

Descript.
A. T. Jan 24-07

1867

Book A

BOOK 1867

FIELD NOTES

RE
OF THE SURVEY OF THE

Second Standard Parallel

South

through
Range 9 East

1867

1867

Of the *Indiana and Salt River Basin* Meridian,

AS SURVEYED BY

Edgar C. Dietrich, United States Deputy Surveyor,

Under his Contract No. *137*, dated *August 15*, 1905-

Survey commenced *October 21*, 1905-

Survey completed *October 23*, 1905-

NAMES AND DUTIES OF ASSISTANTS.

Fred. Tagles, Chairman.

Walter Percival, Chairman.

John M. Trayer, Chairman.

Sipriana Villa, Chairman.

Juan Sanchez, Mourner.

Wiley Box, Assn.

Manuel Salazar, Flagman.

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PRELIMINARY OATHS OF ASSISTANTS.

~~Walter Perceval~~ ^{WE} John M. Trayer, Cipriana Villa, Fred Taglis and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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 ^{re} survey of

the Second Standard Parallel South through Range 9 East

John M. Trayer, Fred Taglis, Chainman.
Cipriana Villa, Walter Perceval, Chainman.

Subscribed and sworn to before me this 20th
day of October, 1905

H. G. Power



~~W. E.~~ ^I Juan Sanchez and

do solemnly swear that we will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given ^{me} us, to the best of ^{my} skill and ability, in the ^{re} survey of

the Second Standard Parallel South through Range 9 East

Juan Sanchez, Moundman.

Subscribed and sworn to before me this 20th
day of October, 1905

H. G. Power



~~W. E.~~ ^I Wiley Box and

do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given ^{me} us, to the best of ^{my} skill and ability, in the ^{re} survey of

the Second Standard Parallel South through Range 9 East

Wiley Box, Axman.

Subscribed and sworn to before me this 20th
day of October, 1905

H. G. Power



I, Manuel Salazar, 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

re survey of the Second Standard Parallel South through Range 9 East

Manuel Salazar, Flagman.

Subscribed and sworn to before me this 20th
day of October, 1905

H. G. Power



Chains

Preliminary to commencing the subdivision of this Sp., I proceeded to fix the bdrs. thereof, beginning with the S. bdy. Knowing from previous surveys that the Second Standard Parallel South is defective in many places in alignment and measurement, I proceeded to resurvey the same.

I begin at the old standard cor. of Sp. 10 S., Rs. 9 and 10 E., which is a redwood post, 4 x 4 ins., 3 ft. above ground, the marks having been obliterated by cattle rubbing against it. I reestablish ^{con} in same place as follows: Set a walrus stone, 18 x 10 x 9 ins., 12 ins. in the ground, for standard cor. of Sp. 10 S., Rs. 9 and 10 E., marked S & E on N. with 6 grooves on N., E. and W. faces; dig pits, 30 x 24 x 12 ins., crosswise on each line, E. and W., 4 ft., and N. of stone, 3 ft. dist.; and raise a mound of earth, 5 ft. base, 2 1/2 ft. high, N. of cor.

Survey commenced October 21, 1915, and executed with a Young and Sons light mount transit, No. 5607, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the Survey General for Arizona.

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

At the above described standard Sp. cor., latitude ~~32° 30' 25" N.~~ ^{32° 30' 25" N.} longitude ~~111° 21' 55" W.~~ ^{111° 21' 55" W.} I set off ~~32° 30' N.~~ ^{32° 30' N.} on the lat. arc; ~~10° 42' S.~~ ^{10° 42' S.} on the

Resurvey of the Second Standard Surveyed Line, through Range 9 East.

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chains

level. arc. and at 3h 25^m p. m. l. m. t. deter-
mine with the solar a meridian and mark a
point thereof, on a stone firmly set in the
ground, 5 chs. N. of the cor.
October 21, 1905.

October 22. At 5 h ~~21~~²¹ a. m. l. m. t. by my watch,
which is correct, I observed Polaris at western
elongation, in accordance with Manual of In-
structions, and mark a point in the line thus
determined, on a peg down in the ground, 5
chs. N. of my station.

At 7:44 a. m. l. m. t. I lay off the azimuth of
Polaris, 125° to the East, and mark the me-
ridian thus determined, by cutting a small
groove in the stone set October 21, on which
the meridian falls 0.3 ins. West of the mark
determined by the solar.

