Original 115

3960

4—679

BOOK 3960

Book A.

FIELD NOTES

OF THE SURVEY OF THE

North and West boundaries of frac.T.18 S.,Rs.4 and 5 W.;resurvey of the international boundary between Arizona and Mexico,from Monument 164 to Monument 168;survey of the subdivisional lines of frac.T.18 S., R.5 W.,;and the survey of the boundaries of U.S.Customs- Immigration Reserve in Secs.6 and 7 of frac.T.18 S.,R.5 W.,

3960

Of the Gila and Salt River *Meridian,*

In the State of

EXECUTED BY

Benjamin J.Kinsey,U.S.Surveyor

3960

In the capacity of U. S. Surveyor, *under Special Instructions dated* October 1, *19*31, *issued by the District Cadastral Engineer to govern surveys included in Group No.* 170, *which were approved by the Commissioner of the General Land Office,* November 12, *19*31, *and Assignment Instructions dated* November 17, *19*31.

Survey commenced November 27, *19*31.

Survey completed December 11, *19*31.

6—151

~~INDEX DIAGRAM.~~

Township ....., *Range* .....

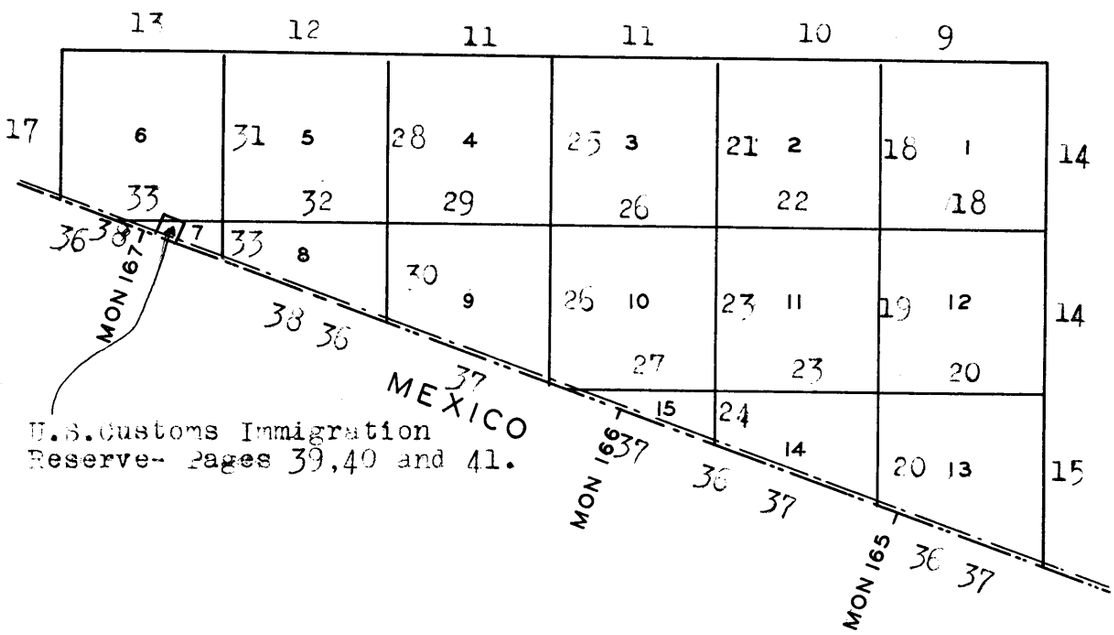
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

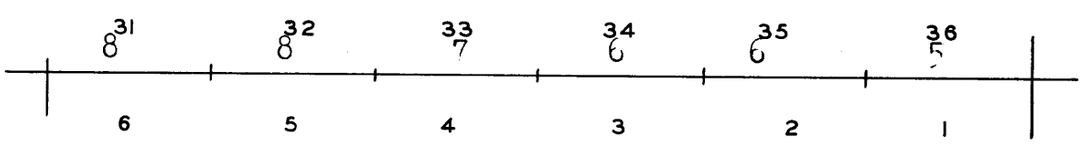
U. S. GOVERNMENT PRINTING OFFICE G—151

BOOK 3960

INDEX DIAGRAM

T. 18 S.. R. 5 W.





T. 18 S..R.4 W.

The surveys herein described were executed with Buff transit No. 16, 724 and Young & Sons transit No. 8540. These instruments are equipped with Smith solar attachments and otherwise conform to the standard requirements of the General Land Office. The instruments were examined, tested and approved by the District Cadastral Engineer of Arizona and California on Nov. 17, 1931, conditional upon satisfactory field tests. Unless otherwise specified all azimuth determinations are accomplished with the solar attachment.

PRELIMINARY FIELD TEST
of

Buff transit No. 16, 724 and Young & Sons transit No. 8540.

November, 22, 1931; at station near center of sec. 9, T. 18 S., R. 5 W., Gila and Salt River Base and Meridian, Arizona, in approximate latitude 31° 52' 40" N. and approximate longitude 112° 46' 00" W. examine the adjustments of the transits and find no errors; then to test the workings of the solar apparatus proceed as follows:

Nov. 23: at 3h. 30m., a.m., l.m.t., observe Polaris at western elongation, making four observations, two each with the telescope in direct and reversed positions, marking the mean point in the line thus determined by a tack set in top of a peg, driven firmly in the ground about 5 chs. N.

Azimuth of Polaris at western elongation: 1° 15' 00".

At daylight, lay off the azimuth of Polaris 1° 15' to the east and mark the meridian thus determined by a tack set in top of a stake driven firmly in the ground, about 5 chs. N.

At 8h. 00m., a.m., app. t., set off 31° 53' N. on the lat. arc, 20° 11' S. on the decl. arc and determine a meridian with the solar which agrees with the true meridian.

At 12h. 00m., app. noon, with lat. arc unchanged, observe the sun on the meridian; the resultant reading of the decl. arc is 20° 15' S., which agrees with the computed declination of the sun.

At 3h. 00m., p.m., app. t., with lat. unchanged, set off 20° 16' S., on the decl. arc and determine a meridian with the solar which agrees with the true meridian.

As all of the observations taken during the usual hours of solar work agree within 1' of the true meridian, conclude that the instrument is in a satisfactory state of adjustment.

All measurements are made with a Lufkin steel tape 5 chs. in length, compared with a Lufkin standard and found correct. The measurements are made on the slope, the vertical angles determined and the slope measurements properly reduced for entry in the field notes.

Observations for Time and Latitude.

November, 23, 1931; in approximate latitude 31° 52' 40" N., and approximate longitude 112° 46' 00" W., make a meridian observation of the sun for latitude, observing the altitude of the suns lower limb with telescope in direct position, reversing the transit and observing the suns upper limb.

Apparent time of obsn., noon:		12h. 00m., 00s.
Mean observed altitude	:	37° 52' 00"
Reduced latitude	:	31° 52' 41"

Observation upon Fomalhaut (Star).

November, 26, 1931:

105° meridian time, 30m. fast of l.m.t.	:	7h. 01m.
Mean observed altitude	:	28°10'00"
Stars declination	:	29°59'11"
Reduced latitude	:	31°52'37"

Obsn. upon the Sun for Latitude.

November, 29, 1931:

Apparent time of obsn., noon	:	12h. 00m. 00s.
Mean observed altitude	:	36° 43' 00"
Reduced latitude	:	31° 52' 36"

Obsn. upon Fomalhaut.

