55

1871

Book "C"

BOOK 1871

FIELD NOTES

OF THE SURVEY OF THE

North and South

Boundaries

T. 8 S., R. 16 E.

1871

Of the Gila and Salt River Base *Meridian,*

AS SURVEYED BY

[illegible], *United States Deputy Surveyor,*

Under his Contract No. 137, *dated* [illegible], ~~189~~ 1905.

Survey commenced October 5, ~~189~~ 1905.

Survey completed October 9, ~~189~~ 1905.

6—151

5E 1A

BOOK 1871

NAMES AND DUTIES OF ASSISTANTS.

Fred. Hagler, Chainman

Walter Percival, Chainman

Juan Sanchez, Moundman

Cipriana Villa, Axeman

Manuel Salazar, Flagman

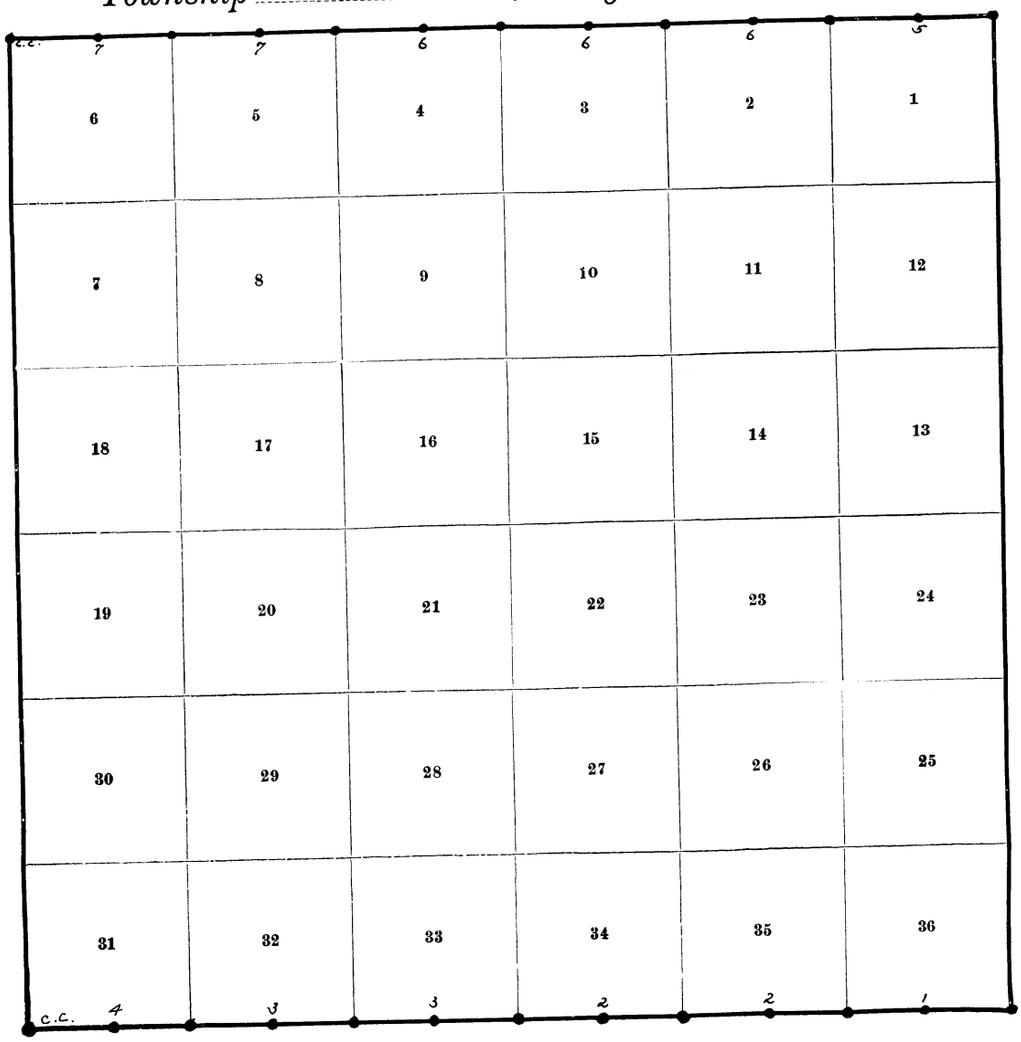
6—151

57 R

BOOK 1871

INDEX DIAGRAM.

Township 18 S., *Range* 15 E.



Meanders Page.....

58 1C

BOOK 1871

PRELIMINARY OATHS OF ASSISTANTS.

We, Fred. Eagles and Walter Percival 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 North and South Boundaries T. 18 S., Rg. 15 E.

Fred Eagles, Chainman.

