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Book L.

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BOOK 2322

# FIELD NOTES

OF THE SURVEY OF THE

Subdivision lines of Tp. 13 N. Rg. 2 E.

Retracement of Mile bet. sec 4 & 33 - 3rd Standard Parallel North  
N. Bdy.  
2322

2322

Of the Gila and Salt River Meridian,

Territory of Arizona

AS SURVEYED BY

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 158, dated June 4th, 1909., 19

Survey commenced September 25, 1910., 19

Survey completed October 3, 1910., 19

6-151

2322

2322

92  
1A

BOOK 2322 NAMES AND DUTIES OF ASSISTANTS.

Len Hall

Chairman

R. A. Coombs

Chairman

A. N. Oliver

Assn.

A. F. Lyon

Flagman

93  
1B

BOOK 2322

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BOOK 2322

PRELIMINARY OATHS OF ASSISTANTS.

WE, Len Hall and R. A. Coombs  
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 the subdivision lines of Tp. 12 N. Rg. 3 E.

Len Hall, Chainman.  
R. A. Coombs, Chainman.

Subscribed and sworn to before me this 22nd.  
day of September, 1910, 19



John P. 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 \_\_\_\_\_, 19



WE, I. A. N. 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 us to the best of our skill and ability, in the survey of the subdivision lines of Tp. 12 N. Rg. 3 E.

I. A. N. Oliver, Axman.  
\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 22nd.  
day of September, 1910, 19



John P. Hesse  
U. S. Deputy Surveyor

I, A. E. Lyon, 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. 12 N. Rg. 3 E.

A. E. Lyon, Flagman.

Subscribed and sworn to before me this 22nd.  
day of September, 1910, 19



John P. Hesse  
U. S. Deputy Surveyor

No notary available without loss of time and great expense.

## Subdivision of Tp. 12 N. Rg. 2 E.

Chains.	<p>Survey commenced September 25, 1910 and executed with an A. Lietz Co. light mountain transit No. 5631, 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 surveyor general for Arizona.</p> <p>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:</p> <p>At the cor. of secs. 15, 16, 21 and 22, Tp. 12 N. Rg. 2 E. latitude <math>34^{\circ} 25' 32''</math> N., longitude <math>112^{\circ} 08' 57''</math> W. I set off <math>34^{\circ} 25'</math> N. on the lat. arc; <math>0^{\circ} 46'</math> S. on the decl. arc; and, at 4h. 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 the cor.</p> <p>At 7h. 16m. 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.</p> <p style="text-align: right;">September 25, 1910</p>
<p>9.10 12.12 16.65 31.80 40.00</p>	<p>September 26: At 7h. 30m. a.m., l.m.t., I lay off the azimuth of Polaris, <math>1^{\circ} 25'</math> to the west, and mark the meridian thus determined, by cutting a small groove in the stone set September 25, on which the meridian coincides with the mark determined with the solar.</p> <p>At 8h. 00m. a.m., l.m.t., I set off <math>34^{\circ} 25'</math> N. on the lat. arc; <math>1^{\circ} 02'</math> 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.</p> <p>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 instrument are satisfactory.</p> <p>The magnetic bearing of the true meridian at 7h. 45m. a.m., is N. <math>14^{\circ} 25'</math> W.; the angle thus determined gives the magnetic decl. <math>14^{\circ} 25'</math> E.</p> <p>I commence at the cor. of secs. 15, 16, 21 and 22, Tp. 12 N. Rg. 2 E. which is a stake badly rotted with marks nearly obliterated and a mound of earth and stone N. W. of stake. I destroy this cor. and reestablish it in the same place as follows:</p> <p>Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked 12N. on N. E., and 2E on S. E. faces; with 3 notches on S. and E. edges; and raise a mound of stone 2 ft. base <math>1\frac{1}{2}</math> ft. high, W. of cor. Pits impracticable.</p> <p>Thence I run</p> <p>West bet. secs. 16 and 21</p> <p>Along S. slope through dense brush.</p> <p>Cross wash 10 lks. wide course S.</p> <p>Ridge bears N. and S. descend.</p> <p>Cross Agua Fria River, 100 lks. wide course S. E. Clear running water 10 lks. wide 3 ins. deep. Ascend.</p> <p>Cross drain 3 lks. wide course N. E.</p> <p>Set a schist stone 30 x 8 x 6 ins. 15 ins. in the ground for <math>\frac{1}{4}</math> sec. cor., marked <math>\frac{1}{4}</math> on N. face; and raise a mound of stone 2 ft. base <math>1\frac{1}{2}</math> ft. high N. of cor. Pits</p>

Subdivision of Tp. 13 N. Rg. 3 E.