December, 6, 1931:

105° meridian time, 30m. fast of l.m.t.	:	6h. 17m10s.
Mean observed altitude	:	28° 10' 00"
Stars declination	:	29° 59' 11"
Reduced latitude	:	31° 52' 36"

Chains	
	The following notes describe a survey of the North Bdy. of T. 18 S., R. 4 W.
	From the cor. of Ts. 17 and 18 S., Rs. 3 and 4 W., established by Thorn & Gould, in 1925, and which is an iron post 3 ins. in diam., firmly set, projecting 30 ins. above ground and mound of stone, with brass cap properly mkd.
	West, on true line, bet. secs. 36 and 1.
	Over mountainous land, through scattering timber and undergrowth. Desc. 98 ft. over NW slope.
1.50	Wash, 20 lks. wide, 1 ft. deep, course N. Asc. 309 ft. over broken NE slope.
7.20	Rocky ridge, brs. N.20°E. and S.20°E. Desc. 309 ft. over broken NW slope.
21.50	Shallow wash, 10 lks. wide, course SW. Continue descent.
35.00	Foot of descent, bears N. and S. Proceed over rolling desert land.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. of secs. 36 and 1, with brass cap mkd.
	¼ S 36 / S 1 1931
	raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
52.60	Wash, 20 lks. wide, 8 ft. deep, course SW.
57.70	Wash, 20 lks. wide, 8 ft. deep, course SW.
64.50	Wash, 20 lks. wide, 10 ft. deep, course S.
65.70	Wash, 10 lks. wide, 10 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground for the cor. of secs. 1, 2, 35 and 36, with brass cap mkd.
	T 17 S R 4 W S 35 | S 36 S 2 | S 1 T 18 S 1931
	raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
	Land, mountainous and rolling. Soil, rocky 3rd. and 4th. rate. Timber, paloverde, mesquite and ironwood.

Chains	
	West, on true line, bet. secs. 2 and 35.
	Over rolling land, thru scattering timber and undergrowth.
8.00	Wash, 25 lks. wide, 18 ft. deep, course SW.
23.00	Wash, 20 lks. wide, 10 ft. deep, course SW.
35.00	Shallow wash, 25 lks. wide, 10 ft. deep, course SW.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and in a mound of stone to top, for the ¼ sec. cor. of secs. 2 and 35, with brass cap mkd. ¼ S 35 / S 2 1931
47.70	Enter wash, from NE, 40 lks. wide, 20 ft. deep, continue down same.
52.20	Leave wash, turns to SW.
56.40	Wash, 50 lks. wide, 10 ft. deep, course SW.
70.70	Wash, 50 lks. wide, 10 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 12 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and in a mound of stone to top, for the cor. of secs. 2, 3, 34 and 35, with brass cap mkd. T 17 S R 4 W S 34 | S 35 S 3 | S 2 T 18 S 1931 from which, a high butte, bears N. 33° E., about ¾ mile distant.
	Land, rolling. Soil, rocky 3rd. and 4th. rate. Timber, paloverde, ironwood and mesquite.

	West, on true line, bet. secs. 3 and 34.
	Over rolling desert land, thru scattering timber and undergrowth.
33.60	Wash, 25 lks. wide, 10 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 3 and 34, with brass cap mkd. ¼ S 34 / S 3 1931 raise a mound

Chains

of stone 4 ft. base, 2 ft. high, N. of cor.

54.50 Wash, 10 lks. wide, 10 ft. deep, course SW.

79.90 Rocky wash, 10 lks. wide, 5 ft. deep, course SW.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 14 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and in a mound of stone to top, for the cor. of secs. 33, 4, 33 and 34, with brass cap mkd.

T 17 S R 4 W
S 33 | S 34
S 4 | S 3
T 18 S
1931

Land, rolling.
Soil, rocky 3rd. and 4th. rate.
Timber, paloverde, mesquite and ironwood.

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

Over rolling desert land, thru scattering timber and undergrowth.

13.20 Enter wash, from NE, 20 lks. wide, 10 ft. deep, at bend; continue down same.

14.60 Leave wash, turns SW.

30.00 Wash, 15 lks. wide, 10 ft. deep, course SW.

40.00 Set an iron post 3 ft long, 1 in. in diam., 20 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 4 and 33, with brass cap mkd.

¼ S 33
S 4

1931

71.80 Enter wash, 20 lks. wide, 8 ft. deep, from NE. to West.

75.00 Leave wash, turns SW.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 18 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, in a mound of stone to top, for the cor. of secs. 4, 5, 32 and 33, with brass cap mkd.

T 17 S R 4 W
S 32 | S. 33
S 5 | S 4
T 18 S
1931

Land, rolling.
Soil, rocky 3rd. and 4th. rate.
Timber, paloverde, mesquite and ironwood.

Chains	
	West, on true line, bet. secs. 5 and 32.
	Over rolling land, thru scattering timber and undergrowth.
10.20	Wash, 40 lks. wide, 20 ft. deep, course SW.
13.30	Enter wash, 30 lks. wide, 10 ft. deep, from NE. Continue down same.
17.00	Leave wash, turns SW.
37.20	Wash, 20 lks. wide, 6 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. of secs. 5 and 32, with brass cap mkd. ¼ S 32 / S 5 1931 raise a mound of stone 4 ft. base, 2 ft. high, N. of cor.
41.30	Wash, 20 lks. wide, 6 ft. deep, course SW.
78.20	Wash, 50 lks. wide, 10 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground for the cor. of secs. 5, 6, 31 and 32, with brass cap mkd. T 17 S, R 4 W S 31 | S 32 S 6 | S 5 T 18 S 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
	Land, rolling. Soil, rocky 4th. rate. Timber, paloverde, ironwood and mesquite.

	West, on true line, bet. secs. 6 and 31.
	Over rolling land, thru scattering timber and undergrowth.
16.50	Wash, 20 lks. wide, 5 ft. deep, course S.
22.50	Wash, 10 lks. wide, course SW.
37.00	Wash, 20 lks. wide, 4 ft. deep, course S.
39.50	Wash, 25 lks. wide, 4 ft. deep, course S.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 22 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 6 and 31, with brass cap mkd. ¼ S 31 / S 6 1931

Chains	
	From which,
	A palo verde 14 ins. diam., bears N. 89° W., 18 lks. dist., marked ¼ S 31 B T No other suitable bearing tree available.
53.00	Wash, 10 lks. wide, 2 ft. deep, course S.W.
60.10	Wash, 10 lks. wide, 3 ft. deep, course S.W.
71.70	Wash, 10 lks. wide, 3 ft. deep, course S.W.
80.00	Set an iron post 3 ft. long, 3 ins. diam., 26 ins. in the ground, for the cor. of Ts. 17 and 18 S., Rs. 4 and 5 W., with brass cap marked

T 17 S

R 5 W	R 4 W
S 36	S 31
S 1	S 6

T 18 S
1931

From which,

Kuejava Peak, in Mexico, bears S. 27° 05' W., about 20 miles dist.
A sharp peak, in range about 40 mi. dist., bears S. 29° 25' W.
Guanos pass into Papago Indian Reservation, bears N. 26° E.
No suitable bearing trees available, raise a mound of stone 4 ft. base, 2 ft. high S. of cor.

Land, rolling.
Soil, rocky 4th. rate.
Timber, paloverde, ironwood, and mesquite.
Undergrowth, greasewood, cacti, and sahuaro.

North Bdy. of T. 18 S., R. 5 W.

From Tp. cor., West, on true line, bet. secs. 1 and 36.

Over rolling desert land, through scattering timber and undergrowth.

3.30	Wash, 10 lks. wide, 3 ft. deep, course S.
12.80	Wash, 15 lks. wide, 3 ft. deep, course S.W.
15.00	Wash, 50 lks. wide, 5 ft. deep, course S.W.
21.60	Wash, 50 lks. wide, 5 ft. deep, course S.W.
32.30	Wash, 5 lks. wide, 2 ft. deep, course S.W.
39.00	Wash, 10 lks. wide, 10 ft. deep, course S.W.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap marked

¼ S 36
S 1
1931

No suitable bearing trees available; raise a mound of stone 4 ft. base, 2 ft. high W. of cor.