Walter Percival, Chainman.

Subscribed and sworn to before me this 3rd day of October, ~~189~~ 1905

W. G. Power
N.J. Public

1908

~~We~~, A. 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 ~~us~~ me to the best of ~~our~~ my skill and ability, in the survey of the North and South Boundaries T. 18 S., R 15 E.

, Moundman.

Juan Sanchez, Moundman.

Subscribed and sworn to before me this 3rd day of October, ~~189~~ 1905.

W. G Power
Notary
My

~~We~~, Cl. Siprisana Villa ~~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 ~~us~~ me to the best of ~~our~~ my skill and ability, in the survey of the North and South Boundaries T. 18 S., R. 15 E

, Axman.

Siprisana Villa, Axman.

Subscribed and sworn to before me this 3rd day of October, ~~189~~ 1905

W. 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 survey of the North and South Boundaries T 18 S, R 15 E.

Manuel Salazar, Flagman.

Subscribed and sworn to before me this 3rd day of October, ~~189~~ 1905.

W. G. Power

6—151

BOOK 1871 59 10

Survey of the S. Bdy. T. 18 S. R. 15 E.

Chains

Survey commenced October 5, 1905, and executed with a Jas. W. Queen & Co light mountain transit, No. 4607 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 lat. and decl. arcs. The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor-general for Arizona, September 15, 1905.

I examine 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 cor. of Tps. 18 and 19 S., Rs. 15 and 16 E.; as witnessed and described by the surveyor-general, latitude 31° - 49' N., longitude 111° 42' W.; I set off 31° 49' N., on the lat. arc; 4° - 44' S. on the decl. arc; and at 8 h 30 m p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

AT 6 h 35 m p.m. by my watch, which is correct for l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven the ground, 5 chs. N. of my station,

October 5, 1905.

October 6; At 8 h 40 m a.m., l.m.t., I lay off the azimuth of Polaris 1° - 25' to the W., and mark a point in the meridian thus determined, by cutting a small groove in the stone set October 5, 1905, on which the meridian falls 0.3 ins. west of the meridian determined by the solar.

At 8 h 55 m a.m., l.m.t., I set off 31° - 49' N., on the lat. arc; 5° - 01' 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 falls 0.4 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively about 0' 16" east and 0' 21" west of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory The magnetic bearing of the true meridian, at 9 h 15 m a.m., is N. 13° - 00' W.; the angle thus determined gives the mag. decl. 13° - 00' E.

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19 7E

BOOK 1871

Mineral Segregation Sheet T.18 S., R. 15 E.

X

~~Feet.~~ Chs.

From the cor. of Tps. 18 and 19 S., Rgs. 15 and 16 E. U. S. L. M. 1299 bears N. 49° - 42' W., 3793.1 ft. dist. Thence I run West on a true line on the S. bdy. of sec. 36 T. 18 S., R. 15 E.

27.51 ~~1815.7~~ Intersect line 3 - 4 of the Altamont lode, Sur. No. 1301 at a point N. 0° - 50' E., ~~182.2 ft.~~ dist. from cor. no. 4 of the Altamont lode. 2.764 chs

36.622 ~~2417.1~~ Intersect line 6 -1 of the Altamont lode at a point N. 0° - 50' E., ~~173.5 ft.~~ dist. from cor. no. 6 of the Altamont lode. 2.629 chs.

54.39 ~~3589.7~~ Intersect line 3 - 4 of the Empire lode, Sur. No. 1299 at a point North, ~~533.8 ft.~~ dist. from cor. no. 4 of the Empire lode. 8.088 chs.

60.903 ~~4089.6~~ Intersect line 6 - 1 of the Empire lode at a point N. 11° 00' E., ~~874.3 ft.~~ dist. from cor. no. 6 of the Empire lode 4.156 chs.

Chains.

An oak, 12 ins. diam., brs. S. 21° W., 67 lks. dist., marked T 19 S R 15 E S 2 B T
An oak 10 ins. diam., brs. N. 52° W. 100 lks. dist., marked T 18 S R 15 E S 35 B T
Land, mountainous.
Soil, gravelly, 3rd and 4th rate.
Timber, oak.
Undergrowth, none.

- -

Thence I run,
W. on a true line bet. secs. 2 and 35.
Over mountainous land, descending.
3.00 Gulch, 1 ch. wide, course, S.E., and ascend
24.50 Enter heavy oak timber.
40.00 Cut a cross on a granite boulder in place 5 x 4 x 4 ft. and mark ¼ E. of cross., from which:-
An oak, 12 ins. diam., brs. N. 51° E., 24 lks. dist., marked ¼ S 35 B T
An oak 24 ins. diam., brs. S. 20° E., 114 lks. dist., marked ¼ S 2 B T

October 6, 1905: At this cor.I set off 5° 04' E. on the decl.ars, and at 11 h 54 m a m.,l.m.t. observe the sun on the meridian; the resulting lat. is ~~31° 50'~~ 31° 49' 17" or within 1' of the proper lat.