For this intersection see page 1 - Sup. Notes hereto attached

See page 1, Sup. Notes hereto attached for this half mile

Chains.	Impracticable.
42.26	Ridge bears N. E. and S. W. descend.
49.10	Cross drain 5 lks. wide course N. E. ascend.
76.62	Intersect S. end line of the New York lode, Survey No. 2281 at S. 50° 45' W. 23 lks. from cor. No. 2.
80.00	Set a schist stone 20 x 10 x 4 ins. 13 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; and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, catclaw and oak brush. Mountainous land and land covered with dense undergrowth 80.00 chs. September 26: At this cor. I set off 1° 06 1/2' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat; is 34° 25 1/2' N.
	N. 0° 01' W. bet. secs. 16 and 17
	Ascending through dense undergrowth.
1.50	Ridge bears E. and W. descend.
4.49	Intersect line bet. New York and Chicago lodes survey No. 2281 at S. 41 chs. N. 39° 15' W. of cor. No. 3 of the Chicago lode
15.30	Cross drain 3 lks. wide course N. W.
18.61	Intersect line bet. Chicago and Los Angeles lodes; Survey No. 2281 at 2.51 chs. N. 39° 15' E. of cor. No. 2 of the Chicago and No. 3 of the Los Angeles Lodes.
32.30	Frame house on line 14 x 20 ft. belonging to Lyons Copper Co.
33.70	Cross Agua Fria River 100 lks. wide course S. E. clear running water 10 lks. wide 2 ins. deep. Ascend.
35.24	Intersect N. end line of the Los Angeles lode Survey No. 2281 at S. 72° E. 97 lks. from cor. No. 1/
39.20	Shaft bears E. 40 lks.
40.00	Set a quartzite stone 18 x 9 x 6 ins. 13 ins. in the ground for 1/4 sec. cor., marked 1/4 on W. face; from which A cedar 14 ins. diam., bears N. 55° 30' W. 81 lks. dist., marked 1/4 S17BT. No other tree available. Raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.
46.60	Stack on old smelter of Stoddard Mining Co. bears N. 82° 30' W.
47.56	Ridge bears E. and W. descend.
65.74	E. edge of circular Corral.
68.17	Cross fence bears N. E. and S. W. and over plowed field
75.75	Cross wire fence bears N. W. and S. E. and leave plowed ground.
80.00	Set a granite stone 24 x 10 x 10 ins. 13 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked with 4 notches on S. and E. edges; from which A mesquite 5 ins. diam., bears S. 51° W. 99 lks. dist., marked T12NR2FS17BT. No other trees available. Raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky and loamy; 1st. and 4th. rate. No timber. Undergrowth, mesquite and oak brush. Mountainous land and land covered with dense undergrowth 68.15 chs.

September 26, 1910.

## BOOK 2322

## Subdivision of Tp. 12 N. Rg. 2 E.

Chains.	September 27: At 8h. oom. a.m., l.m.t., I set off $34^{\circ} 26' N.$ on the lat. arc; $1^{\circ} 25' S.$ on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17; Thence I run East on a random line bet. secs. 9 and 16 Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line 33 lks. N. of the cor. of secs. 9, 10, 15 and 16 which is a stake nearly rotted away with marks almost illegible, and the remains of a mound N. W. of stake. I destroy this old cor. and reestablish it in the same place as follows: Set a granite stone 18 x 12 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; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Thence I run N. $89^{\circ} 50' W.$ bet. secs. 9 and 16 Descend through dense brush. Cross wash 25 lks. wide course S. E. Cross wash 30 lks. wide course S. E. ascend. Cross drain 7 lks. wide course N. E. Set a malpais 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. Ridge bears S. E. and N. W. descend. Cross power line bears N. W. and S. E. Cross telephone line bears N. W. and S. E. Cross wash 15 lks. wide course S. W. ascend. Ridge bears N. E. and S. W. desc. Stack on old smelter of the Stoddard Mining Co. bears S. $44^{\circ} 53' W.$ The cor. of secs. 8, 9, 16 and 17. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, catclaw and oak brush. Mountainous land and land covered with dense undergrowth 80.08 chs. September 27: At this cor. I set off $1^{\circ} 30' S.$ on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 26\frac{1}{2}' N.$
40.00	
80.08	
6.70	
12.00	
21.45	
40.04	
49.70	
60.75	
63.45	
67.15	
72.05	
72.90	
80.08	
5.69	
6.60	
33.30	
40.00	
33.70	
80.00	
	N. $0^{\circ} 01' W.$ bet. secs. 8 and 9. Ascend S. W. slope Cross power line bears N. W. and S. E. Telephone line bears N. W. and S. E. Ridge bears E. and W. Mark a cross on a malpais rock in place 20 x 10 x 6 ins. above ground, for exact point for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. From this cor. C. F. Rose's house bears S. $22^{\circ} 07' W.$ C. F. Rose's barn bears S. $25^{\circ} 25' W.$ C. F. Rose's old house bears S. $64^{\circ} 19' W.$ C. F. Rose's old barn bears S. $60^{\circ} 30' W.$ Ridge bears SSE. and NNW., along E. slope. Set a quartzite stone 18 x 6 x 3 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; 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, catclaw and oak brush.

