

Book E.

BOOK 2211

2211

Accepted, Letter E.

Aug. 10 - 1911

JUN 30 1910

2211

FIELD NOTES

2211

OF THE SURVEY OF THE

The subdivision lines of Tp. 5 N. Rg. 12 W.

2211

Of the Gila and Salt River Meridian,
Territory of Arizona.

AS SURVEYED BY

2211

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 158, dated June 4th, 1909., 189

Survey commenced September 30, 1909., 189

Survey completed October 17, 1909., 189

2211

2211

12

(1A)

NAMES AND DUTIES OF ASSISTANTS.

BOOK 2211

Fred Kesl

Chairman

Fred W. Rodolf

Chairman

Norman Oliver

axman.

F. W. Schwalm

Flagman.

BOOK 2211

INDEX DIAGRAM.

Township 5 N. , Range 12 W.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, Fred Kesl and Fred W. Rodolf
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the subdivision lines of Tp. 5 N. Rg. 12 W.

Fred Kesl, Chainman.
Fred W. Rodolf, Chainman.

Subscribed and sworn to before me this 26th
day of September 1909, 189



John F. Hesse
U. S. Deputy Surveyor

WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, Moundman.
_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189



WE, I, Norman Oliver and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given ~~me~~ to the best of ~~my~~ skill and ability, in the survey of the subdivision lines of Tp. 5 N. Rg. 12 W.

Norman Oliver, Axman.
_____, Axman.

Subscribed and sworn to before me this 26th
day of September 1909, 189



John F. Hesse
U. S. Deputy Surveyor

I, F. W. Schwalm, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the subdivision lines of Tp. 5 N. Rg. 12 W.

F. W. Schwalm, Flagman.

Subscribed and sworn to before me this 26th
day of September 1909, 189



John F. Hesse
U. S. Deputy Surveyor

No notary available without loss of time and great expense.

Subdivision of Tps. 5 N. Rgs. 12 W.

Chains. Survey commenced September 29, 1909, and executed with a Young and Sons light mountain transit with solar attachment No. 7532. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona

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

At the standard cor. of Tps. 5 N. Rgs. 11 and 12 W. latitude $33^{\circ} 43' 27''$ N., longitude $113^{\circ} 27' 09''$ W.; I set off $33^{\circ} 43\frac{1}{2}'$ N. on the lat. arc; $2^{\circ} 25'$ S. on the decl. arc; and, at 5h. 00m., p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone set firmly in the ground 5 chs. N. of the cor. and which was the N. end of the meridian determined by me on September 26.

In order to check the meridian determined September 26 at 6h. 56m. p. m., by my watch, which has correct l.m.t. I observe Polaris at eastern elongation, in accordance with manual of instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

September 29, 1909.

September 30; At 6h. 30m. a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 25'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set September 26, on which the meridian coincides with the meridian determined by observation of Polaris September 26 and with the mark determined by the solar.

At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 43\frac{1}{2}'$ N. on the lat. arc; $2^{\circ} 39'$ S. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark coincides with the meridian established by the Polaris observation.

The solar apparatus, by p.m., and a.m., observations, defines positions for meridians, which coincide with the meridian established by the Polaris observations: therefore, I conclude that the adjustments of the transit are satisfactory

The magnetic bearing of the true meridian at 7h. 15m. a.m., is N. $14^{\circ} 15'$ W.; the angle thus determined gives the mag. decl. $14^{\circ} 15'$ E.

At 8h. 00m. a.m., l.m.t., I set off $33^{\circ} 43\frac{1}{2}'$ N. on the lat. arc; $2^{\circ} 41'$ S. on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 35 and 36 which is a stone marked and witnessed as described by the surveyor general.

Thence I run

N. $0^{\circ} 04'$ W. bet. secs. 35 and 36
Over rolling land through dense brush.

8.50 Cross road bears N. E. and S. W.

12.00 Cross wash 15 lks. wide course S. W.

17.00 Cross wash 15 lks. wide course S. W.

40.00 Set a granite stone 18 x 10 x 8 ins. 13 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
An ironwood 4 ins. diam., bears S. $69\frac{1}{2}^{\circ}$ W. 118 lks. dist., marked $\frac{1}{4}$ SSBT.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	A paloverde 4 ins. diam., bears S. $31\frac{1}{2}^{\circ}$ E. 154 lks. dist., marked $\frac{1}{4}$ S36BT.
43.00	Cross wash 15 lks. wide course S. W.
57.10	Cross road bears N. E. and S. W.
65.00	Ascend steep rocky S. E. slope of mountain.
80.00	Mark a cross on a limestone in place 8 x 6 x 4 ft. above ground for exact point for cor. of secs. 25, 26, 35 and 36, and mark 1 groove S. and 1 groove E. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
	Land, rolling and mountainous.
	Soil, stony; 4th. rate.
	No timber.
	Undergrowth, greasewood, ironwood and paloverde.
	Mountainous land and land covered with dense undergrowth
	80.00 chs.
	—————
	East on a random line bet. secs. 25 and 36
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect E. bdy. of Tp. 2 lks. N. of the cor. of secs. 25, 30, 31 and 36
	Thence I run
	N. $89^{\circ} 59'$ W. on a true line bet. secs. 25 and 36.
	Ascending steep rocky S. E. slope of mountain.
20.30	Ridge bears S. W. and N. E. and descend.
39.25	Cross wash 25 lks. wide course S. and ascend.
39.95	Set a granite stone 20 x 8 x 6 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
	An ironwood 8 ins. diam., bears N. $64\frac{1}{2}^{\circ}$ E. 71 lks. dist., marked $\frac{1}{4}$ S25BT.
	A paloverde 6 ins. diam., bears S. $82\frac{3}{4}^{\circ}$ E. 93 lks. dist., marked $\frac{1}{4}$ S36BT.
56.00	Ridge bears N. and S. and descend.
57.50	Cross wash 10 lks. wide course S. W. and ascend.
68.00	Ridge bears S. W. and N. E. and descend.
75.50	Cross wash 10 lks. wide course S. E. and ascend.
79.90	The cor. of secs. 25, 26, 35 and 36.
	Land, mountainous.
	Soil, rocky; 4th. rate.
	No timber.
	Mountainous land 79.90 chs.
	At this cor. I set off $2^{\circ} 45\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 44'$ N.
	—————
	N. $0^{\circ} 04'$ W. bet. secs. 25 and 26
	Ascending along rough rocky S. E. slope of mountain.
38.50	Ridge bears E. and W. and descend.
40.00	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
	An ironwood 4 ins. diam., bears S. $48\frac{1}{4}^{\circ}$ W. 14 lks. dist., marked $\frac{1}{4}$ S26BT.
	No other trees available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
48.00	Cross wash 25 lks. wide course S. W. and ascend.
57.00	Cross wash 50 lks. wide course S. W.
76.00	Ridge bears N. W. and S. E. and descend.
80.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 23, 24, 25 and 26, marked with 2 notches on S. and 1 notch on E. edges; from which
	An ironwood 7 ins. diam., bears N. $37\frac{1}{2}^{\circ}$ E. 146 lks. dist., marked T5NR12WS24BT.
	An ironwood 6 ins. diam., bears S. $51\frac{1}{4}^{\circ}$ E. 50 lks. dist., marked T5NR12WS25BT.
	A paloverde 4 ins. diam., bears S. $7\frac{3}{4}^{\circ}$ W. 84 lks. dist., marked T5NR12WS26BT.

Subdivision of Tp. 5 N., R. 12 W.

Chains.	A paloverde 4 ins. diam., bears N. 1° 00' W. 129 lks. dist., marked T5NR12WS23BT. Land, mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land, 80.00 chs.
40.00	S. 89° 59' E. on a random line bet. secs. 24 and 25. From this point the land is so rough and broken that it is unsurveyable, therefore I return to the cor. of secs. 23, 24, 25 and 26 and run thence S 89° 59' E. bet. secs. 24 and 25 on a true line Descending steep rocky S. W. slope of mountain.
2.10	Cross drain 15 lks. wide course N. W. Ascend.
40.00	Mark a cross on a granite rock in place 8 x 6 x 4 ft. above ground for exact point for $\frac{1}{4}$ sec. cor., and mark $\frac{1}{4}$ N. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cross. Pits impracticable.
52.50	Top of high mountain impossible to run line farther east. Land, mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land 40.00 chs.
	September 30, 1909.
	October 1, 1909: At 7h. 00m. a.m., l.m.t., I set off 33° 45' N. on the lat. arc: 3° 01 $\frac{1}{2}$ ' S. on the decl. arc: and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26, Thence I run N. 0° 04' W. bet. secs. 23 and 24 Descending N. slope of mountain through dense brush.
1.75	Cross drain 15 lks. wide course N. W.
11.50	Cross wash 20 lks. wide course S. W. and ascend
25.75	Ridge bears E. and W. descend.
33.00	Cross wash 15 lks. wide course W. and ascend.
39.00	Ridge bears E. and W. and descend.
40.00	Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 5 ins. diam., bears N. 49 $\frac{1}{2}$ ° E. 90 lks. dist., marked $\frac{1}{4}$ S24BT. A paloverde 5 ins. diam., bears S. 22° 30' W. 12 lks. dist., marked $\frac{1}{4}$ S23BT.
51.00	Cross wash 25 lks. wide course S. W. and ascend S. E. slope of mountain.
80.00	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for cor. of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E. edges; from which A paloverde 4 ins. diam., bears N. 21 $\frac{1}{4}$ ° E. 77 lks. dist., marked T5NR12WS13BT. A paloverde 4 ins. diam., bears S. 10 $\frac{3}{4}$ ° E. 86 lks. dist., marked T5NR12WS24BT. A paloverde 5 ins. diam., bears S. 72 $\frac{1}{2}$ ° W. 77 lks. dist., marked T5NR12WS23BT. A paloverde 4 ins. diam., bears N. 44 $\frac{1}{2}$ ° W. 96 lks. dist., marked T5NR12WS14BT Land, mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, paloverde, greasewood and mesquite. Mountainous land and land covered with dense undergrowth 80.00 chs.
40.00	S. 89° 59' E. on a random line bet. secs. 13 and 24. Set temp. $\frac{1}{4}$ sec. cor.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 5 ins. diam., bears S. $56\frac{3}{4}^{\circ}$ E. 118 lks. dist., marked $\frac{1}{4}$ S13BT. No other tree available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
47.00	Cross wash 20 lks. wide course N.
49.00	Cross wash 15 lks. wide course N. and ascend.
70.00	Ridge bears N. W. and S. E. and descend.
79.90	The cor. of secs. 11, 12, 13 and 14. Land, mountainous. Soil, stony; 4th. rate. No timber. Mountainous land, 79.90 chs.