47.20	Wash, 5 lks. wide, 2 ft. deep, course S.

Chains	
54.10	Wash, 10 lks. wide, 2 ft. deep, course S.
68.30	Wash, 5 lks. wide, 2 ft. deep, course S.W.
73.40	Wash, 50 lks. wide, 10 ft. deep, course S.W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 26 ins. in the ground, for the cor. of secs. 1, 2, 35, and 36, with brass cap marked T 17 S R 5 W S 35 | S 36 S 2 | S 1 T 18 S 1931 No suitable bearing trees available; raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling. Soil, rocky 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, cacti, and sahuaro.
	West, on true line, bet. secs. 2 and 35. Over rolling desert land, through scattering timber and undergrowth.
20.00	Wash, 50 lks. wide, 5 ft. deep, course S.
40.00	Set an iron post 3 ft. long, 1 in. diam. 16 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor., with brass cap marked ¼ S 35 S 2 1931 No suitable bearing trees available.
45.80	Wash, 25 lks. wide, 5 ft. deep, course S.W.
78.30	Wash, 20 lks. wide, 5 ft. deep, course S.W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 20 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the cor. of secs. 2, 3, 34, and 35, with brass cap marked T 17 S R 5 W S 34 | S 35 S 3 | S 2 T 18 S 1931 From which, A mesquite, 8 ins. in diam., bears S. 38° E., 74 lks. dist., marked T 18 S R 5 W S 2 B T A mesquite, 16 ins. diam., bears S. 17½° W., 95 lks. dist., marked T 18 S R 5 W S 3 B T No other suitable bearing trees available. Land, rolling. Soil, rocky 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, cacti, and sahuaro.

Chains	
	West, on true line, bet. secs. 3 and 34.
	Over rolling land, through scattering timber and undergrowth.
.30	Wash, 30 lks. wide, 5 ft. deep, course S.W.
40.00	Set an iron post 3 ft. long, 1 in. diam. 13 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor., with brass cap marked ¼ S 34 / S 3 1931 No suitable bearing trees available.
43.40	Wash, 20 lks. wide, 5 ft. deep, course S.W.
61.10	Wash, 20 lks. wide, 10 ft. deep, course S.W.
68.10	Wash, 15 lks. wide, 10 ft. deep, course S.W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 26 ins. in the ground, for the cor. of secs. 3, 4, 33, and 34, with brass cap marked T 17 S R 5 W S 33 | S 34 S 4 | S 3 T 18 S 1931 No suitable bearing trees available; raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling. Soil, rocky 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, cacti, and sahuaro.
	West, on true line, bet. secs. 4 and 33.
	Over rolling land, through scattering timber and undergrowth.
30.00	Wash, 20 lks. wide, 1 ft. deep, course S.W.
38.60	Wash, 30 lks. wide, 5 ft. deep, course S.
40.00	Set an iron post 3 ft. long, 1 in diam. 26 ins. in the ground, for the ¼ sec. cor., with brass cap marked ¼ S 33 / S 4 1931 No suitable bearing trees available; raise a mound of stone 4 ft. base, 2 ft. high N. of cor.
41.10	Wash, 50 lks. wide, 5 ft. deep, course S.W.
57.00	Wash, 20 lks. wide, 5 ft. deep, course S.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 26 ins. in the ground for the cor. of secs. 4, 5, 32, and 33, with brass cap marked

Chains	
	T 17 S. R 5 W S 32 | S 33 S 5 | S 4 T 18 S 1931 No bearing trees available; raise a mound of stone 4 ft. base, 2 ft. high W. of cor., Land, rolling. Soil, rocky 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, cacti, and sahuaro.
	West, on true line bet. secs. 5 and 32. Over rolling land, through scattering timber and undergrowth.
10.00	Wash, 25 lks. wide, 5 ft. deep, course S.W.
17.30	Wash, 10 lks. wide, 4 ft. deep, course S.W.
39.00	Wash, 10 lks. wide, course S.W.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., with brass cap marked ¼ S 32 S 5 1931 From which, A mesquite, 12 ins. diam., bears S. 48° E., 62 lks. dist., marked ¼ S 5 B T
51.90	Wash, 30 lks. wide, 5 ft. deep, course S.
79.70	Set an iron post 3 ft. long, 2 ins. diam., 26 ins. in the ground, for the witness cor. of secs. 5, 6, 31, and 32, with brass cap marked T 17 S R 5 W S 31 | S 32 WC S 6 | S 5 T 18 S 1931 From which, A mesquite, 12 ins. diam., bears S. 81½° E., 76 lks. dist., marked WC T 18 S R 5 W S 5 B T A mesquite, 8 ins. diam., bears N. 65½° W., 322 lks. dist., marked W C T 18 S R 5 W S 31 B T
80.00	Center of the Ajo-Sonoita Hgy., bears N. 20° E.-S.20° W., where it is impracticable to monument the cor., establish witness cor. as hereinbefore described. Land, rolling. Soil, rocky 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, cacti, and sahuaro.

Chains	
	West, on true line, bet. secs. 6 and 31.
	Over rolling land, thru scattering timber and undergrowth.
.30	West edge of Ajo-Sonoita Highway, bears N.20°E.-S.20°W.
3.40	Wash, 10 lks. wide, 1 ft. deep, course S.
19.30	Wash, 20 lks. wide, 5 ft. deep, course S.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 6 and 31, with brass cap marked ¼ S 31 / S 6 1931
46.40	Old Ajo-Sonoita road, bears NW-SE.
64.30	Wash, 50 lks. wide, 5 ft. deep, course S.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 26 ins. in the ground, for the cor. of Ts. 17 and 18 S., Rs. 5 and 6 W., with brass cap marked T 17 S R 6 W | R 5 W S 36 | S 31 S 1 | S 6 T 18 S 1931

from which,

an ironwood, 12 ins. in diam., bears N.84°W., 24 lks. dist., marked T 17 S R 6 W S 36 BT

Raise a mound of stone 4 ft. base, 2 ft. high W. of cor.

Land, rolling.
Soil, rocky and gravelly.
Timber, paloverde, ironwood and mesquite.
Undergrowth, greasewood, sagebrush, cacti, and sahuaro.

Chains

From the cor. of Ts. 17 and 18 S., Rs. 4 and 5 W., hereinbefore described.

South, on true line, bet. secs. 1 and 6.

Over rolling desert land, thru scattering timber and undergrowth.

5.90 Wash, 20 lks. wide, 5 ft. deep, course SW.

27.20 Wash, 20 lks. wide, 5 ft. deep, course SW.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. of secs. 1 and 6, with brass cap marked

¼

S 1 | S 6

1931

raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.

73.00 Wash, 10 lks. wide, 5 ft. deep, course SW.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the cor. of secs. 1, 6, 7 and 12, with brass cap marked

T 18 S
R 5 W | R 4 W
S 1 | S 6
S 12 | S 7

1931

Raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
Land, rolling.
Soil, sandy, rocky 3rd. rate.
Timber, paloverde, ironwood and mesquite.
Undergrowth, greasewood, sagebrush, cacti, and sahuaro.

South, on true line, bet. secs. 7 and 12.

Over rolling land, thru scattering timber and undergrowth.

19.40 Wash, 1 ch. wide, 5 ft. deep, course SW.

40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 7 and 12, with brass cap mkd.

¼

S12 | S7

1931

raise a mound of stone 4 ft. base, 2 ft. high W. of cor.

60.00 Wash, 10 lks. wide, 5 ft. deep, course SW.

70.00 Wash, 30 lks. wide, 5 ft. deep, course SW.

Chains	
80.00	Set an iron post 3 ft. long, 2 ins. diam., 26 ins. in the ground for the cor. of secs. 7, 12, 13, and 18, with brass cap marked T 18 S R 5 W R 4 W S 12 | S 7 S 13 | S 18 1931 Raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
	Land, rolling. Soil, rocky and gravelly 3rd. rate. Timber, paloverde, mesquite, and ironwood. Undergrowth, greasewood, cacti, and sahuaro.
	South, on true line, bet. secs. 13 and 18.
	Over rolling land, through scattering timber and undergrowth.
11.00	Wash, 30 lks. wide, 5 ft. deep, course S.W.
30.00	Wash, 10 lks. wide, 5 ft. deep, course S.W.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground, for the ¼ sec. cor., with brass cap marked ¼ S 13 | S 18 1931 Raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
57.20	Wash, 30 lks. wide, 5 ft. deep, course S.W.
76.15	Road, bears N. 70° W.- S. 70° E.
78.31	Intersect the International Boundary Reserve. At point for cor., set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground, with brass cap marked T 18 S R 5 W | R 4 W S 13 | S 18 N STRIP 1931 Raise a mound of stone 4 ft. base, 2 ft. high N. of cor.
79.27	Intersect the International Bdy. line bet. the United States and Mexico. At point for cor., set an iron post 3 ft. long, 2 ins. diam., 26 ins. in the ground, for closing corner of Tps.18 S., Rs. 4 and 5 W., with brass cap marked

Chains

T 18 S
R 5 W | R 4 W
S 13 | S 18
C | C

INT. BDY.

