

3-1915

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U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

Mar 27 1918

**FIELD NOTES**

JAN - 7 1921

OF

HOMESTEAD ENTRY SURVEY NO. 298

SITUATED IN THE **CORONADO** NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

In Section 16 , unsurveyed, Township 24 S, Range 19 E.

In Section 17 , unsurveyed, Township 24 S., Range 19 E.

of the

**Gila and Salt River Base and Meridian.**

State of

**ARIZONA.**

Applicant for listing **Rafael Leon, Sr.**

Residence **Parker Canyon, Arizona.**

Application No. **152** , dated **September 12** , 19 **09**

List No. **3-515** , dated **May 5** , 19 **10**

Applicant for survey **Rafael Leon, Sr.**

Residence **Parker Canyon, Arizona.**

H. E. No. **011918** , dated **August 8** , 19 **10**

Land District **Phoenix, Arizona.**

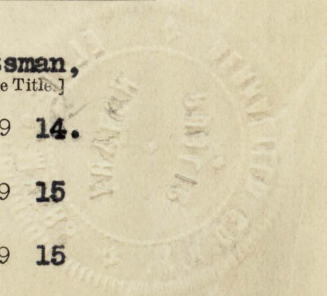
Survey executed by **R. P. A. Johnson, Surveyor - Draftsman,**  
[Forest Service Title.]

Under special instructions dated **October 17** , 19 **14.**

Survey commenced **February 27** , 19 **15**

Survey completed **February 28** , 19 **15**

Under Acts of **June 11, 1906 and June 30, 1914.**



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OATH OF ASSISTANTS

We hereby certify that we assisted **R. P. A. Johnson,**  
**Surveyor - Draftsman,** in surveying all those  
[Forest Service Title.]

parts or portions of Homestead Entry Survey No. **298**, in the State of **Arizona**, which are represented in the following 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.**

**Note: It would have been very expensive and inconvenient to appear before an officer to administer oaths to Assistants; hence, they were taken by the Surveyor.**

*W. J. Robertson* Chairman  
*E. Baecht* Chairman.

Subscribed and sworn to before me this *twenty six* day of *March*, 19*15*.

*R. P. A. Johnson*  
*Surveyor Draftsman*

OATH OF SURVEYOR

I, **R. P. A. Johnson, Surveyor - Draftsman,**  
[Forest Service Title.]

do solemnly swear that, in strict conformity with the special instructions of the United States Surveyor General for **Arizona**, dated **October 17**, 19 **14**, and the laws of the United States, I have well, faithfully, and truly, in my own proper person, surveyed a tract of land **embraced in**

**List**, No. **3-515**, dated **May 5**, 19 **10**, for **Patent**, under the Act of **June 11**, 19 **06**, the same to be known as Homestead Entry Survey No. situated within the **Coronado** National Forest, in **un surveyed Section 16**, Township **24 S.**, Range **19 E.**, and **un surveyed Section 17**, Township **24 S.**, Range **19 E.**

of the **G. & S. R. B. &** meridian, **Arizona**, and the related retracements and resurveys and section subdivisions, which are represented in the following field notes as having been surveyed by me; and I further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the stated special instructions, and in the specific manner described in the field notes, and that the following are the original field notes of such survey.

*R. P. A. Johnson*  
*Surveyor Draftsman*  
[Forest Service Title.]

Subscribed and sworn to before me this *twenty sixth* day of *September*, 19 *15*.

*Elsie C. Myers*  
*Notary Public*



CORONADO NATIONAL FOREST

1.

STATE OF ARIZONA.

Chains

Applicant for listing, Rafael Leon, Sr.; Application No. 152, dated September 12, 1909; List No. 3-515, dated May 5, 1910; H. E. No. 011918 made in the Phoenix Land Office on August 8, 1910 by Rafael Leon, Sr.

Surveyed under special instructions from the Surveyor General for Arizona, dated October 17, 1914 and designated as Homestead Entry Survey No. 298.