	N. $0^{\circ} 04'$ W. bet. secs. 11 and 12. Ascending rough rocky S. W. slope of mountain. Ridge bears S. E. and N.W. and descend.
10.25	Over rolling land through dense brush.
30.00	Set a white quartz stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
40.00	
42.00	Cross wash 30 lks. wide course N. W.
52.00	Cross wash 10 lks. wide course N. W.
64.00	Cross wash 20 lks. wide course N. W.
70.50	Cross wash 10 lks. wide course N. W.
76.60	Cross wash 10 lks. wide course N. W.
80.00	Set a white quartz stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edges; from which A paloverde 6 ins. diam., bears S. $46\frac{1}{2}^{\circ}$ W. 77 lks. dist., marked T5NR12WS11BT. A paloverde 8 ins. diam., bears S. $83\frac{1}{4}^{\circ}$ E. 186 lks. dist., marked T5NR12WS12BT. A paloverde 4 ins. diam., bears N. $40\frac{1}{2}^{\circ}$ E. 224 lks. dist., marked T5NR12WS1BT A paloverde 4 ins. diam., bears N. $46\frac{3}{4}^{\circ}$ W. 282 lks. dist., marked T5NR12WS2BT. Land, rolling and mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense brush 80.00 chs. October 2; At this cor. I set off $3^{\circ} 32'$ S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 48'$ N.

	S. $89^{\circ} 59'$ E. on a random line bet. secs. 1 and 12 Set temp. $\frac{1}{4}$ sec. cor. Intersect E. bdy. of Tp. 2 lks. N. of the cor. of secs. 1, 6, 7 and 12. Thence I run
40.00	N. $89^{\circ} 58'$ W. bet. secs. 1 and 12
79.86	Over rolling land through dense brush.
6.80	Cross wash 50 lks. wide course N. W.
12.00	Cross wash 10 lks. wide course N. W.
23.00	Cross wash 10 lks. wide course N. W.
29.00	Cross wash 10 lks. wide course N. W.
39.93	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 5 ins. diam., bears N. $25\frac{1}{2}^{\circ}$ E. 157 lks. dist., marked $\frac{1}{4}$ S1BT A paloverde 6 ins. diam., bears S. $72\frac{1}{4}^{\circ}$ E. 78 lks. dist., marked $\frac{1}{4}$ S12BT.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	41.00	
	41.00	Cross wash 25 lks. wide course N.
	68.00	Cross wash 10 lks. wide course N. W.
	79.86	The cor. of secs. 1, 2, 11 and 12. Land, rolling. Soil, stony; 4th. rate. No timber. Undergrowth, Greasewood and paloverde. Land covered with dense undergrowth, 79.86 chs.

		N. 0° 04' W. on a random line bet. secs. 1 and 2
	40.00	Set temp. $\frac{1}{4}$ sec. cor.
	80.06	Intersect N. bdy. of Tp. 16 lks. E. of the true point for 1, 2, 35 and 36 \wedge cor. of secs.
		Thence I run
		S. 0° 11' E. on a true line bet. secs. 1 and 2.
		Over rolling land through dense brush.
	22.00	Cross wash 50 lks. wide course N. W.
	36.10	Cross wash 5 lks. wide course W.
	40.06	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A paloverde 6 ins. diam., bears S. 74 $\frac{1}{4}$ ° E. 90 lks. dist., marked $\frac{1}{4}$ S1BT. A paloverde 4 ins. diam., bears N. 25 $\frac{1}{2}$ ° W. 217 lks. dist., marked $\frac{1}{4}$ S2BT.
	53.00	Cross wash 10 lks. wide course N. W.
	68.75	Cross wash 10 lks. wide course N. W.
	70.10	Cross wash 10 lks. wide course S. W.
	80.06	The cor. of secs. 1, 2, 11 and 12. Land, rolling Soil, stony; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Land covered with dense undergrowth 80.06 chs.
		October 2, 1909.

		October 3, 1909; At 7h. 00m. a.m., 1 m.t., I set off 33° 43 $\frac{1}{2}$ ' N. on the lat. arc; 3° 48' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the Tp. which is a stone, marked and witnessed as desc. by the Sur. Gen. Thence
		I run N. 0° 04' W. bet. secs. 34 and 35. Over nearly level land through dense brush.
	5.00	Cross road bears N. E. and S. W.
	18.50	Cross wash 40 lks. wide course S. E.
	40.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	47.00	Cross same wash noted above Course S. W.
	61.40	Cross same wash course S. E. and pipe line.
	67.00	Cross same wash course S. W.
	70.00	Ascend steep rocky S. slope of hill.
	80.00	Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on E. edges; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high W. of cor. pits impracticable.. This cor. is on top of hill. Land, level and mountainous. Soil, stony; 4th. rate. No timber. Mountainous land and land covered with dense undergrowth 80.00 chs.

Subdivision of Tn. 5 N. Rg. 12 W.

Chains.	East on a random line bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line at the cor. of secs. 25, 26, 35 and 36.
	Thence I run
	West on a true line bet. secs. 26 and 35
	Ascend steep rough rocky E. slope.
1.00	Ridge bears N. and S. descend.
5.00	Ascend.
8.40	Ridge bears N. and S. descend.
21.00	Cross wash 15 lks. wide course S. W. and over rolling land through dense brush.
38.30	Cross road bears N. and S.
38.60	Cross road bears N. E. and S. W.
39.97	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which An ironwood 6 ins. diam., bears S. $59\frac{1}{4}^{\circ}$ W. 92 lks. dist., marked $\frac{1}{4}$ S35BT.
	No other tree available. Raise a mound of earth 2 ft. base $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
46.04	Socorro stamp mill bears N. $54\frac{1}{2}^{\circ}$ E.
47.25	Socorro stamp mill bears N. $58\frac{1}{2}^{\circ}$ E.
56.57	Cross wash 15 lks. wide course S. W.
66.75	Pipe line bears N. E. and S. W.
72.00	Cross wash 75 lks. wide course S. W.
	Cross wash 10 lks. wide course S. W. and ascend steep rocky E. slope of hill.
79.94	The cor. of secs. 26, 27, 34 and 35. Land, rolling and mountainous. Soil, stony; 3rd. and 4th. rate. No timber. Undergrowth, greasewood and paloverde. Mountainous land and land covered with dense undergrowth 79.94 chs. October 3, at this cor. I set off $3^{\circ} 55'$ S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 44'$ N.

	N. $0^{\circ} 04'$ W. bet. secs. 26 and 27
	Descending rocky N. slope of hill.
7.00	Over rough broken land, through dense brush.
8.80	Cross road bears E. and W.
25.00	Cross wash 10 lks. wide course S. W.
29.70	Cross same wash course S. E.
34.00	Cross same wash course S. W.
35.50	Cross same wash course S. E.
40.00	Set a granite stone 20 x 10 x 6 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
74.25	Cross wash 40 lks. wide course W.
76.00	Cross wash 10 lks. wide course S. W.
78.80	Cross wash 10 lks. wide course S. W.
80.00	Set a granite stone 20 x 10 x 6 ins. 15 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on S. and E. edges; and raise a mound of stone 2 ft. base $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rough and broken. Soil, stony; 4th. rate. No timber. Undergrowth, greasewood and paloverde and cactus. Mountainous land and land covered with dense undergrowth 80.00 chs.

October 3, 1909.

Subdivision of Tp. 5 N. Rg. 13 W.

Chains.	October 4, 1909; At 7h. 00m. a.m., l.m.t., I set off 33° 45' N. on the lat. arc; 4° 11' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27 Thence I run East on a random line bet. secs. 23 and 26.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.92	Intersect N. and S. line 7 lks. N. of the cor. of secs. 23, 24, 25 and 26. Thence I run N. 89° 57' W. on a true line bet. secs. 23 and 26 Along north. slope through dense brush.
10.75	Cross wash 25 lks. wide course S. W. and ascend.
14.50	Ridge bears N. and S. and descend.
32.00	Cross wash 15 lks. wide course S. E. and ascend.
39.00	Ridge bears N. and S. and descend.
39.96	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 8 ins. diam., bears S. 65° E. 109 lks. dist., marked $\frac{1}{4}$ S26BT. No other tree available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
48.25	Cross wash 40 lks. wide course S. W. and over rough broken land.
58.75	Cross wash 50 lks. wide course S. W.
71.80	Cross wash 10 lks. wide course S. W.
76.60	Cross wash 10 lks. wide course S. W.
79.92	The cor. of secs. 22, 23, 26 and 27. Land, mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, greasewood and paloverde and ironwood. Mountainous land and land covered with dense undergrowth 79.92 chs.

