{4}^{\circ}$ W. 7.45 chs.N. $0\frac{3}{4}^{\circ}$ E. 8.20 "N. $4\frac{3}{4}^{\circ}$ E. 7.80 "N. $10\frac{1}{2}^{\circ}$ E. 8.10 "N. 16° E. 10.00 "N. 6° E. 10.10 "N. $0\frac{1}{2}^{\circ}$ W. 8.10 "N. $8\frac{1}{2}^{\circ}$ W. 7.30 "N. $0\frac{3}{4}^{\circ}$ W. 5.90 "N. $36\frac{3}{4}^{\circ}$ W. 5.40 "N. 20° W. 2.30 "N. $19\frac{1}{2}^{\circ}$ W. 2.00 "

To meander cor. of fracl. secs. 25 and 36.

Land, level.

Soil, sandy; 4th rate.

Undergrowth, willow and mesquite.

At this meander cor. I set off $9^{\circ}56'$ N. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting lat. is $35^{\circ}15'$.

Thence with meanders on W. bdy. of fracl. sec. 25. over level land, through dense undergrowth.

N. $19\frac{3}{4}^{\circ}$ W. 2.50 chs.N. 15° W. 5.00 "N. 16° W. 14.50 "N. $23\frac{1}{4}^{\circ}$ W. 9.30 "N. $18\frac{1}{2}^{\circ}$ W. 1.20 "N. 20° W. 12.80 "N. 5° E. 11.70 "

At 4.70 chs. on this course, cross mouth of canyon, 5.00 chs. wide, from E.

N. $13\frac{1}{2}^{\circ}$ E. 4.30 "N. 12° W. 14.70 "

N. $8\frac{1}{2}^{\circ}$ W. 2.10 chs., to the meander cor. of fracl. secs. 25 and 26.

Land, level.

Soil, sandy; 4th rate.

Undergrowth, willow and mesquite.

Thence with meanders on W. bdy. of fracl. sec. 26, over mountainous land, over SW. slope; dense brush.

N. $21\frac{1}{2}^{\circ}$ W. 5.26 chs. to meander cor. of fracl. secs. 23 and 26.

Land, mountainous.

Soil, sandy; 4th rate.

Undergrowth, willow and mesquite.

Apr. 16, 1915.

Meanders of Left Bank of Colorado River,-- Upstream.

Apr. 26, 1915.

At the meander cor. of fracl. secs. 23 and 26, I set off 35°16' on the lat arc; and 13°19' N. on the decl. arc; and at 8h 00m a.m., l.m.t., determine a meridian with the solar.

Thence I run with meanders on W. bdy. of fracl. sec. 23, along rocky W. slope, through dense undergrowth; mountainous land.

- N. 1 3/4° E. 4.00 chs.
- N. 1 1/4° W. 5.90 " Over level land, from end of this course.
- N. 0 1/4° E. 6.30 "
- N. 14 1/4° W. 10.30 "
- N. 10 3/4° W. 10.30 " At 2.83 chs. on this course, U. S. G. S. bench mark, which is a brass cap set in a granite boulder, marked "Elev 5.41 Datum Y",
- N. 35 3/4° W. 5.30 "
- N. 39 3/4° W. 7.60 "
- N. 28° W. 18.40 " At 10.00 chs. on this course cross wash, 3.00 chs. wide, course W.
- N. 1 1/2° W. 7.40 " At 5.00 chs. on this course cross wash, 4.00 chs. wide, course W.
- N. 15° E. 3.90 "
- N. 6° W. 6.20 " To the meander cor. of fracl. secs. 14 and 23.
- At 4.70 chs. on this course cross wash, 75 lks. wide, course W.

Land, mountainous and level.
Soil, rocky and sandy; 4th rate.
No timber.
Undergrowth, mesquite, willow and arrow-weed.

At this meander cor. I set off 13°22' N. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting lat. is 35°17'.

Thence on W. bdy. of fracl. sec. 14, over level land, through dense undergrowth.

- N. 19 3/4° W. 6.20 chs.
- N. 22 1/4° W. 4.70 "
- N. 34 1/2° W. 10.70 "
- N. 30 3/4° W. 8.70 " At 1.30 chs. on this course cross wash, 3.00 chs. wide, course W.
- N. 38 1/2° W. 5.90 "
- N. 7 3/4° W. 6.00 "
- N. 17 3/4° W. 9.20 "
- N. 1 3/4° E. 1.30 "
- N. 13 1/4° E. 6.10 "
- N. 22° E. 4.30 "
- N. 18 3/4° E. 2.50 "
- N. 27 3/4° E. 4.80 "
- N. 22° E. 12.00 "
- N. 26° E. 6.10 " To meander cor. of fracl. secs. 11 and 14.
- At 5.00 chs. on this course leave undergrowth; bears E. and W.