From the ¼ cor.of secs.2 and 35 I run.
W. on a true line bet. secs. 2 and 35.
78.00 Top of mountain brs N.W. & S.E., and descend.
80.00 Set a granite stone 24 x 12 x 6 ins., ~~18~~ ins.in ground marked with 2 notches on E.and 4 notches on W.edge, and raise a mound of stone 2 ft.base 1½ ft.high W.of cor.
From the cor.
An oak 12 ins. diam., brs. E. 23° E., 44 lks. dist., marked T 18 S R 15 E S 35 B T
An oak 18 ins. diam., brs. E. 44½° W.,66 lks. dist., marked T 18 S R 15 E S 34 B T
Land, mountainous.
Soil,gravelly, 3rd and 4th rate.
Timber, piñon, cedar and oak.
Undergrowth, none.

- -

Thence I run,
W. on a true line, bets. secs. 3 and 34.
Over mountainous land, descending.
20.00 Begin ascent.
24.00 Ridge, brs. N.W. and S.E.
36.00 Enter draw.
40.00 Cut a cross on a granite boulder 24 x 15 x 10 ft., in place, and mark ¼ E. of cross; raise a mound of stone 2 ft. base 1½ ft. high E. of cor. point. From the cor.point:-
An oak, 15 ins. diam., brs. S. 54½° E. 124 lks. dist., marked ¼ S 3 B T no other trees available
44.00 Leave draw, course W. and S.W.
64.00 Enter wash, course W.
68.00 Leave wash, course S.W.
78.00 Wash, 80 lks. wide, course S.W.
80.00 Set a granite stone 20 x 10 x 8 ins., ~~14~~ 15 ins.in ground marked with one notches one and three notches on W edge for cor.of secs.3,4,33,34, and raise a mound of stone, 2 ft.base 1½ ft.high W.of cor.; from the cor.:
A mesquite,12 ins.diam.,brs.E.9½° E.425 lks.dist., marked T 18 S R 15 E S 34 B T
No other bearing trees available.

Chains.

An oak, [illegible] ins. diam., brs. S. [illegible]° W., [illegible] lks. dist., marked T [illegible] S R [illegible] E S [illegible] T

An oak [illegible] ins. diam., brs. N. [illegible]° W. [illegible] lks. dist., marked T [illegible] S R [illegible] E S [illegible] T

Land, mountainous.

Soil, gravelly, 3rd and 4th rate.

Timber, oak.

Undergrowth, none.

- - - - - - - - - - - - - - - - - - - -

Thence I run,

W. on a true line bet. secs. [illegible] and [illegible].

Over mountainous land, descending.

[illegible] Gulch, 1 ch. wide, course S.E., and ascend

[illegible] Enter heavy oak timber.

[illegible] Cut a cross on a granite boulder in place [illegible] and mark ¼ S. of cross, [illegible]

An oak, [illegible] ins. diam., brs. N. [illegible]° E., [illegible] lks. dist., marked ¼ S [illegible] T

An oak [illegible] ins. diam., brs. S. [illegible]° E., [illegible] lks. dist., marked ¼ S [illegible] T

October [illegible], [illegible] At this cor. I set off [illegible]° [illegible]' S. on the [illegible], and at [illegible] [illegible], thence on the meridian, the remaining [illegible] [illegible] or within 1' of the proper lat.

From the ¼ sec. cor. [illegible] I ran.

W. on a true line bet. secs. [illegible] and [illegible].

76.00 Top of mountain brs N.W. & S.E., and descend.

80.00 Set a granite stone [illegible] x 12 x [illegible] ins., [illegible] ins. in ground marked with 6 notches on N. and 6 notches on W. edge, and raise a mound of stone [illegible] ft. base [illegible] ft. high W. of cor. From the cor.

An oak [illegible] ins. diam., brs. N. [illegible]° E., [illegible] lks. dist., marked T [illegible] S R [illegible] E S [illegible] T

An oak [illegible] ins. diam., brs. N. [illegible]° W., [illegible] lks. dist., marked T [illegible] S R [illegible] E S [illegible] T

Land, mountainous.

Soil, gravelly, 3rd and 4th rate.

Timber, pinon, cedar and oak.

Undergrowth, none.

- - - - - - - - - - - - - - - - - - - -

Thence I run,

W. on a true line, bet. secs. [illegible] and [illegible].

Over mountainous land, descending.