## Subdivision of Tr. 12 N. Rg. 2 E.

Chains.	Mountainous land 80.00 chs.
	September 27, 1910.
	<p>September 28: At 8h.00m. a.m., l.m.t., I set off <math>34^{\circ} 27' \frac{1}{2}''</math> N. on the lat. arc; <math>1^{\circ} 48' \frac{1}{2}''</math> S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9</p> <p>Thence I run</p> <p>S. <math>89^{\circ} 50'</math> E. on a random line bet. secs. 4 and 9</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.12	Intersect N. and S. line 44 lks. S. of the cor. of secs. 3, 4, 9 and 10, a limestone $10 \times 6 \times 5$ ins. poorly set with mound destroyed as this stone is too small I destroy this cor and reestablish it in the same place as follows
	Set a granite stone $18 \times 8 \times 8$ 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.
	Thence I run
	S. $89^{\circ} 51'$ W. on a true line bet. secs. 4 and 9
	Ascend through dense brush.
10.00	Ridge bears N. and S. descend
12.40	Cross wash 15 lks. wide course S. W. ascend.
26.40	Cross drain 5 lks. wide course S. E.
33.95	Cross ridge bears N. and S. descend.
40.06	Set a quartz stone $20 \times 12 \times 4$ ins. 15 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.
46.35	Cross drain 5 lks. wide course S. W.
60.30	Cross wash 20 lks. wide course S. ascend.
64.40	Ridge bears N. and S. descend.
71.30	Cross wash 25 lks. wide course S. E. ascend.
80.12	The cor. of secs. 4, 5, 8 and 9. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, catclaw and oak brush. Mountainous land and land covered with dense undergrowth. 80.12 chs.
	September 28: At this cor. I set off $1^{\circ} 53'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 27' \frac{1}{2}''$ N.
	-----
	N. $0^{\circ} 01'$ W. bet. secs. 4 and 5
16.65	Descend along E. slope through dense brush. Cross wash 15 lks. wide course S. W. ascend along S. W. slope.
37.90	Ridge bears E. and W.
40.00	Set a granite stone $20 \times 8 \times 6$ 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 $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.95	Cross wash 15 lks. wide course S. E.
60.60	Ridge bears S. E. and N. W.
68.15	Cross wash 10 lks. wide course S. E.
78.80	Intersect 3rd. Standard Parallel N. 36 lks. W. of the standard cor. of secs. 32 and 33 A stake badly rotted with mound scattered, and set a malpais stone $20 \times 8 \times 8$ ins. 15 ins. in the ground for closing cor. of secs. 4 and 5, marked C C on S. with 4 grooves on E. and 2 grooves on W. faces; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high S. of cor. Pits impracticable. I re-establish the standard cor. of secs 32 and 33 in



Subdivision of Twp. 12 N. Rg. 2 E.

Chains. the same place, destroying the remains of the old cor., as follows;  
 Set a malpais stone 18 x 10 x 6 ins. 13 ins. in the ground for standard cor. of secs. 32 and 33, marked S C on N. face; with 4 grooves on E. and 3 grooves on W. faces and raise a mound of stone 3 ft. base 1 1/2 ft. high, N. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Undergrowth, catclaw and oak brush.  
 Mountainous land and land covered with dense undergrowth  
 78.80 chs.

September 28, 1910.

September 29: At 8h. 00m. a.m., l.n.t., I set off 34° 25 1/2' N. on the lat. arc; 2° 12' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21