At 8h 40^m a. m. l. m. t. I set off $32^{\circ} 30' 7''$
 ~~$32^{\circ} 32' 7''$~~ on the
lat. arc. $10^{\circ} - 58' S.$ on the level. arc. and mark
a point in the meridian determined with the
solar, by a cross on the stone already set 5 chs.
N. of my station; this mark falls 0.4 ins. East
of the meridian established by the Polaris
observation.

The solar apparatus, by p. m. and a. m. obser-
vations, defines positions for meridians, re-
spectively about 21" and 16" East of the
meridian established by the Polaris observa-
tions. Therefore I conclude that the adjust-
ments of the instrument are satisfactory.

The magnetic bearing of the true meridian,
at 8h 51^m a. m. is N. $53^{\circ} - 10' W.$; the angle thus
determined gives the mag. decl. $13^{\circ} - 10' E.$
Thence I run West along the S. bdy. of the
Sp. destroying the old line and setting new
cors. at intervals of 40.00 chs.

West on S. bdy. of sec. 36.
Over low land, through mosquito timber
and dense brush.

4.90 Road, bears N. and S.

- Chains 11.00 The Area Arroyo, 20 lks. wide, 10 ft. deep, course N. W.
- 15.30 Arroyo, 20 lks. wide, course N. W.
- 16.05 Road, bears N. W. and S. W.
- 26.05 Pin fence, bears N. 60° E. and S. 60° W.; heavy mesquite and other dense grassland.
- 34.40 Pin fence, bears N. 30° W. and S. 30° E.
- 34.50 Same road, bears N. W. and S. E.
- 39.94 Old $\frac{1}{4}$ sec. cor. bears 3 lks. S.

Difference between measurements of 40.00 chs. by two sets of chainmen, is 4 lks.; position of middle point.

By 1st set, 39.98 chs.
 By 2nd set, 40.02 chs.; the mean of which is 40.00
 Set a wooden post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for standard $\frac{1}{4}$ sec. cor. ^{marked} S E, $\frac{1}{4}$ S ³⁶ on N. face; dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

79.96 Old standard cor. of secs. 35 and 36, bears 7 lks. S.
 Difference between measurements of 80.00 chs.; by two sets of chainmen, is 6 lks.; position of middle point.

By 1st set, 40.03 chs.
 By 2nd set, 39.97 chs., the mean of which is 80.00
 Set a wooden post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for standard cor. of secs. 35 and 36, marked S E S 10 S R 9 E on N., S 36 on E., and S 35 on W. face, with 1 groove on E., and 5 grooves on W. face; dig pits, 24 x 18 x 12 ins., crosswise on each line, E. and W., 3 ft., and N. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.
 Land, level and gently rolling.
 Soil, sandy loam; 2nd and 3rd rate.
 Timber, mesquite; undergrowth, grassland and mesquite.
 Dense undergrowth, 80.00 chs.

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Chains
 West on S. bdy. of sec. 35.
 Over gently rolling land, through dense grass-
 mnd.

39.66 Old standard $\frac{1}{4}$ sec. cor., which is a decayed
 stake, bears 14 lks. N.
 Difference between measurements of 40.00 chs.,
 by two sets of chainmen, is 2 lks.; position of
 middle point.
 By 1st set, 39.99 lks.
 By 2nd set, 40.01 lks.; the mean of which is

40.00 Set a redwood post, 3 ft. long, 3 ins. sq., with
 marked stone, 24 ins. in the ground, for stan-
 dard $\frac{1}{4}$ sec. cor. marked S $\frac{1}{4}$ S 35 on N. face;
 dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft.
 dist. and raise a mound of earth, 3 ft. base,
 1 $\frac{1}{2}$ ft. high, N. of cor.