Situated in T. 24 S., R. 19 E., in what will probably be, when surveyed, secs. 16 and 17, Gila and Salt River Base and Meridian, Coronado National Forest.

Surveyed under the Acts of June 11, 1906 and June 30, 1914.

Survey commenced February 27, 1915, and executed with a Buff and Buff transit.

I test the adjustments of the transit and make necessary corrections.

All distances are horizontal and were reduced from measurements made directly on the slope with a 500 link steel tape. The slope angles were determined with a clinometer.

February 27, 1915.

At 2h. 11.5m., p.m., l.m.t. I observe the altitude of the sun for azimuth at cor. No. 1 of this survey. The reading on the reference object is set at zero and the sun was observed in the upper left and lower right quadrants of the field. My watch is set for local mean time. Latitude 31° 20' 30" N. Long. 110° 25' 40" W. from Hereford Quadrangle U. S. G. S.

30  
40"

CORONADO NATIONAL FOREST

2.

STATE OF ARIZONA

Chains	Telescope	Time	Horizontal Angle	Vertical Angle
	Direct	2h 10m 48s	40° 33'	40° 57'
	Reverse	2h 12m 17s	40° 17'	41° 16'
Bearing of object N. 00° 05' 06" E.				

At 2h. 14.6m., p.m., l.m.t., I again observe the altitude of sun for azimuth at cor. No. 1. The reading on reference object is set at zero and sun was observed in upper left and lower right quadrants of the field.

Telescope	Time	Horizontal Angle	Vertical Angle
Direct	2h.14m.6s.	41° 28'	40° 31'
Reverse	2h.15m.4s.	41° 02'	40° 52'

Bearing of object N. 00° 03' 32" E.

The mean of these is N. 00° 04' 19" E., and from the corresponding meridian all the courses of this survey were deflected.

BOUNDARIES OF CLAIM

Beginning at cor. No. 1, which is also Cor. No. 4, H. E. S. 299.

Identical with cor. H-1 of List 3-515 and Cor. H-4 of List 3-514 which is a granite stone 4 x 6 x 6 ins. above ground marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and at this point I set a porphyry stone 24 x 10 x 8 ins., 14 ins. in the ground over a small stone marked with a cross, chiseled 1 - H E S 298 on NE. face and 4 H E S 299 on SE. face; and raise a mound of stone 3 ft. base, 2 ft. high NW. of cor.; (impractical to place mound in any other position.) whencé:

Chains  
 A white oak 20 ins. dia. bears S. 47° 18' W.,  
 107 lks dist., scribed 1 H E S 298 B T.  
 A black oak 14 ins. dia. bears N. 31° 57' W.,  
 330 lks. dist., scribed 1 H E S 298 B T.  
 Cor. to secs. 13, 24, 18 and 19, T. 24 S., R.  
 18 and 19 E. which is a diorite stone 10 x 8 x  
 8 ins. above ground with 3 grooves on N. and S.  
 edges, no witnesses, bears S. 85° 54' 57" W.,  
 148.55 chs. by traverse which appears at the  
 end of these notes.  
 International Monument No. 106, a cement monument  
 marked No. 106, bears S. 72° 20' 43" W., 149.79  
 chs. by traverse which appears at the end of  
 these notes.  
 International Monument No. 105, described by  
 Surveyor General is outside of prescribed  
 limits.  
 Lat. 31° 20' 30" N. Long. 110° 25' 40" W. from Here-  
 ford Quadrangle U. S. G. S.  
 Mag. Var. at 2 p.m. 13° 15' E. Mean Mag. decl. 13°  
 17" E.  
 Thence N. 4° 31' E.  
 Ascend 20 ft. to point of ridge.  
 0.05 Corral fence, bears NW. and SE.  
 0.70 Corral fence, bears NE. and SW.  
 4.00 Road, bears NW. and SE.  
 11.70 Point hill, descent 30 ft. to draw.  
 18.90 Draw, 150 lks. wide, course E. Ascend 30 ft. to point  
 of hill.  
 22.50 Point of hill, descend 20 ft. along E. slope to cor.  
 39.97 To cor. No. 2.  
 Identical with cor. H-4 of the list survey, which

