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BOOK 2118

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Book. A.

FIELD NOTES

2118

OF THE SURVEY OF THE

2118

North, South and East

Boundaries, Frac. Tp. 19 N R 12 1/2 E

Frac. N. and S. bds. Tp. 19 N R 12 E. and

Resurvey of 3rd Guide Mer. East thro Tp 19 N

2118

Of the *Gila and Salt River Basins* Meridian,

Arizona

AS SURVEYED BY

Jesse B. Wright, United States Deputy Surveyor,

Under his Contract No. *15-2*, dated *Oct. 24, 1908*, 1908

Survey commenced *Nov. 28th*, 1908

Survey completed *Dec. 2, 1908*, 1908

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BOOK 2118

NAMES AND DUTIES OF ASSISTANTS.

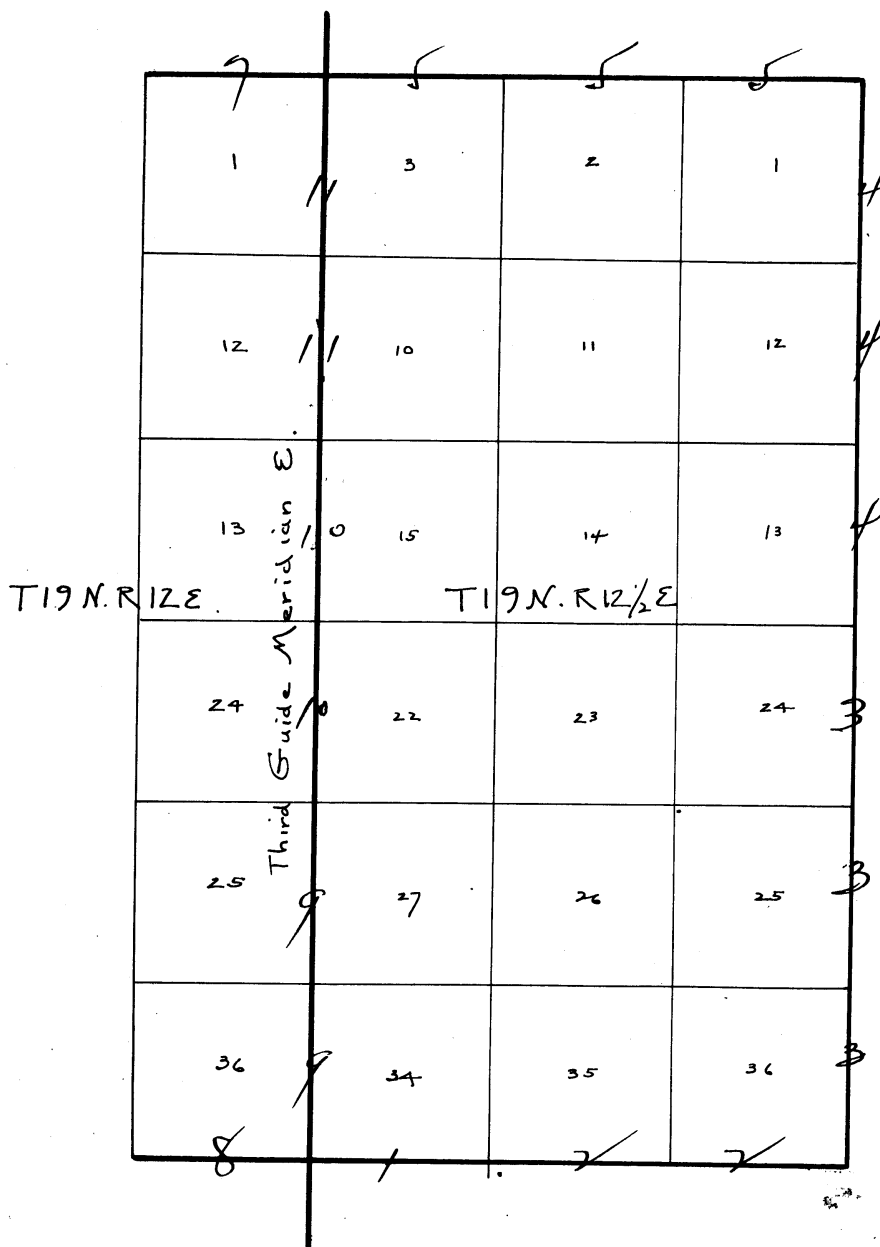
Frank H. Devine Chairman
 Ben. A. McCawley Chairman
 Virgilius A. Morris Chairman
 John & Martin Chairman
 Claude Morris Flopman
 Aloy H. Smuty Mammum

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BOOK 2118

INDEX DIAGRAM.



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BOOK 2118

PRELIMINARY OATHS OF ASSISTANTS.

WE, Fraust H. Devine and Virgilius A. Morris

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 survey of

Bds of Tp 19 NR 12 1/2 E, Sec 7 and 8. Sec 7 19 NR 12 E.

Fraust H. Devine, Chainman.

Virgilius A. Morris, Chainman.