79.93 Old standard cor. of secs. 34 and 35, which
 is a redwood post, bears 39 lks. N.
 Difference between measurements of 80.00 chs.,
 by two sets of chainmen, is 5 lks., position of
 middle point.
 By 1st set, 80.02 $\frac{1}{2}$ chs.
 By 2nd set, ~~79.99~~ $79.99\frac{1}{2}$ chs., the mean of which is

80.00 Set a redwood post, 3 ft. long, 4 ins. sq., with
 marked stone, 24 ins. in the ground, for stan-
 dard cor. of secs. 34 and 35, marked
 S 6 S 10 S R 9 E on N.,
 S 35 on E., and
 S 34 on W. face, with 2 grooves, on E., and 4
 grooves on W. face; dig pits, 24 x 18 x 12 ins. cross-
 wise on each line, E. and W., 3 ft., and N. of
 post, 7 ft. dist.; and raise a mound of
 earth, 4 ft. base, 2 ft. high, N. of cor.
 Land, gently rolling.
 Soil, sandy loam; 2nd and 3rd rate.
 No timber; undergrowth, grassmnd and mes-
 quite
 Dense undergrowth, 80.00 chs.
 October 22. At this cor. I set off $11^{\circ} 01'$ S. and
 the decl. arc, and, at 12 h 5 m l. m. t., observed
 the sun on the meridian; the resulting lat. is

Chains $32^{\circ} 30' 7''$
 ~~$32^{\circ} 31' 2''$~~ or within 1' of the proper lat. 158

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West on S. bdy. of sec. 34.
 Over gently rolling land, through dense
 grassland.

14.00 Dry wash, 20 lbs. wide, course N.
 17.20 Dry wash, 30 lbs. wide, course N.
 39.53 Old standard $\frac{1}{4}$ sec. cor., which is a drainage
 stake with marks partly obliterated, bears
 25 lbs. N.
 Difference between measurements of 40.00 chs.,
 by two sets of chainmen, is 6 lbs.; position of
 middle point.
 By 1st set, 39.97 chs.
 By 2nd set, 40.03 chs.; the mean of which is

40.00 Set a redwood post, 3 ft. long, 4 ins. sq., with
 marked stone, 24 ins. in the ground, for stan-
 dard $\frac{1}{4}$ sec. cor. marked S $\frac{1}{4}$ S 34 on N. face;
 dig pits, 18 x 18 x 12 ins. E. and W. of post, 3 ft.
 dist.; and raise a mound of earth, $3\frac{1}{2}$ ft.
 base, 1 $\frac{1}{2}$ ft. high, N. of cor.

45.50 Dry wash, 20 lbs. wide, course N.
 52.00 Dry wash, 20 lbs. wide, course N.
 72.30 Dry wash, 30 lbs. wide, course N.
 79.43 Old standard cor. of secs. 33 and 34, which
 is a redwood post set in a mound of stone,
 bears 105 lbs. S.
 Difference between measurements of 80.00 chs.,
 by two sets of chainmen, is 8 lbs.; position of
 middle point.
 By 1st set, 80.04 chs.
 By 2nd set, 79.96 chs.; the mean of which is

80.00 Set a malpais stone, 18 x 8 x 8 ins., 12 ins. in the
 ground, for standard cor. of secs. 33 and
 34, marked S 6 on N.; with 3 grooves on E.
 and W. faces; and raise a mound of stone,
 3 ft. base, 2 ft. high, N. of cor.
 Land, gently rolling.
 Soil, sandy loam, gravelly and stony; 2nd,
 3rd and 4th rows
 Timber, scattering mesquite; undergrowth,

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6 chains

grassland and cacti
Giant cactns.
Dense undergrowth, 80.00 chs.

Wast. on S. bdy. of sec. 33.
Overgrown rolling land, through dense grass-
land.

28.20 Dry wash, 30 lbs. wide, course N.

37.80 Dry wash, 15 lbs. wide, course N.

39.28 Old standard $\frac{1}{4}$ sec. cor., which is a stake in a mound of stone, bears 166 lbs. S.

Difference between measurements of 40.00 chs., by two sets of chainmen, is 6 lbs.; position of middle point.

By 1st set, 39.97 chs.

By 2nd set 40.03 chs.; the mean of which is

40.00 Set a malpais stone, 18x10x5 ins., 12 ins. in the ground, for standard $\frac{1}{4}$ sec. cor. marked S & N on N. face; dig pits, 18x18x12 ins., E. and W. of stone, 3 ft. dist. and raise a mound of earth, 3 ft. base, 1 1/2 ft. high, N. of cor.