see page 9

4.3

CORONADO NATIONAL FOREST

STATE OF ARIZONA

Chains is a diorite stone 12 x 6 x 8 ins. above ground marked and witnessed as described by the Forest Service. I destroy all trace of this list cor., in place of which I set a porphyry stone 24 x 18 x 10 ins., 14 ins. in the ground over a small stone marked with a cross chiseled 2 - H E S 298 on SE. face and raise a mound of stone 3 ft. base, 2 ft. high, SE. of cor., from which:

A black oak, 8 ins. dia., bears N. 61° 05' E., 83 lks. dist., scribed 2 H E S 298 B T.

A black oak, 16 ins. dia., bears N. 29° W., 84 lks. dist. scribed 2 H E S 298 B T.

Thence N. 89° 40' E.

Descend 15 ft. to wash.

6.87 Road, bears N. and S.

6.95 Pleasant Valley Wash, 40 lks. wide, banks 2 ft. high, course S. Ascend 30 ft. to cor.

12.95 Enter timber, bears E. and S.

14.97 To cor. No. 3.

Identical with cor. H-3 of the list survey, which is a diorite stone 12 x 6 x 8 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. in place of which I set a diorite stone 24 x 12 x 8 ins., 14 ins. in the ground over a small stone marked with a cross, chiseled 3 - H E S 298 on SW. face and raise a mound of stone 3 ft. base, 2 ft. high, SE. of cor. from which:

A black oak, 16 ins. dia. bears N. 32' W. 56 lks. dist. scribed 3 H E S 298 B T.

A black oak, 18 ins. dia. bears N. 74° 30' E. 104 lks. dist., scribed 3 H E S 298 B T.

CORONADO NATIONAL FOREST

STATE OF ARIZONA

Chains At 3h.33.1m., p. m., I observe the altitude of the sun for azimuth at cor. No. 3 of this survey. The reading on the meridian brought by angulation from cor. No. 1 is set at zero and sun was observed in the upper left and lower right quadrants of the field. My watch is set for local mean time. Latitude 31° 20' 55" N. Longitude 110° 25' 25" W. by account from cor. No. 1.

55"  
25"

Telescope	Time	Horizontal Angle.	Vertical Angle.
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Direct	3h. 32m. 42s.	59° 09' 30"	27° 36'
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Reverse	3h. 33m. 35s.	58° 45'	28° 00' 30"
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This defines a line which differs 00° 00' 17" from the meridian.

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Thence S. 3° 42' W.

Descend 10 ft. to ravine.

1.25 Ravine, 10 lks. wide, course W. Ascend 15 ft. to point of hill.

3.25 Point of hill. Descend 40 ft. to bottom.

15.00 Foot hill, leave timber and enter cultivated land, bears NW. and SE.

26.00 Leave cultivated land, bears NW. and SE. Thence along edge of cultivated land.

40.06 To cor. No. 4.  
On line 5 - 4 of H. E. S. 299.

Identical with cor. H-2 of the list survey, which is a diorite stone 8 x 6 x 10 ins. above ground, marked and witnessed as described by the Forest Service.

I destroy all trace of this list cor. in place of which I set a diorite stone 24 x 12 x 8 ins., 14 ins. in the ground over a small stone marked with a cross, chiseled 4 - H E S 298 on NW. face and raise a mound of stone 3 ft. base, 2 ft. high, NW. of

CORONADO NATIONAL FOREST

STATE OF ARIZONA.

Chains cor., whence:  
 A white oak, 10 ins. dia. bears S. 55° 20' E.  
 148 lks. dist., scribed 4 H E S 298 B T.  
 A black oak 12 ins. dia., bears N. 73° 38' E.,  
 140 lks. dist., scribed 4 H E S 298 B T.  
 Cor. 5, H. E. S. 299, a diorite stone 10 x 7 x  
 10 ins. above ground, marked 5 H E S 299 on  
 SW. face, with mound of stone to SW., bears  
 S. 89° 51' E., 20.44 chs. dist. by direct  
 measurement.