Thence I run  
 West bet. secs. 17 and 20  
 Ascend through dense brush.  
 8.06 Intersect line bet. New York and Rambler No. 1 lodes, at 724 lks. N. 39° 15' W. of cor. No. 3 of New York and No. 2 of Rambler No. 1 lodes.  
 19.70 Descend  
 19.80 Intersect line bet, Rambler No. 1 and Rambler No. 2 lodes at S. 39° 15' E. 8.06 chs. from cor. No. 4 of Rambler No. 1 and cor. No. 1 of Rambler No. 2 lodes.  
 23.57 Gallows frame bears S. 13° 40' E.  
 31.21 Cross wash 15 lks. wide course N. ascend.  
 31.34 Intersect west line of Rambler No. 2 lode at S. 39° 15' E. 63 lks. from cor. No. 4  
 37.87 Cross drain 5 lks. wide course N. E.  
 40.00 Set a granite stone 18 x 8 x 6 ins. 13 ins. in the ground for 1/4 sec. cor., marked 1/4 on N. face; from which  
 A cedar 6 ins. diam., bears N: 37° W. 91 lks. dist., marked 1/4 S17BT.  
 A cedar 6 ins. diam., bears S. 82° W. 188 lks. dist., marked 1/4 S20BT.  
 42.10 Gallows frame, noted above, bears S. 79° E. Ridge bears N. and S.  
 68.58 Intersect E. side line of Idaho Lode Survey No. 2508 at S. 16° 10' W. 15.68 chs. from cor. No. 1  
 70.87 Cross drain 7 lks. wide course N. E.  
 78.04 Intersect W. side line of Idaho Lode Survey No. 2508 at S. 16° 10' W. 14.52 chs. from cor. No. 4.  
 77.36 Cross telephone line bears N. E. and S. W.  
 80.00 Set a granite stone 28 x 8 x 8 ins. 21 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; and raise a mound of stone 3 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.

Land, mountainous.  
 Soil, rocky; 4th. rate.  
 No timber.  
 Undergrowth catclaw and oak brush.  
 Mountainous land and land covered with dense undergrowth  
 80.00 chs.  
 September 29: At this cor. I set off 2° 16 1/2' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat is 34° 25 1/2' N.

For this mile see page 1, Sup. Notes hereto attached.

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Subdivision of Tp. 12 N. Rg. 2 E.

For this mile see page 2 - Sep. Notes hereto attached

Chains.	
	N. 0° 01' W. bat. secs. 17 and 18. Ascending through dense brush.
5.00	Ridge bears E. and W.
8.72	Intersect S. end line of the 1st. S. Ext. of Copper Mountain Lode, Survey No. 440 at S. 83° 30' W. 1.65 chs. from cor. No. 2
<del>21.43</del>	<del>Intersect N. end line of the 1st. S. Ext. of Copper Mountain Lode, Survey No. 440 at S. 83° 30' W. 59 lks. from Cor. No. 1</del>
<del>36.62</del>	<del>Intersect W. side line of Copper Kettle Lode, Survey No. 3307 at N. 6° 30' W. 66 lks. from cor. No. 3</del>
40.00	Set a malpais stone 20 x 12 x 4 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A cedar 5 ins. diam., bears N. 9 $\frac{1}{4}$ ° E. 35 lks. dist. marked $\frac{1}{4}$ S17BT A cedar 5 ins. diam., bears N. 47 $\frac{1}{2}$ ° W. 53 lks. dist., marked $\frac{1}{4}$ S16BT.
43.65	Cross road bears E. and W.
48.64	Cross wash 15 lks. wide course N. E.
59.01	Intersect N. end line of Copper Yettle Lode, Survey No. 3307 at N. 83° 30' E. 4.03 chs. from cor. No. 2
59.35	Ridge bears E. and W. Tent house bears N. 32° 30' E.
61.82	Cross road bears E. and W.
65.40	Cross drain 5 lks. wide course E.
67.15	Ridge bears E. and W.
72.30	Cross wash 15 lks. wide course S. E.
80.00	Set a granite stone 28 x 8 x 6 ins. 21 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 cedar 7 ins. diam., bears N. 76 $\frac{1}{2}$ ° E. 74 lks. dist., marked T12NR2ES8BT. A cedar 2 ins. diam., bears S. 75° E. 133 lks. dist., marked T12NR2ES17BT. A cedar 7 ins. diam., bears S. 65° W. 134 lks. dist., marked T12NR2ES 18BT. A cedar 10 ins. diam., bears N. 31 $\frac{1}{2}$ ° W. 133 lks. dist., marked T12NR2ES7BT. From this cor. house bears S. 67° 30' W. Tent house noted above bears S. 13° 10' E. Land, mountainous. Soil, rocky; 4th. rate. Timber, a very few cedars. Undergrowth, catclaw and oak brush. Mountainous land and land covered with dense undergrowth 80.00 chs.
	September 29, 1910.
	September 30: At 8h. 00m. I set off 34° 25 $\frac{1}{2}$ ' N. on the lat. arc; 2° 35' 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 West on a random line bet. secs. 18 and 19 Set temp. $\frac{1}{4}$ sec. cor., 78.32 Intersect W. bdy. of Tp. 9 lks. S. of the cor. of secs. 13, 18, 19 and 24 Thence I run S. 89° 56' E. on a true line bet. secs. 18 and 19 Descend through dense brush.
1.70	Cross wash 15 lks. wide course N. W.
12.25	Ridge bears N. and S.
22.70	Cross wash 15 lks. wide course N. E.
31.00	Ridge bears N. and S.
38.32	Set a granite stone 18 x 10 x 10 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