	N. 0° 04' W. bet. secs. 22 and 23 Over rough broken land through dense brush
2.00	Cross wash 10 lks. wide course W.
9.70	Cross wash 30 lks. wide course W.
18.20	Cross wash 10 lks. wide course W.
25.00	Cross wash 10 lks. wide course S. W.
28.50	Cross same wash course S. E.
29.20	Cross same wash course W.
38.00	Cross wash 40 lks. wide course W.
40.00	Set a granite stone 18 x 8 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A paloverde 4 ins. diam., bears N. 60° E. 26 lks. dist., marked $\frac{1}{4}$ S23BT. No other tree available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
43.70	Cross wash 10 lks. wide course S. E.
59.75	Cross wash 10 lks. wide course S. W.
69.80	Cross wash 10 lks. wide course S. W. and ascend rocky S. slope.
80.00	Set a granite stone 20 x 10 x 6 ins. 15 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, greasewood and paloverde. Mountainous land and land covered with dense undergrowth 80.00 chs. October 4; At this cor. I set off 4° 18 $\frac{1}{2}$ ' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 46' N. ✓

Subdivision of Twp. 5 N. Rg. 12 W.

Chains
 40.00 S. $89^{\circ} 57'$ E. on a random line bet. secs. 14 and 23
 79.98 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line 9 lks. S. of the cor. of secs.
 13, 14, 23 and 24
 Thence I run
 S. $89^{\circ} 59'$ W. on a true line bet. secs. 14 and 23.
 Ascending steep rocky S. E. slope of mountain.
 9.00 Top mountain and descend.
 17.60 Cross wash 10 lks. wide course N. W. and ascend.
 27.00 Ridge bears N. and S. and descend.
 36.70 Cross wash 10 lks. wide course N. W. and along on N.
 slope of mountain.
 39.99 Set a granite stone 18 x 8 x 6 ins. 12 ins. in the
 ground for $\frac{1}{4}$ sec. cor., 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. Pits
 impracticable.
 42.60 Cross wash 15 lks. wide course N.
 47.50 Ridge extends N. and descend.
 79.98 The cor. of secs. 14, 15, 22 and 23.
 Land, rough and mountainous.
 Soil; rocky; 4th. rate.
 No timber.
 Mountainous land 79.98 chs.

October 4, 1909.

October 5, 1909: At 7h. 00m., a.m., l.m.t., I set off
 $33^{\circ} 46'$ N. on the lat. arc: $4^{\circ} 34\frac{1}{2}'$ S on the decl. arc:
 and determine a meridian with the solar at the cor. of
 secs. 14, 15, 22 and 23,

Thence I run
 N. $0^{\circ} 04'$ W. bet. secs. 14 and 15
 3.60 Ascending rough rocky S. slope through dense brush.
 22.50 Ridge bears E. and W. and descend.
 Cross wash 10 lks. wide course N. W. and over rolling
 mountainous land.
 31.30 Cross wash 10 lks. wide course N. W.
 37.65 Cross wash 10 lks. wide course N. W.
 40.00 Set a quartz stone 18 x 10 x 8 ins. 12 ins. in the
 ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
 A paloverde 6 ins. diam., bears N. 58° W. 172
 lks. dist., marked $\frac{1}{4}$ S15BT.
 No other tree available. Raise a mound of stone 2 ft.
 base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 46.00 Cross wash 10 lks. wide course S. W.
 48.00 Cross wash 10 lks. wide course S. W.
 53.50 Cross wash 10 lks. wide course S. W.
 56.00 Cross wash 10 lks. wide course S. W.
 66.25 Cross road bears N. E. and S. W.
 67.00 Cross wash 5 lks. wide course S. W.
 80.00 Set a granite stone 18 x 6 x 6 ins. 12 ins. in the
 ground for cor. of secs. 10, 11, 14 and 15, marked with
 4 notches on S. and 2 notches on E. edges; from which
 An ironwood 10 ins. diam., bears N. $57\frac{1}{2}^{\circ}$ E. 77
 lks. dist., marked T5NR12WS11BT.
 A paloverde 4 ins. diam., bears S. $62\frac{3}{4}^{\circ}$ E. 82
 lks. dist., marked T5NR12WS14BT.
 No other trees available. Raise a mound of stone 2 ft.
 base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 From this cor. the shaft house of the San Marcos Mine
 bears S. $86^{\circ} 44'$ E.
 Land, mountainous.
 Soil, stony; 4th. rate.
 No timber.
 Mountainous land and land covered with dense undergrowth
 80.00 chs.

Subdivision of Tp 5 N. Rg. 12 W.

Chains	N. 89° 59' E. on a random line bet. secs. 11 and 14
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect N. and S. line 7 lks. N. of the cor. of secs. 11, 12, 13 and 14.
	Thence I run
	N. 89° 58' W. on a true line bet. secs. 11 and 14.
	Descending S. W. slope through dense brush.
22.00	Cross wash 75. lks. wide course N. W.
33.25	Cross wash 15 lks. wide course N. W. and over rolling mountainous land.
40.02	Set a granite stone 18 x 8 x 4 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
	A paloverde 5 ins. diam., bears N. 30 $\frac{1}{4}$ ° W. 55 lks. dist., marked $\frac{1}{4}$ S11BT.
	A paloverde 5 ins. diam., bears S. 0° 30' W. 138 lks. dist., marked $\frac{1}{4}$ S14BT.
	From this cor. the shaft house at the San Marcos Mine bears S. 21 $\frac{1}{2}$ ° W.
41.50	Cross wash 30 lks. wide course S. W.
52.00	Enter wash 15 lks. wide course N. W. and cross and ree cross same to
55.00	Leave wash course N. W.
65.00	Cross wash 50 lks. wide course N. W.
69.75	Cross wash 20 lks. wide course N. W.
75.70	Cross road bears N. E. and S. W.
77.30	Cross wash 8 lks. wide course N. W.
80.04	The cor. of secs. 10, 11, 14 and 15. Land, mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, paloverde mesquite and greasewood. Mountainous land and land covered with dense undergrowth 80,04 chs. October 5: At this cor. I set off 4° 41 $\frac{1}{2}$ ' S. on the decl. arc: and observe the sun on the meridian at noon, the resulting lat. is 33° 47' N.
	N. 0° 04' W. bet. secs. 10 and 11. Over rolling land through dense brush.
1.80	Cross wash 15 lks. wide course N. W.
8.50	Cross wash 50 lks. wide course N. W.
12.65	Cross road bears N. W. and S. E.
13.20	Cross road bears N. W. and S. E.
17.42	Cross road bears N. W. and S. E.
18.45	Cross wash 5 lks. wide course N. W.
19.02	Cross road bears N. W. and S. E.
22.30	Cross wash 10 lks. wide course N. W.
40.00	Set a white quartz stone 18 x 12 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
	A paloverde 4 ins. diam., bears S. 33° E. 95 lks. dist., marked $\frac{1}{4}$ S11BT.
	A paloverde 8 ins. diam., bears S. 62 $\frac{1}{2}$ ° W. 38 lks. dist., marked $\frac{1}{4}$ S10BT.
49.70	Cross wash 10 lks. wide course N. W.
52.80	Cross wash 10 lks. wide course N. W.
63.25	Cross wash 10 lks. wide course N. W.
65.20	Cross wash 15 lks. wide course N. W.
80.00	Set a granite stone 20 x 12 x 6 ins. 15 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E. edges; from which
	A paloverde 8 ins. diam., bears N. 56° E. 145 lks. dist., marked T5NR12WS2BT
	A paloverde 8 ins. diam., bears S. 78° E. 156 lks. dist., marked T5NR12WS11BT.
	A paloverde 6 ins. diam., bears S. 64 $\frac{1}{4}$ ° W. 244 lks. dist., marked T5NR12WS10BT.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.

A paloverde 4 ins. diam., bears N. $59\frac{1}{4}^{\circ}$ W. 267 lks. dist., marked T5NR12WS3BT.
 Land, rolling.
 Soil, sandy; and stony; 3rd. and 4th. rate.
 No timber.
 Undergrowth, greasewood and paloverde.
 Land covered with dense undergrowth, 80.00 chs.

October 5, 1909.

October 6, 1909: At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 48'$ N. on the lat. arc: $4^{\circ} 57\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11

40.00
 80.02
 8.50
 13.29
 19.00
 22.25
 40.01

Thence I run
 S. $89^{\circ} 58'$ E. on a random line bet. secs. 2 and 11
 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line 5 lks. S. of the cor. of secs. 1, 2, 11 and 12.
 Thence I run
 West on a true line bet. secs. 2 and 11
 Over rolling land through dense brush
 Cross wash 30 lks. wide course N. W.
 Cross road bears N. E. and S. W.
 Cross wash 15 lks. wide course S. W.
 Cross same wash course N. W.
 Set a quartz stone 18 x 12 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
 A paloverde 6 ins. diam., bears S. $31\frac{1}{4}^{\circ}$ W. 236 lks. dist., marked $\frac{1}{4}$ S11BT.

41.90
 55.20
 79.20
 80.02

No other tree available. Dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.
 Cross wash 25 lks. wide course N. W.
 Cross wash 30 lks. wide course N. W.
 Cross wash 10 lks. wide course N. W.
 The cor. of secs. 2, 3, 10 and 11.
 land, rolling.
 Soil, stony: 4th. rate.
 No timber.
 Undergrowth paloverde and greasewood.
 Land covered with dense undergrowth, 80.02 chs.

40.00
 80.02
 7.67
 15.50
 40.02

N. $0^{\circ} 04'$ W. On a random line bet. secs. 2 and 3
 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. bdy. of Tp. 2 lks. W. of the cor. of secs. 2, 3, 34 and 35, which is a stone, marked and witnessed as described by the Sur.Gen. Thence I run
 S. $0^{\circ} 03'$ E. on a true line, bet. secs. 2 and 3.
 Over level land through dense brush.

54.00
 65.75
 78.50
 80.02

Cross road bears E. and W.
 Cross wash 40 lks. wide course W.
 Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
 Cross wash 10 lks. wide course W.
 Cross wash 25 lks. wide course W.
 Cross wash 10 lks. wide course W.
 The cor. of secs. 2, 3, 10 and 11.
 Land, level.
 Soil, sandy and stony; 1st. and 3rd. rate.
 No timber.
 Undergrowth, greasewood and paloverde.
 land covered with dense undergrowth 80.02

Subdivision of Tn. 5 N. Rg. 12 W.