1931

Raise a mound of stone 4 ft. base, 2 ft. high N. of cor.,

From corner;

International Bdy. monument No. 165 bears N. 70°20' W., 76.19 chs. Mon. is an iron post completely described in the record of this boundary survey.

Land, rolling.
Soil, sandy, stony 4th. rate.
Timber, paloverde, ironwood, and mesquite.
Undergrowth, greasewood, sagebrush, cacti, and sahuaro.

Chains	
	From the cor. of Ts. 17 and 18 S., Rs. 5 and 6 W., hereinbefore described.
	South, on true line, bet. secs. 1 and 6.
	Over rolling land, thru scattering timber and undergrowth.
30.70	Enter wash, 20 lks. wide, 4 ft. deep, course SW.
34.00	Leave wash, course SW.
34.80	Road to Dowling windmill, bears NE and SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. of secs. 1 and 6, with brass cap marked ¼ S1 | S6 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.; from which, Monument No. 168 on International Bdy. bet. the U.S. and Mexico, bears S.87° 12' W.
54.40	Old road, bears NW and SE.
66.30	Wire fence, bears NW and SE.
66.54	Intersect the International Boundary Reserve.
	Set an iron post 3 ft. long, 1 in. in diam., 16 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, with brass cap marked T 18 S R 6 W | R 5 W S 1 | S 6 N STRIP 1931
67.50	Intersect the International Boundary bet. the United States and Mexico. Monument No. 167 bears S. 70° 20' E., 51.33 chs. Set an iron post 3 ft. long, 3 ins. in diam., 14 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the closing cor. of Ts. 18 S., Rs. 5 and 6 W., with brass cap marked T 18 S R 6 W | R 5 W S 1 | S 6 C | C INT. BDY. 1931 from which, the windmill at Dowling settlement bears N. 54° 10'W., about ½ mile distant. adobe ruins, bears N.41°50'W., about ½ mile distant. Land, rolling. Soil, rocky, gravelly and sandy, 3rd. rate. Timber, paloverde, mesquite and ironwood.

Chains	
	Commence the subdivisional survey of this fractional Tp., at the cor. of secs. 1, 2, 35 and 36, on the N. Bdy., hereinbefore described.
	S.0° 01'E., on true line, bet. secs. 1 and 2.
	Over rolling desert land, thru scattering timber and undergrowth.
7.20	Wash, 20 lks. wide, 5 ft. deep, course SW.
13.30	Wash, 20 lks. wide, 5 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 1 and 2, with brass cap marked ¼ S 2 | S 1 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
63.00	Wash, 20 lks. wide, 2 ft. deep, course SW.
73.00	Wash, 20 lks. wide, 4 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the cor. of secs. 1, 2, 11 and 12, with brass cap marked T 18 S R 5 W S 2 | S 1 S 11 | S 12 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling. Soil, sandy, gravelly 3rd. rate. Timber, paloverde, ironwood and mesquite. Undergrowth, greasewood, cacti, and sahuaro.
	East, on a random line, bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect the East Bdy. of Tp., at 5 lks. N. of the cor. of secs. 1, 6, 7 and 12, as hereinbefore described.
	Thence,
	N. 89° 58'W., on true line, bet. secs. 1 and 12.
	Over rolling desert land, thru scattering timber and undergrowth.
11.35	Wash, 25 lks. wide, course SW.
22.75	Wash, 25 lks. wide, 15 ft. deep, course SW.

Chains	
40.03	Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 1 and 12, with brass cap marked S 1 ¼ S 12 1931
70.00	Wash, 10 lks. wide, 5 ft. deep, course SW.
80.06	The cor. of secs. 1, 2, 11 and 12. Land, rolling. Soil, sandy, gravelly 3rd. rate. Timber, paloverde, mesquite and ironwood.
	S.0°01'E., on true line, bet. secs. 11 and 12. Over rolling land, thru scattering timber and undergrowth.
9.30	Wash, 10 lks. wide, 6 ft. deep, course SW.
16.50	Wash, 25 lks. wide, 6 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 11 and 12, with brass cap marked ¼ S 11 | S 12 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
68.00	Wash, 25 lks. wide, 6 ft. deep, course SW.
71.40	Wash, 15 lks. wide, 5 ft. deep, course SW.
79.30	Wash, 60 lks. wide, 6 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the cor. of secs. 11, 12, 13 and 14, with brass cap marked T 18 S R 5 W S 11 | S 12 S 14 | S 13 1931 from which, a mesquite, 12 ins. in diam., bears S.6½°W., 83 lks. distant, marked T 18 S R 5 W S 14 BT Raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling. Soil, sandy, gravelly, 3rd. rate. Timber, paloverde, mesquite and ironwood.

Chains	
	S.89° 58'E., on random line, bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
79.94	Intersect the cor. of secs. 17, 18, 13 and 18, on E. bdy. of Tp., hereinbefore described.
	Thence,
	N.89° 58'W., on true line, bet. secs. 12 and 13.
	Over rolling land, thru scattering timber and undergrowth.
8.55	Wash, 25 lks. wide, 6 ft. deep, course SW.
39.97	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 12 and 13, with brass cap marked
	¼ S 12 / S 13
	1931 raise a mound of stone 4 ft. base, 2 ft. high N. of cor.
46.65	Wash, 20 lks. wide, 6 ft. deep, course SW.
79.94	The cor. of secs. 11, 12, 13 and 14.
	Land, rolling. Soil, sandy, gravelly, 3rd. rate. Timber, paloverde, mesquite and ironwood.

	S.0°01'E., on true line, bet. secs. 13 and 14.
	Over rolling land, thru scattering timber and undergrowth.
38.00	Asc. 20 ft. over NW slope of low hill.
40.00	On spur, sloping west, set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground to bedrock deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 13 and 14, with brass cap marked
	¼ S14 | S13 1931
	Desc. 34 ft. over SW slope.
44.70	Road, from Grays Ranch to U.S.Custom house, bears NW and SE. Thence across flat land.

Chains	
49.66	International Boundary Reserve. True point for cor. falls in center of wash, 30 lks. wide, 2 ft. deep, course SW. Establish witness cor. as hereinafter described.
49.96	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, with brass cap marked W C T 18 S | R 5 W S 14 | S 13 N. STRIP 1931 from which, a mesquite, 10 ins. in diam., bears N.26°W., 8 lks. dist., marked WC NS BT
50.62	Intersect the International Boundary Line bet. the United States and Mexico. Monument No. 165 bears S. 70° 20' E., 8.80 chs. Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the closing cor. of secs. 13 and 14, with brass cap marked T 18 S R 5 W C C S 14 | S 13 INT. BDY. 1931 from which, a mesquite, 6 ins. in diam., bears N.83½°E., 146 lks. dist., marked CC NS BT a mesquite, 6 ins. in diam., bears N.45°W., 46 lks. dist., marked CC NS BT House of R.L. Gray bears N.60°E. Land, rolling. Soil, sandy, gravelly 3rd. rate. Timber, paloverde, ironwood and mesquite.