## Subdivision of Tp. 12 N. Rg. 2 E.

Chains	
78.30	Intersect W. bdy. of Tp. 2 lks. N. of the cor. of secs. 7, 12, 13 and 18 Thence I run S. 39° 57' E. on a true line bet. secs. 7 and 18 Ascend through dense brush Ridge bears N. and S.
7.70	Cross wash 20 lks. wide course N. E.
18.60	Ridge bears N. E. and S. W.
28.25	Set a quartz stone 20 x 8 x 8 ins. 15 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.
38.30	From this cor. Frame house bears S. 33° 30' W. Old road bears N. E. and S. W.
38.75	Cross drain 7 lks. wide course S. E.
51.20	Ridge bears N. and S.
55.00	Cross drain 5 lks. wide course S. E.
60.10	Ridge bears N. and S.
63.50	Cross wash 10 lks. wide course S. E.
69.60	The cor. of secs. 7, 8, 17 and 18.
78.30	Land, mountainous Soil, rocky; 4th. rate. No timber. Undergrowth, catclaw and oak brush. Mountainous land and land covered with dense undergrowth 78.30 chs.
	October 1; At this cor. I set off 3° 03' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 34° 36 $\frac{1}{2}$ ' N.
	<hr/>
	N. 0° 01' W. bet. secs. 7 and 8 Ascend through dense brush.
8.80	Ridge bears E. and W.
21.90	Cross wash 15 lks. wide course E.
37.30	Ridge bears E. and W.
32.50	Cross telephone line bears N. W. and S. E.
34.80	Cross power line bears N. W. and S. E.
40.00	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 W. face; from which A cedar 4 ins. diam.; bears N. 75 $\frac{1}{2}$ ° W. 109 lks. dist., marked $\frac{1}{4}$ S7 BT. A cedar 8 ins. diam.; bears N. 88 $\frac{1}{2}$ ° E. 127 lks. dist., marked $\frac{1}{4}$ S8 BT.
40.30	Cross wash 10 lks. wide course N. E.
46.65	Ridge bears E. and W.
51.20	Cross drain 6 lks. wide course N. E.
54.25	Right bank of Agua Fria River, course S. E.
55.75	Road bears N. W. and S. E.
60.00	Clear running water 10 lks. wide course S. E. 3 ins. deep.
64.70	Road bears N. W. and S. E.
71.15	Left bank of Agua Fria River, course S. E.
80.00	Set a shale stone 20 x 6 x 6 ins. 15 ins. in the ground for cor. of secs. 5, 6, 7 and 8; marked with 5 notches on S. and 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, catclaw and oak brush. Mountainous land and land covered with dense undergrowth 80.00 chs. From this cor. U. S. L. M. No. 1694 bears N. 29° 49' W. 93.06 chs. dist.

October 1, 1910.

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 October 2: At 8h. 00m. a.m., l.m.t., I set off 34° 37 $\frac{1}{2}$ '

Subdivision of Tp. 12 N. Rg. 2 E.

Chains.	N. on the lat. arc; and $3^{\circ} 22'$ 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
40.00	S. $29^{\circ} 55'$ E. on a random line bet. secs. 5 and 8
80.04	Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line 12 lks. S. of the cor. of secs. 4, 5, 8 and 9 Thence I run
6.00	West on a true line bet. secs. 5 and 8
28.40	Ascend through dense brush. Ridge bears N. and S.
31.05	Cross drain 10 lks. wide course S. W.
38.60	Cross wash 35 lks. wide course S.
40.02	Ridge bears N. and S. Set a white quartz 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; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
48.35	Old shaft 20 lks. S.
48.50	Cross wash 15 lks. wide course S.
48.70	Ridge bears N. and S.
49.25	Cross wash 25 lks. wide course S.
50.90	Road bears N. and S.
80.04	The cor. of secs. 5, 6, 7 and 8. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth; catclaw and oak brush. Mountainous land and land covered with dense undergrowth 80.04 chs. October 2; At this cor. I set off $3^{\circ} 26\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 27\frac{1}{2}'$ N.
6.80	N. $0^{\circ} 01'$ W. bet. secs. 5 and 6. Ascend along S. W. slope through dense brush.
14.38	Cross drain 5 lks. wide course S. W.
31.20	Cross same drain 5 lks. wide course S. E.
38.85	Ridge cross road bears N. W. and S. E.
40.00	Cross wash 15 lks. wide course S. E. 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 W. face; from which A cedar 8 ins. diam., bears N. $48\frac{3}{4}^{\circ}$ W. 69 lks. dist., marked $\frac{1}{4}$ S6BT. A cedar 8 ins. diam., bears S. $53\frac{1}{4}^{\circ}$ E. 73 lks. dist., marked $\frac{1}{4}$ S5BT.
61.35	Ridge bears N. W. and S. E.
78.76	Intersect 3rd. Standard Parallel N. 8 lks. E. of the Standard cor. of secs. 31 and 32, and set a granite stone 20 x 6 x 6 ins. 15 ins. in the ground for closing cor. of secs. 5 and 6, marked C C on S., with 5 grooves on E. and 1 groove on W. faces; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable. The standard cor. of secs. 31 and 32 is a quartz stone 18 x 6 x 3 ins. poorly set and marked therefore I destroy this cor. and reestablish it in the same place as follows Set a granite stone 18 x 8 x 6 ins. 13 ins. in the ground for standard cor. of secs. 31 and 32, marked S C on N. with 5 grooves on E. and 1 groove on W. faces; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Land, mountainous, Soil, rocky; 4th. rate. No timber. Undergrowth, catclaw and oak brus. Mountainous land and land covered with dense undergrowth