Chains. October 6: At this cor. I set off $5^{\circ} 04\frac{1}{2}'$ S. on the decl. arc and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 48\frac{1}{2}'$ N.

I commence at a point 85 lks. E. of the witness cor. to the standard cor. of secs. 33 and 34 on the S. bdy. of the Tp.

Thence I run
N. $0^{\circ} 05'$ W. bet. secs. 33 and 34.
Ascending over low hills through dense brush.
7.00 Ridge bears N. W. and S. E. descend.
32.20 Cross wash 50 lks. wide course W. thence over rolling land.
35.84 Cross dim road bears E. and W.
40.00 Set a granite stone 18 x 12 x 10 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
An ironwood 4 ins. diam., bears S. $71\frac{1}{4}^{\circ}$ E. 145. lks. dist., marked $\frac{1}{4}$ S34BT.
An ironwood 6 ins. diam., bears N. $33\frac{1}{2}^{\circ}$ W. 120 lks. dist., marked $\frac{1}{4}$ S33BT.
43.94 Cross road bears N. E. and S. W.
45.66 Cross pipe line bears E. and W.
50.55 Cross road bears E. and W.
53.25 Cross wash 20 lks. wide course S. W.
60.00 Cross wash 75 lks. wide course S. W.
80.00 Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked with 1 notch on S. and 3 notches on E. edges; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high w. of cor. Pits impracticable.
Land, hilly and rolling.
Soil, stony; 4th. rate.
No timber.
Undergrowth, ironwood, paloverde and greasewood.
Land covered with dense undergrowth, 80.00 chs.

79.98 East on a random line bet. secs. 27 and 34
Intersect N. and S. line 2 lks. S. of the cor. of secs. 26, 27, 34 and 35.

Thence I run
S. $89^{\circ} 59'$ W. on a true line bet. secs. 27 and 34.
Descend steep rocky W. slope of hill.
7.50 Cross wash 25 lks. wide course S. W. and over rolling land through dense brush.
22.94 Cross road bears N. E. and S. W.
26.00 Cross wash 25 lks. wide course S. W.
27.52 Cross dim road bears N. E. and S. W.
39.99 Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., 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. Pits impracticable.
42.15 Cross wash 15 lks. wide course S. W.
66.25 Cross wash 50 lks. wide course S. W.
73.50 Cross wash 15 lks. wide course S. W.
79.98 The cor. of secs. 27, 28, 33 and 34.
Land, rolling.
Soil, stony; 4th. rate.
No timber.
Undergrowth, paloverde and greasewood.
Land covered with dense undergrowth 7998 chs.

October 6, 1909.

October 7, 1909; At 7h. 00m., a.m., l.m.t., I set off $33^{\circ} 44'$ N. on the lat. arc; $5^{\circ} 20\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	secs. 27, 28, 33 and 34. Thence I run N. 0° 05' W. bet. secs. 27 and 28. Along east slope of low hills, through dense brush. Cross wash 15 lks. wide course S. E. and ascend. Ridge bears N. E. and S. W. descend. Cross wash 10 lks. wide course S. E. ascend. Ridge bears E. and W. descend. Cross wash 10 lks. wide course S. E. and ascend steep rocky S. W. slope of mountain. Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. High rocky ridge bears N. W. and S. E. and descend along N. E. slope. Mark a cross on a granite rock in place 4 x 3 x 2 ft. above ground, for exact point for cor. of secs. 21, 22, 27 and 28, and mark 2 notches S. and 3 notches E. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense undergrowth 80.00 chs.
40.00	N. 89° 59' E. on a random line bet. secs. 22 and 27 Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line 5 lks. N. of the cor. of secs. 22, 23, 26 and 27 Thence I run N. 89° 59' W. on a true line bet. secs. 22 and 27 Over rough broken land through dense brush. Cross wash 10 lks. wide course S. W. Cross wash 10 lks. wide course S. W. Cross road bears N. and S. Cross wash 50 lks. wide course S. and ascend. Ridge bears N. W. and S. E. descend. Cross wash 30 lks. wide course S. E. and ascend steep rocky E. slope of mountain. Set a granite stone 18 x 12 x 12 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., 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. Pits impracticable. High ridge bears N. and S. descend. The cor. of secs. 21, 22, 27 and 28. Land, rough and mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, greasewood and paloverde. Mountainous land and land covered with dense undergrowth 80.02 chs.
	October 7, 1909.
	October 8, 1909; At 7h. 00m. a.m., l.m.t., I set off 33° 45' N. on the lat. arc; 5° 43 $\frac{1}{2}$ ' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28 Thence I run N. 0° 05' W. bet. secs. 21 and 22 Ascending along rough rocky S. W. slope of mountain Top high ridge bears N. W. and S. E. and descend along N. E. slope.
23.00	

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	
35.00	Cross ridge bears N. E. and S. W. and descend along N. W. slope.
40.00	Set a granite stone 20 x 8 x 8 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
47.50	Cross wash 15 lks. wide course W. and ascend.
52.00	Ridge bears N. W. and S. E. and descend.
80.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked with 3 notches on S. and E. edges; from which A paloverde 5 ins. diam., bears N. 6° E. 129 lks. dist., marked T5NR12WS15BT A paloverde 6 ins. diam., bears S. $77\frac{1}{2}^{\circ}$ E. 127 lks. dist., marked T5NR12WS22BT. A paloverde 4 ins. diam., bears S. 25° W. 99 lks. dist., marked T5NR12WS21BT A paloverde 4 ins. diam., bears N. 36° W. 219 lks. dist., marked T5NR12WS16BT. Land, rough and mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense undergrowth 80.00 chs.
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40.00	S. $89^{\circ} 59'$ E. on a random line bet. secs. 15 and 22 Set temp. $\frac{1}{4}$ sec. cor.
80.08	Intersect N. and S. line 5 lks. N. of the cor. of secs. 14, 15, 22 and 23. Thence I run N. $89^{\circ} 57'$ W. on a true line bet. secs. 15 and 22 Ascending rocky E. slope through dense brush.
8.50	Ridge bears N. and S. descend.
17.35	Cross road bears N. and S.
19.00	Cross wash 20 lks. wide course S. E. and ascend.
40.04	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., 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. Pits impracticable.
42.50	Ridge bears N. W. and S. E. descend.
61.75	Cross wash 10 lks. wide course N. W. and ascend.
75.00	Ridge bears N. and S. and descend.
78.75	Cross wash 10 lks. wide course N. W.
80.08	The cor. of secs. 15, 16, 21 and 22. Land, rough and mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense undergrowth 80.08 chs. October 8; At this cor. I set off $5^{\circ} 50\frac{1}{2}'$ E. on the decl. arc, and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 46'$ N.
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1.50	N. $0^{\circ} 05'$ W. bet. secs. 15 and 16 Descending rocky N. slope, through dense brush. Cross wash 10 lks. wide course N. W. and along W. slope of mountain gradually descending.
17.50	Cross wash 10 lks. wide course N. W.
40.00	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A paloverde 5 ins. diam., bears S. $13\frac{1}{2}^{\circ}$ E. 154 lks. dist., marked $\frac{1}{4}$ S15BT. A paloverde 6 ins. diam., bears S. $77\frac{1}{2}^{\circ}$ W. 183

Subdivision of Tp. 5 N. Rg. 12 W.

chains.	lks. dist., marked $\frac{1}{4}$ S16BT
44.00	Cross ridge bears E. and W. and descend N. slope of mountain.
59.47	Cross dim road bears N. E. and S. W.
62.00	Over rolling land.
73.00	Cross wash 20 lks. wide course N. W.
80.00	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked with 4 notches on S. and 3 notches on E. edges; from which A mesquite 12 ins. diam., bears N. 77° W. 106 lks. dist., marked T5NR12WS9BT. No other tree available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling. Soil, stony; 4th. rate. No timber. Undergrowth, paloverde, greasewood and mesquite. Mountainous land and land covered with dense undergrowth 80.00 chs.
	October 8, 1909.

	October 9; 1909: At 7h. 00m., a.m., l.m.t., I set off 33° 47' N. on the lat. arc; 6° 06 $\frac{1}{2}$ ' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16 Thence I run S. 89° 57' E. on a random line bet. secs. 10 and 15 Set temp. $\frac{1}{4}$ sec. cor. 40.00 Intersect N. and S. line 12 lks. S. of the cor. of secs. 10, 11, 14 and 15 79.98 Thence I run S. 89° 58' W. on a true line bet. secs. 10 and 15 Over rough broken land along N. slope at foot of mountains through dense brush. 11.70 Cross wash 10 lks. wide course N. E. 29.05 Cross wash 10 lks. wide course N. E. 39.99 Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 4 ins. diam., bears S. 32° E. 109 lks. dist., marked $\frac{1}{4}$ S15BT A paloverde 4 ins. diam., bears N. 77 $\frac{1}{2}$ ° W. 150 lks. dist., marked $\frac{1}{4}$ S10BT. 50.10 Cross drain 15 lks. wide course N. W. 53.74 Cross road bears N. W. and S. E. 78.50 Cross wash 35 lks. wide course N. W. 79.98 The cor. of secs. 9, 10, 15 and 16. Land, broken. Soil, stony, 4th. rate. No timber. Undergrowth, paloverde, mesquite and greasewood. Mountainous land and land covered with dense undergrowth 79.98 chs.