February 28, 1915.

Thence N. 89° 51' W.

Descend 10 ft. to wash. Fence on line. Along line  
 5 - 4 of H E S 299.

.50	Fence cor. Fence bears S. Continue along fence.
3.80	Pleasant Valley Wash, 77 lks. wide, banks 3 ft. high, course S. Ascend 10 ft. to cor.
8.24	Fence cor. Fence, bears N. and along line.
12.92	Road, bears N. and S.
13.02	Fence cor. Fence bears N. and along line.
13.20	Road, bears NW. and SE.
14.52	Corral fence, bears NNW: and SSE.
15.50	Corral fence, bears NNW. and SSE.
15.52	To cor. No. 1, the place of beginning.

AREA

Total Area - - - - - 60.04 acres.

IMPROVEMENTS.

The improvements made upon and for the benefit of  
 this claim and belonging to the claimant consist  
 of the following:

An adobe house 30 x 12 ft., the long side of which



T2 CORONADO NATIONAL FOREST

7.

STATE OF ARIZONA

Chains

bears E. and W., and the SW. cor. of which bears N. 54° 49' E., 7.70 chs. dist. from cor. No. 1.

Value - - - - - \$200.00

An adobe house 21 x 18 ft., the long side of which bears E. and W., and SW. cor. of which bears N. 64° 35' E., 9.16 chs. dist. from cor. No. 1.

Value - - - - - \$75.00

A well 35 ft. deep, the center of which bears N. 65° 53' E., 10.60 chs. dist. from cor. No. 1.

Value - - - - - \$100.00

A dug-out 14 x 10 ft., the long side of which bears N. and S. and SW. cor. of which bears N. 71° 05' E. 9.88 chs. dist. from cor. No. 1.

Value - - - - - \$40.00

There is approximately 1-1/2 miles of wire fence.

Value - - - - - \$175.00

A dirt dam 85 ft. long bears N. 86° 45' E., 6.30 chs. from cor. No. 1.

Value - - - - - \$100.00

DESCRIPTION

This claim is situated in Pleasant Valley about three quarters of a mile north of the International line.

The land slopes to the south with low, flat top ridge to east and west.

There is no water for irrigation. Water for domestic use is obtained from a 35 ft. well.

There is no merchantable timber on this tract but there is a small patch of white and black oak in NE. cor.

The soil is a rich sandy loam and produces fair crops without irrigation and would produce good crops with irrigation. The entire tract is bottom land with exception of small strips on NE. and SW. boundaries.

CORONADO NATIONAL FOREST

STATE OF ARIZONA

Chains

These strips are rocky, non-agricultural.  
I saw no indication of mineral upon this claim.

CONFLICTS AND ADJOINING CLAIMS.

There are no known conflicting claims. H. E. S. No. 299 joins this claim on the south. Parker Canyon, the nearest post office, is approximately 6 miles to west, and Nogales, the nearest railroad point is 35 miles to west. Both are reached by good wagon roads. H.E.S. No. 533 Surveyed by Forest Service Surveyor C.A. Long on May 1917, lies about 1/4 mile to North.

TRAVERSE

Cor.	Course	Dist.	N	S	E	W
1-2	N. 4° 31' E.	39.97	39.85		3.15	
2-3	N. 89° 40' E.	14.97	.09		14.97	
3-4	S. 3° 42' W.	40.06		39.98		2.59
4-1	N. 89° 51' W.	15.52	.04			15.52
		110.52	39.98	39.98	18.12	18.11

Error in lat. and dep. .00 .01

Closing error 1:11052

Survey completed February 28, 1915.