45.00 A mound.

51.00 Top of S. slope of malpais hill; a mound.

56.00 Foot, thence over gully rolling land.

79.26 Old standard cor. of secs. 32 and 33, which is a pro-
wood post in a mound of stone, bears 190 lbs. S.

Difference between measurements of 80.00 chs., by two sets of chainmen, is 4 lbs.; position of middle point.

By 1st set, ~~40.00~~^{80.02} chs.

By 2nd set, ~~79.98~~^{79.98} chs.; the mean of which is

80.00 Set a malpais stone, 18x12x8 ins., 12 ins. in the ground, for standard cor. of secs. 32 and 33, marked S & N on N. with 4 grooves on E. and 2 grooves on N. face; and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor. Pits impracticable.

Land, mountainous and gully rolling.

Soil, stony and rocky; 4th cuts.

Timber, scattering scrub woods; undergrowth, scrub woods, grassland and cacti.

Giant cactns)

Chains

Mountainous, or land covered with dense undergrowth, 80.00 chs.

October 22, 1905.

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October 23: At 8⁴⁰ a.m. l.m.t., I set off ^{31° 30' 07"} ~~32° 32' 10"~~ on the lat. arc; ^{11° 19' 5"} on the decl. arc; and determined a true meridian with the solar at the cor. of arcs ~~32~~ ³² and ~~33~~ ³³.

Thence I run

West on the S. bdy. of sec. 32.

Over grassy rolling land, through scattering pale woods timber and dense brush.

2.00 Ascend.

7.00 S. slope of hill; ascend.

13.80 Foot bars N. and S.; thence over grassy rolling land.

23.00 Enter dry wash, course N. N. E.

27.00 Gravel wash; ascend.

30.00 Gravel dense brush, bars N. and S. W.

39.41 Old standard $\frac{1}{4}$ sec. cor., which is a decayed stake lying on the ground, bars 89 chs. S.

Difference between measurements of 40.00 chs., by two sets of chainmen, is 8 chs.; position of middle point.

By 1st set, 40.04 chs.

By 2nd set, 39.96 chs.; the mean of which is

40.00 Set a malpais stone, 18 x 8 x 6 ins., 12 ins. in the ground, for standard $\frac{1}{4}$ sec. cor. marked S 6 $\frac{1}{4}$ on N. face; from which

A pale rock, 6 ins. diam., bars N. 11° 40' E., 114 chs. dist.; marked S 6 $\frac{1}{4}$ S 32 B S.

A pale rock, 6 ins. diam., bars N. 15° 35' W., 134 chs. dist.; marked S 6 $\frac{1}{4}$ S 32 B S.; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. (Continue ascent)

42.50 Gulch, 40 chs. wide, course S., thence E.

74.00 Top of ridge, 200 ft. above gulch, bars N. and S. W.; begin steep descent over boulders.

79.47 Old standard cor. of secs. 31 and 32, which is a stone in a mound of stone, bars 157 chs. S. Difference between measurements of 80.00 chs. by two sets of chainmen, is 10 chs.; position of middle

8
 Runway of the Second Standard Parallel South, through Range 9 East.

Tot
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6 chains
 Point.
 By 1st set, 80.05 chs.
 By 2nd set, 79.95 chs.; the mean of which is
 80.00 Set a malpais stone, 18 x 8 x 8 ins., 12 ins. in the
 ground, for standard cor. of secs. 31 and 32, marked
 S 6 on N; with 5 grooves on E., and 1 groove on
 W. face. and raise a mound of stone, 5 ft. base, 2 ft.
 high, N. of cor. Pits impracticable.
 Land, mountainous and gently rolling.
 Soil, stony and rocky; 4th roots.
 Timber, scattering palo verde; undergrowth, palo
 verde and cacti.
 Great cacti.
 Mountainous or land covered with dense under-
 growth, 80.00 chs.