Subdivision of Tp. 13 N. Rg. 2 E.

Chains. 78.76 chs.

October 3, 1910.

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**GENERAL DESCRIPTION.**

This township is rough and mountainous, and the soil is rocky and worthless with the exception of a small tract on the Agua Fria River on which C. F. Rose is located. There is no timber in the township. The land is all mineral in character and copper ore is found in all the sections. There is one settler in sec. 8. The Agua Fria River runs from N. W. to S. E. through the township. There is no agricultural or grazing land in secs. 6 and 7 therefore I did not run the line bet. secs. 6 and 7.

*John A. Hesse*  
U.S. Deputy Surveyor.

## Subdivision of Tr. 12 N. Rg. 2 E.

Chains.

In order to verify my closing around sec. 4 I retrace the N. bdy. of sec. 4 as follows:

I commence at the closing cor. of secs. 4 and 5  
Thence I run  
East on N. bdy. of sec. 4

40.48 Fall 21 lks. S. of Standard  $\frac{1}{2}$  sec. cor. as described by the surveyor general. The course of this half mile is N. 89° 42' E. 40.48 chs.

Thence I continue my line  
80.06 Fall 91 lks. S. of the closing cor. of secs. 3 and 4 as described by the surveyor general. The course of this half mile is N. 89° E. 80.59 chs.

October 2, 1910.

*John P. Hesse*  
U.S. Deputy Surveyor.

*Pt. cor 32 433  
retraced 45*

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

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LIST OF NAMES.

BOOK 2322

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. 12 N. Rg. 2 E.

showing the respective capacities in which they acted:

Len Hall....., *Chainman.*

R. A. Coombs....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

A. N. Oliver....., *Arman.*

....., *Arman.*

A. E. Lyon....., *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 subdivision lines of Tp. 12 N. Rg. 2 E.

..... 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

Len Hall....., *Chainman.*

R. A. Coombs....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

A. N. Oliver....., *Arman.*

....., *Arman.*

A. E. Lyon....., *Flagman.*

Subscribed and sworn to before me this 2nd.

day of October, 1910., 19



John F. Hesse  
U. S. Deputy Surveyor

No notary available without loss of time and great expense



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BOOK 2322

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, 19, 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 Twp. 12 N. Rg. 3 E.

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.

John F. Hesse
United States Deputy Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }
this 19 day of June, 1910

Frank S. Ingalls
U. S. SURVEYOR GENERAL for Arizona



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

The foregoing field notes of the survey of the fragmentary subdivision of Twp. 12 N. Rg. 3 E., Gila and Salt River Base and Meridian, Arizona, were made on March 2/8, 1910.

executed by John F. Hesse under his contract No. 158, dated June 4, 1909, 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.

Supplemental

14  
JUN 6- 1911

Book L

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# FIELD NOTES

BOOK 2322

OF THE SURVEY OF THE

Subdivision Lines in T 12 N. R 2 E.

Of the G. S. P. Meridian,  
Territory of Arizona

AS SURVEYED BY

John J. Hesse, United States Deputy Surveyor,

Under his Contract No. 158, dated June 4, 1909, 19

Survey commenced February 18, 1912

Survey completed " 18, 1912



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BOOK 2322

LIST OF NAMES.

A list of the names of individuals employed by John P. Hesse  
U. S. Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the fore-  
going field notes of the survey of the corrections of Twp 12 N. Rg. 2 E.

of the principal base and meridian in the Territory of <sup>Arizona</sup>~~New Mexico~~, showing the respective capacities in which  
they acted.