	N. 0° 05' W. bet. secs. 9 and 10 Over rolling land, through dense brush 0.50 Cross wash 25 lks. wide course N. W. 18.50 Cross wash 35 lks. wide course W. 22.77 Cross road bears N. W. and S. E. 23.05 Cross road bears E. and W. 31.00 Cross wash 10 lks. wide course N. W. 34.50 Cross wash 10 lks. wide course N. W. 40.00 Set a granite stone 18 x 8 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
51.50	Cross wash 20 lks. wide course N. W.
56.35	Cross road bears N. W. and S. E.
64.50	Cross wash 15 lks. wide course N. W.
80.00	Set a quartz stone 20 x 6 x 4 ins. 12 ins. in the ground for cor. of secs. 3, 4, 9 and 10, marked with 5 notches on S. and 3 notches on E. edges; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling. Soil, sandy and stony; 2nd. and 4th. rate. No timber. Undergrowth, greasewood, paloverde and mesquite. Land covered with dense undergrowth 80.00 chs. October 9: At this cor I set off $6^{\circ}13\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ}48'$ N.
40.00	N. $89^{\circ}58'$ E. on a random line bet. secs. 3 and 10 Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect N. and S. line 7 lks. N. of the cor. of secs. 2, 3, 10 and 11. Thence I run N. $89^{\circ}59'$ W. bet. secs. 3 and 10 Over level land through dense brush.
22.00	Cross wash 20 lks. wide course N. W.
29.30	Cross wash 15 lks. wide course N. W.
40.02	Set a granite stone 18 x 8 x 4 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 6 ins. diam., bears N. $77\frac{1}{4}^{\circ}$ W. 250 lks. dist., marked $\frac{1}{4}$ S3E $\frac{1}{4}$. No other tree available. Dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
46.10	Cross wash 10 lks. wide course N. W.
78.50	Cross wash 30 lks. wide course N. W.
80.04	The cor. of secs. 3, 4, 9 and 10. Land, level. Soil, sandy; 1st. rate. No timber. Undergrowth, mesquite, greasewood and paloverde. Land covered with dense undergrowth 80.04 chs.
40.00	N. $0^{\circ}05'$ W. on a random line bet. secs. 3 and 4 Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. bdy. of Tp. 23 lks. W. of the cor. of secs. 3, 4, 33 and 34, which is stone marked and witnessed as described by the Sur.Gen. Thence I run S. $0^{\circ}5'$ W. bet. secs. 3 and 4. Over level land through dense brush
40.00	Set a lime stone 20 x 6 x 5 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
51.56	Cross road bears E. and W.
56.50	Cross wash 40 lks. wide course N. W.
63.50	Cross wash 10 lks. wide course N. W.
79.00	Cross wash 20 lks. wide course N. W.
80.00	The cor. of secs. 3, 4, 9 and 10. Land, level. Soil, sandy; 1st. rate. No timber. Undergrowth, mesquite paloverde and greasewood. Land covered with dense brush 80.00 chs. October 9, 1909.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	
I run	October 10, 1909: At 7 h. 00m., a.m., l.m.t., I set off $33^{\circ} 43\frac{1}{2}'$ N. on the lat. arc; $6^{\circ} 29\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 32 and 33 on the S. bdy. of the Tp. which is a stone marked and witnessed as described by the S.G. Thence N. $0^{\circ} 05'$ W. bet. secs. 32 and 33
13.00	Descending over low hill through dense brush Cross Centennial Wash 240 lks. wide course S. E. and over level land.
36.68	Cross fence bears N. E. and S. W.
39.16	Cross fence bears N. W. and S. E.
40.00	Point for $\frac{1}{4}$ sec. cor. falls in wash 5 lks. wide course S. W. so at
40.35	Set a granite stone 18 x 8 x 5 ins. 12 ins. in the ground for witness cor. to $\frac{1}{4}$ sec. cor., marked W C $\frac{1}{4}$ on W. face; from which A mesquite 6 ins. diam., bears S. $85\frac{1}{2}^{\circ}$ W. 155 lks. dist., marked $\frac{1}{4}$ S32BT.
	No other trees available. Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
42.94	Cross road bears N. W. and S. E.
59.50	Geo. Ward's house bears S. $80^{\circ} 29'$ W.
61.25	Cross wash 15 lks. wide course S. W.
68.00	Cross wash 15 lks. wide course S. W.
80.00	Set a granite stone 20 x 6 x 6 ins. 15 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
	Land, hilly and level.
	Soil, sandy and stony; 1st. and 4th. rate.
	No timber.
	Undergrowth, mesquite, paloverde and greasewood.
	Land covered with dense undergrowth 80.00 chs.
40.00	East on a random line bet. secs. 28 and 33
79.90	Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line 2 lks. N. of the cor. of secs. 27, 28, 33 and 34
	Thence I run
	N. $89^{\circ} 59'$ W. on a true line bet. secs. 28 and 33
	Over rolling land through dense brush.
20.25	Cross wash 10 lks. wide course S. W.
22.83	Cross dim road bears N. E. and S. W.
32.50	Cross wash 10 lks. wide course S. W.
39.95	Set a granite stone 18 x 8 x 6 ins. 13 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which An ironwood 4 ins. diam., bears S. 85° W. 184 lks. dist., marked $\frac{1}{4}$ S33BT. An ironwood 5 ins. diam., bears N. $76\frac{1}{2}^{\circ}$ W. 152 lks. dist., marked $\frac{1}{4}$ S28BT.
41.00	Cross wash 10 lks. wide course SW.
56.55	Cross old road bears N. E. and S. W.
58.00	Cross wash 20 lks. wide course S. W.
79.90	The cor. of secs. 28, 29, 32 and 33. Land, rolling. Soil, stony; 4th. rate. No timber.
	Undergrowth, paloverde, greasewood and ironwood.
	Land covered with dense undergrowth 79.90 chs.
	October 10: At this cor. I set off $6^{\circ} 36\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat is $33^{\circ} 44\frac{1}{2}'$ N.

Subdivision of Tn. 5 N. Rg. 12 W.

Chains N. 0° 05' W. bet. secs. 28 and 29
 Ascending S. W. slope of mountains through dense brush.
 18.58 Ward's house bears S. 35° 30' W.
 19.00 Ridge E. and W. descend along W. slope of mountain.
 32.00 Cross wash 15 lks. wide course S. W. and ascend S. E. slope.
 35.20 Cross ridge bears E. and W. and descend.
 40.00 Set a granite stone 18 x 8 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 40.25 Cross wash 15 lks. wide course S. E. and ascend S. W. slope.
 47.00 Ridge bears N. W. and S. E. and descend.
 56.75 Cross wash 15 lks. wide course N. W. and ascend S. W. slope.
 68.00 Ridge bears E. and W. and descend along N. W. slope.
 74.75 Cross wash 15 lks. wide course W. and ascend.
 80.00 Set a granite stone 20 x 8 x 8 ins. 15 ins. in the ground for cor. of secs. 20, 21, 28 and 29, marked with 2 notches on S. and 4 notches on E. edges; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, mountainous
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, paloverde and greasewood.
 Mountainous land, 80.00 chs.

October 10, 1909.

October 11, 1909: At 7h. 00m. a.m., l.m.t., I set off 33° 45' N. on the lat. arc: 6° 52' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.

Thence I run
 S. 89° 59' E. on a random line bet. secs. 21 and 28.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.94 Intersect N. and S. line 5 lks N. of the cor. of secs. 21, 22, 27 and 28.

Thence I run
 N. 89° 57' W. on a true line bet. secs. 21 and 28.
 Descending steep rocky W. slope of mountain.
 19.50 Cross wash 15 lks. wide course S. and along S. E. slope of mountain.

Ridge bears N. and S. and descend.
 38.80 Set a granite stone 18 x 8 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., 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. Pits impracticable.
 39.97

Cross wash 10 lks. wide course S. and ascend.
 40.60 Ridge bears N. and S. and descend.
 44.00 Cross wash 10 lks. wide course S. E. and ascend.
 54.50 Ridge bears N. W. and S. E. and descend.
 77.50 The cor. of secs. 20, 21, 28 and 29.
 79.94

Land, mountainous.
 Soil, stony: 4th. rate.
 No timber.
 Undergrowth, paloverde and greasewood.
 Mountainous land, 79.94 chs.

N. 0° 05' W. bet. secs. 20 and 21.
 Ascending S. slope of mountain.
 11.50 Ridge bears E. and W. and descend.
 21.00 Cross wash 15 lks. wide course N. W. and ascend.

Subdivision of Tn. 5 N. Rg. 12 W.

Chains.	
40.00	Set a granite stone 20 x 10 x 8 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. fo cor. Pits impracticable.
43.75	Cross ridge bears E. and W. and descend.
47.50	Ascend S. slope.
51.00	Along W. slope of mountain.
63.00	Ridge extends W. and descend.
80.00	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges; from which A paloverde 6 ins. diam., bears S. $48\frac{1}{2}^{\circ}$ E. 64 lks. dist., marked T5NR12WS21BT. No other trees available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky: 4th rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land 80.00 chs. October 11: At this cor. I set off $6^{\circ} 59'$ S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 46'$ N.
40.00	S. $89^{\circ} 57'$ E. on a random line bet. secs. 16 and 21. Set temp. $\frac{1}{4}$ sec. cr.
79.96	Intersect N. and S. line 12 lks. S. of the cor. of secs. 15, 16, 21 and 22. Thence I run S. $89^{\circ} 58'$ W. on a true line bet. secs. 16 and 21. Descending gradually along N. slope of mountains.
28.00	Cross wash 10 lks, wide course N.
32.50	Cross wash 10 lks. wide course N.
39.98	Set a granite stone 20 x 8 x 6 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 4 ins. diam., bears S. $33\frac{1}{2}^{\circ}$ E. 54 lks. dist., marked $\frac{1}{4}$ S21BT. No other trees available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
49.50	Cross wash 15 lks. wide course N. W.
55.00	Cross wash 25 lks. wide course N. W.
61.25	Cross wash 15 lks. wide course N. W.
70.90	Cross wash 15 lks. wide course N. W.
79.96	The cor. of secs 16, 17, 21 and 22. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense undergrowth 79.96 chs.
	October 11, 1909.