Land, level.
Soil, sandy; 4th rate.
No timber.
Undergrowth, mesquite, willow and arrow-weed.

Apr. 26, 1915

Meanders of Left Bank of Colorado River,--Upstream.

Apr. 25, 1915.

At the meander cor. of fracl. secs. 11 and 14,

I set off $35^{\circ}18'$ on the lat. arc; and $13^{\circ}01'$ N. on the decl. arc; and at 10h 00m a.m., l.m.t., determine a meridian with the solar.

Thence I run with meanders on W. bdy. of fracl. sec. 11. Across mouth of wash.

N. 13° E.	5.00	chs.	At 2.00 chs. on this course leave wash, 3 chs. wide, course W.
N. $14 \frac{3}{4}^{\circ}$ E.	9.40	chs.	Over level land.
N. $16 \frac{1}{4}^{\circ}$ E.	8.80	"	At 5.80 chs. on this course, enter dense undergrowth.
N. 25° E.	4.30	"	
N. $31 \frac{1}{2}^{\circ}$ E.	3.20	"	Along steep, rocky W. slope.
N. $16 \frac{1}{2}^{\circ}$ E.	11.50	"	At 10.00 chs. on this course, center of canyon, 10 chs. wide, course W.
N. $14 \frac{1}{2}^{\circ}$ E.	4.60	"	At 3.60 chs. on this course asc. and thence over hills.
N. $15 \frac{1}{4}^{\circ}$ E.	2.60	"	
N. 31° E.	2.10	"	
N. $8 \frac{1}{2}^{\circ}$ W.	4.50	"	
N. 3° W.	8.40	"	
N. $12 \frac{3}{4}^{\circ}$ E.	2.50	"	
N. $17 \frac{1}{4}^{\circ}$ E.	3.80	"	
N. 22° W.	7.40	"	Across mouth of gulch, course SW. Leave dense brush at end of this course.
N. 14° E.	5.50	"	Along steep rocky W. slope, to meander cor. of fracl. secs. 2 and 11.

Land, mountainous and level.

Soil, gravelly and sandy; 4th rate.

No timber.

Undergrowth, mesquite, willow and arrow-weed.

At this meander cor. I set off $13^{\circ}02'$ N. on the decl. arc; and at apparent noon observe the sun on the meridian; the resulting lat. is $35^{\circ}19'$.

Apr. 25, 1915.

Apr. 21, 1915.

At the meander cor. of fracl. secs. 2 and 11, I set off $35^{\circ}19'$ on the lat. arc; and $11^{\circ}43'$ N. on the decl. arc; and at 1h 00m p.m., l.m.t., determine a meridian with the solar.

Thence I run with meanders on W. bdy. of fracl. sec. 2, along W. edge of hill, through dense undergrowth.

N. $2 \frac{1}{2}^{\circ}$ W.	2.13	chs.	
N. $3 \frac{3}{4}^{\circ}$ E.	5.20	"	
N. $8 \frac{1}{2}^{\circ}$ W.	8.40	"	over rolling land.
N. $25 \frac{1}{4}^{\circ}$ W.	6.20	"	along steep W. slope to end of course, and thence over level land.
N. $15 \frac{1}{2}^{\circ}$ W.	4.60	"	
N. $15 \frac{1}{4}^{\circ}$ W.	32.60	"	At the end of this course, U. S. G. S. bench mark, which is a brass disc. set in a granite boulder, marked "Elev 556 Datum Y", bears N. $64^{\circ}38'$ E., 185 lks. dist.
N. $9 \frac{1}{2}^{\circ}$ W.	15.90	"	At end of this course leave dense brush.
N. $5 \frac{1}{4}^{\circ}$ W.	7.00	"	To meander cor. of fracl. secs. 2 and 35, on N. bdy. of Tp.

Land, level and mountainous.

Soil, sandy and gravelly; 4th rate.

No timber: brush, willow, mesquite and arrow-weed. Apr. 21, 1915.

This township consists of low, rough, broken mountainous land, practically worthless for any purpose. The Colorado river contains the only water.

The soil is principally rocks and gravel, with sand hills near the river, which forms the west boundary.

The only vegetation is some mesquite, willow and arrowweed near the river.

There are no settlers.

W. S. Harvey.

For table of latitudes and departures, with closing errors, see Book "A".

FOR CERTIFICATE OF UNITED STATES SURVEYOR.

BOOK 3143

See Book "C"

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, Arizona, March 9, 1918

The foregoing field notes of the survey of the _____
Subdivision Lines, and
Meanders of the Left Bank of the Colorado River, within
Frac. TOWNSHIP 22 NORTH, RANGE 22 WEST,

executed by Theo. O. Johnston, U.S. Surveyor,
under his special instructions dated January 6, 1915, for Group 44, _____, 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.
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.~~