- A. N. Oliver, CHAINMAN.
- \_\_\_\_\_, CHAINMAN.
- \_\_\_\_\_, CHAINMAN.
- \_\_\_\_\_, AXMAN.
- \_\_\_\_\_, AXMAN.
- \_\_\_\_\_, AXMAN.
- \_\_\_\_\_, FLAGMAN.

FINAL OATHS OF ASSISTANTS.

We hereby certify that we assisted John P. Hesse  
U. S. Deputy Surveyor, in surveying all those parts or portions of the corrections of Twp. 12  
N. Rg. 2 E.

of the principal base and meridian, Territory of <sup>Arizona</sup>~~New Mexico~~, 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 U. S. Surveyor General for <sup>Arizona</sup>~~New Mexico~~.

- A. N. Oliver, CHAINMAN.
- \_\_\_\_\_, CHAINMAN.
- \_\_\_\_\_, CHAINMAN.
- \_\_\_\_\_, AXMAN.
- \_\_\_\_\_, AXMAN.
- \_\_\_\_\_, AXMAN.
- \_\_\_\_\_, FLAGMAN.

Subscribed and sworn to before me this 18<sup>th</sup> day of February, 1902

John P. Hesse  
U. S. Deputy Surveyor

[SEAL.]

Supplemental Notes Tp. 13 N. Rg. 3 E.

Chains

Corrections made February 18th. 1913 with an A. Lietz Co. light mountain transit No. 5631 with solar attachment which I carefully test on Polaris at the cor. of secs. 16, 17, 20 and 21 as described in the original notes.

Thence I run

2.89 East bet. secs. 16 and 21  
Intersect line 1-2 New York lode Sur. No. 2281 at N. 39° 15' W. 6 lks. from cor. No. 2.

I return to the cor. of secs 16, 17, 20 and 21 and run thence

1.50 N. 0° 01' W. bet. secs. 16 and 17  
15.90 Ascending through dense undergrowth.  
32.30 Ridge bears E. and W. descend.  
33.70 Drain 7 lks. wide course N. W.  
34.44 Frame house on line 14 x 20 ft. belongs to Lyons Copper Co.  
39.20 Agua Fria River 100 lks. wide course S. E. clear running water 10 lks. wide 3 ins. deep. Ascend.  
40.00 Intersect line 1-5 Los Angeles lode Sur. No. 2281 at S. 72° 00' E. 1.97 chs. from cor. No. 1.  
Shaft bears E. 40 lks.  
The  $\frac{1}{4}$  sec. cor. as described in the original notes.

I return to the cor. of secs. 16, 17, 20 and 21

Thence I run

19.70 West bet. secs. 17 and 20  
22.57 Ascending through dense brush  
31.31 descend.  
31.85 Gallows frame bears S. 13° 40' E.  
37.87 Wash 15 lks. wide course N. Ascend.  
40.00 Intersect line 3-4 Rambler No. 2 lode Sur. No. 2281 at a point whence Cor. No. 4 bears N. 39° 15' W. 38 lks. The original  $\frac{1}{4}$  sec. cor. which is a granite stone 18, x 8 x 6 ins. set 12 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on N. face; from which  
A cedar 6 ins. diam., bears N. 37° W. 91 lks. dist., marked  $\frac{1}{4}$  S17BT  
A cedar 6 ins. diam., bears S. 82° W. 188 lks. dist., marked  $\frac{1}{4}$  S20BT.  
42.10 Gallows frame bears S. 79° E. previously noted.  
68.38 Ridge bears N. and S. <sup>2308</sup>  
70.87 Intersect line 1-2 Idaho lode Sur. No. 2508 at a point whence Cor. No. 1 brs. N. 16° 10' E. 16.10 chs. 1-4  
78.34 Drain 7 lks. wide course N. E. 2-3  
80.00 Intersect line 3-4 Idaho lode Sur. No. 2508 at a point whence cor. No. 4 bears N. 16° 10' E. 1508 chs. cor. 2  
Set a porphyry stone 18 x 10 x 5 ins. 12 ins. in the ground for cor. of secs. 17, 18, 19 and 20, marked with 5 notches on E. and 3 notches on S. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.  
At this cor. at 9h. 00m. a.m., l.m.t., I set off 34° 25' N. on the lat. arc; 11° 55' S. on the decl. arc; and determine a meridian with the solar.

From the cor. of secs. 17, 18, 19 and 20 I chain west to the  $\frac{1}{4}$  sec. cor. bet. secs. 18 and 19 and find distance to be 40.00 chs.

See page 2 Orig. Notes.

See page 2 Orig. Notes.