*R. L. Johnson*

Surveyor - Draftsman

The land slopes to the south with low flat top ridges to east and west. There is no water for irrigation. Water for domestic use is obtained from a 35 ft. well. There is no merchantable timber on this tract but there is a small patch of white and black oak in the cor. The soil is a rich sandy loam and produces fair crops without irrigation and would produce good crops with irrigation. The entire tract is bottom land with exception of small strips on SW and SW boundaries.

COMPUTATIONS.

Chains

Azimuth from direct solar on February 27, 1915 at cor.

No. 1.

Lat.  $31^{\circ} 20' 20''$  Long.  $110^{\circ} 25' 30''$  W. Elevation 5200.

Telescope	Time	Horizontal Angle.	Vertical Angle.	Position of sun.
Direct	2h. 14m. 6s.	$41^{\circ} 28'$	$40^{\circ} 31'$	+
Reverse	2h. 15m. 4s.	$41^{\circ} 02'$	$40^{\circ} 52'$	+
<hr/>				
2) 4h. 29m. 10s.		$82^{\circ} 30'$	$81^{\circ} 23'$	
2h. 14m. 35s.		$41^{\circ} 15'$	$40^{\circ} 41' 30''$	
7h. 21m. 42s.				-55" ref. correction.
9h. 36m. 17s.			$40^{\circ} 40' 35''$	

Decl.  $8^{\circ} 29' 12''$  S.

$$\text{Cos. } Q = - \frac{\sin. 8^{\circ} 29' 12''}{\cos. 31^{\circ} 20' 20'' \times \cos. 40^{\circ} 40' 35''}$$

$$\tan. 31^{\circ} 20' 20'' \times \tan. 40^{\circ} 40' 35''$$

log. sin.  $8^{\circ} 29' 12'' = +9.169025$   
 log. cos.  $31^{\circ} 20' 20'' = -9.931511$   
 log. cos.  $40^{\circ} 40' 35'' = -9.879900$   
 $9.357614 = .22783$   
 log. tan.  $31^{\circ} 20' 20'' = 9.784574$   
 log. tan.  $40^{\circ} 40' 35'' = 9.934205$   
 $19.718779 = .52333$   
 Cos. Q. =  $.75116$   
 Q. =  $41^{\circ} 18' 32''$

Bearing of reference object N.  $0^{\circ} 03' 32''$  E.

has a diff. is not suff. to change mer. materially

Azimuth from direct solar on February 27, 1915 at cor.

No. 1.

Telescope	Time	Horizontal Angle.	Vertical Angle.	Position of sun.
Direct	2h 10m 48s	$40^{\circ} 33'$	$40^{\circ} 57'$	+
Reversed	2h 12m 17s	$40^{\circ} 17'$	$41^{\circ} 16'$	+
<hr/>				
2) 4h 23m 05s		$80^{\circ} 50'$	$82^{\circ} 13'$	
2h 11m 32s		$40^{\circ} 25'$	$41^{\circ} 06' 30''$	
7h 21m 42s				-55" ref. cor.
9h 33m 14s			$41^{\circ} 05' 35''$	

Decl.  $8^{\circ} 29' 17''$

$$\text{Cos. } Q = - \frac{\sin. 8^{\circ} 29' 17''}{\cos. 31^{\circ} 20' 20'' \times \cos. 41^{\circ} 05' 35''}$$

$$\tan. 31^{\circ} 20' 20'' \times \tan. 41^{\circ} 05' 35''$$

log. sin.  $8^{\circ} 29' 17'' = -9.169096$   
 log. cos.  $31^{\circ} 20' 20'' = +9.931511$   
 log. cos.  $41^{\circ} 05' 35'' = +9.877166$   
 $9.360419 = \text{log. } .22931$   
 log. tan.  $31^{\circ} 20' 20'' = 9.784574$   
 log. tan.  $41^{\circ} 05' 25'' = 9.940588$   
 $9.725162 = \text{log. } .53108$   
 Cos. Q. =  $.76039$   
 Q. =  $40^{\circ} 30' 06''$

Bearing of reference object N.  $0^{\circ} 05' 06''$  E.