	From the cor. of secs. 2, 3, 34 and 35, on N. bdy. of Tp., hereinbefore described. S.0° 01'E., on true line, bet. secs. 2 and 3. Over rolling desert land, thru scattering timber and undergrowth.
8.60	Enter wash, 10 lks. wide, 6 ft. deep, course W. (from NE). Continue down same.
12.50	Mouth of wash, from NW.
15.50	Leave wash, course SW.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 2 and 3, with brass cap marked

Chains	
	$\frac{1}{4}$ S 3 | S 2 1931 raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
53.00	Wash, 15 lks. wide, 5 ft. deep, course SW.
73.90	Old road, bears NE-SW;(NE to Guanos Pass.)
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the cor. of secs. 2, 3, 10 and 11, with brass cap marked T 18 S R 5 W S 3 | S 2 S 10 | S 11 1931 Raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling; Soil, sandy, gravelly 3rd. rate. Timber, paloverde, ironwood and mesquite. Undergrowth, greasewood, cacti, and sahuaro.
	East, on random line, bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect N. and S. line at 2 lks. N. of the cor. of secs. 1, 2, 11 and 12.
	Thence,
	N.89° 59' W., on true line, bet. secs. 2 and 11.
	Over rolling land, thru scattering timber and undergrowth.
5.00	Wash, 10 lks. wide, course SW.
9.80	Wash, 10 lks. wide, course SW.
12.80	Wash, 10 lks. wide, course SW.
39.98	Set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 2 and 11, with brass cap marked $\frac{1}{4}$ S 2 / S 11 1931 raise a mound
55.90	of stone 4 ft. base, 2 ft. high N. of cor.
55.90	Wash, 10 lks. wide, 1 ft. deep, course SW.
63.30	Wash, 10 lks. wide, 1 ft. deep, course SW.
68.70	Wash, 15 lks. wide, 3 ft. deep, course SW.

Chains	
79.96	The cor. of secs. 2, 3, 10 and 11.
	Land, rolling. Soil, sandy and gravelly 3rd. rate. Timber, paloverde, mesquite and ironwood.

	S.0° 01'E., on true line, bet. secs. 10 and 11.
	Over rolling land, thru scattering timber and undergrowth.
22.20	Wash, 15 lks. wide, 5 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. of secs. 10 and 11, with brass cap marked ¼ S10 | S11 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
60.00	Wash, 20 lks. wide, 2 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for the cor. of secs. 10, 11, 14 and 15, with brass cap marked T 18 S R 5 W S 10 | S 11 S 15 | S 14 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
	Land, rolling and nearly level. Soil, sandy, gravelly 3rd. rate. Timber, paloverde, ironwood and greasewood.

	S.89° 59'E., on random line, bet. secs. 11 and 14.
40.00	Set temp; ¼ sec. cor.
79.94	Intersect N. and S. line at 2 lks. N. of the cor. of secs. 11, 12, 13 and 14.
	Thence,
	N. 89° 58'W., on true line, bet. secs. 11 and 14.
	Over rolling desert land, thru scattering timber and undergrowth.
.40	Wash, 60 lks. wide, 3 ft. deep, course SW.
32.90	Road, bears NW and SE.

Chains	
33.10	Cor. of wire fences from NW and S.30°E.
39.97	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 11 and 14, with brass cap marked
	¼ S 11 / S 14
	1931 Dig pits 18 x 18 x 12 ins. E. and W. of cor., 3 ft. dist.
43.40	Wire fence, bears N. and S. Thence across corn field.
52.70	Earth dam; 15 ft. high, bears S. 50 lks. dist. and North 300 lks. Built across shallow draw bottom, drainage from the N.E.
53.50	Wire fence, bears N. and S.
58.70	Wash, 10 lks. wide, 4 ft. deep, course SW. A dirt dam, 2 chs. long, extending E. and W. bears S. 1 ch. dist.
72.70	Road, bears NE and SW.
79.94	The cor. of secs. 10, 11, 14 and 15.
	Land, rolling. Soil, sandy and gravelly 3rd. rate. Timber, paloverde, ironwood and mesquite. Undergrowth, greasewood, cacti, and sahuaro.
	S.0°01' E., on true line, bet. secs. 14 and 15.
	Over slightly rolling land, thru scattering timber and undergrowth.
2.80	Road, bears NE and SW.
21.01	Intersect the North bdy. of the International Bdy. Reserve.
	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, with brass cap marked
	T 18 SR 5 W S15 | S14 N. STRIP
	1931 dig pits 18 x 18 x 12 ins. N., and on line NW and SE of cor.
21.03	Wire fence, bears N.70°W.-S.70°E.
21.97	Intersect the International Bdy. bet. the United States and Mexico.
	Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the closing cor. of secs. 14 and 15 with brass cap marked

Chains	
	T 18 S R 5 W S 15 | S 14 C | C INT. BDY. 1931
	Dig pits 18 x 18 x 12 ins. N., and on line, NW and SE of corner. From which, U.S.-Mexico International Mon. No.166, bears N.70° 20'W., 52.49 chs. distant. Land, rolling. Soil, sandy, stony 3rd. and 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, sagebrush and cacti.
	From the cor. of secs. 3, 4, 33, and 34, on the N. bdy. of Tp., hereinbefore described.
	S.0° 02' E., on a true line, bet. secs. 3 and 4.
	Over rolling desert land, through scattering timber and thick undergrowth.
17.80	Wash, 20 lks. wide, 4 ft. deep, course SW.
29.00	Wash, 10 lks. wide, 4 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 3 and 4, with brass cap marked ¼ S 4 | S 3 1931 from which, an ironwood, 8 ins. in diam., bears S.64°E., 59 lks. dist., marked ¼ S 3 BT an ironwood, 8 ins. in diam., bears N.53°W., 157 lks. dist., marked ¼ S 4 BT
61.00	Enter wash, from NE, 40 lks. wide, 6 ft. deep, continue down same.
67.30	Leave wash, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for the cor. of secs. 3, 4, 9, and 10, with brass cap marked T 18 S R 5 W S 4 | S 3 S 9 | S 10 1931

Chains	
	Raise a mound of stone 4 ft. base, 2 ft. high W. of corner 3 ft. distant. No bearing trees available. From which, windmill, at the Cactus Club in Mexico, bears S.85½°W., windmill, at the L'Agachado Ranch, bears S.40°35'W., Land, rolling. Soil, sandy loam, 3rd. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, sagebrush and cacti.
	East, on a random line, bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect the cor. of secs. 2, 3, 10, and 11.
	Thence,
	West, on a true line, bet. secs. 3 and 10.
	Over rolling land, through scattering timber & undergrowth.
5.00	Old road, bears NE and SW.
13.00	Wash, 50 lks. wide, course S.
33.50	Wash, 20 lks. wide, 3 ft. deep, course S.
39.98	Set an iron post 3 ft. long, 1 in. in diam., 20 ins. in the ground, to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 3 and 10, with brass cap marked ¼ S 3 / S 10 1931
79.00	Wash, 10 lks. wide, 4 ft. deep, course S.
79.96	The cor. of secs. 3, 4, 9, and 10.
	Land, rolling. Soil, sandy, stony 4th. rate. Timber, paloverde, ironwood and mesquite. Undergrowth, greasewood, sagebrush, and cacti.
	S.0° 02'E., on true line, bet. secs. 9 and 10.
	Over rolling desert land, through scattering timber and undergrowth.
6.00	Wash, 10 lks. wide, 6 ft. deep, course SW.
34.50	Wash, 15 lks. wide, 4 ft. deep, from NE; down same.
40.00	True point for the ¼ sec. cor. falls in wash, where it is impracticable to monument the corner, establish witness cor. as hereinafter described.
41.00	Leave wash, which turns SE.

Chains	
41.50	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the witness cor. to the ¼ sec. cor. of secs. 9 and 10, with brass cap marked WC ¼ S 9 | S 10 1932 from which, a mesquite, 7 ins. in diam., bears N. 12° W., 43 lks. dist., marked ¼ S 9 WC BT a mesquite, 8 ins. in diam., bears S.29° E., 37 lks. dist., marked ¼ S 10 WC BT
68.90	Road, bears E. and W.
72.53	Intersect the N. bdy. of the International Bdy. Reserve; set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, with brass cap marked T 18 S R 5 W S 9 | S 10 N STRIP 1931 Dig pits 18 x 18 x 12 ins. N., and on line, NW and SE of cor.
73.26	Wire fence, bears NW and SE.
73.49	Intersect the International bdy. line bet. the U.S. and Mexico, bet. Monuments Nos. 166 and 167. Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for closing cor. of secs. 9 and 10, with brass cap marked T 18 S R 5 W C C S 9 | S 10 INT. BDY. 1932 Dig pits 18 x 18 x 12 ins., N., and on line NW and SE of cor. No bearing trees available. From which, Mon. No.166 bears S.70°20'E., 32.39 chs. distant. Land, rolling. Soil, sandy loam, 3rd. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, sagebrush, and cacti.