Subscribed and sworn to before me this 28th day of Nov, 1908

Bern A. McCauley, Chainman
John D. Martin, Chainman

Jose B. Wright
U. S. Deputy Surveyor



WE, Aloy H. Smuty 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

Bds of Tp 19 NR 12 1/2 E, Sec 7 and 8. Sec 7 19 NR 12 E

Aloy H. Smuty, Moundman.

....., Moundman.

Subscribed and sworn to before me this 28th day of Nov, 1908

Jose B. Wright
U. S. Deputy Surveyor



WE, 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 us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this day of, 190



I, Claude Morris, 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 Bds of Tp 19 NR 12 1/2 E, Sec 7 and 8. Sec 7 19 NR 12 E

Claude Morris, Flagman.

Subscribed and sworn to before me this 28th day of Nov, 1908

Jose B. Wright
U. S. Deputy Surveyor



South Bdy. T. 19 N. R. 12 1/2 E. (17)

- Chains** Survey commenced Nov. 28, 1908, and executed with a W. & L.E. Gurley light mountain transit, special make unnumbered.
- This instrument is provided with two double verniers, each reading to 1' of arc, and with Burts' patent solar attachment, the verniers of the lat. and decl. arcs reading to 30" of arc.
- I begin as per instructions at the cor. of Tps. 18⁰ & 19⁰ N. Rs. 12 & 12 1/2 E. which is a limestone 26x10x8 ins. marked and witnessed as described by the Surveyor General.
- I re-mark this stone with 6 notches on each edge, destroy the old md. of stone which is dilapidated, and raise a md. of stone 4 ft. base 3 ft. high S. of cor.
- I test the levels and line of collimation of my instrument and finding same satisfactory, I also test the standards and find same exact; I examine the polar axis of the solar and test the adjustments of the solar, finding all parts of the instrument in satisfactory adjustment as to tests; to test the solar apparatus by comparing P.M. & A.M. obs. for mer. with a true mer. determined by polaris obs. I proceed as follows:
- At the cor. above described at 11h 48m a.m. l.m.t. I set off 21° 20' S. on the decl. arc and observe the sun on the mer.
- The resulting lat. is 35° 00' N.
- At 4h p.m. l.m.t. I set off 21° 19' 30" S. on the decl. arc and 35° 00' N. on the lat. arc and determine a mer. with the solar and mark a point in the mer. thus determined by a tack in a stake driven firmly in the ground 6 chs. N. of my sta.
- Nov. 28, 1908.
- Nov. 29, 1908. At 2h ^{52 1/2} 47m a.m. l.m.t. I observe polaris at W. elong. in accordance with instructions in the Manual and mark a point in the line thus determined by a tack in a stake 5 chs. N. of my sta.
- At 8h a.m. l.m.t. I set off the azimuth of polaris 1° 27' to the East and mark the mer. thus determined by a tack in the stake 6 chs. N. of my sta., which point falls 1/4 in. E. of the mer. determined by solar obs. of preceding evening.
- Then I set off 21° 26' 30" S. on the decl. arc and 35° 00' N. on the lat. arc and determine a mer. with the solar, which mer. falls 1/8 in. E. of that determined by polaris obs. The solar apparatus by p.m. & a.m. obs. defines ^{mer} about 12" W. & 6" E. of the mer. established by polaris obs. Therefore I conclude that the adjustments of the inst. are satisfactory.
- The mag. bearing of the meridian at 8h a.m., is 14° 30' W., the angle thus determined gives the mag. decl. 14° 30' E. From the Tp. cor. above described, I run
- As per instructions,
East on S. bdy. sec. 34, T. 19 N. R. 12 1/2 E.
Over gently rolling land.
- 38.09 Allowing 1.91 chs. for convergency as per instructions, I set a limestone 24x8x8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face and raise a md. of stone 2 ft. base 1 1/2 ft. high N. of cor.
No bearings available.
- 78.09 Set a limestone 30x15x10 ins. 24 ins. in the ground for cor. of secs. 34, 35, 2 & 3, marked with 2 notches on E. & 4 notches on W. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
Land, rolling.
Soil, 2nd & 3rd rate, sandy, loamy.
No timber or undergrowth.
Rolling land 78.09 chs.