[illegible] Begin ascent.

[illegible] Ridge, brs. N.W. and S.E.

[illegible] [illegible] draw.

[illegible] Cut a cross on a granite boulder [illegible] x [illegible] x 10 ft., in place, and mark ¼ N. of cross, raise a mound of stone [illegible] ft. base [illegible] ft. high N. of cor. point. From the cor. point:

An oak, [illegible] ins. diam., brs. S. [illegible]° W. [illegible] lks. dist., marked ¼ S [illegible] T

[illegible] Leave draw, course W. and S.W.

[illegible] Water tank, course W.

[illegible] Leave tank, course S.W.

[illegible] Wash, [illegible] lks. wide, course S.W.

80.00 Set a granite stone [illegible] x 10 x [illegible] ins., [illegible] ins. in ground for cor. of secs. [illegible], and raise a mound of stone, [illegible] ft. base [illegible] ft. high W. of cor., from the cor.:

A mesquite, [illegible] ins. diam., brs. N. [illegible]° E. [illegible] lks. dist., marked T [illegible] S R [illegible] E S [illegible] T

No other bearing trees available.

Chains

Land, mountainous.
Soil, gravelly, 3rd and 4th rate.
Timber, mesquite.
Undergrowth, mesquite.

October 6, 1905

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October 7, 1905: At 6 h 45 m a.m., l.m.t., I set off 21° 49' N.on the lat.arc; 5° 24' S.on the decl.arc, and determine a meridian with the solar at the cor. of secs.3,4,33 and 34,on the S.Bdy.of the Tp.,as already set and described by me.

Thence I run,
W. on a true line bet. secs. 4 and 33.
Over rolling land.
17.65 Wash, 40 lks. wide, course S. W.
40.00 Set a granite stone 18 x 10 x 8 ins. 12 ins.in ground for ¼ sec.cor., marked ¼ on N.face; from which:-
A mesquite 12 ins.diam.,brs.N.85½° W.196 lks. dist., marked ¼ S 33 B T
A mesquite 6 ins.diam.,brs.S.48° E.,342 lks. dist., marked ¼ S 4 B T
59.00 Dry wash, 40 lks. wide, course, N. W.
62.14 Wire fence, brs. N.32½° E.
67.50 Wash, 50 lks. wide, course, N. W.
80.00 Set a limestone 18 x 10 x 8 ins.,12 ins.in ground, for cor.of secs.4,5,32 & 33, marked with 4 notches on E. and 2 notches on W. face, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor. No other trees available
Land, gently rolling.
Soil, gravelly, 3rd and 4th rate.
Timber, scattering mesquite.
Undergrowth, scattering mesquite.

- -

Thence I run,
W. on a true line bet. secs. 5 and 32.
Over rolling land.
Through mesquite and tecotilla undergrowth.
40.00 Set a limestone,18 x 8 x 6 ins.,12 ins.in ground for ¼ sec.cor.,marked ¼ on N.face; from which:-
A mesquite,6 ins.diam.,brs.N.41½° W.,120 lks.dist., marked ¼ S 32 B T
A mesquite,10 ins.diam.,brs.S.4½° E.,150 lks.dist., marked ¼ S 5 B T

October 7, 1905: At this cor.I set off 5° 27' S.on the decl.arc,and at 11 h 57 m a.m.,l.m.t.,observe the sun on the meridian;the resulting lat.is 21° 49' N. which agrees with the proper lat.

From the ¼ cor.of secs.5 & 32 I run,
W. on a true line bet. secs. 5 and 32.
41.00 Wash, 2 chs.wide, course W. and N. W.
55.00 Enter draw, course W. & N. W.,
67.00 Wash, 1 ch. wide, course, N. W.
80.00 Set a granite stone 20 x 10 x 6 ins., 15 ins.in ground for cor.of secs.5,6,31 & 32, marked with 5 notches on E.and 1 notch on W.edge; from which:-
A palo verde 10 ins.diam.,brs.N.78° E.,170 lks.dist., marked T 18 S R 15 E S 32 B T
A mesquite, 6 ins.diam.,brs.S.89½° E., 88 lks.dist., marked T 19 S R 15 E S 5 B T
A mesquite, 8 ins.diam.,brs.S. 32° W., 113 lks.dist., marked T 19 S R 15 E S 6 B T
A mesquite 12 ins.diam., brs.N.89½° W.,140 lks.dist., marked T 18 S R 15 E S 31 B T

Chains	
	Land, mountainous.
	Soil, gravelly, 3rd and 4th rate.
	Timber, mesquite.
	Undergrowth, mesquite.

October 6, 1906.