	From the cor. of secs. 10, 11, 14, and 15.
	West, on a true line, bet. secs. 10 and 15.
	Over slightly rolling land, through scattering timber and undergrowth.

Chains	
12.80	Wash, 10 lks. wide, 3 ft. deep, course S.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for the ¼ sec. cor. of secs. 10 and 15, with brass cap marked ¼ S 10 / S 15 1931 Dig pits 18 x 18 x 12 ins. E. and W. of cor. 3 ft. distant. No bearing trees available.
51.30	Road, bears NW and SE.
58.55	Wire fence, bears N.70°W.-S.70°E.
58.75	Intersect N. bdy. of reserved strip, set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, with brass cap marked T 18 S R 5 W S 10 / S 15 N. STRIP 1931 No trees available; raise a mound of stone 4 ft. base, 3 ft. high, E. of cor. 3 ft. distant.
61.44	Intersect the International Bdy. line, bet. Mons. 166 and 167. Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for closing cor. of secs. 10 and 15, with brass cap marked T 18 S R 5 W S 10 / S 15 INT. BDY. CC 1931 No trees available; dig pits 18 x 18 x 12 ins. E., and on line NW and SE of cor. From which, U.S.Monument No.166, bears S.70°20'E., 12.76 chs. distant. Land, rolling. Soil, sandy loam, 3rd. rate. Timber, none. Undergrowth, greasewood, sagebrush, catclaw and cacti.

	From the cor. of secs. 4, 5, 32, and 33, on N. bdy. of Tp., hereinbefore described. S.0° 02'E., on true line, bet. secs. 4 and 5. Over rolling land, through scattering timber and undergrowth.

Chains	
13.20	Wash, 10 lks. wide, 3 ft. deep, course SW.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 4 and 5, with brass cap marked ¼ S 5 | S 4 1931 raise a mound of stone, 4 ft. base, 2 ft. high W. of cor.
41.20	Wash, 10 lks. wide, 3 ft. deep, course SW.
55.00	Wash, 20 lks. wide, 15 ft. deep, course SW.
62.50	Wash, 25 lks. wide, 6 ft. deep, course SW.
79.50	Rocky wash, 10 lks. wide, 5 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground, for the cor. of secs. 4, 5, 8 and 9, with brass cap marked T 18 S | R 5 W S 5 | S 4 S 8 | S 9 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling and level. Soil, sandy and rocky loam, 2nd. and 3rd. rate. Timber, paloverde, ironwood and mesquite.
	East, on random line, bet. secs. 4 and 9.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line, at 5 lks. S. of the cor. of secs. 3, 4, 9 and 10.
	Thence,
	S. 89° 58' W., on true line, bet. secs. 4 and 9.
	Over rolling and level land, thru scattering timber and undergrowth.
11.30	Wash, 20 lks. wide, 5 ft. deep, course SW.
18.80	Wash, 20 lks. wide, 4 ft. deep, course S.
28.20	Wash, 20 lks. wide, 6 ft. deep, course SW.
39.99	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 4 and 9, with brass cap marked ¼ S 4 S 9 1931 raise a mound

Chains	
	of stone 4 ft. base, 2 ft. high, N. of cor.
50.50	Wash, 50 lks. wide, 10 ft. deep, course SW.
79.98	The cor. of secs. 4, 5, 8, and 9.
	Land, rolling. Soil, sandy and gravelly 3rd. rate. Timber, paloverde, ironwood and mesquite.

	S.0° 02'E., on true line, bet. secs. 8 and 9.
	Over rolling desert land, thru scattering timber and undergrowth.
10.00	Wash, 20 lks. wide, 15 ft. deep, course W.
36.50	Center of wash, 150 lks. wide, 6 ft. deep, course W.
39.90	Road, bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for the ¼ sec. cor. of secs. 8 and 9; with brass cap marked
	¼ S 8 | S 9 1931
	from which, a mesquite, 14 ins. in diam., bears N.15°E., 275 lks. dist., marked ¼ S 9 BT
	a mesquite, 14 ins. in diam., bears S.38° W., 57 lks. dist., marked ¼ S 8 BT
	the windmill at L'Agachado ranch, bears S.70°20'E.
43.86	Intersect the International Bdy. Reserve.
	Set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, with brass cap marked
	T 18 S | R 5 W S 8 | S 9 N. STRIP 1931
	raise a mound of stone 4 ft. base, 2 ft. high, N. of cor.
44.60	Wire fence, bears NW and SE.
44.82	Intersect the International Bdy. line bet. the United States and Mexico.
	Set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for the closing cor. of secs. 8 and 9, with brass cap marked

Chains	
	T 18 S CC R 5 W S 8 | S 9 INT. BDY. 1931 raise a mound of stone, 4 ft. base, 2 ft. high, N. of cor. From point of intersection, Monument No. 166 bears S.70° 20'E., 117.41 chs. distant; Land, slightly rolling and level. Soil, sandy, gravelly 3rd. rate. Timber, paloverde, ironwood and mesquite.

	From the true point for cor. of secs. 5, 6, 31 and 32, on N. bdy. of Tp., hereinbefore described. S.0° 03'E., on true line, bet. secs. 5 and 6. Over rolling land, thru scattering timber and undergrowth.
40.00	Set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the ¼ sec. cor. of secs. 5 and 6, with brass cap marked ¼ S 6 | S 5 1931 from which, a mesquite, 10 ins. in diam., bears S.26½°E., 29 lks. dist., marked ¼ S 5 BT Raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
43.50	Wash, 20 lks. wide, 3 ft. deep, course SW.
66.00	Wash, 20 lks. wide, 3 ft. deep, course SW.
80.00	Set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for the cor. of secs. 5, 6, 7, and 8, with brass cap marked T 18 S R 5 W S 6 | S 5 S 7 | S 8 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor. Land, rolling and level. Soil, sandy, gravelly, 3rd. rate. Timber, paloverde, ironwood and mesquite.

	East, on random line, bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
79.94	Intersect N. and S. line at 5 lks. S. of the cor. of secs. 4, 5, 8 and 9.

Chains	
	Thence,
	S.89° 58'W., on true line, bet. secs. 5 and 8.
	Over slightly rolling land, thru scattering timber and undergrowth.
.50	Wash, 10 lks. wide, course SW.
12.00	Wash, 30 lks. wide, course S.
32.70	Wash, 10 lks. wide, course S.
39.97	Set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the ¼ sec. cor. of secs. 5 and 8, with brass cap marked ¼ S 5 / S 8 1931 raise a mound of stone 4 ft. base, 2 ft. high, N. of cor.
48.00	Wash, 25 lks. wide, 2 ft. deep, course S.
61.20	Wash, 50 lks. wide, 3 ft. deep, course SW.
70.30	Wash, 10 lks. wide, 2 ft. deep, course SW.
79.94	Intersect the cor. of secs. 5, 6, 7, and 8.
	Land, rolling and level. Soil, sandy, gravelly; 3rd. rate Timber, paloverde, ironwood and mesquite.
	S.0° 03'E., on true line, bet. secs. 7 and 8.
	Over slightly rolling land, thru scattering timber and undergrowth.
11.00	Road, bears NW and SE.
15.00	Wire fence, bears N.70°W. and S. 70°E.
15.18	Intersect the International Bdy. Reserve.
	Set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, with brass cap marked T 18 S R 5 W S 7 | S 8 N. STRIP 1931 raise a mound of stone 4 ft. base, 2 ft. high W. of cor.
16.14	Intersect the International Bdy. bet. the United States and Mexico.

Chains

Set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for the closing corner of secs. 7 and 8, with brass cap marked

C C
T 18 S | R 5 W
S 7 | S 8
INT. BDY
1931

Raise a mound of stone 4 ft. base, 2 ft. high N. of cor.

From point of intersection Monument No. 167, bears N. 70° 20'W., 33.87 chs. distant.