- Chains East on S. bdy. sec. 35.
Over gently rolling mesa land, thro' dense sage brush.
10.00 Road, brs. N. & S.
20.00 Draw 2 chs. wide course N. asc. grad.
40.00 Set a limestone 24x12x8 ins. 18 ins. in the 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 bearings available.
- 80.00 Set a limestone 24x12x6 ins. 18 ins. in the ground for
cor. of secs. 35, 36, 1 & 2, marked with 1 notch on E.
& 5 notches on W. edges and raise a mound of stone
2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
Land, rolling.
Soil, 2nd & 3rd rate, sandy loamy.
No timber.
Undergrowth, dense sage brush, scattering cedar.
Rolling land covered with dense undergrowth 80.00 chs.
-
- East on S. bdy. sec. 36.
Over rolling land through cedar timber.
- 65.00 Enter dense cedar.
- 40.00 Set a cedar post 3 ins. sq. 3 ft. long 2 ft. in ground
for 1/4 sec. cor. marked 1/4 S.36 on N. & S. 1 on S.
faces, from which,
A cedar tree 6 ins. diam. brs. S. 63 lks. dist.
marked 1/4 S. 1 B.T.
A cedar tree 6 ins. diam. brs. N. 38 1/2° E. 150 lks. dist.
marked 1/4 S. 36 B.T.
- 80.00 A cedar tree 12 ins. diam. for. cor. of Tps. 18 & 19 N.
Rs. 12 1/2 & 13 E. I blaze and mark,
T. 19 N. S. 31 on N.E.
R. 13 E. S. 6 on S.E.
T. 18 N. S. 1 on S.W. and
R. 12 1/2 E. S. 36 on N.W. faces, with 6 notches on N., S.,
E., & W. edges from which,
A cedar tree 18 ins. diam. brs. N. 47° E. 115 lks. dist.
marked T. 19 N. R. 13 E. S. 31 B.T.
A cedar tree 15 ins. diam. brs. S. 89° E. 90 lks. dist.
marked T. 18 N. R. 13 E. S. 6 B.T.
A cedar tree 16 ins. diam. brs. S. 24° W. 72 lks. dist.
marked T. 18 N. R. 12 1/2 E. S. 1 B.T.
A cedar tree 12 ins. diam. brs. N. 14° W. 215 lks. dist.
marked T. 19 N. R. 12 1/2 E. S. 36 B.T.
- Land rolling
Soil, 2nd & 3rd rate sandy loamy.
Timber, cedar.
Undergrowth, dense cedar.
Rolling land covered with dense undergrowth and
exceptionally difficult to survey, 80.00 chs.
At this cor. at 11h. 48 1/2 m. 1 m. t., I set off 20° 36' 30" S.
on the decl. arc and observe the sun on the mer.
The resulting lat. is 35° N.
-
- This line passes over a rolling mesa covered with good
native grass with some sage brush.
The last mile to the East is through good cedar timber.
The soil is a rich sandy loam under which lies the limestone
strata which extends throughout this locality.

Jesse B. Wright
U.S. Deputy Surveyor.

East Boundary T. 19 N. R. 12 1/2 E.

- Chains From the cor. of Tps. 18 & 19 N. Rs 12 1/2 & 13 E. as just established and described by me I run North, bet. secs. 31 & 36
Var. 14 1/2° E.
Over rolling land through dense cedar.
- 40.00 Set a sandstone 20x18x6 ins. 15 ins. in the ground for 1/4 sec. cor marked 1/4 on W. face, from which,
A cedar tree 18 ins. diam.brs.S.59°E.48 lks. dist. marked 1/4 S. 31 B.T.
A cedar tree 24 ins.diam.brs.S.64° W.52 lks.dist. marked 1/4 S.36 B.T.
- 80.00 Set a sandstone 30x12x8 ins. 24 ins. in the ground for cor. of secs. 30,31,25 & 36 marked with 1 notch on S. & 5 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. from which,
A cedar tree 6 ins. diam.brs.S.50°E.48 lks. dist. marked T.19 N. R. 13 E. S. 31 B.T.
A cedar tree 8 ins. diam.brs.N.55°W.100 lks.dist. marked T.19 N.R.12 1/2 E. S.25 B.T.
No other bearings available.
Land,rolling.
Soil,2nd & 3rd rate sandy, gravelly.
Timber ,cedar.
Undergrowth, dense cedar.
Rolling land covered with dense undergrowth and exceptionally difficult to survey 80.00 chs.
-
- North bet. secs. 25 & 30
Over rolling land, through dense cedar.
- 18.00 Old road, brs. N.W. & S.E.
- 40.00 Set a sandstone 30x15x6 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face and raise a md. of stone 2 ft. base 1 1/2 ft. high W. of Cor. from which,
A cedar tree 18 ins. diam.brs.S.65°E.83 lks.dist. marked 1/4 S.30 B.T.
A cedar tree 6 ins. diam.brs.N.61°W.22 lks.dist. marked 1/4 S. 25 B.T.
- 75.00 Leave cedar, and enter dense sage brush.
- 80.00 Set a sandstone 36x18x6 ins. 27 ins. in the ground for cor. of secs. 19,30,24 & 25, marked with 2 notches on S. & 4 notches on N. edges and raise a mound of stone 2 ft base 1 1/2 ft. high W. of cor.
No bearings available.
Land,rolling.
Soil, 2nd rate sandy ,loamy.
Timber, cedar.
Undergrowth dense cedar and sage brush.
Rolling land covered with dense undergrowth 80.00 chs.
-
- North, bet. secs 19 & 24.
Over mts. land asc., along S.E. slope of crater mountain.
- 40.00 Set a limestone 30x24x8 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
- 56.15 Cor. No.2 of Jupiter Placer, Mineral survey No.1806, brs. East 128 lks.
- 80.00 Set a limestone 24x12x8 ins. 18 ins. in the ground for cor. of secs.18,19,13 & 24, marked with 3 notches on S. & 3 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
Land,mts.
Soil,3rd rate sandy.
Timber, scattering cedar.
Undergrowthe scattering cedar and sage brush.
Mountainous land 80.00 chs.