See page 5 Orig. Notes.

See page 6, Orig. Notes.

See page 7 - Orig. Notes.

Chains	I return to the cor. of secs. 17, 18, 19 and 20 Thence I run N. 0° 01' W. bet. secs. 17 and 18 Ascending through dense brush.
5.00	Ridge bears E. and W.
9.20	Intersect line 2-3 of 1st. South Extension of Copper Mountain lode, Sur. No. 440 at a point whence Cor. No. 2 bears N. 83° 30' W. 1.40 chs.
40.00	The original $\frac{1}{4}$ sec. cor., which is a malpais stone 20 x 12 x 4 ins. 15 ins. in the ground marked $\frac{1}{4}$ on W. face; from which A cedar 5 ins. diam., bears N. 9 $\frac{1}{4}$ ° E. 30 lks. dist., marked $\frac{1}{4}$ S17BT. A cedar 5 ins. diam., bears N. 47 $\frac{1}{2}$ ° W. 53 lks. dist., marked $\frac{1}{4}$ S18BT.
43.65	Road bears E. and W.
48.64	Wash 15 lks. wide course N. E.
59.10	Ridge bears E. and W.
59.32	Tent house bears N. 32 $\frac{1}{2}$ ° E. Intersect line 1-2 Copper Kettle lode Sur. No. 2307 at a point whence cor. No. 2 bears S. 83° 30' W. 4.11 Chs.
61.82	Road, brs. E and W.
65.40	Drain 5 lks. wide course E.
67.15	Ridge bears E. and W.
72.90	Cross wash 15 lks. wide course S. E.
80.00	The cor. of secs. 7, 8, 17 and 18 as described in original notes.

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From the cor. of secs. 8, 9, 16 and 17 as described in original notes I run

4.00	N. 89° 55' W. bet. secs. 8 and 17 Over level land.
8.25	Fence bears N. E. and S. W.
12.20	E. bank of Agua Fria River course S. E. W. bank of Agua Fria River clear running water 10 lks. wide 3 ins. deep. Ascend through brush.
12.40	Intersect line 2-3 Tommy Tot lode, Sur. No. 2310 at a point whence cor. No. 3 bears N. 4° 00' E. 5.45 chs.
12.77	Road bears N. and S.
16.90	C. F. Rose's house bears N. 35° 10' W. barn bears N. 35° 30' W. old house bears N. 32° 40' W. old barn bears N. 29° 30' W.
21.36	Intersect line 1-4 Tommy Tot lode at a point whence cor. No. 4 bears N. 4° 00' E. 3.90 chs.
40.00	The $\frac{1}{4}$ sec. cor. bet. secs. 8 and 17 as described in original notes. From this $\frac{1}{4}$ sec. cor. U. S. M. M. No. 1 bears 14.51 chs. dist.

*John D. Hesse*  
U. S. Deputy Surveyor.

PRELIMINARY OATHS OF ASSISTANTS.

BOOK 2322

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We, Alfred N. Oliver and \_\_\_\_\_

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 distance to all notable objects, and the true length 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 \_\_\_\_\_

corrections of Sp. 12 N. Ry 2 E.

of the principal base and meridian in the Territory of ~~New Mexico~~ <sup>Arizona</sup>.

A. N. Oliver, CHAINMAN.

\_\_\_\_\_, CHAINMAN.

Subscribed and sworn to before me this 18<sup>th</sup> day of February, 1902

[SEAL.]

John F. Kessie  
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 the \_\_\_\_\_

of the principal base and meridian in the Territory of ~~New Mexico~~ <sup>Arizona</sup>.

\_\_\_\_\_, AXMAN.

\_\_\_\_\_, AXMAN.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_\_

[SEAL.]

I, \_\_\_\_\_, 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 \_\_\_\_\_

of the principal base and meridian in the Territory of ~~New Mexico~~ <sup>Arizona</sup>.

\_\_\_\_\_, FLAGMAN.

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_\_

[SEAL.]

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

BOOK 2322

I, John P. 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, 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 Sp. 12 N. Rg. 2 E.

of the Gila and Salt River meridian, in the State 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.

John P. Hesse  
United States Deputy Surveyor.

Subscribed by said John P. Hesse, and sworn to before me this 16 day of March, 1912

Frank S. Ingalls  
U.S. Surveyor General for Arizona.

(SEAL)

A P P R O V A L .

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

Phoenix, Ariz. March 18, 1912

The foregoing field notes of the survey of corrections

in T. 12 N. R. 2 E.

executed by John P. Hesse U.S.D.S. under his contract No. 158, dated June 4 1909, 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 Sp. 12 N. Rg. 2 E. has been correctly copied from the original notes on file in this office.

United States Surveyor General.