Land, rolling.
Soil, sandy, gravelly, 3rd. and 4th. rate.
Timber, paloverde, ironwood, and mesquite.
Undergrowth, greasewood, sagebrush, cacti.

From cor. of secs. 5, 6, 7, and 8,

West, on a true line, bet. secs. 6 and 7.

Over slightly rolling land, through scattering timber and undergrowth.

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

16.63 Intersect the NE line of the Customs - Immigration Reserve, surveyed under this group, as hereinafter described, at 2.44 chs. N.70° 20'W., of cor. No. 3 thereof.

At point of intersection, set an iron post, 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the closing corner of secs. 6 and 7, with brass cap marked

T 18 S R 5 W
USR S 6 / S 7 CC
1931

raise a mound of stone 4 ft. base, 2 ft. high E. of cor.

Thence, across reserve.

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

22.00 Highway, Ajo-Sonoita, bears NE and SW.

24.46 Wire fence, bears NW (about 3 chs. distant) and SE about 1 ch. distant.

25.56 Intersect the west line of the Customs - Immigration Reserve, at 3.11 chs., S. 35° 14' W., of cor. No. 2 thereof. Leave tract.

Chains

At point of intersection, set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for the closing corner of secs. 6 and 7, with brass cap marked

T 18 S R 5 W
CC S 6 / S 7 USR
1931

raise a mound of stone 4 ft. base, 2 ft. high, W. of cor., 3 ft. distant.

26.60 Wash, 30 lks. wide, 3 ft. deep, course SW.

27.66 Wire fence, bears N. and S.

28.00 Wash, 2 chs. wide, 3 ft. deep, course S.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 22 ins. in the ground, to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of secs. 6 and 7, with brass cap marked

¼ S 6 / S 7
1931

42.46 Intersect the N. bdy. of the International Reserve; set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, with brass cap marked

T 18 S R 5 W
N. STRIP S 6 / S 7
1931

raise a mound of stone 4 ft. base, 2 ft. high E. of cor., 3 ft. distant.

43.10 Wash, 50 lks. wide, course S.

43.86 Wire fence, bears N.70°W.-S.70°E.

45.15 Intersect the International Bdy. line, bet. the U.S.-and Mexico.

At point of intersection set an iron post 3 ft. long, 2 in. in diam., 27 ins. in the ground, for closing corner of secs. 6 and 7, with brass cap marked

T 18 S R 5 W
INT. BDY S 6 / S 7 CC
1931

dig pits 18 x 18 x 12 ins. E., and on line, NW and SE of cor. 3 ft. dist.

Chains	
	From point of intersection, International Bdy. Mon. No., 167 bears S. 70° 20' E., 15.97 chs. distant. Land, rolling and level. Soil, sandy, stony 3rd. and 4th. rate. Timber, paloverde, ironwood, and mesquite. Undergrowth, greasewood, sagebrush, and cacti.

Chains	
	The International Boundary line, between the United States and Mexico, and between the states of Arizona and Sonora, respectively of said countries, was surveyed in 1855 according to treaty of December, 30, 1853, by a joint party of surveyors from both countries.
	This line was later found to be improperly monumented and otherwise defective; therefore between the years 1891 and 1896, the entire boundary line was resurveyed by a joint party of surveyors appointed by both countries.
	In this resurvey, the monuments were of standarized design, the majority of which were made of cast iron, 6 ft. high, 12 ins. square at base, 9 ins. square at top, with a pyramidal cap and flanged base 24 ins. square. These monuments were either bolted to a concrete foundation or solid rock, and each was provided with proper inscription plates and number. Other monuments were of masonry construction, to which were bolted the inscription and number plates.
	All monuments were set at irregular intervals and consecutively numbered from east to west.
	The following notes describe a retracement of that part of the International Boundary situate between Monuments No. 164 and 167.

	Monument No. 164 is a cast iron monument, conforming to the standard design hereinbefore described, and firmly bolted to a concrete foundation, 4 ft. square.
	From the closing cor. of T. 18 S., Rs. 4 and 5 W., on the International Boundary, hereinbefore described, Mon. 164 is plainly visible and bears S. 70° 20'E.
	From closing corner,
	Thence,
	N.70°20'W., on true line, along International Bdy., towards flag visible on Mon. No. 165.
76.19	Intersect Mon. No. 165, which is a cast iron monument, conforming to the standard design hereinbefore described, and firmly bolted to a concrete foundation, 4 ft. square.
	Thence,
	N. 70° 20'W., on true line, on International Bdy., towards flag visible on Mon. No. 166.
146.19	Intersect Mon. No. 166, which is a cast iron monument, conforming to the standard design hereinbefore described, and firmly bolted to a concrete foundation, 4 ft. square.
	Thence,
	N.70° 20' W., on true line, along International Bdy., towards flag visible on Mon. No. 167.
236.30	Intersect Mon. No. 167, which is a cast iron monument, conforming to the standard design hereinbefore described, and firmly bolted to a concrete foundation, 4 ft. square. From this Mon., the closing cor. of secs. 1 and 6, established on true line, bet. Mons. 167 and 168, bears N. 70° 20'W., 51.33 chs. distant.

South ¼ sec. cor. of sec. 13.

At 42.49½ chs., N. 70° 20' W., of the closing corner of secs. 13 and 18, (midpoint on the S. bdy. of sec. 13), set an iron post 3 ft. long, 1 in. in diam., 20 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of sec. 13, only, with brass cap marked

¼ S 13

1931

South ¼ sec. cor. of sec. 14.

At 42.45 chs., N. 70° 20' W., of the closing cor. of secs. 13 and 14, (midpoint on the S. bdy. of sec. 14), set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the ¼ sec. cor. of sec. 14, only, with brass cap marked

¼ S 14

1931

dig pits

18 x 18 x 12 ins., N., SE., and NW. of post, 3 ft. dist.

South ¼ sec. cor. of sec. 15.

At 42.48 chs., N. 70° 20' W., of the closing corner of secs. 14 and 15, at a point due South of the ¼ sec. cor. of secs. 10 and 15, set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the ¼ sec. cor. of sec. 15, only, with brass cap marked

¼ S 15

1931

dig pits

18 x 18 x 12 ins., N., SE., and NW. of post, 3 ft. dist.

South ¼ sec. cor. of sec. 9.

At 42.51 chs. N. 70° 20' W., of the closing corner of secs. 9 and 10, (midpoint on the S. bdy. of sec. 9), set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the ¼ sec. cor. of sec. 9, only, with brass cap marked

¼ S 9

1931

from which,

A mesquite 36 ins. in diam., called L'Agachado, bears N. 48° W. 6.80 chs. distant, marked ¼ S 9 BT.

A mesquite 6 ins. in diam., bears N. 72° E., 5.25 chs. distant, marked ¼ S 9 BT.

South ¼ sec. cor. of sec. 8.

At 42.51 chs., N. 70° 20' W., of the closing corner of secs. 8 and 9, (midpoint on the S. bdy. of sec. 8), set an iron post 3 ft. long, 1 in. in diam., 27 ins. in the ground, for the ¼ sec. cor. of sec. 8, with brass cap marked

¼ S 8

1931

raise a mound of stone 4 ft. base, 2 ft. high N. of cor., 3 ft. distant.

South ¼ sec. cor. of sec. 7.