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October 7, 1906: At 8 h 00 m a.m., L.M.T., I set off 11° 46' E. on the lat. arc; 5° 24' E. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34, on the S. Bdy. of the Tp., as already set and described by me.

Chains	
	Thence I run
	W. on a true line bet. secs. 4 and 33.
	Over rolling land.
17.50	Wash, 60 lks. wide, course S. W.
40.00	Set a granite stone 16 x 10 x 6 ins., 12 ins. in ground for ¼ sec. cor., marked ¼ on N. face, from which-
	A mesquite 12 ins. diam., brs. N. 60° W. 100 lks. dist., marked ¼ S 33 B T
	A mesquite 6 ins. diam., brs. S. 60° E., 200 lks. dist., marked ¼ S 4 B T
53.00	Dry wash, 60 lks. wide, course, N. W.
62.16	Wire fence, brs. N. 5° E.
67.50	Wash, 50 lks. wide, course, N. W.
80.00	Set a limestone 20 x 10 x 6 ins., 12 ins. in ground, for cor. of secs. 4, 5, 32 & 33, marked with 6 notches on E. and 6 notches on W. faces, and raise a mound of stone 4 ft. base 1½ ft. high W. of cor.
	Land, gently rolling.
	Soil, gravelly, 3rd and 4th rate.
	Timber, scattering mesquite.
	Undergrowth, scattering mesquite.

- -

Chains	
	Thence I run
	W. on a true line bet. secs. 5 and 32.
	Over rolling land.
	Through mesquite and tesotillo undergrowth.
40.00	Set a limestone 16 x 8 x 6 ins., 12 ins. in ground for ¼ sec. cor., marked ¼ on N. face, from which-
	A mesquite 6 ins. diam., brs. N. 45° W., 120 lks. dist., marked ¼ S 32 B T
	A mesquite 10 ins. diam., brs. S. 45° E., 100 lks. dist., marked ¼ S 5 B T

October 7, 1906: At this cor. I set off 6° 21' E. on the decl. arc, and at 11 h 57 m a.m., L.M.T., observe the sun on the meridian; the resulting lat. is 31° 46' N. which agrees with the proper lat.

Chains	
	From the ¼ cor. of secs. 5 & 32 I run,
	W. on a true line bet. secs. 5 and 32.
41.00	Wash, 2 chs. wide, course W. and N. W.
50.20	Enter draw, course W. & N. W.
51.00	Wash, 1 ch. wide, course, N. W.
80.00	Set a granite stone 20 x 10 x 6 ins., 12 ins. in ground for cor. of secs. 5, 6, 31 & 32, marked with 6 notches on E. and 1 notch on W. edges, from which:-
	A palo verde 10 ins. diam., brs. N. 10° E., 170 lks. dist., marked T 16 S R 16 E S 32 B T
	A mesquite, 6 ins. diam., brs. S. 65° E., 90 lks. dist., marked T 17 S R 16 E S 5 B T
	A mesquite, 6 ins. diam., brs. S. 32° W., 115 lks. dist., marked T 17 S R 16 E S 6 B T
	A mesquite 12 ins. diam., brs. N. 65° W., 150 lks. dist., marked T 16 S R 16 E S 31 B T

Chains

Land, gently rolling.
Soil, gravelly, 3rd and 4th rate.
Timber, mesquite.
Undergrowth, mesquite.

. . . . . .

Thence I run,
W. on a true line bet. secs. 6 and 31.
Over level land.
In draw
13.00 Leave draw, course W. & N. W.
40.00 Set a mesquite post 4 x 4 ins. 3 ft. long, 24 ins. in ground, for ¼ sec.cor., marked ¼ S 31 on E. face and 6 on S. face; from which:-
A mesquite 6 ins.diam., brs.E. 2½° W., 88 lks.dist., marked ¼ S 31 B T
A mesquite 6 ins.diam., brs. S. 1½° E.,152 lks.dist., marked ¼ S 6 B T
42.00 Road, brs. N. W. & S. E.
72.50 Dry wash, 20 lks. wide, course, N.W.
82.90 Intersect W.Bdy.at a point S. 0° 21' W. 11.28 chs. dist.from the ¼ sec.cor.of sec.36 on the N.Bdy. of Tp.18 S.R.14 E. heretofore described
Set a granite stone 16 x 10 x 6 ins.,12 ins.in ground for closing cor.of Tps.18 & 19 S., R.15 E.,marked with 6 notches on N., E. & S. face, C C on E. face, and raise a mound of stone 2 ft. base 1½ ft.high E. of cor. From the cor. a mesquite 8 ins.diam., brs.S.51° E., 110 lks.dist., marked T 19 S R 15 E S 6 B T No other trees within limits
Land, level.
Soil, gravelly, 3rd and 4th rate.
Timber, none.
Undergrowth, none.