	October 12, 1909. At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 46'$ N. on the lat. arc; $7^{\circ} 14\frac{1}{2}'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21 Thence I run N. $0^{\circ} 05'$ W. bet. secs. 16 and 17 Descending N. slope of mountain through dense brush.
7.00	Cross wash 20 lks. wide course N. W. and over rolling land.
19.00	Cross wash 20 lks. wide course N. W.
31.50	Cross wash 10 lks. wide course N. W.

Subdivision of Tp. 5 N. Rg. 13 W.

Chains.	
40.00	Set a white quartz stone 18 x 8 x 8 ins. 13 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A paloverde 6 ins. diam., bears S. $45\frac{1}{2}^{\circ}$ W. 209 lks. dist., marked $\frac{1}{4}$ S17BT. No other tree available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
52.00	Cross wash 10 lks. wide course N. W.
68.00	Cross wash 15 lks. wide course N. W.
76.00	Cross wash 15 lks. wide course N. W.
80.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked with 4 notches on S. and E. edges; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. Land, mountainous and rolling. Soil, stony; 3rd. and 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense undergrowth 80.00 chs.

	N. $89^{\circ} 58'$ E. on a random line bet. secs. 9 and 16
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line 7 lks. N. of the cor. of secs. 9, 10, 15 and 16. Thence I run
	N. $89^{\circ} 59'$ W. on a true line bet. secs. 9 and 16. Over rolling land through dense brush.
22.10	Cross wash 15 lks. wide course N. W.
32.25	cross wash 15 lks. wide course N. W.
33.13	Cross dim road bears N. E. and S. W.
40.01	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
51.14	Cross road bears N. W. and S. E.
55.50	Cross wash 10 lks. wide course N. W.
60.00	Cross wash 20 lks. wide course N. W.
69.25	Cross wash 20 lks. wide course N. W.
73.00	Cross wash 20 lks. wide course N. W.
80.02	The cor. of secs. 8, 9, 16 and 17. Land, rolling. Soil, stony; 3rd. rate. No timber. Undergrowth, greasewood and paloverde. Land covered with dense undergrowth 80.02 chs.

	N. $0^{\circ} 05'$ W. bet. secs. 8 and 9. Over rolling land through dense brush.
4.75	Cross wash 30 lks. wide course N. W.
11.63	Cross road bears N. W. and S. E.
15.64	Cross road bears E. and W.
23.50	Cross wash 50 lks. wide course N. W.
27.50	Cross wash 10 lks. wide course N. W.
40.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor. Thence over level land.
47.50	Cross wash 10 lks. wide course N. W.
60.30	Cross wash 20 lks. wide course N. W.
80.00	Set a granite stone 18 x 10 x 10 ins. 12 ins. in the ground for cor. of secs. 4, 5, 8 and 9, marked with 5 notches on S. and 4 notches on E. edges; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a

Subdivision of Tp. 5 N. R. 12 W.

Chains.

mound of earth 4 ft. base 2 ft. high, W. of cor.
Land, rolling and level.
Soil, stony and sandy; 1st. and 4th. rate.
No timber.
Undergrowth, paloverde and greasewood and mesquite.
Land covered with dense undergrowth 80.00 chs.
October 12: At this cor. I set off $7^{\circ} 22'$ S. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 48'$ N.

S. $89^{\circ} 59'$ E. on a random line bet. secs. 4 and 9.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.96 Intersect N. and S. line 7 lks. S. of the cor. of secs. 3, 4, 9 and 10
Thence I run
S. $89^{\circ} 58'$ W. on a true line bet. secs. 4 and 9.
36.00 Over level land through dense brush.
39.10 Cross wash 20 lks. wide course N. W.
39.98 Cross road bears N. W. and S. E.
Set a quartz stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
41.85 Cross road bears N. W. and S. E.
42.30 Cross road bears N. W. and S. E.
62.00 Cross wash 15 lks. wide course N. W.
65.75 Cross wash 15 lks. wide course N. W.
72.00 Cross wash 20 lks. wide course N. W.
79.96 The cor. of secs. 4, 5, 8 and 9.
Land, level.
Soil, sandy and stony; 1st. and 3rd. rate.
No timber.
Undergrowth, greasewood, mesquite and paloverde.
Land covered with dense undergrowth 79.96 chs.

N. $0^{\circ} 05'$ W. on a random line bet. secs. 4 and 5
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.98 Intersect N. bdy. of Tp. 26 lks. W. of the cor. of secs. 4, 5, 32 and 33, a stone marked and witnessed as described by the Sur. Gen. Thence I run
S. $0^{\circ} 06'$ W. on a true line bet. secs. 4 and 5.
20.34 Over level land through dense brush.
32.29 Cross dim road bears N. E. and S. W.
35.00 Cross road bears N. W. and S. E.
39.98 Cross wash 20 lks. wide course W.
Set a quartz stone 18 x 10 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
56.50 Cross wash 50 lks. wide course N. E.
62.44 Cross dim road bears N. W. and S. E.
65.92 Cross road bears N. W. and S. E.
69.58 Cross wash 20 lks. wide course N. W.
79.98 The cor. of secs. 4, 5, 8 and 9.
Land, level.
Soil, sandy; 1st. rate.
No timber.
Undergrowth, mesquite, greasewood and paloverde.
Land covered with dense undergrowth 79.98 chs.

October 12, 1909.

October 13, 1909; At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 43\frac{1}{2}'$ N. on the lat. arc; $7^{\circ} 37'$ S. on the decl. arc;

Subdivision of Tn. 5 N. Rg. 12 E.

Chains	and determine a meridian with the solar at a point 25 lks. W. of the witness cor. to the standard cor. of secs 31 and 32 on the S. bdy. of the Tp.
	Thence I run
	N. 0° 08' W. bet. secs. 31 and 32.
	Ascending through dense brush.
3.00	Ridge bears S. E. and N. W. and descend rolling N. slope of mountains through dense brush.
12.00	Cross wash 15 lks. wide course N. W.
13.75	Cross same wash course N. E. and ascend.
20.00	Ridge bears E. and W. and descend.
40.00	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	From this cor.
	Stack on Pump house bears N. 35° 12' W. 38.50 chs. dist.
	School house bears N. 19° 58' W. 38.36 chs. dist.
	Wm. Bear's house bears N. 7° 57' W. 32.20 chs. dist.
	G. S. Holmes' house bears N. 6° 47' W. 35.05 chs. dist.
	Adobe store bears N. 4° 45' W. 33.25 chs. dist.
	House bears N. 9° 40' E. empty. 27.40 chs. dist.
	Old mill bears N. 6° 39' E. 34.20 chs. dist.
50.00	Leave hills and over level land.
62.50	Cross Centennial Wash 200 lks. wide course S. E.
72.10	Cross road bears S. E. and N. W.
76.70	Cross road bears E. and W.
80.00	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked with 1 notch on S. and 5 notches on E. edges; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 2 ft. base 2 ft. high, W. of cor.
	Land, Mountainous and level.
	Soil, sandy and stony; 1st and 4th. rate.
	No timber.
	Undergrowth, paloverde, greasewood and mesquite.
	Mountainous land and land covered with dense undergrowth 80.00 chs.
	East on a random line bet. secs. 29 and 32
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.92	Intersect N. and S. line 19 lks. S. of the cor. of secs. 28, 29, 32 and 33
	Thence I run
	S. 89° 52' W. on a true line bet. secs. 29 and 32.
	Over rolling land through dense brush.
0.10	Cross wash 10 lks. wide course S. W.
18.00	Cross wash 20 lks. wide course S. W.
21.00	Cross wash 10 lks. wide course S. W.
29.50	Cross wash 25 lks. wide course S. W.
39.96	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
	A paloverde 6 ins. diam. bears N. 47° W. 234 lks. dist., marked $\frac{1}{4}$ S29BT.
	No other tree available; raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.25	Cross wash 10 lks. wide course S. W.
46.10	Cross wash 10 lks. wide course S. W.
55.00	Cross wash 30 lks. wide course S. W.
64.00	Cross wash 15 lks. wide course S. W.
79.92	The cor. of secs. 29, 30, 31 and 32.
	Land, rolling.
	Soil, stony; 4th. rate.
	No timber.
	Undergrowth, paloverde, ironwood and greasewood.
	Land covered with dense undergrowth 79.92 chs.
	October 13; At this cor. I set off 7° 44' S. on the decl. arc; and observe the sun on the meridian at noon; the

Subdivision of Tp. 5 N. Rg. 12 W.

Chains. resulting lat. is 33° 44' N.