At 42.49 chs., N. 70° 20' W., of the closing corner of secs. 7 and 8, (40.00 chs. in west departure), set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground to bedrock, deposit a stone marked with a cross (X) at base of post, in a mound of stone to top, for the ¼ sec. cor. of sec. 7, only, with brass cap marked

¼ S 7

1931

Chains	
	The following notes describe a survey of a tract of land, of approximately 10 acres in area, adjoining the U.S.-Mexico International Bdy., on the Ajo-Sonoita highway. Each line of the four constituting the bdy. of said tract is ten chains in length. One line of the reserve boundary is made identical with the U.S.-Mexico International boundary line, and the opposite line is surveyed parallel thereto. The other two lines of the reserve boundary are surveyed parallel to the Ajo-Sonoita highway, which crosses the reserve in a NE and SW direction.
	At a point on the U.S.-Mexico International bdy., 3.30 chs. N. 70° 20'W., from the center line of the Ajo-Sonoita highway, at intersection with the U.S.-Mexico bdy. line, set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for Cor. No. 1 of reserve, with brass cap marked
	T 18 S R 5 W S 7 / USR Cor.1 INT. BDY. 1931
	from which, a mesquite, 10 ins. in diam., bears S. 89° W., 39 lks. dist., marked Cor 1 BT
	a mesquite, 12 ins. in diam., bears N. 66½°W., 161 lks. dist., marked Cor 1 BT
	Boundary Monument No. 167, bears N. 70° 20'W., 250 lks. dist.
	Thence,
	N. 35° 14'E., on true line, on line (1-2) of reserve boundary, parallel to center line of Ajo- Sonoita highway.
	Over rolling land, through scattering undergrowth.
	Across International Boundary Reserve.
.94	Leave International Boundary Reserve, bears N.70°20'W., and S.70°20'E. Along east edge of wash, coursing SW.
.97	Wire fence, bears N. 70° 20'W.-S.70° 20'E.
3.40	Leave wash, from NW.
3.80	Wire fence, bears N. and S.
6.89	Intersect the sec. line, bet. secs. 6 and 7, at 25.56 chs. west of the cornerof secs. 5, 6, 7, and 8, monumented as hereinbefore described.
7.28	Wire fence, bears NW and SE.
7.80	Road, bears NW and SE.
10.00	Set an iron post 3 ft. long, 2 in. in diam., 27 ins. in the ground, for the cor. No. 2 of reserve, with brass cap marked

Chains

T 18 S R 5 W
S 6 / Cor. 2
USR
1931

Thence,

S.70° 20'E., on true line, (2-3) of reserve.

Over rolling land, through scattering undergrowth.

1.40 Old road, bears N. and S.

3.00 Ajo-Sonoita highway, bears N.35°14'E., and S.35°14'W.

7.56 Intersect the sec. line, bet. secs. 6 and 7, at 16.63 chs. N.70° 20'W., of cor. of secs. 5, 6, 7, and 8, monumented as hereinbefore described.

WEST

10.00 Set an iron post 3 ft. long, 2 in. in diam., 27 ins. in the ground, for the cor. No. 3 of reserve, with brass cap marked

T 18 S R 5 W
S 7
Cor. 3 /
USR
1931

Thence,

S.35° 14'W., on true line, on line 3-4 of reserve.

7.75 Road, from Grays ranch to Custom house, bears N. 70°W., and S. 70° E.

9.06 Enter International Boundary Reserve bearing N. 70°W.-S.70°E..

10.00 Intersect the international boundary line, bet. the U.S. and Mexico.

At point of intersection set an iron post 3 ft. long, 2 ins. in diam., 27 ins. in the ground, for Cor. No. 4 of the reserve, with brass cap marked

T 18 S R 5 W
Cor.
USR. 4 / S7
INT.BDY
1931

Thence,

N. 70° 20'W., on true line, 4-1, of reserve, along International Boundary.

6.70 Intersect the center line of the Ajo-Sonoita highway which bears N. 35°14'E., and S.35°14'W.

Chains	
	From this point, the Mexican custom house, bears S.42° 22'W., 115 lks. distant. an adobe house, bears N.8¼°W., 68 lks. distant. the SE corner of American custom house, bears N.14° 10'E., 2.12 chs. distant. an adobe house, bears N.48°E., 3.50 chs. distant. a well, bears N. 57°E., 5.37 chs. distant.
	Continue line and measurement.
7.20	West edge of highway.
10.00	Intersect corner No. 1 of reserve. Area of U.S.Customs-Immigration Reserve----9.63 Acres.

GENERAL DESCRIPTION.

A variety of land, and soil was noted in fractional T.18 S., Rs. 4 and 5 W. The general elevation of the Tps. is about 1300 to 2500 feet above sea level; the summit of the Santa Rosa mountains extends along the east bdy. of R. 4 W. The lowest lands are near the custom inspection post in sec. 7. The remainder of the lands in these two fractional townships are rolling and slightly rolling.

The drainage is southerly into the Sonoita River in Old Mexico, some two miles beyond the International line. There is a flat containing perhaps twenty acres, with soil of 1st. rate, sandy loam in fractional sec. 15; another flat of perhaps 20 acres in sec. 14, under fence and partly cultivated, with good 1st. rate sandy loam soil.

There is an earth dam, lying partly in secs. 11 and 14, owned by R.L.Gray, who has a home and other improvements, among which is a well, in sec. 13. This place is called the Los Lomitas Ranch.

Another house, with windmill and well is located in sec. 9; from an old mesquite tree alongside the house, the latter place gets its name of L.'Agachado Ranch. This latter ranch is owned by Mr. Gray also.
In fractional section 7 are located two wells, fences and buildings through which passes the Ajo-Sonoita Highway; the custom services of both nations are located in this vicinity.
Along N. side of Int. Bdy. Res. is located a four strand barb wire fence, built there by R.L.Gray, who ranges cattle in this region. Along this fence is a fair road, which crosses into Mexico in sec. 13.

Timber, consists of paloverde, ironwood and mesquite.
The undergrowth consists of greasewood, sagebrush, and the many varieties of desert cacti among which is the organ type of giant cacti.
No mineral was noted.
Besides the Gray family in sec. 13, several people reside in the cluster of buildings in sec. 7.

FINAL FIELD TEST
of
Buff transit No. 16, 724
and

Young & Sons transit No. 8540.

December, 10, 1931: at same station in section 9, T. 18 S. R. 5 W., G. & S.R.B. and M., Arizona, examine the adjustments of the instrument and find no errors; then to test the workings of the solar apparatus upon the true meridian, hereinbefore described, proceed as follows:

At 9h. 00m., a.m., app. t., set off 31° 52'40" N., on the lat. arc., 22° 53'S., on the decl. arc and determine a meridian with the solar which find to agree with the true meridian.

At 12h.00m., app. noon, with lat. arc unchanged, observe the sun on the meridian; the resultant reading of the declination arc is 22° 54'S., which agrees with the computed declination of the sun.

At 3h. 00m., p.m., app.t., with lat. arc unchanged, set off 22° 55'S., on the decl. arc and determine a meridian with the solar which find to agree with the true meridian.

As all of the observations, taken during the usual hours of solar work, agree within 1' of the true meridian, conclude that the instruments have remained in a state of adjustment during the surveys described in the foregoing field notes.

4—680
(August, 1926)

FIELD ASSISTANTS.

NAMES.	CAPACITY.
Herman Shafer	1st.Chainman
Howard Osborn	2nd.Chainman
William Shafer	Cornerman
Theo.Smith	Axeman

6—2764

160

44

BOOK 3080

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Benjamin J. Kinsey, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the District Cadastral Engineer for Arizona bearing date of the 1st day of October, 1931, 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~~ the north and west boundaries of frac.T.18 S.,Rs.4 and 5 W.;resurveyed the international boundary between Arizona and Mexico,from Monument 164 to Monument 168;surveyed the subdivisional lines of frac.T.18 S.,R.5 W.;and surveyed the boundaries of U.S.Customs-Immigration Reserve in Secs.6 and 7 of frac.T.18 S.,R.5 W., 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 survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the District Cadastral Engineer for , and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Phoenix, Arizona.
July 27, 1932.

Benjamin J. Kinsey
U. S. Surveyor.

APPROVAL.

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver,Colorado,June 14,1933.

The foregoing field notes of the survey of the North and West boundaries of frac. T.18 S.,Rs.4 and 5 W.;resurvey of the international boundary between Arizona and Mexico,from Monument 164 to Monument 168;survey of the subdivisional lines of frac.T.18 S.,R.5 W.;and the survey of the boundaries of U.S.Customs-Immigration Reserve in Secs.6 and 7 of frac.T18 S., R.5 W., of the Gila and Salt River Base and Meridian,in the State of Arizona executed by Benjamin J. Kinsey, U.S.Surveyor under his special instructions dated Oct. 1,1931,for Group 170,Arizona, 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. Supervisor of Surveys.

~~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. Supervisor of Surveys.~~