October 7, 1905.

. . . . . .

Edgar M. Dietrich

U. S. Deputy Surveyor.

Chains	
	Land, gently rolling.
	Soil, gravelly, 3rd and 4th rate.
	Timber, mesquite.
	Undergrowth, mesquite.

- -

	Thence I run,
	W. on a true line bet. secs. 6 and 31.
	Over level land.
	In draw
12.00	Leave draw, course W. & N. W.
40.00	Set a mesquite post 4 x 4 ins. 3 ft. long, 24 ins. in ground, for 1/4 sec. cor., marked 1/4 S 31 on N. face and 6 on S. face, from which-
	A mesquite 6 ins. diam., brs. N. 36° W., 66 lks. dist., marked 1/4 S 31 B T
	A mesquite 6 ins. diam., brs. S. 17° E., 104 lks. dist., marked 1/4 S 6 B T
[illegible].00	Road, brs. N. W. & S. E.
[illegible]	Dry wash, 30 lks. wide, course N.W.
[illegible]	Intersect W. Bdy. at a point S. 0° 21' W. 41.20 chs. dist. from the 1/4 sec. cor. of secs. 1 and 36 on the W. Bdy. of Tp. 10 S. R. 16 E.
	Set a granite stone 20 x 10 x 6 ins., 12 ins. in ground for closing cor. of Tps. 10 & 11 S., R. 16 E., marked with 6 notches on N., E. & S. faces, C C on E. face, and raise a mound of stone 2 ft. base 1½ ft. high E. of cor. From the cor. a mesquite 6 ins. diam., brs. S. 62° E., 110 lks. dist., marked T 10 S R 16 E S 6 B T
	Land, level.
	Soil, gravelly, 3rd and 4th rate.
	Timber, none.
	Undergrowth, none.

October 7, 190[illegible].

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U. S. Deputy Surveyor.

Chains	
	Survey commenced October 7, 1905, and executed with a Jas. W. Queen & Co. light mountain transit, No. 4607, 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 lat. and decl. arcs. The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor-general for Arizona, September 15, 1905.
	I examine 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 ~~cor.~~ W.C. of Tps. 17 and 18 N., Rs. 15 and 16 E.; as witnessed and described by the Surveyor General latitude 31°- 54'√N., longitude 111°- 45'√W.; I set off 31°- 54' N√, on the lat. arc; 5°- 31'√E. on the decl. arc; and at 4 h 00m p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.
	AT 6 h 26 mpp.m. by my watch, which is correct for l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven the ground, 5 chs. N. of my station,
	October 7, 1905.
	October 8; At 8 h 03m a.m., l.m.t., I lay off the azimuth of Polaris 1°- 25'√ to the W., and mark a point in the meridian thus determined, by cutting a small groove in the stone set October 7, 1905, on which the meridian falls 0.3 ins. west of the meridian determined by the solar.
	At 8 h 40m a.m., l.m.t., I set off 31°- 54' N., on the lat. arc; 5°- 47'√E. 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 falls 0.4 ins. west of the meridian established by the Polaris observation.
	The solar apparatus by p. m. and a.m. observations, defines positions for meridians , respectively about 0' 01" east and 0' 16" west of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory The magnetic bearing of the true meridian, at 9 h 0m a.m., is N. 13°- 10' E.; the angle thus determined gives the mag. decl. 13 - 10' E.
	Point of Tps. 17 & 18 - Rs. 15 & 16 E.
	From the Tp. cor. already described
	Thence I run
	W. on a true line bet. secs. 1 and 36.
	Along wash.
10.00	Leave wash, 40 lks. wide, course N.W., and ascend.
27.00	Top of ridge N.W. and S.E., ~~bears~~ and descend.
37.00	Foot of descent and ascend.
40.00	Set a granite stone 18 x 8 x 6 ins., 12 ins. in ground
√	for 1/4 sec. cor., marked 1/4 on N. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.
62.60	Ridge, 500' high, bears N.W. and S.E, and descend.
70.00	Wash, 10 lks. wide, course S. and ascend.
80.00	Set a quartz stone 18 x 8 x 8 ins., 12 ins. in ground
√	marked with inch on E. and 6 notches on W. edge for cor. of secs. 1, 2, 35 and 36 and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.
	No bearing trees available.
	Land, mountainous.
	Soil, stony, 3rd and 4th rate.
	Timber, none.
	Undergrowth, none.