West on a random line bet, secs. 30 and 31
 40.00 Set temp. $\frac{1}{4}$ sec. cor.,
 80.06 Intersect W. bdy. of Tp. 5 lks. N. of the cor. of secs.
 25, 30, 31 and 36, a stone marked and witnessed as described
 by the Sur. Gen. Thence I run
 N. 89° 58' E. on a true line bet. secs. 30 and 31
 Over rolling land through dense brush.
 8.25 Cross wash 15 lks. wide course S. W.
 13.75 Cross wash 50 lks. wide course S. E.
 Point for $\frac{1}{4}$ sec. cor. falls in wash so at
 39.26 Set a quartz stone 18 x 6 x 6 ins. 12 ins. in the ground
 for witness cor. to $\frac{1}{4}$ sec. cor., marked WC $\frac{1}{4}$ on N. face;
 from which
 A mesquite 5 ins. diam., bears N. 70 $\frac{1}{2}$ ° E. 102
 lks. dist., marked WC $\frac{1}{4}$ S30BT.
 A mesquite 4 ins. diam., bears S. 57 $\frac{1}{4}$ ° E. 80
 lks. dist., marked WC $\frac{1}{4}$ S31BT.
 40.06 Point for $\frac{1}{4}$ sec. cor. falls in Centennial wash.
 43.00 Cross Centennial wash 350 lks. wide course S.
 57.22 Cross road bears N. W. and S. E.
 66.82 Cross road bears N. W. and S. E.
 74.23 Forks of roads to houses.
 74.95 Cross road bears N. W. and S. E.
 80.06 The cor. of secs. 29, 30, 31 and 32.
 Land, level.
 Soil, sandy; 1st. rate.
 No timber.
 Undergrowth, mesquite, paloverde and greasewood.
 Land covered with dense undergrowth 80.06 chs.
 October 13, 1909.
 October 14, 1909. At 7h. 00m. a.m., l.m.t., I set off
 33° 44' N. on the lat. arc; 7° 59' S. on the decl. arc;
 and determine a meridian with the solar at the cor. of
 secs. 29, 30, 31 and 32
 Thence I run
 N. 0° 06' W. bet. secs. 29 and 30.
 Over rolling land ascending, through dense brush.
 11.25 Cross wash 20 lks. wide course S. W.
 12.90 Same wash course S. E.
 40.00 Set a granite stone 18 x 6 x 6 ins. 12 ins. in the
 ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise
 a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. Pits
 impracticable.
 64.75 Cross wash 75 lks. wide course W. and ascend steep slope.
 70.00 Ridge bears E. and W. and descend.
 78.40 Cross wash 10 lks. wide course S. W.
 80.00 Set a granite stone 18 x 8 x 6 ins. 12 ins. in the
 ground for cor. of secs. 19, 20, 29 and 30, marked with
 2 notches on S. and 5 notches on E. edges; and raise a
 mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. Pits
 impracticable.
 Land, rolling and mountainous.
 Soil, stony; 4th. rate.
 No timber.
 Undergrowth, paloverde and greasewood.
 Mountainous land and land covered with dense undergrowth
 80.00 chs.
 N. 89° 52' E. on a random line bet. secs. 20 and 29.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.

Subdivision of Tp, 5 N. Rg. 12 W.

Chains	
80.02	Intersect N. and S. line 21 lks. N. of the cor. of secs. 20, 21, 28 and 29 Thence I run N. 89° 59' W. on a true line bet. secs. 20 and 29 Descending along S. W. slope of mountain.
33.50	Cross wash 25 lks. wide course S. W. and ascend .
40.01	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone 2 ft. base 1½ ft. high, N. of cor. Pits impracticable.
44.00	Ridge bears SE. and NW. and along S. slope of mountain.
80.02	The cor. of secs. 19, 20, 29 and 30. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land, 80.02 chs. At this cor. I set off 8° 06½' S. on the decl. arc. and observe the sun on the meridian at noon; the resulting lat. is 33° 45' N.

40.00	S. 89° 58' W. on a random line bet. secs. 19 and 30 Set temp. ¼ sec. cor.
79.98	Intersect W. bdy. of Tp. 9 lks. N. of the cor. of secs. 19, 24, 25 and 30. a stone marked and witnessed as described by the Sur. Gen. Thence I run N. 89° 54' E. on a true line bet. secs. 19 and 30. Over rolling land, through dense brush.
3.00	Cross wash 10 lks. wide course S. W.
30.75	Cross wash 15 lks. wide course S. W.
39.98	Set a malpais stone 18 x 6 x 6 ins. 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone 2 ft. base 1½ ft. high, N. of cor. Pits impracticable.
41.00	Cross wash 25 lks. wide course S. W.
42.85	Cross dim road bears N. and S.
47.00	Cross wash 15 lks. wide course S. W.
60.10	Cross road bears N. and S.
64.45	Cross dim road bears N. E. and S. W.
66.50	Cross wash 15 lks. wide course S. W. and ascend.
75.00	Ridge bears N. and S. and descend.
79.98	The cor. of secs. 19, 20, 29 and 30. Land, mountainous. Soil, rocky; 4th rate. October 14, 1909. No timber. Rolling land 79.98 chs.

	October 15, 1909; At 7h. 00m., a.m., l.m.t., I set off 33° 45' N. on the lat. arc; 8° 20½' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30 Thence I run N. 0° 06' W. bet. secs. 19 and 20 Ascending through dense brush.
3.50	Ridge bears E. and W. and descend.
10.00	Cross wash 20 lks. wide course S. W.
24.00	Cross wash 20 lks. wide course S. W. and ascend along S. E. slope.
28.80	Cross old road bears N. E. and S. W.
38.00	Cross wash 10 lks. wide course S. E.
40.00	Set a Schist stone 18 x 8 x 8 ins. 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base 1½ ft. high; W. of cor. Pits impracticable.
47.25	Ridge bears E. and W. descend.
54.10	Cross wash 10 lks. wide course W. and ascend.

Subdivision of Tp. 5 N. Rg. 12 W. cha

Chains.	
58.40	Ridge bears N. E. and S. W. and descend.
68.80	Cross wash 15 lks. wide course S. W.
70.90	Cross road bears N. E. and S. W.
74.00	Ridge bears N. E. and S. W. and descend.
80.00	Set a granite stone 20 x 8 x 8 ins. 15 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked with 3 notches on S. and 5 notches on E. edges; from which A paloverde 4 ins. diam., bears N. $76\frac{1}{2}^{\circ}$ E. 149 lks. dist., marked T5NR12WS17BT. A paloverde 4 ins. diam., bears S. $51\frac{1}{2}^{\circ}$ E. 162 lks. dist., marked T5NR12WS20BT. A paloverde 6 ins. diam., bears S. 87° W. 102 lks. dist., marked T5NR12WS19BT. A paloverde 5 ins. diam., bears N. 47° W. 101 lks. dist., marked T5NR12WS18BT.
	Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land 80.00 chs.
	—————
40.00	S. $89^{\circ} 59'$ E. on a random line bet. secs. 17 and 20 Set temp. $\frac{1}{4}$ sec. cor.
79.98	Intersect N. and S. line 7 lks. S. of the cor. of secs. 16, 17, 20 and 21 Thence I run S. $89^{\circ} 58'$ W. on a true line bet. secs. 17 and 20 Along rough broken N. slope of mountains, through dense brush.
11.00	Cross wash 10 lks. wide course N. W.
19.20	Cross wash 10 lks. wide course N. W.
36.25	Cross wash 25 lks. wide course N.
39.99	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 4 ins. diam., bears S. 20° W. 129 lks. dist., marked $\frac{1}{4}$ S20BT. A paloverde 7 ins. diam., bears N. 10° W. 184 lks. dist., marked $\frac{1}{4}$ S17BT.
76.56	Cross road bears N. and S.
78.90	Cross wash 10 lks. wide course N. W.
79.98	The cor. of secs. 17, 18, 19 and 20. Land, mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land and land covered with dense undergrowth 79.98 chs.
	October 15: At this cor. I set off $8^{\circ} 29'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ} 46'$ N.
	—————
40.00	S. $89^{\circ} 54'$ W. on a random line bet. secs. 18 and 19 Set temp. $\frac{1}{4}$ sec. cor.
79.64	Intersect W. bdy. of Tp. 2 lks. N. of the cor. of secs. 13, 18, 19 and 24, a stone marked and witnessed as described by the Sur. Gen. Thence I run N. $89^{\circ} 53'$ E. on a true line bet. secs. 18 and 19 Along N. slope of mountains through dense brush.
39.64	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A paloverde 6 ins. diam., bears N. $32\frac{1}{2}^{\circ}$ W. 55 lks. dist., marked $\frac{1}{4}$ S18BT. A paloverde 6 ins. diam., bears S. $7\frac{1}{2}^{\circ}$ E. 65 lks. dist., marked $\frac{1}{4}$ S19BT.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains	From this cor. hoist frame in gulch bears N. 9° 25' W.
41.91	A point from which Smoke stack on hoist bears N. 51° 53' W. 1st. house bears N. 8° 08' W. 2nd. house bears N. 19° 30' W. Hoist frame bears N. 50° 18' W. Hoist frame in gulch bears N. 21° 07' W.
49.20	Cross dim road bears N. and S.
62.86	A point from which Smoke stack on hoist bears N. 69° 02' W. 1st. house bears N. 39° 32' W. 2nd. house bears N. 43° 05' W. Hoist frame bears N. 67° 30' W. These buildings are the property of the Hercules Mining Company.
79.64	The cor. of secs. 17, 18, 19 and 20. Land, mountainous. Soil, stony; 4th. rate. No timber. Undergrowth, paloverde and greasewood. Mountainous land 79.64 chs.
	October 15, 1909.
	October 16, 1909; At 7h. 00m., a.m., l.m.t., I set off 33° 46' N. on the lat. arc; 8° 43' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20 Thence I run N. 0° 06' W. bet. secs. 17 and 18 Descending W. slope of mountain through dense brush.
2.20	Cross road bears E. and W.
4.90	Cross road bears N. W. and S. E.
5.50	Cross wash 10 lks. wide course N. W.
29.50	Cross wash 10 lks. wide course N. W.
38.50	Over rolling land.
40.00	Set a granite stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, W. of of cor.
44.25	Cross wash 10 lks. wide course N. W.
59.20	Cross road bears N. E. and S. W. dim.
70.03	Cross road bears N. E. and S. W.
75.52	Cross road bears N. E. and S. W.
80.00	Set a white quartz stone 20 x 8 x 6 ins. 15 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked with 4 notches on S. and 5 notches on E. edges; from which A mesquite 4 ins. diam., bears S. 75° E. 185 lks. dist., marked T5NR12WS17BT No other trees available. Raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling and mountainous. Soil, sandy and stony; 1st. and 4th. rate. No timber. Undergrowth, paloverde, mesquite and greasewood. Mountainous land and land covered with dense undergrowth 80.00 chs.
	N. 89° 58' E. on a random line bet. secs. 8 and 17
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect N. and S. line 14 lks. S. of the cor. of secs. 8, 9, 16 and 17 Thence I run S. 89° 52' W. on a true line bet. secs. 8 and 17