Nov.29,1908.

- Chains Nov.30,1908.
At this last described cor. at 8h a.m.,l.m.t.,I set off
21°36'S. on the decl. arc. and 35° 02' 30" N. on the lat. arc
and determine a true mer. with the solar.
Thence I run
North bet. secs. 13 & 18.
Over mts. land asc. along E. slope of crater mountain.
16.35 Cor.No 1 of Jupiter, and No.2 of Mars Placers , Mineral
survey No. 1806, brs. East 124 lks.
20.00 Begin gradual desc.
40.00 Set a limestone 30x15x6 ins. 24 ins. in the ground for
1/4 sec. cor. marked 1/4 on W. face and raise a md.
of stone 2 ft. base 1 1/2 ft. high W. of cor.from which,
A cedar tree 6 ins.diam.brs.N.82° W. 67 lks. dist.
marked 1/4 S. 13 B.T.
No other bearings available.
56.90 Cor. No.1 of Mars Placer, Mineral Survey No.1806 brs.
East 130 lks.
78.00 Top of knoll, brs. E. & W. desc.
80.00 Set a limestone 24x12x12 ins. 18 ins. in the ground for
cor. of secs. 12,13,7, & 18, marked with 4 notches on S.
& 2 notches on N. edges and raise a mound of stone 2 ft.
base 1 1/2 ft. high W. of cor.
No bearings available.
Land Mts.
Soil,3rd rate sandy.
No timber, undergrowth, scattering cedar and sage brush.
Mountainous land, 80.00 chs.
-
- North bet. sec. 7 & 12.
Over rolling land desc.
10.00 Foot of slope, asc. gradual Easterly slope.
40.00 Set a limestone 48x24x8 ins. 36 ins. in the ground for
1/4 sec. cor. marked 1/4 on W. face and raise a md. of
stone 2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
Thence over rolling land.
80.00 Set a limestone 24x12x8 ins. 18 ins. in the ground for
cor. of secs. 1,6,7, & 12, marked with 1 notch on ~~SW~~ &
5 notches on ~~SW~~ edges and raise a md. of stone 2 ft.
base 1 1/2 ft. high W. of cor.
No bearings available.
Land,rolling.
Soil, 2nd & 3rd rate sandy,loamy.
No timber. Undergrowth scattering sage brush.
Rolling land 80.00 chs.
-
- North bet. secs. 1 & 6.
Over rolling land.
40.00 St a limestone 36x15x6 ins. 12 ins. in ground to bedrock
with mound of stone around it, for 1/4 sec. cor.,
marked 1/4 on W. face and raise a mound of stone 2 ft.
base 1 1/2 ft. high W. of cor.
No bearings available.
80.00 Set a limestone 36x18x6 ins. 27 ins. in the ground for
cor. of Tps. 19 & 20 N. RS. 12 1/2 & 13 E., marked with
6 notches on N.,S.,E.,& W. edges, and raise a mound of
stone 4 ft. base 3 ft. high S. of cor.
No bearings available.
Land,rolling.
Soil 2nd & 3rd rate , sandy,loamy.
No timber or undergrowth. Good native grass.
Rolling land, 80.00 chs.
At this cor at 11h 49m,l.m.t., I set off 21°40'S.on the
decl. arc and observe the sun on the mer.
The resulting lat. is 35° 04'30" N.,which agrees
closely with the calculated lat.

North Boundary T. 19 N. R. 12 1/2 E.

Chains

From the cor. of Tps. 19 & 20 N. Rs. 12 1/2 & 13 E. as just established and described by me I run, West on a random line on N. bdy. of Tp., setting temp. sec. & 1/4 sec. cors. on line.
 At 2 miles 77.75 chs. I find evident remains of the old cor. of Tps. 19 & 20 N. Rs. 12 & 12 1/2 on 3rd 6th G.M. E. 22 lks. S. which is a limestone 18 x 10 x 6 ins. faintly marked with 6 notches on each edge, in dilapidated mound of stone.
 This cor. being in a dilapidated condition and almost obliterated I destroy and re-establish in its original position by setting a limestone 48x24x18 ins., 36 ins. in the ground marked with 6 notches on N., S., E., & W. edges and raise a mound of stone 4 ft. base 3 ft. high S. of cor. No bearings available.
 This cor. is on S. bank of Canyon Diablo, 30 lks. from edge of canyon which runs West at this point, turning N. at 4 chs. W.
 From this last described cor. I run N. 89° 57' E. on a true line on N. bdy of Tp. bet. secs. 3 & 34.