Chains	
T	Thence I run
	W. on a true line bet. secs. 2 and 35.
	Over mountainous land ascending.
5.00	Top of ridge, bears N. and S. and descend.
15.70	Gulch, 20 lks. wide, course S., and ascend.
23.00	Top of limestone ridge, 350' high, bears N. and S. and descend.
28.40	Descend bluffs, 100' high.
40.00 ✓	Set a limestone 18 x 8 x 8 ins., 12 ins. in ground for 1/4 sec. cor., marked 1/4 on N.face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.
	No bearing trees available.
X	**October 8 ;At this point I set off 5°-50' S. on the decl.arc;and at 11 h 58 m a.m.,l.m.t.,observe the sun on the meridian;the resulting lat.is 31°-53' N. or within 1' of the proper lat.**
55.00	George Stone's house, bears S., 24 chs. dist.
61.10	Road to Vail's station, bears N. and S.
66.80	Wash, 10 lks. wide, course S. W.
80.00 ✓	Set a granite stone 18 x 6 x 6 ins., 12 ins. in ground for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on E. and 4 notches on W. edge, and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.
	N0 bearing trees available.
	Land, level and mountainous.
	Soil, gravelly, 2nd and 3rd rate.
	Timber, none.
	Undergrowth, mesquite and tesotilla.
	- -
	W. on a true line bet. secs. 3 and 34.
	Over gently rolling land.
25.00	Wash, 10 lks. wide, course N.W.
40.00 ✓	Set a limestone 18 x 10 x 5 ins., 12 ins. in ground for 1/4 sec. cor., marked 1/4 on N. face, and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.
	No bearing trees available.
40.50	Wash, 10 lks. wide, course N.W.
59.00	Wash, 10 lks. wide, course S. W.
71.40	Wash, 10 lks. wide, course S.W.
80.00 ✓	Set a granite stone 18 x 10 x 8 ins., 12 ins. in ground for cor. of secs. 3, 4, 33 and 34, marked with 3 notches on E. and 3 notches on W. edge, and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor., from the cor:
	A palo verde, 8ins. diam., bears S. 25 1/2 W., ~~200~~ 167 lks. dist., marked T.18 S R 15 E S 4 B T.
	No other bearing trees available.
	Land, rolling.
	Soil, gravelly, 3rd rate.
	Timber, none.
	Undergrowth, dense palo verde and tesotilla.
	- -
	October 9: At 8 h 35 m A.M., l. m. t., I set off 31 - 54' N. on the lat. arc; 6°- 09' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34, on the N. bdy. of the Tp., as already set and described by me.
	- -
	Thence I run.
	W. on a true line bet. secs. 4 and 33.
4.00	Wash, 10 lks. wide, course S.W.
31.00	Junction of washes from S.E.
40.00 ✓	Set a lime stone 18 x 10 x 8 ins., 12 ins. in ground for 1/4 sec. cor., marked 1/4 on N. face, from which:
	A mesquite, 4 ins. diam., bears S. 26 1/2 E., 74 lks. dist., marked 1/4 S 4 BT.
	A palo verde, 4 ins. diam., bears N, 3 3/4 W., 60 lks. dist., marked 1/4 S 33 B T.
47.30	Road to Tucson, bears N.W. and S.E.
80.00	Set a sand stone 18 x 10 x 8 ins., ~~18 ins. in ground~~ set in a mound of stone

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Chains

for secs of secs. 4, 5, 32 and 33, marked with 4 notches on E. and 2 notches on W. edge, from which:
A mesquite, 5 ins. diam., bears N. 64 1/2 E., 62 lks. dist., marked T 17 S R 15 E S 33 B T.
A mesquite, 4 ins. diam., bears S. 29 E., 80 lks. dist. marked T 18 S R 15 E S 4 B T.
A mesquite, 4 ins. diam., bears S. 49 1/4 W., 24 lks. dist., marked T 18 S R 15 E S 5 B T.
A mesquite, 4 ins. diam., bears N. 47 W., 50 lks. dist., marked T 17 S R 15 E S 32 B T.
Land, level.
Soil, gravelly, 2nd and 3rd rate.
Timber, mesquite and palo verde.
Undergrowth, ocotilla.