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	Over rolling land through dense brush
3.85	Cross wash 15 lks. wide course N.
11.20	Cross dim road bears N. and S.
28.60	Cross wash 7 lks. wide course N. W.
38.75	Cross wash 15 lks. wide course N. W.
40.02	Set a white quartz stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A mesquite 8 ins. diam., bears N. $78\frac{1}{2}^{\circ}$ W. 192 lks. dist., marked $\frac{1}{4}$ S8BT. A paloverde 5 ins. diam., bears S. $45\frac{1}{2}^{\circ}$ W. 187 lks. dist., marked $\frac{1}{4}$ S17BT.
40.20	Cross wash 10 lks. wide course S. W.
42.50	Cross wash 10 lks. wide course N. W.
48.50	Cross wash 15 lks. wide course N. W.
70.71	Cross road bears N. E. and S. W.
75.50	Cross dim road bears N. E. and S. W.
79.50	Cross wash 50 lks. wide course N.
80.04	The cor. of secs. 7, 8, 17 and 18. Land, rolling. Soil, stony; 3rd. rate. No timber. Undergrowth, paloverde, greasewood and mesquite. Land covered with dense undergrowth 80.04 chs. October 16; At this cor. I set off $8^{\circ} 51'$ S. on the decl. arc; and observe the sun on the meridian, the resulting lat. is $33^{\circ} 47'$ N.
40.00	S. $89^{\circ} 53'$ W. on a random line bet. secs. 7 and 18
79.44	Set temp. $\frac{1}{4}$ sec. cor. Intersect W. bdy. of Tp. 5 lks. N. of the cor. of secs. 7, 12, 13 and 18, a stone marked and witnessed as described by the Sur. Gen. Thence I run N. $89^{\circ} 51'$ E. on a true line bet. secs. 7 and 18
1.45	Over rolling land through dense brush
33.20	Cross wash 20 lks. wide course N. W.
39.44	Cross wash 30 lks. wide course N. W.
51.89	Set a quartz stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone $\frac{3}{4}$ ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
54.55	Cross road bears N. and S.
69.40	Cross road bears N. and S.
79.44	Cross road bears N. and S. The cor. of secs. 7, 8, 17 and 18. Land, rolling. Soil, sandy and stony; 1st. and 3rd. rate. No timber. Undergrowth, mesquite, paloverde and greasewood. Land covered with dense undergrowth 79.44 chs.
.075	N. $0^{\circ} 06'$ W. bet. secs. 7 and 8
17.00	Over level land through dense brush
29.55	Cross wash 25 lks. wide course N. W.
40.00	Cross wash 10 lks. wide course N. W.
60.25	Cross wash 25 lks. wide course N. W.
74.10	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
76.80	Cross wash 10 lks. wide course N. W.
80.00	Cross wash 10 lks. wide course N. W. Cross dim road bears N. W. and S. E. Set a quartz stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. of secs. 5, 6, 7, and 8, marked with 5

Subdivision of Tp. 5 N. Rg. 12 W.

Chains notches on S. and E. edges; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft ft. base 2 ft. high, W. of cor.
 Land, rolling.
 Soil, sandy and stony; 1st. and 3rd. rate.
 No timber.
 Undergrowth, mesquite, paloverde and greasewood.
 Land covered with dense undergrowth 80.00 chs.

October 16, 1909.

October 17, 1909; At 7h. 00m., a.m., l.m.t., I set off $33^{\circ} 48'$ N. on the lat arc; $9^{\circ} 04\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 7 and 8

Thence I run

N. $89^{\circ} 52'$ E. on a random line bet. secs. 5 and 8
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line 21 lks. N. of the cor. of secs. 4, 5, 8 and 9

Thence I run

N. $89^{\circ} 59'$ W. on a true line bet. secs. 5 and 8
 Over level land through dense brush
 25.80 Cross dim road bears N. E. and S. W.
 32.30 Cross wash 20 lks. wide course N. W.
 39.99 Set a quartz stone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor;
 42.20 Cross wash 30 lks. wide course N. W.
 50.50 Cross wash 10 lks. wide course N. W.
 65.40 Cross road bears N. E and S. W.
 76.00 Cross wash 10 lks. wide course N. W.
 79.98 The cor. of secs. 5, 6, 7 and 8.
 Land level.
 Soil, sandy; 1st. rate.
 No timber.
 Undergrowth, mesquite, paloverde and greasewood.
 Land covered with dense undergrowth 79.98 chs.

N. $0^{\circ} 06'$ W. on a random line bet. secs. 5 and 6

40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.02 Intersect N. bdy. of Tp. 42 lks. W. of the cor. of secs. 5, 6, 31 and 32, which is stone marked and witnessed as described by the Sur. Gen. Thence I run

S. $0^{\circ} 12'$ W. bet. secs. 5 and 6

Over level land, through dense brush
 1.85 Cross road bears N. W. and S. E.
 7.00 Cross wash 10 lks. wide course N. W.
 7.41 Cross road bears N. W. and S. E.
 22.50 Cross wash 10 lks. wide course N. W.
 23.50 Cross wash 10 lks. wide course N. W.
 39.25 Cross wash 20 lks. wide course N. W.
 40.02 Set a quartz stone 20 x 6 x 5 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
 A mesquite 4 ins. diam., bears S. 84° W. 182 lks. dist., marked $\frac{1}{4}$ S6BT.

No other trees available. Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.

42.00 Cross wash 10 lks. wide course N. W.
 45.25 Cross road bears N. W. and S. E.
 48.00 Cross wash 20 lks. wide course N. W.
 51.50 Cross wash 30 lks. wide course N. W.
 73.50 Cross wash 30 lks. wide course N. W.

Subdivision of Tp. 5 N. Rg. 12 W.

Chains.	
75.80	Cross wash 10 lks. wide course N. W.
80.02	The cor. of secs. 5, 6, 7 and 8
	Land, level.
	Soil, sandy; 1st. rate.
	No timber.
	Undergrowth, mesquite, palo verde and greasewood
	Land covered with dense undergrowth 80.02 chs.
	October 17; At this cor. I set off $9^{\circ} 13'$ S. of the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $33^{\circ} 48'$ N.
	✓
	S. $89^{\circ} 51'$ W. on a random line bet. secs. 6 and 7
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.26	Intersect W. bdy. of Tp. 16 lks. S. of the cor. of secs. 1, 6, 7 and 12. which is a stone marked and witnessed as described by the Sur. Gen. Thence I run
	N. $89^{\circ} 58'$ E. on a true line bet. secs. 6 and 7
	Over level land through dense brush.
4.00	Cross wash 15 lks. wide course N. W.
13.00	Cross road bears N. E. and S. W.
17.25	Cross wash 20 lks. wide course N.
29.54	P. Navarez house bears N. $3^{\circ} 15'$ W. 54.45 chs. dist.
39.26	Set a quartz stone 18 x 8 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
	A mesquite 4 ins. diam., bears N. $76\frac{1}{2}^{\circ}$ W. 60 lks, dist., marked $\frac{1}{4}$ S6BT.
	A mesquite 4 ins. diam., bears S. $79\frac{1}{4}^{\circ}$ W. 66 lks, dist., marked $\frac{1}{4}$ S7BT.
48.30	Cross road bears N. E. and S. E.
55.25	Cross wash 40 lks. wide course N. W.
64.15	Cross wash 10 lks. wide course N. W.
65.17	Cross road bears N. E. and S. W.
73.60	Cross road bears N. E. and S. W.
79.26	The cor. of secs. 5, 6, 7 and 8.
	Land, level.
	Soil, sandy; 1st. rate.
	No timber.
	Undergrowth, mesquite and greasewood.
	Land covered with dense undergrowth 79.26 chs.

October 17, 1909.

GENERAL DESCRIPTION.

This Tp. is mountainous in the center and S. W. portions level in the north and rolling in the south. The soil in the N. W. cor. and along Centennial wash in the S. W. cor. is a sandy loam, the soil in the rest of the Tp. is rocky and worthless. There is no timber in the Tp. There are copper mines in secs. 14, 18 and 26. There is no water in the Tp. There are 2 settlers in sec. 31, 1 in secs. 32 and 33, and 1 in sec. 6.

John P. Hesse
U.S. Deputy Surveyor.

LIST OF NAMES.

A list of the names of the individuals employed by John F. Hesse
....., United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of
the subdivision lines of Tp. 5 N. Rg. 13 W.

showing the respective capacities in which they acted:

- Fred Kestl....., Chainman.
- Fred W. Rodolf....., Chainman.
-, Moundman.
-, Moundman.
- Norman Oliver....., Axman.
-, Axman.
- F. W. Schwalm....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John F. Hesse

....., United States Deputy Surveyor, in surveying all
those parts or portions of the the subdivision lines of Tp. 5 N. Rg. 13 W.

..... of the Gila
and Salt River meridian, Territory of Arizona, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for Arizona.

- Fred Kestl....., Chainman.
- Fred W. Rodolf....., Chainman.
-, Moundman.
-, Moundman.
- Norman Oliver....., Axman.
-, Axman.
- F. W. Schwalm....., Flagman.

Subscribed and sworn to before me this 17th
day of October 1909, 189

John F. Hesse
U. S. Deputy Surveyor



45 (31)
BOOK 2211

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John F. Hesse, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls, United States Surveyor General for Arizona, bearing date of the 4th day of June, 1909, 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision lines of Tp. 5 N. Rg. 12 W.

of the Gila and Salt River meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed 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 United States Surveyor General for Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John F. Hesse
United States Deputy Surveyor.

Subscribed by said John F. Hesse, and sworn to before me) this 28th day of June, 189 1910

Charles W. Wernsey
Clerk District Court



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz. Apr. 18, 189 1912

The foregoing field notes of the survey of the subdivisional lines of Tp. 5 N. Rg. 12 W. of the Gila and Salt River Base and Meridian, Arizona

executed by John F. Hesse, U.S. Deputy Surveyor under his contract No. 158, dated June 4, 1909, 189 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States 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.

United States Surveyor General.