Over broken land, intermediate rate.
 7.75 Mouth of Canyon from S.W., enters Canyon Diablo. Thence along S. bank of Canyon Diablo, which runs West.
 08.30 Stone in md. of stone 4 ft. high, which I mark W.P. for witness point. A dam and water hole is in Canyon 2 chs. N.
 21.00 Cross Canyon Diablo, runs N. at this point, & turns W. at 2.50 chs. N., 5 chs. wide.
 Asc. over very rocky land.
 37.75 Set a limestone 24x12 x12 ins. 18 ins. in the 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 bearings available. Thence over rolling land.
 77.75 Set a limestone 24x8x6 ins. 18 ins. in the ground for cor. of secs. 2, 3, 34, & 35, marked with 2 notches on E. & 4 notches on W. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. No bearings available.
 Land rolling & broken.
 Soil, 2nd & 3rd rate, sandy stony.
 Timber, scattering walnut & willow in Canyon.
 Broken land intermediate, 37.75 chs.
 Rolling land 40.00 chs.

N. 89° 57' E. bet. secs. 2 & 35.
 Over rolling land, asc. grad.
 9.75 Road, brs. N. & S., from Crater mountain and S. to Sunshine station, on the North.
 40.00 Set a limestone 24x12x8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face and raise a mound of stone covered with earth 3 1/2 ft. base 1 1/2 ft. high N. of cor., dig pits 18x18x12 ins. E. & W. of cor. 3 ft. dist. No bearings available.
 62.00 Top of rise, desc. grad.
 80.00 Set a limestone 30x15x8 ins. 24 ins. in the ground for cor. of secs. 1, 2, 35, & 36, marked with 1 notch on E. and 5 notches on W. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Land, rolling. Soil, 2nd rate, sandy, loamy. No timber. Undergrowth, scattering sage brush. Rolling land, 80.00 chs.

N. 89° 57' E. bet. secs. 1 & 36.
 Over rolling land. desc. grad.
 16.25 Foot of slope. Telephone line from Sunshine Station to camp of Standard Iron Co. on Crater mtn. brs. N. & S.

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North Boundary T. 19 N. R. 12 1/2 E.

Chains

40.00 Set a limestone 30x24x8 ins. 24 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face and raise a md. of stone 2 ft. base 1 1/2 ft. high N. of cor.

No bearings available.

80.00 To cor. of Tps. 19 & 20 N. Rs. 12 1/2 & 13 E. as already established and described.

Land, rolling.

Soil, 2nd & 3rd rate, sandy, loamy.

No timber. Undergrowth, scattering sage brush.

Rolling land, 80.00 chs.

Nov. 30, 1908.

GENERAL DESCRIPTION.

The East bdy. of this Tp. runs over a rolling mesa through dense cedar for 2 miles entering a rich sandy flat on S.E. of Crater mountain.

Thence it ascends along Crater mountain over sandy rolling ridges emanating from crater mountain.

The north part is over a limestone formation partly covered with a sandy loam, which is the remains of the decomposition of the red sandstone, which once covered the entire country, and appears now only in isolated knolls of red sandstone.

The North bdy. is over rolling mesa land sparsely covered with native grass, the western 1/2 mile being over barren limestone bed rock.

Jesse B. Wright
J.S. Deputy Surveyor.

Chains

- Dec. 1, 1908, at the cor. of Tps. 19 & 20 N. Rs. 12 & 12 1/2 E. as recently re-established by me, at 8h a.m., l.m.t. I set off $21^{\circ} 46' S$ on the decl. arc. and $35^{\circ} 05' 00'' N$ on the lat. arc and determine a true mer. with the solar. Thence I run, as per instructions, West on N. bdy sec. 1, Var. $14 1/2^{\circ} NE$.
Over rolling land asc. grad.
- 40.00 Set a limestone $24 \times 12 \times 8$ ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face and raise a mound of earth, 2 ft. base $1 1/2$ ft. high N. of cor. Dig pits $18 \times 18 \times 12$ ins E. & W. of cor. 3 ft. dist. No bearings available.
- 80.00 Set a limestone $24 \times 10 \times 9$ ins. 18 ins. in the ground for cor. of secs. 1, 2, 35 & 36, marked with 1 notch on E. & 5 notches on W. edges and raise a mound of stone 2 ft. base $1 1/2$ ft. high W. of cor. covered with earth. Dig pits $18 \times 18 \times 12$ ins. in each sec. $5 1/2$ ft. dist. No bearings available.
Land, rolling.
Soil, 2nd & 3rd rate stony, sandy.
No timber. Undergrowth, dense sage brush.
Rolling land covered with dense undergrowth 80.00 chs.