West on S. bay. of sec. 31.
 Over mountainous land, descending through scat-
 tering palo verde.
 14.50 Gulch, 350 ft. below top of ridge, 25 lbs. wide, course
 N.; ascend.
 19.00 Spur, extending N.; descend.
 24.60 Dry wash, 40 lbs. wide, ^{course N.} ascend.
 39.13 Old standard $\frac{1}{4}$ sec. cor., which is a scattered mound
 of stone, base 255 lbs. S.
 Difference between measurements of 40.00 chs. by
 two sets of chains, is 6 lbs.; position of middle
 point.
 By 1st set, 39.97 chs.
 By 2nd set, 40.03 chs.; the mean of which is
 40.00 Set a malpais stone, 18 x 10 x 8 ins., 12 ins. in the ground,
 for standard $\frac{1}{4}$ sec. cor. marked S 6 $\frac{1}{4}$ on N. face,
 and raise a mound of stone, 2 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high,
 N. of cor. Pits impracticable.
 47.00 Spur, extending S.; descend.
 50.30 Gulch, 45 lbs. ^{wide} S.; ascend.
 55.50 Spur, extending S.; descend.
 59.40 Gulch, 20 lbs. wide, course S.; ascend.
 63.00 Spur, extending S.; descend through dense palo
 verde brush.
 69.80 Gulch, 15 lbs. wide, course S.; ascend.

chains
73.30
79.25

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Spur, extending S; descend.

The old standard cor. of Sps. 10 S., R. 8 and 9 E., which is a mound of stone, bears S. 315 lks. dist.

Establish cor. at same point for S. 10 S., R. 8 E., only, as follows:

Set a malpais stone, 18 x 8 x 8 ins., 12 ins. in the ground, for standard cor. of S. 10 S., R. 8 E., marked S 6 on N; with 6 grooves on N. and N. faces; from which

A pale rock, 6 ins. diam., bears N. 27° 40' W., 181 lks. dist. marked S 10 S R 8 E S 36 B S; and raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.

Difference between measurements of 79.25 chs. by two sets of chains, is 8 lks.; position of middle point.

By 1st set, 79.29 chs.

By 2nd set, 79.21 chs.; the mean of which is
79.25 Set a malpais stone, 18 x 8 x 6 ins., 12 ins. in the ground, for standard closing cor. of S. 10 S., R. 9 E., marked S 6 on N., 6 6 on E.; with 6 grooves on N. and E. faces; from which

A pale rock, 6 ins. diam., bears N. 33° 50' E., 189 lks. dist. marked S. 10 S. R. 9 E S 31 B S; and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor. and, mountains.

Soil, stony and rocky; 4th rate.

Timber, scattering pale woods; undergrowth, pale woods, grassland and cacti.

Grain Cactus.

Mountains or land covered with dense undergrowth, 79.25 chs.

October 23, 1905.

General Description.

This line runs over gently rolling land in the east and rough mountains in the W. Sps. 11 S., R. 9 E., is rugged and mountainous.

Edgar C. Dietrich
W. S. Deputy Surveyor.

LIST OF NAMES.

A list of the names of the individuals employed by

Edgar C. Dietrich

, United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the ^{re} survey of

the Second Standard Parallel South through Range 9 East

showing the respective capacities in which they acted:

John M. Trayer
Sipriana Villa, Chairman.

Fred Tagler
Walter Percival, Chairman.

Juan Sanchez, Moundman.

Moundman.

Wiley Box, Arman.

Arman.

Mmanuel Salazar Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

Edgar C. Dietrich

, United States Deputy Surveyor, in ^{re} surveying all

those parts or portions of the *Second Standard Parallel*

South through Range 9 East.

of the *Gila and*

Salt River base 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*

John M. Trayer, Fred Tagler ✓, Chairman.

Sipriana Villa, Walter Percival ✓, Chairman.

Juan Sanchez ✓, Moundman.

Moundman.

Wiley Box ✓, Arman.

Arman.

Mmanuel Salazar ✓, Flagman.

Subscribed and sworn to before me this *22nd*
day of *November*, 190*3*

H. G. Power



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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Edgar C. Dietrich United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from J. S. Ugalls United States Surveyor General for Arizona, bearing date of the 15th day of August, 1906, 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 Second Standard Parallel South through Range 9 East of the Gila and Salt River Base & 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.

Edgar C. Dietrich
United States Deputy Surveyor.

Subscribed by said Edgar C. Dietrich, and sworn to before me }
this 2nd day of January, 1906



Roscoe M. Mc
W. Commissioner

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona April 20th, 1906

The foregoing field notes of the survey of the Second Standard Parallel South through Range 9 East of the Gila and Salt River Base and Meridian, in the territory of Arizona

executed by Edgar C. Dietrich, U. S. deputy surveyor under his contract No. 137, dated August 15th, 1906, 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. Ugalls
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.~~