Chains

Azimuth from direct solar on February 27, 1915 at cor.

No. 3.

Lat. 31° 20' 45" N. Long. 110° 25' 15" W. Elevation 5200.

Telescope	Time	Horizontal Angle.	Vertical Angle.	Position of sun.
Direct	3h. 32m. 42s.	59° 09' 30"	27° 36'	☉
Reversed	3h. 33m. 35s.	58° 45'	28° 00' 30"	☽
	2) 7h. 06m. 17s.	117° 54' 30"	55° 36' 30"	
	3h. 33m. 08s.	58° 57' 15"	27° 48' 15"	
	7h. 21m. 41s.		1' 32"	
	10h. 54m. 49s.		27° 46' 43"	

Dec. 8° 28' 16".

$$\cos. Q. = -\sin. 8^{\circ} 28' 16''$$

$$\cos. 31^{\circ} 20' 45'' \times \cos. 27^{\circ} 46' 43'' -$$

$$\tan. 31^{\circ} 20' 45'' \times \tan. 27^{\circ} 46' 43''$$

$$\log. \sin. 8^{\circ} 28' 16'' = -9.168234$$

$$\log. \cos. 31^{\circ} 20' 45'' = +9.931479$$

$$\log. \cos. 27^{\circ} 46' 43'' = +9.946823$$

$$9.289932 = \log. .19495$$

$$\log. \tan. 31^{\circ} 20' 45'' = 9.784693$$

$$\log. \tan. 27^{\circ} 46' 43'' = 9.721615$$

$$9.506308 = \log. .32085$$

$$\cos. Q. = .51580$$

$$Q. = 58^{\circ} 56' 58''$$

Bearing of reference object N. 0° 00' 17" E.  
Angle with meridian 0° 00' 17".

Azimuth from direct solar on February 27, 1915 at cor.

Telescope Time Horizontal Angle Vertical Position of sun.

Direct 3h 32m 42s 59° 09' 30" 27° 36' ☉

Reversed 3h 33m 35s 58° 45' 28° 00' 30" ☽

2) 7h 06m 17s 117° 54' 30" 55° 36' 30"

3h 33m 08s 58° 57' 15" 27° 48' 15"

7h 21m 41s 1' 32"

10h 54m 49s 27° 46' 43"

Dec. 8° 28' 16"

$$\cos. Q. = -\sin. 8^{\circ} 28' 16''$$

$$\cos. 31^{\circ} 20' 45'' \times \cos. 27^{\circ} 46' 43'' -$$

$$\tan. 31^{\circ} 20' 45'' \times \tan. 27^{\circ} 46' 43''$$

$$\log. \sin. 8^{\circ} 28' 16'' = -9.168234$$

$$\log. \cos. 31^{\circ} 20' 45'' = +9.931479$$

$$\log. \cos. 27^{\circ} 46' 43'' = +9.946823$$

$$9.289932 = \log. .19495$$

$$\log. \tan. 31^{\circ} 20' 45'' = 9.784693$$

$$\log. \tan. 27^{\circ} 46' 43'' = 9.721615$$

$$9.506308 = \log. .32085$$

$$\cos. Q. = .51580$$

$$Q. = 58^{\circ} 56' 58''$$

Bearing of reference object N. 0° 00' 17" E.





APPROVAL

Office of the United States Surveyor General,

PHOENIX, ARIZ. *January 15*, 1911

The foregoing field notes of Homestead Entry Survey No.

298

executed by *R. P. A. Johnson, Surveyor-Draftsman*  
[Forest Service Title.]  
under his special instructions, dated *October 17*, 1914, having  
been critically examined, and the necessary corrections and explanations  
made, the said field notes, and the surveys they describe, are hereby  
approved.

*Frank P. Trott*  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the  
above-described survey in the State of **ARIZONA**, has been  
correctly copied from the original notes on file in this office.

**FRANK P. TROTT**  
U. S. Surveyor General.