I return to the cor. of Tps. 19 & 20 N. Rs. 12 & 12 1/2 E. and run thence, South on a random line, for the purpose of examining the corners and testing the alinement of the 3rd Guide Meridian East.
At 40.08 chs., I find the old 1/4 sec. cor. 4 lks. E. of my line, measuring from this cor. and continuing my line, at 40.00 chs. I search for old cor. as described in the field notes furnished by the Surveyor General. No sign of cor. found after diligent search.
I continue my measurement and line to the south using on this line 2 sets of chainmen and leaving temp. cors. at the mean of each measurement of 40 & 80 chs. I find the old cors. in a dilapidated condition, several of them destroyed and the alinement out of limits in several cases.
At 5 Mi. 79.85 chs., the original cor. of Tps. 18 & 19 N. Rs. 12 & 12 1/2 E. as recently re-established by me is East, 30 lks. dist.
There being no subdivision as yet on either side of this line, from its condition as found by me I find it necessary to re-survey the line, and in the survey of same I throw the fractional measurement of 79.85 chs. in the last 1/2 mile to the North.
So I run the line from Tp. cor. to Tp. cor., the true bearing bet. cors. being N. $0^{\circ} 02' W$. & S. $0^{\circ} 02' E$.

Frac. South: Boundary T:19 N. R. 12 E.

8

Chains

From the cor. of Tps. 18 & 19 N.RS. 12 & 12 1/2 E. as recently re-established by me, I run West, as per instructions on S. bdy sec. 36. Over rolling land.

66.00 Enter dense cedar, mostly dead.

40.00 Set a limestone 36x15x10 ins. 12 ins. in ground to bedrock, with md. of stone around it, marked 1/4 on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor.

Trees in limits dead.No bearings available.

52.00 E. bank of Canyon Diablo, desc. abrupt 150 ft.

57.00 Middle of Canyon Diablo 12 chs. wide course N.E. asc. abrupt.

64.00 Top of W. bank of Canyon Diablo, thence over rolling land

80.00 Set a limestone 30x12x6 ins. 24 ins. in the ground for Cor. of secs. 1,2,35,& 36, marked with 1 notch on E. & 5 notches on W. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. form which,

A cedar tree 12 ins. diam.brs N. 7 1/4° E. 147 lks.dist. marked T. 19 N.R. 12 E. S. 36 B.T.

A cedar tree 12 ins. diam.brs.S.75°W.224 lks.dist. marked T.18 N. R. 12 E. S. 2 B.T.

No other bearings available.

Land,rolling.
Soil, stony, 3rd rate.
Timber, cedar.
Undergrowth, dense cedar.

Rolling land covered with dense undergrowth and exceptionally difficult to survey, 80.00 chs.

Dec. 1,1908.

The frac. N. bdy of this Tp. as run by me is over a rolling mesa, partly covered with sage brush. with good native grass in places. No timber or water on the line.

The frac. S. bdy. of the Tp. as run by me is over a rolling mesa, covered with dense cedar., crossing Canyon Diablo, in which water is found at most seasons of the year in places. The cedar timber extends only about 1/4 mile to the west of the surveyed line.

Jesse B. Wright
U.S. Deputy Surveyor.

Re-survey 3rd Guide Meridian E. thro' Tps. 19 N.

Chains Dec. 2, 1908

At the cor. of Tps. 18 & 19 N. Rs. 12 & 12 1/2 E. as as re-established by me on Nov. 28, 1908, I again examine and test carefully the adjustments of the transit and solar attachment, and finding same satisfactory at 8h 0m a.m., l.m.t., I set off 21° 55' S. on the decl. arc and 35° 0' N. on the lat. arc and determine a true mer. with the solar. This mer. agrees with the mer. as established by polaris obs. by me on Nov. 29, and by comparison also with the mer. of my random line of yesterday.

From this last described cor. I run, N. 0° 02' W. on a true line on 3rd Guide Meridian E. as determined by me on preceding day, bet. secs. 34 & 36.

Over rolling land, through cedar timber.

Difference bet. measurements of 40 chs. by 2 sets of chainmen is 6 lks., position of middle point,

By 1st set 40.03 chs.

By 2nd set 39.97 chs., the mean on which is

40.00 Set a limestone 30x15x8 ins. on bed-rock in mound of stone for 1/4 sec. cor. marked 1/4 on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. from which,

A cedar tree 8 ins. diam. brs. S. 80° E. 118 lks. dist., marked 1/4 S. 34 B.T.

A cedar tree 8 ins. diam. brs. S. 40° W. 40 lks. dist., marked 1/4 S. 36 B.T.

40.30 Old 1/4 sec. cor. brs. E. 70 lks. dist., which I destroy. Desc. abrupt into canyon.

45.10 Canyon Diablo 10 chs. wide, 150 ft. deep, course N.E. asc.

50.00 Top of mesa.

70.00 Leave cedar, enter dense sage brush.

Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 8 lks., 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 limestone 24x12x8 ins. 18 ins. in the ground for cor. of secs. 27, 34, 25 & 36, marked with 1 notch on S. & 5 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.

No bearings available.

Land, rolling, broken.

Soil, 2nd & 3rd rate, gravelly, stony.

Timber, cedar, scattering walnut & willow in canyon.

Undergrowth, dense cedar & sage brush.

Rolling land covered with dense undergrowth and exceptionally difficult to survey, 80.00 chs.