- -

Thence I run
W. on a true line bet. secs. 5 and 32.
Over level land.
24.10 Old road, bears N.W. and S.E.
34.20 Wire fence, bears N. and S.
40.00 Set a lime stone 18 x 10 x 8 ins.in a mound of stone, ~~marked~~ for 1/4 sec. cor., marked 1/4 on N. face, from which:
A palo verde, 6 ins. diam., bears S. 4 1/2 E., 113 lks. dist., marked 1/4 S 5 B T.
A palo verde, 4 ins. diam., bears N. 69 1/2 E., 125 lks. dist., marked 1/4 S 32 B T.
At this point I set off 6° - 13'30 on the decl. arc and at 11h 58m AM., l. m. t., I observe the sun on the meridian; the resulting latt. 31°-33' is or within 1 minute of the proper latitude.
73.50 Wash, 2 chs. wide, course N.W.
80.00 Set a lime stone 24x 8 x 8 ins., 16 ins.in ground for cor.of secs.5,6,31 & 32, marked with 5 notches on E. and 1 notch on W. edge,and raise a mound of stone, 2 ft.base 1½ ft.high W. of cor. From the cor.:-
A mesquite, 6 ins.diam.,brs.S 8½° E., 78 lks.dist., marked T 18 S R 15 E S 5 B T
A palo verde,5 ins.diam.,brs.N.21° W.143 lks.dist., marked T 17 S R 15 E S 31 B T
No other bearing trees available.
Land, level.
Soil, gravelly, 2nd & 3rd rate.
Timber, mesquite and palo verde.
Undergrowth, ocotillo.

- -

Thence I run,
W. on a true line bet. secs. 6 & 31.
Over level land.
20.00 Wash, 20 lks. wide, course, N. W.
40.00 Set a quartz stone 18 x 8 x 8 ins., set in a mound of stone ~~12 ins.in ground~~ for ¼ sec.cor., marked ¼ on N.face; from which:-
A mesquite, 8 ins.diam.,brs.S.48½° E. 70 lks.dist., marked ¼ S 6 B T
A palo verde,4 ins.diam.,brs.N.70° E., 52 lks.dist., marked ¼ S 31 B T
42.00 Wash, 4 chs.wide, course, N. W.
58.50 Wash, 2 chs.wide, course, N. W.
82.83 Intersect W.Bdy.of Tp. 32.90 chs.North of cor.of Tps. 17 & 18 S., R.14 E. heretofore described
Set a quartz stone 18 x 8 x 8 ins.,12 ins.in ground, for closing township corner,marked with 6 notches on N., E. and S. face, and C C on E. face. From which:-
A palo verde,4 ins.diam.,brs.S.14° E., 76 lks.dist., marked T 18 S R 15 E S 6 B T
A tesota 5 ins.diam.,brs. N. 46½° E.,104 lks.dist., marked T 17 S R 15 E S 31 B T

Chains

Land, level.
Soil, gravelly, 2nd rate.
Timber, mesquite and palo verde.
Undergrowth, dense, mesquite, palo verde and tecotillo.

October 9, 1905.

GENERAL DESCRIPTION.

The North Boundary of Tp. 18 S., R.15 E., runs partly over mountainous land and rolling land, through mesquite, palo verde and tesota undergrowth.

There is no water along this line except during the rainy season, and there are no settlers living in Tp.17 S., R. 15 E.

The south boundary of Tp.18 S., R.15 E., runs over mountainous land and through oak timber. There is no water along this line, except during the rainy season. There are some settlers living in Tp.19 S., R.15 E.

Edgar C. Dietrich
U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

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LIST OF NAMES.

A list of the names of the individuals employed by Edgar L. Dietrich, 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 North and South Boundaries T. 1 S., R. 15 E. showing the respective capacities in which they acted:

Fred. Fagles, *Chainman.*
Walter Percival, *Chainman.*
Juan Sanchez, *Moundman.*
, *Moundman.*
Lipriano Villa, *Axman.*
, *Axman.*
Manuel Salazar, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Edgar L. Dietrich, United States Deputy Surveyor, in surveying all those parts or portions of the North and South Boundaries of T. 1 S., R. 15 E.

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

Fred Fagles, *Chainman.*
Walter Percival, *Chainman.*
Juan Sanchez, *Moundman.*
, *Moundman.*
Lipriano Villa, *Axman.*
, *Axman.*
Manuel Salazar, *Flagman.*

Subscribed and sworn to before me this 20th day of October, ~~189~~ 1905

W. G. Power

SEAL

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Edgar A. Dietrich, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from F. S. Angalls United States Surveyor General for Arizona, bearing date of the 15th day of August, ~~189~~ 1905, 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 North and South Boundaries of Tp. 18 S, Rg 15 E

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; 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.

Edgar A. Dietrich
United States Deputy Surveyor.

Subscribed by said Edgar A. Dietrich, and sworn to before me this 2nd day of Jany 1906, ~~189~~

Roscoe Dale
U.S. Commissioner

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz: May 2nd 1906, ~~189~~

The foregoing field notes of the survey of the North and South Boundaries of T 18 S, R 15 E, of the Gila and Salt River Base and Meridian, in the Territory of Arizona

executed by Edgar A. Dietrich, U.S. deputy surveyor under his contract No. 137, dated August 15, 1905, ~~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 A. Angalls
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.~~

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