N. 0° 02' W. bet. secs. 25 & 27.

Over rolling land, through dense sage brush.

0.30 Old cor. brs. E. 65 lks. dist., which I destroy.

Difference bet. measurements of 40 chs. by 2 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 limestone 24x15x8 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor.

No bearings available.

No trace of old cor. found after diligent search.

Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 6 lks., position of middle point,

By 1st set 80.03 chs.

By 2nd set 79.97 chs., the mean of which is

80.00 Set a limestone 24x12x8 ins. 18 ins. in the ground for cor. of secs. 22, 24, 25 & 27 marked with 2 notches on S. & 4 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. No bearings available.

Land, rolling mesa. Soil, 2nd rate, gravelly, sandy.

No timber, undergrowth, dense sage brush.

Rolling land, covered with dense undergrowth 80.00 chs.

Re-survey 3rd Guide Meridian E. thro Tps. 19 N.

- Chains
- N. $0^{\circ} 02'$ W. bet. secs. 22 & 24.
Over rolling mesa, through dense sage brush.
- 3.50 Canyon, 80 lks. wide course N.E.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 4 lks., position of middle point,
By 1st set 40.02 chs.
By 2nd set 39.98 chs., the mean of which, is
- 40.00 Set a limestone $30 \times 15 \times 6$ ins. 24 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.
No bearings available.
No trace of old cor. found after diligent search.
- 70.00 Desc. abrupt into canyon, 150 ft. deep.
- 74.40 Canyon Diablo 12 chs. wide, course N.N.W. asc. abrupt.
- 75.00 Windmill and tank of Standard Iron Co. brs. E. 1 chs. dist.
- 78.00 Top of mesa.
Difference bet. measurements of 80.00 chs. by 2 sets. of chainmen is 10 lks., position of middle point,
By 1st set, 80.05 chs.
By 2nd set, 79.95 chs., the mean of which is
- 80.00 Set a limestone $24 \times 10 \times 8$ ins. 18 ins. in the ground for cor. of secs. 15, 22, 13 & 24, marked with 3 notches on S. & 3 notches on N. edges and raise a mound of stone 2 ft. base $1 \frac{1}{2}$ ft. high W. of cor.
No bearings available.
No trace of old cor. found after diligent search.
Land, rolling.
Soil, 2nd & 3rd rate, sandy, gravelly, stony.
Timber, scattering walnut & willow in canyon.
Undergrowth, dense sage brush.
Rolling land, covered with dense undergrowth, 80.00 chs.
-
- N. $0^{\circ} 02'$ W. bet. secs. 13 & 15.
Over level and open land.
- 2.00 Road, brs. E. & W.
- 19.60 Draw, 50 lks. wide, course W.
Difference bet. measurements of 40 chs. by 2 sets of chainmen is 2 lks., position of middle point,
By 1st set, 39.99 chs.
By 2nd set, 40.01 chs., the mean of which is
- 40.00 Set a limestone $28 \times 10 \times 8$ ins. 21 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.
No bearings available.
No trace of old cor. found after diligent search.
- 62.00 Road, brs. N.E. & S.W.
Difference bet. measurements of 80.00 chs. by 2 sets of chainmen is 8 lks., 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 limestone $30 \times 12 \times 8$ ins. 24 ins. in the ground for cor. of secs. 10, 12, 13 & 15, marked with 4 notches on S. & 2 notches on N. edges and raise a mound of stone 2 ft. base $1 \frac{1}{2}$ ft. high W. of cor.
No bearings available.
Evident remains of old cor. N. 10° E. 55 lks. dist. which I destroy.
Land, rolling gently, smooth and open.
Soil, 2nd rate, sandy, gravelly, stony.
No timber or undergrowth. Good native grass.
Smooth and open land 80.00 chs.
At this cor. at 11h, 49m, 30s. a.m., 1.m.t., I set off $21^{\circ} 58' 30''$ S. on the decl. arc and observe the sun on the mer. The resulting lat. is $35^{\circ} 03' 30''$ N. ✓

Re-survey '3rd Guide Meridian E. thro' Tps. 19 N.

- Chains N.0° 02' W. bet. Secs. 10 & 12.
Over gently rolling mesa.
Difference bet. measurements of 40 chs. by 2 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 limestone 30x10x10 ins. 24 ins. in the ground for
1/4 sec.cor. marked 1/4 on W. face and raise a mound of
stone 2 ft. base 1 1/2 ft. high W. of cor.
No bearings available,
No sign of old cor. found after diligent search.
From this cor. desc.abrupt into canyon 150 ft. deep.
- 45.00 Canyon Diablo, 9 chs. wide, course N.E., asc. steep.
- 49.00 Top of mesa.
Difference bet. measurements of 80.00 chs. by 2 sets of
chainmen is 14 lks., position of middle point,
By 1st set, 80.07 chs.
By 2nd set, 79.93 chs., the mean of which is
- 80.00 Set a limestone 24x15x10 ins. 18 ins. in the ground for
cor. of secs. 3,10 1 & 12, marked with 5 notches on
S. & 1 notch on N. edges and raise a mound of stone
2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
No trace of old cor. found after diligent search.
Land ,rolling.
Soil, 2nd & 3rd rate, sandy, gravelly, stony.
No timber or undergrowth.
Rolling land 80.00 chs.
-
- N.0° 02' W. bet. secs. 1 & 3.
Over level land, through dense sage brush.
- 39.77 Find old 1/4 sec.cor. on line marked and witnessed as
described by the Surveyor General.This old cor. I destroy.
Difference bet. measurements of 40 chs. by 2 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
- 40.00 Set a limestone 24x12x8 ins. 18 ins. in the ground for
1/4 sec.cor. marked 1/4 on W. face and raise a mound of
stone 2 ft. base 1 1/2 ft. high W. of cor.
No bearings available.
- 72.00 Canyon, 80 lks. wide, 30 ft. deep , course N.E.
- 79.85 To cor. of Tps.19 & 20 N.,Rs. 12 & 12 1/2 E. as
already established and described.
Land,rolling.
Soil, 2nd & 3rd rate, sandy,gravelly.
No timber. Undergrowth, dense sage brush.
Rolling land covered with dense undergrowth, 79.85 chs.
-----Dec.2,1908.

GENERAL DESCRIPTION.

This line runs over a rolling mesa, broken in the vicinity
of this line by Canyon Diablo and its branches. The soil
is in general a sandy loam, there being several small
tracts in the main canyon, very rich, and which could be
irrigated by water from the canyon during the greater
part of the year.

Several dams for storing the water have been constructed,
but are too small to be of much use except for cattle,
being constructed of stone, and earth.

There is some walnut timber in the main canyon, and some
cedar timber along the S. portion of the line.

The mesa over which this line runs extends about six
miles to the west, and is mostly covered with good native
grass.

No authority for red ink

Corrections see Depuette letter

of May 2-1909.

Jesse B. Wright
J.S. Deputy Surveyor.

Re-survey 3rd Guide Meridian E. thro' Tps. 19 N.

Boundaries of T. 19 N. R. 12 1/2 E.
 Latitudes, departures and closing errors.

Line Designated	True Bearing	Distance.	Latitudes.		Departures.	
			N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
S. Bdy.	West	238.09				238.09
3rd Gd. Mer. E.	N. 0° 02' W.	479.85	479.85			.28
N. Bdy.	N. 89° 57' E.	237.75	.22		237.75	
E. Bdy.	South	480.00		480.00		
Convergency					.51 25	
Totals, -----			480.07,	480.00,	238.26,	238.37
			480.00		238.26	238.26
Error in lat. - .07				Error in dep. -	.11	.37

In surveying this township, I was compelled to administer the preliminary and final oaths to my assistants, as there was no notary or other officer available and great delay and expense would have been incurred to appear before such officer.

Jesse B. Wright
 U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

BOOK 2118

LIST OF NAMES.

A list of the names of the individuals employed by Jose B. Wright
a, 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

Bldg. Tp. 19 N R 12 1/2 E From NTS. Sec 7. 19 N R 12 E
showing the respective capacities in which they acted:

Frank H. Bevin, Chairman.

Virgilius A. Morris, Chairman.

Ben A. McCulley, ~~Moundman~~.

John D. Martin, ~~Moundman~~.

Alroy H. Smutz, Moundman
Asman.

Claude Morris, Asman.

Claude Morris, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Jose B. Wright
a, United States Deputy Surveyor, in surveying all

those parts or portions of the Bldg. Tp 19 N R 12 1/2 E
From N. and S. Sec 7 19 N R 12 E.

of the Red
Salt River meridian, Sec. 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

Frank H. Bevin, Chairman.

Virgilius A. Morris, Chairman.

Alroy H. Smutz, Moundman.

Ben A. McCulley, ~~Moundman~~ Chairman

John D. Martin, ~~Asman~~ Chairman

Claude Morris, Asman.

Claude Morris, Flagman.

Subscribed and sworn to before me this 7th
day of Dec, 1908

Jose B. Wright
U. S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Jesse B Wright, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S Dugalk United States Surveyor General for Arizona, bearing date of the 24th day of October, 1908, 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 boundaries of Tp 19 N R 12 1/2 E, and Trac N + S. 1/4 of T 19 N R 12 E.

of the John and Salt River Basalt 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.

Jesse B Wright
United States Deputy Surveyor.

Subscribed by said Jesse B Wright, and sworn to before me }
this 16th day of December, 1908

W. H. ...
U.S. Commissioner



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz. Sept. 3, 1909

The foregoing field notes of the survey of the north, south and east boundaries of fractional Tp. 19 N. R. 12 1/2 E, a portion of the north and south boundaries of Tp. 19 N. R. 12 E, and the resurvey of the Third Tenth Meridian through Tp. 19 N.

executed by Jesse B Wright, U.S. Deputy Surveyor under his contract No. 152, dated October 24, 1908, 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 Dugalk
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.